and technical report

Alignment Selection SDEIS

PPALACHIAN <u>ORRIDOR</u> -

Elkins to Interstate 81

State Project: X142 H 38.99 Federal Project: ADP 484 (59)

West Virginia Department of Transportation



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I. INTRODUCTION

This is the Wetlands Technical Report of the 1994 Alignment Selection Supplemental Draft Environmental . Impact Statement (SDEIS) prepared for the construction of Appalachian Corridor H from Elkins, West Virginia, to Interstate 81 in Virginia. The SDEIS has been prepared in accordance with a two-step study process explained in the Preface of the Corridor H Alignment Selection SDEIS. Other documents related to the SDEIS include the Executive Summary, the Alignment and Resource Location Plans, the Cultural Resources Technical Report, the Secondary and Cumulative Impacts Technical Report, the Socioeconomics Technical Report, the Vegetation and Wildlife Habitat Technical Report, the Streams Technical Report, the Air, Noise and Energy Technical Report, the October 21, 1992 Corridor SDEIS and associated Technical Reports, and the July 26, 1993 Decision Document.

Appalachian Corridor H is one of the economic growth highways designated by Congress to serve the Appalachian Region. There are three alternatives under study: the No-Build Alternative, the Improved Roadway Alternative (IRA), and the Build Alternative. The No-Build Alternative means that Corridor H would not be constructed in any fashion. The Improved Roadway Alternative consists of a proposed two-lane highway which would utilize existing roads as much as possible. The Build Alternative is a proposed four-lane highway which would be constructed entirely on new location. Refer to the SDEIS, Section II-B, for more information on the design criteria and design elements of these alternatives.

The purpose of the *Wetlands Technical Report* is to document the existing conditions of wetlands and the impacts resulting from the construction of the proposed Corridor H project. The wetlands assessment follows the guidance of Federal Highway Administration (FHWA) Technical Advisory T6640.8A (US Department of Transportation, 1987). The Technical Advisory requires the identification of wetland type, quality and functions; assessment of impacts to wetlands; evaluation of alternatives which would avoid wetlands; and identification of practical measures to minimize harm to wetlands. For each proposed alternative the following procedures were followed:

- Wetlands were identified, delineated, and classified;
- The functions and values of each delineated wetland were evaluated;
- The impacts of the proposed alternatives on each wetland were evaluated;
- Avoidance alternatives for each wetland were evaluated;
- Practicable measures to minimize harm to the wetlands were identified;
- Mitigation measures which include preservation, enhancement, restoration, and creation were identified.

This report consists of three major sections. The Methodology section describes the procedures used to identify, delineate, and classify wetlands during field investigations. Procedures for performing the functions

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and values evaluation and impact assessment are also described. The Existing Environment and Impacts section describes the wetland conditions present within the proposed project area and a discussion of direct and secondary wetland impacts associated with the Improved Roadway and Build Alternatives. The Avoidance, Minimization and Mitigation section describes specific measures taken to avoid and minimize wetland impacts for the Improved Roadway and Build Alternatives and presents an overview of potential mitigation scenarios.

II. METHODOLOGY

A. WETLAND IDENTIFICATION, DELINEATION, AND CLASSIFICATION

Wetlands are defined by the Environmental Protection Agency (EPA) and the US Army Corps of Engineers (COE) as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (EPA, 40 CFR 230.3 and COE, 33 CFR 328.3). This definition was followed for the wetland identification and delineation in this wetlands assessment.

1. PRELIMINARY IDENTIFICATION

Preliminary identification of wetlands in the study area was conducted during preparation of the 1992 *Corridor Selection SDEIS* using a combination of sources that included topographic maps, National Wetland Inventory (NWI) maps, Soil Conservation Service County Soil Surveys, and field reconnaissance. This information was further refined for this wetlands assessment by initially producing a land use and land cover map through the interpretation of 1'' = 1,000' scale aerial photography and selected groundtruthing. The photography encompassed an area approximately 3.2 km (2 miles) wide and 192 km (120 miles) in length. Existing land use/land cover was classified to Anderson Level II in accordance with Anderson *et al.* (1976), which includes two wetland classes. This material was compiled within a Geographic Information System (GIS).

2. IDENTIFICATION AND DELINEATION CRITERIA

After the land cover mapping was complete, the methods outlined in the Corps of Engineers Wetlands Delineation Manual (COE Manual; US Army Corps of Engineers, 1987) were used to identify and delineate wetlands in the field. Wetlands exhibit specific types of vegetation, soils and hydrology, each of which is analyzed and described in a field delineation. All three criteria must be considered together when making a wetland determination.

The first criterion for the classification of an area as a wetland is the predominance of wetland vegetation. This type of vegetation is comprised of plants that are adapted for growth and reproduction in water or on a substrate that is at least periodically deficient in oxygen as a result of excess water content. The US Fish and Wildlife Service (USFWS) has developed a classification scheme that rates plants according to their estimated probability of occurring in a wetland. Table 1 summarizes the USFWS rating scheme, and indicates the relative rate of occurrence in wetlands of each classification of vegetation. When more than 50% of the dominant plant species have an indicator status of obligate, facultative wetland, and/or facultative,

TABLE 1

US FISH AND WILDLIFE SERVICE LIST OF PLANT INDICATOR CATEGORIES

INDICATOR CATEGORY	INDICATOR SYMBOL	DEFINITION
Obligate Wetland Plants	OBL	Plants that occur almost always (>99% of the time) in wetlands under natural conditions, but which may also occur rarely (<1%) in nonwetlands.
Facultative Wetland Plants	FACW	Plants that usually occur in wetlands (67% - 99% of the time), but also occur in nonwetlands (1-33% of the time).
Facultative Plants	FAC	Plants with an equal likelihood (33-67% of the time) of occurring in both wetlands and nonwetlands.
Facultative Upland Plants	FACU	Plants that occur sometimes (1-33% of the time) in wetlands, but occur more often (67-99% of the time) in nonwetlands.
Upland Plants	UPL	Plants that occur rarely (<1% of the time) in wetlands, but occur almost always (>99% of the time) in nonwetlands under natural conditions.
Undefined Plants	NI	Species for which insufficient information was available to determine an indicator status.
Undefined Plants	NA	No agreement was made as to the indicator status.

Source: US Fish and Wildlife National List, 1988

the plant community is considered to be hydrophilic and satisfies the wetland vegetative criteria. For the Corridor H wetland assessment, the indicator status of each identified plant was assigned according to the National List of Plant Species That Occur in Wetlands: Northeast (Region 1), (Reed, 1988).

The second criterion for classifying an area as a wetland is the presence of hydric soils. In general, hydric soils are inundated 7 days or saturated to the surface for at least 15 consecutive days during the growing season in most years. The general criteria for hydric soils are published in *Hydric Soils of the United States* (US Department of Agriculture, Soil Conservation Service, 1991). In addition, the Soil Conservation Service identifies specific soil types that are considered hydric in local areas.

A standard field method of determining if a soil is hydric is a comparison of the soil color to a Munsell Soil Color Chart (Munsell Color, 1990). The color of a soil changes during periods of saturation due to lack of oxygen. A gleyed (blue-green), dark gray, or black soil usually indicates long periods of saturation. Soils that experience moderate periods of saturation are predominantly gray with mottles or inclusions of bright orange or brown color. The intensity of gray is termed chroma. A soil is considered hydric if it is gleyed, has a matrix chroma 1 (very dark gray-black) without mottles, or has a chroma of 2 (gray) with mottles.

The final criterion for the classification of an area as a wetland is hydrology. Positive wetland hydrology creates the conditions required to support hydrophilic vegetation and results in development of hydric soils. This characteristic is measured by the length of saturation or flooding at the site, generally requiring saturation of the soil to the surface consecutively for more than 12.5 percent of the growing season. Thus, the range of wetland hydrology varies according to the length of the growing season at a specific site. In the project area, the minimum time varies from a low of 11 days in high elevations of Tucker County, West Virginia, to 27 days in Frederick County, Virginia. Field indicators of wetland hydrology include ponding, flooding, high water table, saturated soils, water marks, drift lines, surface scouring, drainage patterns, water-stained leaves, oxidized root channels, and moss lines.

3. WETLAND CLASSIFICATION

Wetland classification was based on a system developed by the USFWS (Cowardin *et al.*, 1979). This classification system is a hierarchical system developed to describe wetlands and deepwater habitats throughout the United States. The classification starts with 'System' as the highest level and progresses to finer subdivisions: subsystem, class, subclass, and dominance type. In addition, special modifiers for water regime, water chemistry and soils are applied to classes, subclasses, and dominance types for further descriptive purposes.

The System level of the classification contains five types of wetland or deepwater habitats: marine, estuarine, riverine, lacustrine, and palustrine. Only palustrine (fresh water) systems were identified and delineated for the Wetlands Assessment. This is because there are no marine or estuarine systems in the project area and riverine and lacustrine systems are addressed in the *Water Resources Technical Report*. The palustrine system hierarchy does not contain the subsystem level of classification. Class is the next taxonomic unit below the subsystem level. Class describes the general appearance of the wetland habitat in terms of the dominant vegetation form or the physiography and composition of the substrate. The class is named according to the tallest vegetation type that comprises at least 30 percent of the plant cover. Typical classes include emergent (herbaceous), scrub-shrub, forested, unconsolidated bottom, and open water. Wetlands can be classified as combined classes, such as scrub-shrub/forested and emergent/open water. This occurs when two or more cover types are present in one area, each encompassing at least 30 percent of the area. Typically, the area is either too small to allow separate delineation of each class or the classes and associated subclasses, while Table 3 identifies the modifiers commonly used in the palustrine system. All wetlands were classified to subclass and water regime modifier.

4. FIELD DELINEATIONS

The field delineations were conducted by environmental scientists trained in Federal wetlands determination and delineation procedures. The Routine Onsite Determination Method, as detailed in the COE Manual, was used for wetlands identification and delineation. Detailed data were collected for all wetlands located in the vicinity of the alternatives. Vegetation, hydrology, and soil data were recorded on field data sheets in representative plant communities of each wetland. Delineation data forms for all wetlands are provided in Appendix C. Representative photographs were taken at each wetland. Each delineated wetland was given an alpha-numeric identification code.

The delineated wetlands were mapped in the field at a scale of 1"=200' by using a combination of landmarks, pacing, compass bearings, and portable global positioning system (GPS) meters. Wetlands outside the area of impact were identified, classified, and located on project mapping. Approximate boundary limits were determined using vegetation. All wetland data, including boundaries and vegetation classification were entered into the GIS.

TABLE 2

PALUSTRINE SYSTEM CLASSES AND SUBCLASSES

CLASS	SUBCLASS
RB - Rock Bottom	1. Bedrock 2. Rubble
UB - Unconsolidated Bottom	1. Cobble-Gravel 2. Sand 3. Mud 4. Organic
AB - Aquatic Bed	 Algal Aquatic Moss Rooted Vascular Floating Vascular Unknown Submergent Unknown Surface
US - Unconsolidated Shore	 Cobble -Gravel Sand Mud Organic Vegetated
ML - Moss-Lichen	1. Moss 2. Lichen
EM - Emergent	1. Persistent 2. Nonpersistent
SS - Scrub-Shrub	 Broad-Leaved Deciduous Needie-Leaved Deciduous Broad-Leaved Evergreen Needie-Leaved Evergreen Dead Deciduous Evergreen
FO - Forested	 Broad-Leaved Deciduous Needle-Leaved Deciduous Broad-Leaved Evergreen Needle-Leaved Evergreen Dead Deciduous Evergreen
OW - Open Water (Unknown Bottom)	None

Source: Cowardin et al., 1979

TABLE 3 WETLAND MODIFIERS AND LABELING

WATER REGIME (Non-Tidal)	pH MODIFIER	SPECIAL MODIFIER
A - Temporarily Flooded	a - Acid	b - Beaver
B - Saturated	t - Circumneutral	d - Partially Drained/ Ditched
C - Seasonally Flooded	I - Alkaline	f - Farmed
D - Seasonally Flooded/ Well Drained		h - Diked/Impounded
E - Seasonally Flooded/Saturated		r - Artificial Substrate
F - Semipermanently Flooded		s - Spoil
G - Intermittently Exposed		x - Excavated
H - Permanently Exposed		
J - Intermittently Flooded		
K - Artificially Flooded		
W - Intermittently Flooded/ Temporary		
Z - Intermittently Exposed/ Permanent		
U - Unknown		

Source: Cowardin et al., 1979

B. FUNCTIONS AND VALUES EVALUATION

1. WETLAND EVALUATION TECHNIQUE

A functions and values evaluation for each delineated wetland was conducted using the WET 2.1 computer model. This model is based on the Federal Highway Administration's Wetland Evaluation Technique (WET) (Adamus *et al.*, 1987). WET was designed to conduct a rapid and reproducible assessment of wetland functions and values. The following functions and values are evaluated:

Groundwater Recharge	Production Export
Groundwater Discharge	Wildlife Diversity/Abundance
Floodflow Alteration	Aquatic Diversity/Abundance
Sediment Stabilization	Recreation
Sediment/Toxicant Retention	Uniqueness/Heritage
Nutrient Removal/Transformation	Habitat Suitability

The WET 2.1 program assigns qualitative probability ratings of high, moderate, or low to wetland functions and values in terms of social significance, effectiveness, and opportunity. "Social Significance" addresses the value of a wetland to society due to its natural features, economic value, official status, and location within the watershed. The "Effectiveness" and "Opportunity" evaluations measure the qualitative probability that a wetland has the capability and opportunity to perform a function. "Effectiveness" assesses the qualitative capability of a wetland to perform a function due to its chemical, physical, or biological characteristics. "Opportunity" assesses the probable opportunity of a wetland to perform a function to its level of capability (Adamus *et al.*, 1987). The probability ratings do not represent the importance or magnitude of functions or values of a wetland but are, instead, an estimate of the qualitative probability that a function or value will exist or occur in a wetland.

Two types of WET assessments were performed on wetlands in the project area: the Social Significance Evaluation - Level 1; and Effectiveness and Opportunity Evaluation - Levels 1 and 2. The Social Significance Evaluation - Level 1 was applied to all wetlands, regardless of size. In addition, the Effectiveness and Opportunity Evaluation - Levels 1 and 2 were conducted on wetlands 0.4 hectares (one acre) or larger. Information related to the WET analyses was gathered in the field during the delineation site visits and the documentation was completed in the office.

The WET evaluation is a complex process that requires the compilation of comprehensive background data. Some of the sources of information used for these evaluations included:

- USGS topographic maps and National Wetlands Inventory Maps
- US Department of Agriculture County Soil Surveys
- West Virginia Wetlands Conservation Plan
- West Virginia Natural Heritage Program, list of threatened and endangered species
- Monongahela National Forest Management Plan
- George Washington National Forest Management Plan
- Regional Wetlands Conservation Plan
- Potomac River Basin Plan and Monongahela River Basin Plan
- US Department of Agriculture, Soil Conservation Service Watershed Project Plans
- Virginia Water Quality Standards, List of Natural Trout Waters

2. HABITAT EVALUATION PROCEDURE

In addition to the WET analysis, a Habitat Evaluation Procedure (HEP) analysis was performed to evaluate wildlife habitat within forested, scrub-shrub, and emergent wetland systems within the construction limits. Documentation of the methodology and results for this analysis can be found in the Vegetation and Wildlife Habitat Technical Report.

C. IMPACT ASSESSMENT

1. DIRECT IMPACTS

The importance of wetlands impacted by the project area was determined by comparing the area of impacted wetlands to the total area of wetland resources in the regional project watersheds. A predictive model was developed by comparing the wetland area delineated within 60 m (200') of the alignments construction limits to the National Wetlands Inventory maps (prepared by the US Fish and Wildlife Service), as digitized into the GIS. From the ratios obtained, conversion factors were calculated for each regional project watershed. These conversion factors were then applied to the land area of the regional project watersheds to predict the total regional project watershed wetland areas. Appendix A includes a table that identifies this data.

The severity of the direct impacts to wetlands was evaluated through the comparative analysis of baseline ecological data and preliminary engineering data. Direct impacts were assessed by using the GIS to identify the wetland size, impact size, classification, and location for each proposed alignment. Appendix A contains the tables that identify the impacted wetlands, their size, and the area of impact by regional project watershed. Appendix C contains the individual wetland delineation forms.

Other descriptive characteristics were assigned to directly impacted wetlands to aid in evaluating impact severity. Landscape position was described in three categories: isolated wetlands were defined as

those that have no connection to other surface waters; headwater wetlands were defined as those that are connected to other surface waters and have a drainage area of less than 13 sq. km (5 sq. miles); "other" wetlands were a category defined as those that are connected to surface waters and have a drainage area of more than 13 sq. km (5 sq. miles).

Adjacent land cover was defined with three categories: agricultural cover was defined as areas of crops, pastures, or plowed fields; disturbed cover was defined as areas modified by man, such as power line and road rights-of-way, surface mined areas, or lawns; the third category of "undisturbed" was defined as any natural area.

The type of impact that could occur to wetlands found within the construction limits was described in two categories: a perpendicular impact was defined as one where the alignment crosses the primary water flow of the wetland on a perpendicular path; an edge impact was defined as one where the alignment encounters the edge of a wetland on a path that is parallel to, rather than perpendicular to, the primary water flow of the wetland.

The potential change in wetland function and value caused by construction was assessed in two ways. For each wetland larger than 0.4 ha (1 acre), a hypothetical "post-construction" WET was prepared. This WET was compared to the wetland's "pre-construction" WET. The changes in the probability ratings for each wetland were qualitatively evaluated as follows: "no change" if none of the summary probability ratings changed; "slight decrease" if one of the summary probability rating dropped; and "decrease" if two or more of the summary probability ratings dropped. Appendix B contains the WET summary data forms for the individual wetlands and the hypothetical "post-construction" WET summary data forms (identified as "mods").

For those wetlands smaller than 0.4 ha (1 acre) in size, a "post-construction" WET was not prepared because the Social Significance 1 analysis is not sensitive enough to detect the changes that might occur due to highway construction. Instead, a qualitative assessment of the likely functional change was made according to the proportion of the wetland that would be impacted. The categories used for evaluation were: "no change" if less than 10 percent of the wetland size would be lost; "slight decrease" for impacts to 10 to 30 percent of the wetland size; and "decrease" for impacts to 30 to 80 percent of the wetland size. The wetlands functional values were considered "lost" if over 80 percent of the wetland's area would be impacted.

2. SECONDARY AND CUMULATIVE IMPACTS

Secondary wetland impacts are separated into two categories: those that are related to the construction, operation and maintenance of the proposed facility; that is, highway-related secondary impacts

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(sometimes called indirect impacts), such as stormwater runoff; and those that are related to development that occurs as the result of the highway; that is, development-related secondary impacts, such as the possible relocation of a perennial stream associated with construction of an industrial park.

Highway related secondary impacts were assessed by using the GIS to identify the number and area of wetlands within 30 m (100 feet) of the construction limits of each proposed alignment. This allowed a subsequent qualitative analysis of the occurrence of secondary impacts, such as those caused by construction activity within the right-of-way, erosion, sedimentation, and pollutants, that could reduce the functions and values of the wetlands. This size of zone was used because studies have shown that buffers of this size provide opportunities to improve water quality in wetlands through capture of sediments, slowing overland water flows, and removing excess nutrients. Another GIS analysis identified those wetlands where the proposed highway would impact more than 80 percent of their area. The entire area of those wetlands was incorporated into the area of impacted wetlands, showing that the entire wetland would be lost, rather than just the portion that was found within the construction limits.

Development related secondary impacts to wetlands were also calculated. Wetland impacts were predicted for industrial park, commercial, and residential development. For detailed methodology of development related impacts, please refer to the Secondary and Cumulative Impacts Technical Report.

Cumulative wetland impacts were evaluated in this study in three categories: the additive effects of direct impacts; the additive effects of direct and secondary impacts; and the additive effects of the proposed projects and other reasonably foreseeable future actions.

Direct impacts were cumulatively totaled over broad environmental systems (watersheds) to allow comparisons between these systems. Leibowitz et al. (1992) suggest that an estimate of the value provided by a function (i.e. water quality improvement) within a landscape watershed should be considered relative to other watersheds within the area of interest.

Cumulative impacts related to the additive effect of combining direct and secondary impacts were summarized for wetland resources. Secondary impacts can be considered "incremental consequences of an action" and should be added to "past actions" (direct impacts) to assess cumulative impacts.

Cumulative impacts related to the development of foreseeable future actions was limited to known Federal actions that are currently ongoing or are in the formulative stages of study. Five Federal actions were identified and impacts associated with these actions are discussed below.

III. EXISTING ENVIRONMENT AND IMPACTS

A. OVERVIEW

The most current estimate of the amount of wetlands in West Virginia reports that there are 41,278 ha (102,000 acres) of fresh water wetlands found in the state (Tiner, 1987). Approximately 14 percent of West Virginia's wetlands are concentrated in the Canaan Valley complex and the Meadow River complex, and the remaining 86 percent are scattered throughout the state. During the 23 year period from 1957 through 1980, West Virginia actually had an overall gain in wetlands of approximately 6,677 ha (16,500 acres).

Current estimates for Virginia report that there are 422,856 ha (1,044,900 acres) of wetlands, of which 77 percent are fresh water wetlands (Tiner, 1987). During the 23 year period from 1957 through 1980, Virginia had a net loss of approximately 8,903 ha (22,000 acres) of wetlands.

The proposed project is located in two major physiographic provinces which are divided by the Allegheny Front. The climate and topography of these two physiographic provinces determine, in part, the number and type of wetlands found within the areas.

The western portion of the proposed project is located in the Allegheny Mountain Section of the Appalachian Plateau Province. This province generally contains long, narrow and steep stream valleys with steep side slopes, except for the valleys of Leading Creek near Elkins and Beaver Creek near Davis. Elevations are the highest in the State, ranging from 530 m to 1,450 m (1,750 to 4,760 feet). Elevation differences between the valleys, plateaus, and mountain tops create a diversity of microclimates, with the higher elevations exhibiting relatively cool climate. The Appalachian Plateau Province receives an average of 104 cm to 130 cm (41 to 51 inches) of precipitation a year. This province is part of the Mixed Mesophytic Forest Biome, consisting of a variety of hardwood and softwood forests (Bailey, 1980).

The proposed project within this physiographic province is contained within the Monongahela River System, which drains portions of West Virginia, Pennsylvania, and Maryland toward the Mississippi River. Two watersheds are traversed in this section of the project, the Tygart Valley River and the Cheat River. Wetland types found in these two watersheds are varied. They range from manmade ponds and floodplain wetlands along the wider stream valleys, to high elevation bogs and fens dominated by mosses, lichens, and sedges.

The eastern portion of the study area is located in the Middle Section of the Ridge and Valley Province. This province generally contains long, narrow ridges with steep parallel slopes and level valleys. Elevations range from 220 m to 884 m (725 feet to 2,900 feet). Elevation differences between the valleys and ridges create a diversity of temperature and precipitation. The Ridge and Valley Province receives 69 cm to 107 cm (27 to 42 inches) of precipitation a year, less than the western portion of the study area, due to the rain shadow effect of the Allegheny Front. This physiographic province is part of the Appalachian Oak Forest Biome, consisting largely of mixed hardwood forests (Bailey, 1980). Wetland types found in this province are mostly small man-made ponds and floodplain wetlands formed along the wider stream valleys.

The proposed project within this physiographic province is contained within the Potomac River System, which drains 337,990 square kilometers (14,669 square miles) of portions of West Virginia, Virginia, Maryland, Pennsylvania, and the District of Columbia toward the Chesapeake Bay and the Atlantic Ocean. The major watersheds within this part of the project area include the North Branch of the Potomac River, the South Branch of the Potomac River, the Cacapon River, and the Shenandoah River.

The existing conditions and impacts to wetlands of the proposed project are presented for each of the six regional project watersheds mentioned above. Within each regional project watershed, the impacts of the IRA and the Build Alternative are compared. The presentation of the wetland information on a regional project watershed basis provides a holistic evaluation of the effects of the proposed project on wetland systems within the regional project watersheds. All identified wetlands are shown on the *Alignment and Resource Location Plans*. The direct impacts to wetland vegetation types due to Line A and the IRA within the regional project watersheds are identified in Table 4. Figures 1 through 6 demonstrate the percentage of impacted wetland types within each regional project watershed. Figures 7 through 10 (scatter diagrams) compare wetland encroachment areas to total wetland size. A cluster of points is generally observed towards the bottom left corner of the scatter diagram. This indicates that the majority of wetland impact areas were small (less than 0.4 hectares or 1 acre). The direct wetland impacts as a percentage of the regional project watersheds' wetland area are presented in Table 5. The characteristics of directly impacted wetlands are identified in Table 6. Figures 11 through 14 summarize wetland impact characteristics for each regional project watershed. Direct wetland impacts and wetland characteristics within the Option Areas are shown in Table 7 and Table 8.

Watershed		Forested			Scrub/Shrub			Emergent			Open Water			Total		
		#	Hectares	Acres	#	Hectares	Acres	#	Hectares	Acres	#	Hectares	Acres	#	Hectares	Acres
Tygart Valley River	Line A	0	0.00	0.00	2	0.03	0.07	14	1.86	4.62	1	0.11	0.26	17	2.00	4.95
	IRA	1	0.11	0.26	2	0.15	0.36	13	0.75	1.85	1	0.02	0.06	17	1.03	2.53
Cheat River	Line A	3	0.12	0.30	<u>_</u> 18	0.95	2.34	60	6.24	15.41	10	0.46	1.14	91	7.77	19.19
	IRA	3	1.02	2.51	5	0.42	1.05	16	3.11	7.68	3	0.33	0.82	27	4.88	12.06
North Branch Potomac River	Line A	2	0.06	0.14	0	0.00	0.00	16	3.07	7.59	5	0.25	0.62	23	3.38	8.35
	IRA	A 1 0.10 0.24 0 0.00 0.00 9 1.58 3.91 0	0	0.00	0.00	10	1.68	4,15								
South Branch Potomac River	Line A	0	0.00	0.00	1	0.16	0.39	7	0.62	1.52	2	0.03	0.07	10	0.81	1.98
	IRA	0	0.00	0.00	0	0.00	0.00	6	0.56	1.39	2	0.00	0.00	8	0.56	1.39
Cacapon River	Line A	1	0.10	0.24	2	0.06	0.14	10	0.61	1.50	4	0.21	0.51	17	0.98	2.39
	IRA	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	1	0.08	0.19	1	0.08	0.19
West Virginia Total	Line A	6	0.28	0.68	23	1.20	2.94	107	12.40	30.64	22	1.06	2.6	158	14.94	36.86
-	IRA	5	1.23	3.01	7	0.57	1.41	44	6.00	14.83	7	0.43	1.07	63	8.23	20.32
VA- Shenandoah River	Line A	1	0.11	0.28	0	0.00	0.00	4	0.12	0.30	2	0.10	0.24	7	0.33	0.82
	IRA	5	0.07	0.17	6	0.25	0.61	6	0.15	0.36	0	0.00	0.00	17	0.47	1,14
Combined Watershed Total	Line A	7	0.39	0.96	23	1.20	2.94	111	12.52	30.94	24	1.16	2.84	165	15.27	37.68
	IRA	10	1.30	3.18	13	0.82	2.02	50	6.15	15.19	7	0.43	1.07	80	8.70	21.46

TABLE 4DIRECT WETLAND IMPACTS BY WATERSHED

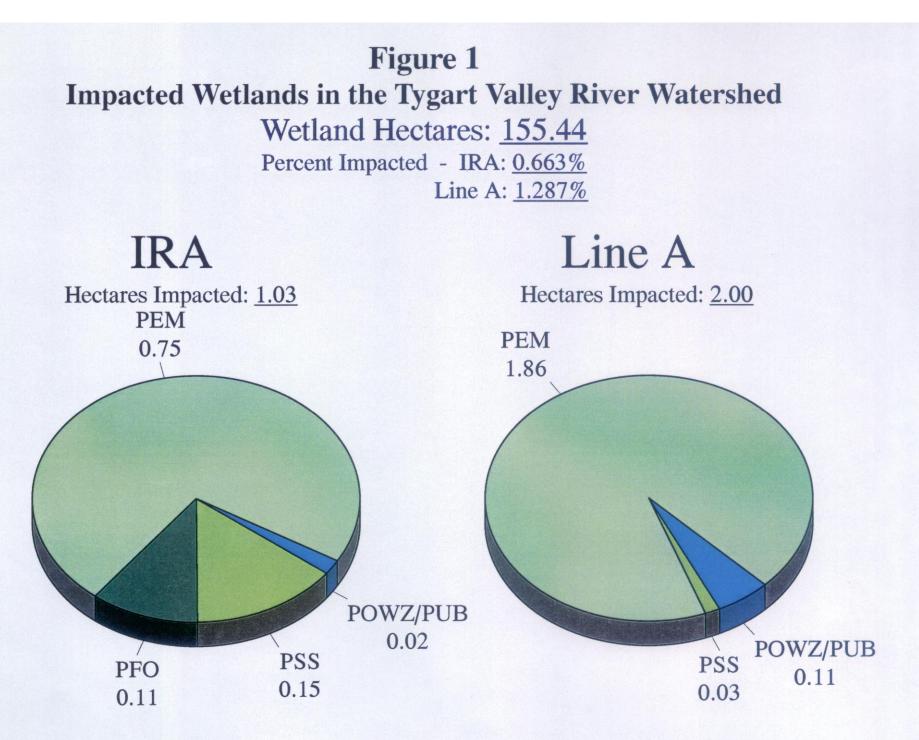
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Source: Michael Baker Jr., Inc.

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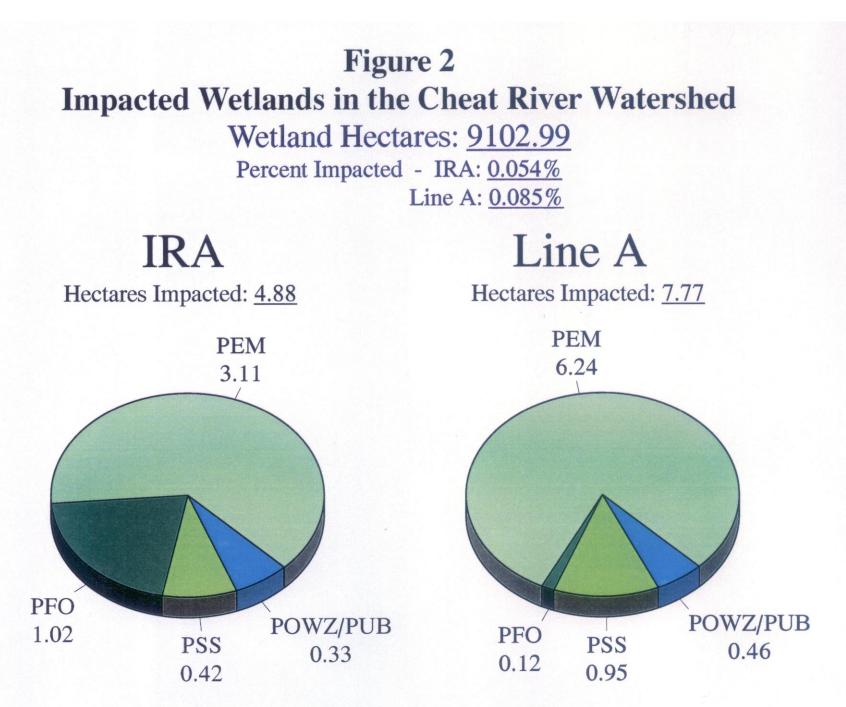
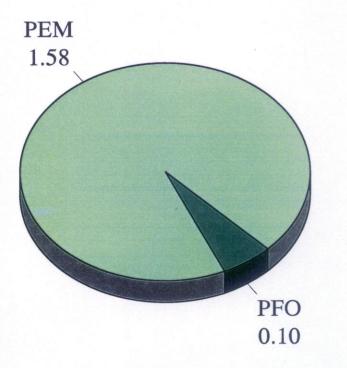


Figure 3 Impacted Wetlands in the North Branch Potomac River Watershed Wetland Hectares: 1927.27

Percent Impacted - IRA: <u>0.087%</u> Line A: <u>0.175%</u>

IRA Hectares Impacted: <u>1.68</u> Line A

Hectares Impacted: 3.38



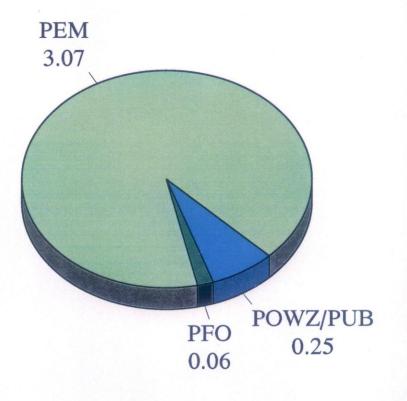
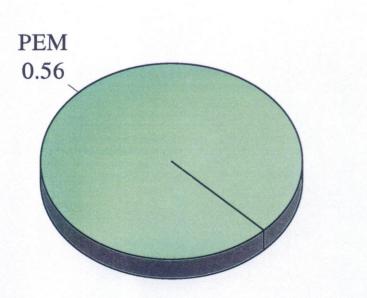


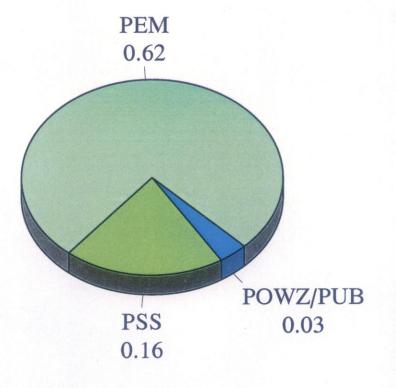
Figure 4 Impacted Wetlands in the South Branch Potomac River Watershed Wetland Hectares: <u>338.44</u>

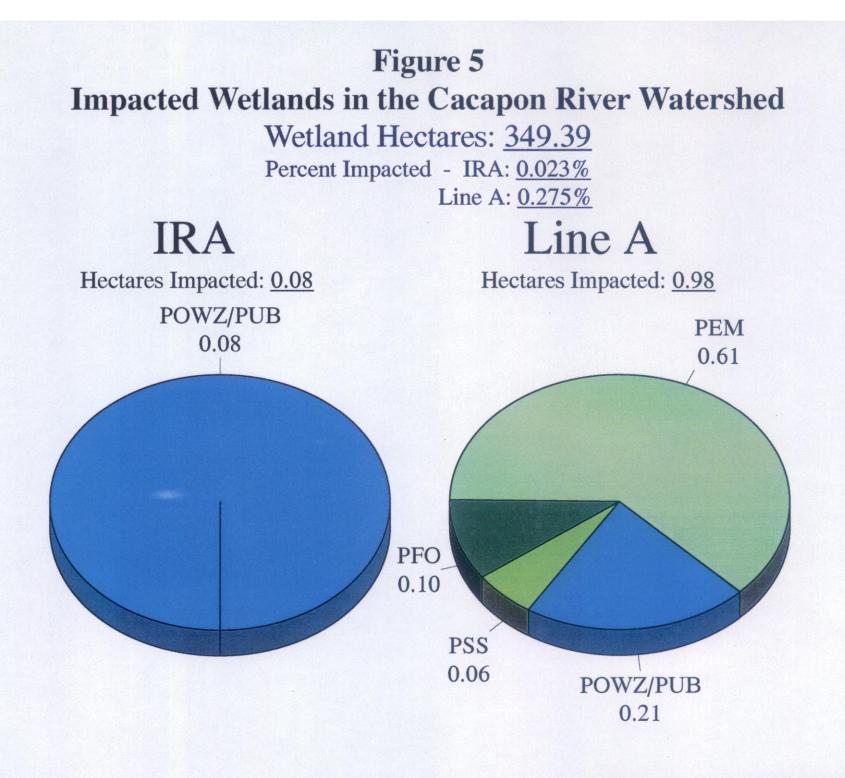
Percent Impacted - IRA: 0.165% Line A: 0.239%

IRA Hectares Impacted: 0.56 Line A

Hectares Impacted: 0.81







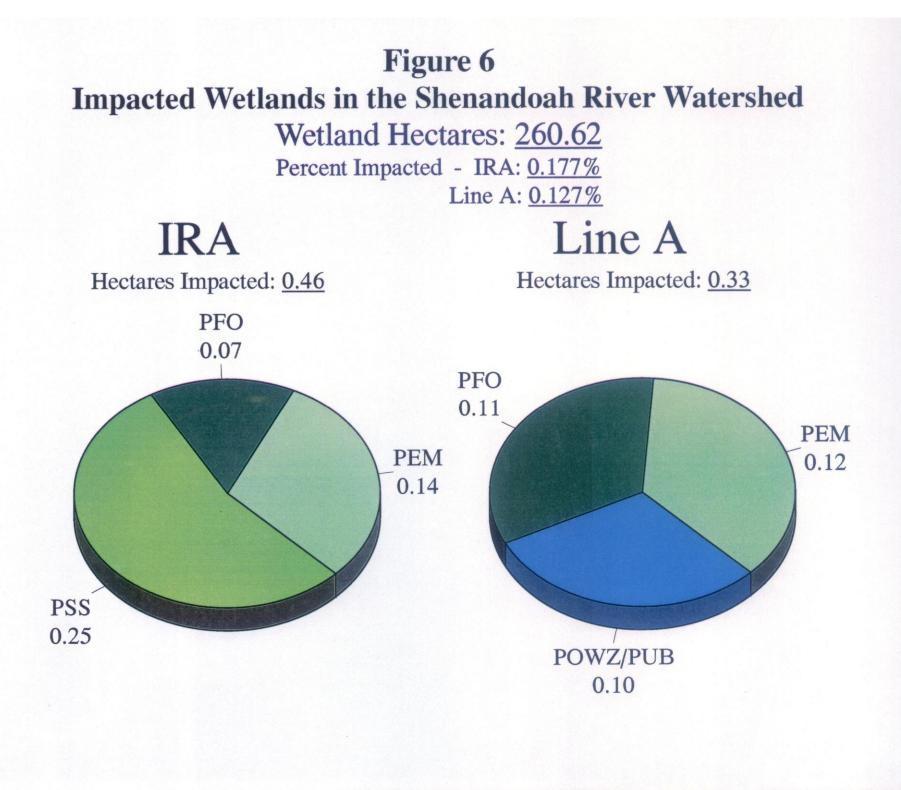


Figure 7 Sizes of impacted Wetlands in Tygart Valley River and Cheat River Watersheds

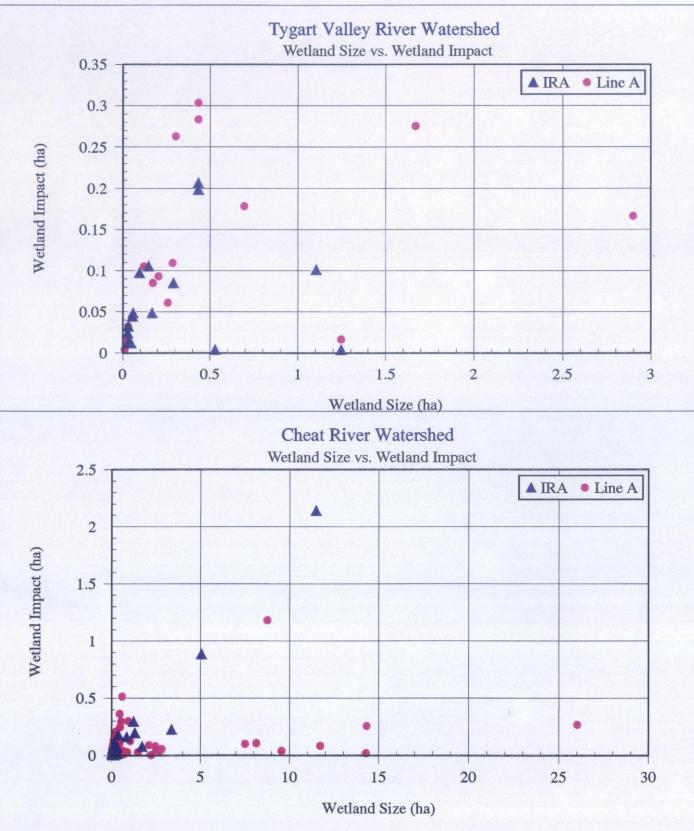


Figure 8 Sizes of Wetlands Impacted in the North and South Branch Potomac **River Watersheds**

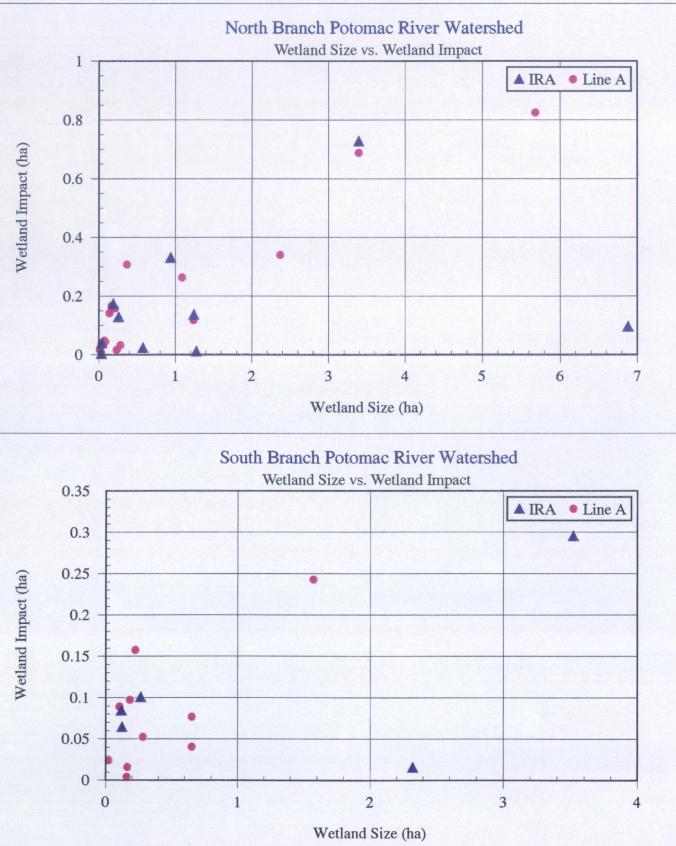
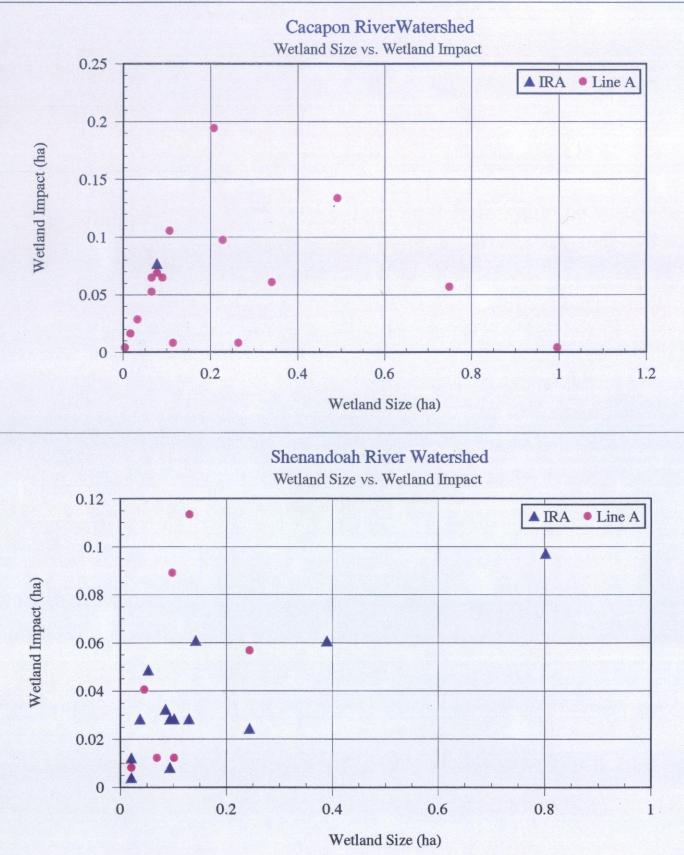


Figure 9 Sizes of Impacted Wetlands in the Cacapon River and Shenandoah River Watersheds



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Figure 10 Sizes of Impacted Wetlands

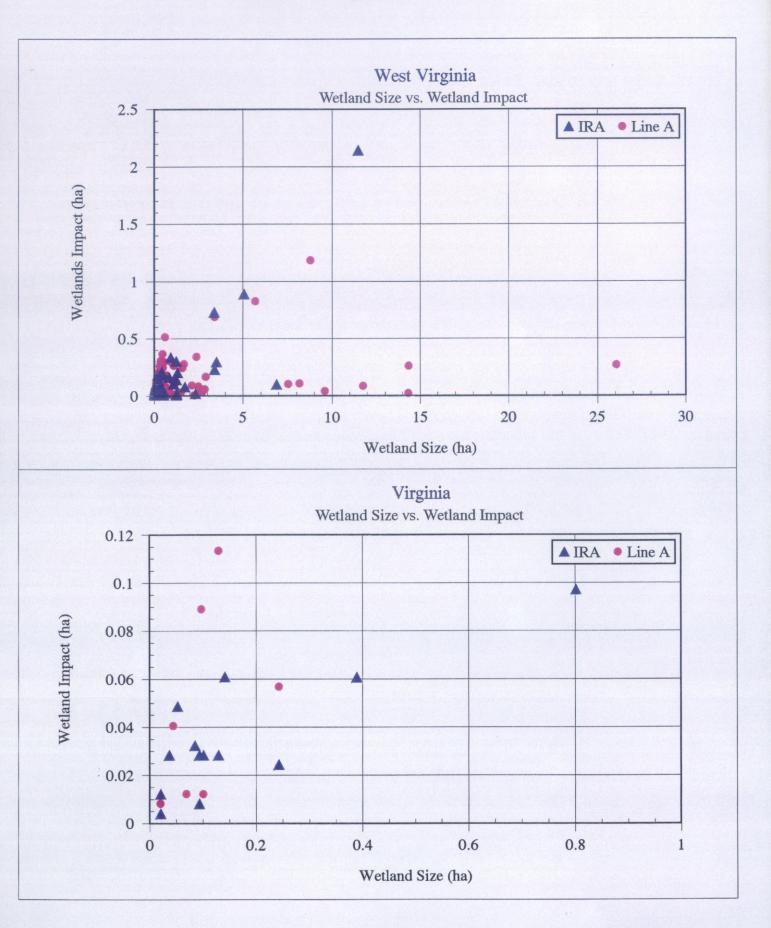


TABLE 5

DIRECT WETLAND IMPACTS AS PERCENT TOTAL IN WATERSHED

Watershed	:	Total Area Impacted		Wetla	redicted nds in rshed	Wetland Impacts as % Total	
	,	Hectares	Acres	Hectares	Acres	In Watershed	
Tygart Valley River	Line A	2.00	4.95	155	384	1.29%	
	IRA	1,03	2.53			0.66%	
Cheat River	Line A	7,77	19.19	9,096	22,477	0.09%	
	IRA	4,88	12.06			0.05%	
North Branch Potomac River	Line A	3.38	8.35	1,926	4,759	0.18%	
	IRA	1.68	4.15			0.09%	
South Branch Potomac River	Line A	0.81	1.98	338	836	0.24% .	
	IRA	0.56	1.39			0.17%	
Cacapon River	Line A	0.98	2.39	349	863	0.28%	
·	IRA	0.08	0.19	-		0.02%	
West Virginia Total	Line A	14.94	36.86	11,526	28,482	0.13%	
-	IRA	8.23	20.32			0.07%	
VA- Shenandoah River	Line A	0.33	0.82	260	644	0.13%	
	IRA	0.47	1.14			0,18%	
Combined Watershed Total	Line A	15.27	37.68	12,125	29,961	0.13%	
	IRA	8.70	21.46	1	· · ·	0.07%	

Source: Michael Baker Jr., Inc.

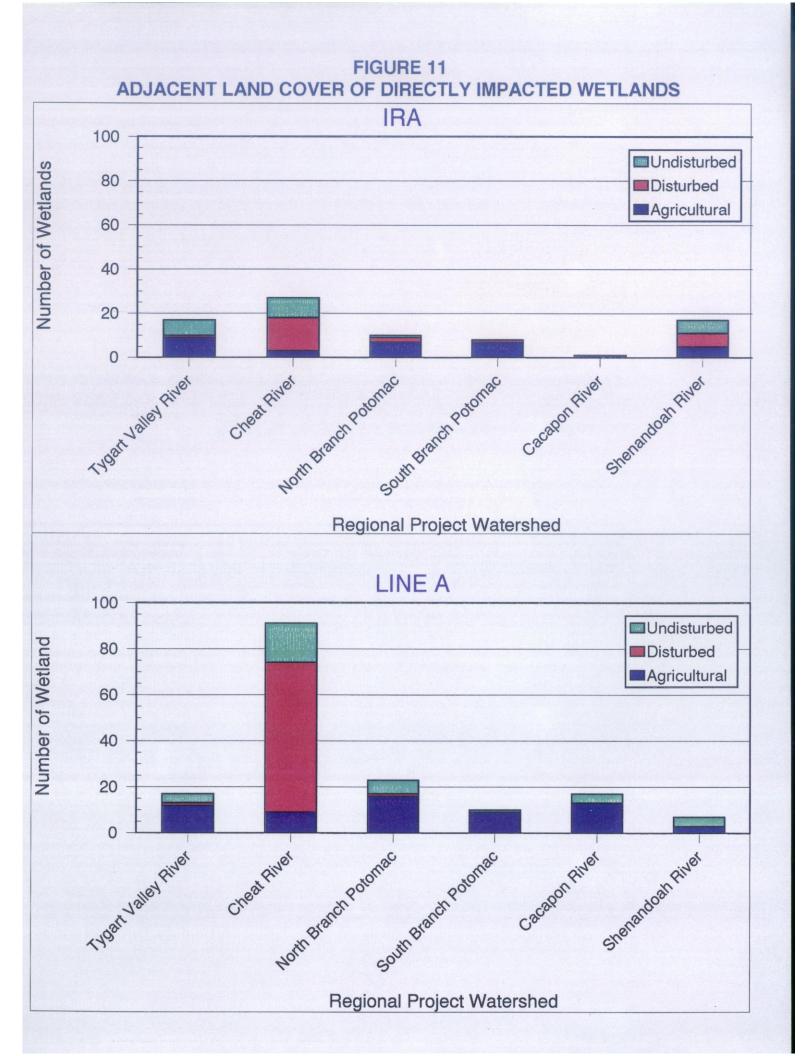
Corridor H Wetlands Technical Report

NUMBER OF WETLANDS WITH CHARACTERISTIC	Tygart Valley River		Cheat River		North Branch Potomac		South Branch Potomac		Cacapon River		West Virginia Total		Shenandoah River		Combined Total	
	Line A	IRA	Line A	IRA	Line A	IRA	Line A	IRA	Line A	IRA	Line A	IRA	Line A	IRA	Line A	IRA
Adjacent Land Cover														5	62	32
Agricultural	12	9	9	3	16	7	9	7	13	1	59	27	3			25
Disturbed	1	1	65	15	1	2	0	1	0	0	67	19	0	6	67	
Undisturbed	4	7	17	9	6	1	1	0	4	0	32	17	4	6	36	23
Landscape Position																10
Isolated	1	0	24	4	1	2	0	3	0	0	26	9	0	1	26	
Headwater	13	15	61	12	22	8	10	5	13	1	119	41	. 6	14	125	55
Other	3	2	6	11	0	0	0	0	4	0	13	13	1	2	14	15
Wetland Size									L				<u> </u>			
Less Than 0.4 ha	13	14	31	15	16	4	8	4	13	1	81	38	7	15	88	53
Greater Than 0.4 ha		3	60	12	7	6	2	4	4	0	77	25	0	2	77	27
Functional Change			1				l	ļ					· ·		I	
No Change	4	4	24	11	2	3	3	5	5	0	38	23	1	8	39	31
Slight Decrease		4	19	8	7	3	2	1	1	0	31	16	2	3	33	19
Decrease		5	22	6	6	2	3	2	3	0	41	15	2	5	43	20
Lost		4	26	2	8	2	2	0	8	1	48	9	2	1	50	10

TABLE 6 CHARACTERISTICS OF IMPACTED WETLANDS BY WATERSHED

Source: Michael Baker Jr., Inc.

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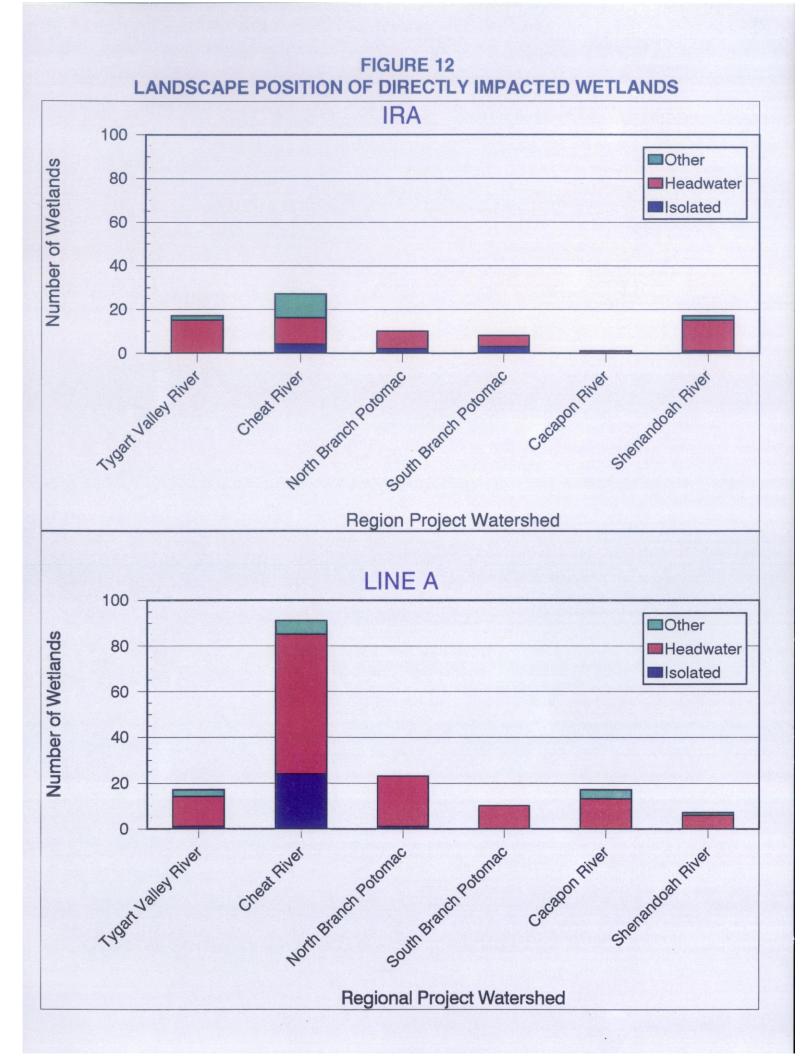
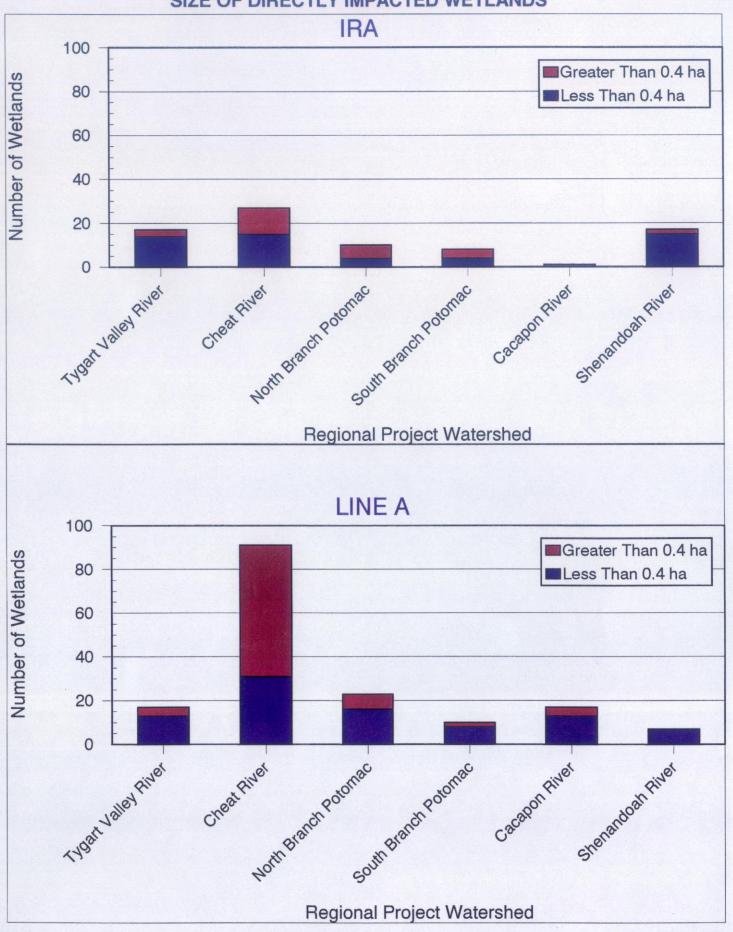


FIGURE 13 SIZE OF DIRECTLY IMPACTED WETLANDS



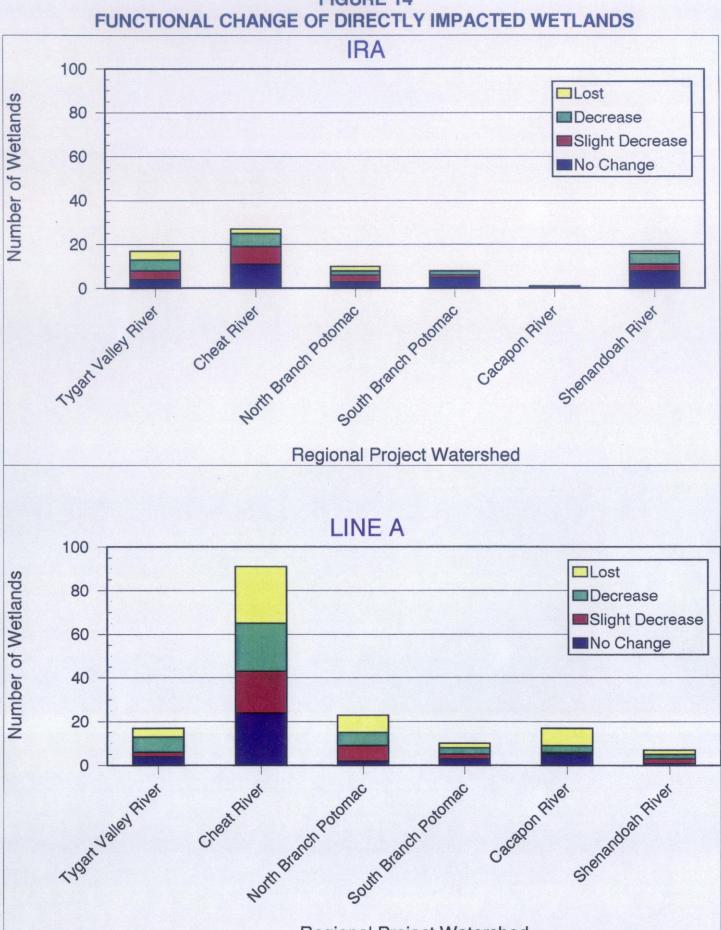


FIGURE 14

Regional Project Watershed

	Watershed			Forest	ed		Scrub/Sl	nrub	l e site	Emerge	nt	Open Water			Total		
	Watersneu		#	Hectares	Acres	#	Hectares	Acres	#	Hectares	Acres	#	Hectares	Acres	#	Hectares	Acres
Tygart Valley	Interchange	Line I				iin	<u></u>		4	0.05	0.13				4	0.05	0.13
River		Line A				<u> </u>			4	0.11	0.27				4	0.11	0.27
	Shavers Fork	Line S				1			1	0.02	0.04				1	0.02	0.04
Cheat River		Line A	—	·		1			1	0.03	0.08				1	0.03	0.08
	Patterson Creek	Line P		<u> </u>		<u>†</u>			4	0.99	2.45	2	0.04	0.11	6	1.03	2.56
North Branch Potomac	Fallerson Creek	Line A				·			2	0.65	1.60	1	0.01	0.02	3	0.66	1.62
River	Forman	Line F	1	0.02	0.06				8	1.42	3.52	2	0.02	0.04	11	1.46	3.62
		Line A	1	0.02	0.06				5	1.28	3.17	2	0.06	0.14	8	1.36	3.37
South Branch F	Potomac River							en etern	<u> </u>		<u></u>	<u> </u>		1997 - <u>1</u>		<u> </u>	<u> </u>
	option areas)							Sec. Car	1	<u></u>		<u> </u>			 	<u> </u>	-
Cacapon	Hanging Rock	Line R				_					. 	.	ļ		· 		
River	-	Line A							<u> </u>			Ļ	0.00	0.21	4	0.20	0.51
	Baker	Line B							2	0.12	0.30	2	0.08		4		0.07
	-	Line A						X. 9.				1	0.03	0.07	<u> </u>	0.03	
Shenandoah	Lebanon Church	Line L			1	T			3	0.33	0.81	2	0.02	0.06	5	0.35	0.87
River		Line A							3	0.11	0.27			Statistics	3	0.11	0.27
	Duck Run	Line D1		1		1	0.05	0,12				2	0.10	0.24	3	0.15	0.36
		Line D2	2 1	0.11	0.28			an a							- 1	0.11	0.28
		Line A	1	0.11	0.28	~[2	0.10	0.24	3	0.21	0.52

OPTION AREA WETLAND IMPACTS BY WATERSHED

TABLE 7

Source: Michael Baker Jr., Inc.

Corridor H Wetlands Technical Report

	Tygart Riv		Cheat	River	No	orth Bran	ch Potoma	ac		Cacap	on River			Shen	andoah F	River	
NUMBER OF WETLANDS WITH	Interchan Ar	ge Option	Shavers F Ai	ork Option rea	Patterso Option	n Creek	Forman O	ption Area	Hangin Optior		Baker Op	lion Anea	Lebanon Option	-	Duck	Run Option	Area
CHARACTERISTIC	Line I	Line A	Line S	Line Å	Line P	Line A	Line F	Line A	Líne R	Line A	Line B	Line A	Line L	Líne A	Line D1	Line D2	Line A
Adjacent Land Cover																	
Agricultural	4	4	1	1	6	3	10	5	0	0	2	0	5	3	3	0	2
Disturbed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Undisturbed	0	0	0	0	0	0	1	3	0	0	2	1	0	0	0	1	1
Landscape Position																	
isolated	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Headwater	2	2	1	1	5	3	11	8	0	0	3	1	5	3	3	1	3
Other	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Wetland Size																ļ	
Less Than 0.4 ha	2	2	1	1	3	1	8	2	0	0	3	1	5	3	2	1	3
Greater Than 0.4 ha	2	2	0	0	3	2	3	6	0	0	1	0	0	0	1	0	0
Functional Change																<u> </u>	
No Change	3	2	0	0	1	0	3	0	0	0	2	0	0	0	1	0	0
Slight Decrease		1	0	0	3	2	0	2	0	0	0	0	1	2	. 0	0	0
Decrease		0	1	1	0	0	3	1	0	0	1	0	3	0	1	0	1
Losi		1	0	0	2	1	5	5	0	0	1	1	1	1	1	1	2

TABLE 8 CHARACTERISTICS OF IMPACTED OPTION AREA WETLANDS

Source: Michael Baker Jr., Inc.

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B. TYGART VALLEY RIVER REGIONAL PROJECT WATERSHED

1. EXISTING ENVIRONMENT

The Tygart Valley River rises near Spruce, West Virginia in Pocahontas County and flows northward toward the Monongahela River. It drains 3,564 square kilometers (1,376 square miles) including portions of Randolph, Upshur, Barbour, and Taylor Counties. This regional project watershed is predicted to contain 155 ha (384 acres) of wetlands based on the GIS analysis and the predictive model.

The western portion of the proposed project lies within the Leading Creek local project watershed, which is characterized by wide valleys and meandering stream channels. Wetland types found in the local project watershed include floodplain areas of emergent, scrub-shrub, and forested vegetation and agriculture related ponds and pasture wetlands. The forested and shrub wetlands generally have high functional probability ratings for effectiveness of groundwater discharge, floodflow alteration, sediment stabilization, sediment and toxicant retention, and nutrient removal/transformation. They also typically have high functional probability ratings for opportunity for floodflow alteration and sediment and toxicant retention. All other characteristics for forested and shrub wetlands generally have functional probability ratings of low to moderate. The emergent wetlands typically have low to moderate functional probability ratings for all characteristics rated.

2. DIRECT IMPACTS

In the Leading Creek local project watershed, the IRA would directly impact 16 vegetated wetlands and one pond, comprising 1.02 ha (2.53 acres). All encroachment areas are less than 0.4 ha (1 acre). This encroachment area accounts for approximately 0.66 percent of the predicted wetland area of the regional project watershed. The majority (76 percent) of impacted wetlands are palustrine emergent vegetation communities and most (69 percent) of the wetlands impacted are less than 0.4 ha (1 acre) in total size. The landscape position of the wetlands effected by the IRA in the Leading Creek local project watershed is predominantly headwater (88 percent). Most (94 percent) of the adjacent land cover for wetlands within the proposed construction limits is agricultural or undisturbed types. This alignment would cause the following changes in WET probability ratings for function and values of impacted wetlands as a result of construction of the roadway: no change, 4 sites; slight decrease, 4 sites; decrease, 5 sites; and lost, 4 sites.

In the Leading Creek local project watershed, Line A would directly impact 16 vegetated wetlands and one pond, comprising 2.00 ha (4.95 acres). All encroachment areas are less than 0.4 ha (1 acre). This encroachment area accounts for approximately 1.29 percent of the predicted wetland area of the regional project watershed. The majority (82 percent) of impacted wetlands are palustrine emergent vegetation communities and most (76 percent) of the wetlands impacted are less than 0.4 ha (1 acre) in total size. The landscape position of the wetlands effected by Line A in the Leading Creek local project watershed is predominantly headwater (76 percent). Most (94 percent) of the adjacent land cover for wetlands within the proposed construction limits is agricultural and disturbed types. This alignment would cause the following changes in WET probability ratings for function and values of impacted wetlands as a result of construction of the roadway: no change, 4 sites; slight decrease, 2 sites; decrease, 7 sites; and lost, 4 sites.

Within the proposed Interchange Option Area, Line I and Line A would both impact four palustrine emergent wetlands. However, Line A would impact more wetland area than Line I (0.11 ha, 0.27 acres; versus 0.05 ha, 0.13 acres, respectively). Within both alignments, three of four wetlands impacted would be less than 0.4 ha (1 acre) in total size. Both Line I and Line A would cause similar impacts with regards to landscape position and adjacent land cover. A comparison of Line I to Line A for the WET probability ratings for function and values of impacted wetlands would show an increased number of wetlands experiencing no change as a result of construction of the roadway, a decreased number of wetlands experiencing slight decrease, and the same number of wetlands experiencing decrease or lost.

C. CHEAT RIVER REGIONAL PROJECT WATERSHED

The Cheat River is formed near Parsons, West Virginia, at the confluence of the Black Fork and Shavers Fork. The Cheat River flows north to its confluence with the Monongahela River at Point Marion, Pennsylvania. The Cheat River drains approximately 3,678 square kilometers (1,420 square miles) in West Virginia. This regional project watershed is predicted to contain 9,096 ha (22,477 acres) of wetlands based on the GIS analysis and the predictive model.

1. EXISTING ENVIRONMENT

Within the project area, the Cheat River regional project watershed is composed of the local project watersheds of Shavers Fork and Black Fork. Shavers Fork local project watershed drains the eastern slopes of Cheat Mountain and the western slopes of Shavers Mountain. This local project watershed includes Pleasant Run and Haddix Run. The Black Fork local project watershed drains areas along Backbone Mountain, Canaan Mountain, Canaan Valley, and Beaver Creek. Streams in this local project watershed include the North Fork, Long Run, Big Run, Pendleton Creek, Blackwater River, and Beaver Creek. Wetland types found in the local project watersheds of Shavers Fork and Black Fork River are primarily floodplain areas which are either used for agricultural purposes or are undisturbed.

Wetland types found in the Black Fork local project watershed are primarily high elevation bogs and fens which are dominated by mosses, sedges, and ericacious shrubs such as blueberries. There are two wetlands with special status in this local project watershed. Big Run Bog, in the western part of this local project watershed, is a Monongahela National Forest Research Natural Area. Elder Swamp, along Beaver Creek in the eastern part of this local project watershed, is designated in the Regional Wetland Concept Plan

(USFWS, 1990) as an area worthy of protection. Many of the wetlands in this area are influenced by beaver activity. A large portion of the local project watershed has been subjected to surface mining activities, and numerous wetlands are affected by acid mine drainage. Several restoration and reclamation projects are underway. Areas around Middle Run, Long Run and the North Fork were recently modified as part of the Albert Highwall and Douglas Highwall Reclamation projects.

In the Shavers Fork local project watershed, the forested and shrub wetlands generally have high functional probability ratings for effectiveness of groundwater discharge, floodflow alteration, sediment stabilization, sediment and toxicant retention, and nutrient removal/transformation. They also have generally high functional probability ratings for opportunity for floodflow alteration and sediment and toxicant retention. All other characteristics for forested and shrub wetlands generally have functional probability ratings of low to moderate. The emergent wetlands generally have low to moderate functional probability ratings for all characteristics rated. In the Black Fork local project watershed, the forested and shrub wetlands generally have high functional probability ratings for effectiveness of sediment and toxicant retention and nutrient removal/transformation. They also have generally high functional probability ratings for opportunity for floodflow alteration and sediment and toxicant retention. All other characteristics for forested and shrub wetlands generally have functional probability ratings of low to moderate. Those emergent wetlands that contain acid mine drainage exhibit generally high functional probability ratings for social significance of sediment/toxicant retention and nutrient removal/transformation, for opportunity for floodflow alteration, sediment stabilization, sediment/toxicant retention, and nutrient removal/transformation. They also have generally high functional probability ratings for opportunity for floodflow alteration and sediment/toxicant retention.

2. DIRECT IMPACTS

In the local project watersheds of the Cheat River regional project watershed, the IRA would directly impact 24 vegetated wetlands and three ponds, comprising 4.88 ha (12.06 acres). Ninety three percent of the encroachment areas are less than 0.4 ha (1 acre). This encroachment area accounts for approximately 0.05 percent of the predicted wetland area of the regional project watershed. The majority (59 percent) of impacted wetlands are palustrine emergent vegetation communities and most (70 percent) of the wetlands impacted are less than 0.4 ha (1 acre) in total size. Landscape position of the wetlands affected by the IRA is predominantly headwater and "other" wetlands (those adjacent to streams with a drainage area greater than 13 square km (5 square miles)) (44 percent and 41 percent, respectively). Adjacent land cover for wetlands within the proposed construction limits is mainly disturbed types (56 percent). The following changes in WET probability ratings for function and values of impacted wetlands would likely occur as a result of construction of the roadway: no change, 11 sites; slight decrease, 8 sites; decrease, 6 sites; and lost, 2 sites.

In the local project watersheds of the Cheat River regional project watershed, Line A would directly impact 81 vegetated wetlands and ten ponds, comprising 7.77 ha (19.19 acres). Ninety eight percent of the encroachment areas are less than 0.4 ha (1 acre). This encroachment area accounts for approximately 0.09 percent of the predicted wetland area of the regional project watershed. The majority (66 percent) of impacted wetlands are palustrine emergent vegetation communities and most (69 percent) of the wetlands impacted are less than 0.4 ha (1 acre) in total size. The landscape position of the wetlands affected by Line A is predominantly headwater (67 percent). Most (71 percent) of the adjacent land cover for wetlands within the proposed construction limits is dominated by disturbed types. This alignment would cause the following changes in WET probability ratings for function and values of impacted wetlands as a result of construction of the roadway: no change, 24 sites; slight decrease, 19 sites; decrease, 22 sites; and lost, 26 sites.

Within the proposed Shavers Fork Option Area, Line S and Line A would both impact one palustrine emergent wetland. However, Line A would impact slightly more wetland area than Line S (0.03 ha, 0.08 acres; versus 0.02 ha, 0.04 acres, respectively). Because the same wetland area would be affected by both proposed alignments, there would be no difference in impacts to wetland's landscape position or adjacent land cover. Because the wetland in question is under 0.4 ha (1 acre) in size, the change in WET probability ratings as a result of construction of the roadway could not be assessed. However, based on professional judgment, Line S would cause less decrease in the wetland's functions and values than would Line A.

D. NORTH BRANCH OF THE POTOMAC RIVER REGIONAL PROJECT WATERSHED

The North Branch of the Potomac River regional project watershed is 1,204 square kilometers (465 square miles), covering portions of Grant and Hampshire Counties and all of Mineral County West Virginia. The river runs generally northeastward along a basin between the Allegheny Front and Backbone Mountain. This regional project watershed is predicted to contain 1,926 ha (4,759 acres) of wetlands based on the GIS analysis and the predictive model.

1. EXISTING ENVIRONMENT

Within the project area, the North Branch of the Potomac River regional project watershed is composed of the local project watersheds of Stony River and Patterson Creek. The Stony River local project watershed drains the valley west of the Allegheny Front surrounding Mount Storm Lake. Streams contained in this local project watershed include Stony River, Abrams Creek, Mill Run, and the Mount Storm Lake Reservoir. The Patterson Creek local project watershed drains the headwaters of Patterson Creek between Patterson Creek Mountain on the east and the Allegheny Front to the west. Streams contained in this local project watershed include Elklick Run, the North Fork of Patterson Creek, the Middle Fork of Patterson Creek, Thorn Run, and the main stem of Patterson Creek.

Wetlands typically found in the Stony River local project watershed are either forested floodplain areas or wetlands in pastures. Wetlands found in the Patterson Creek local project watershed are typically pasture wetlands. The forested and shrub wetlands generally have moderate functional probability ratings for effectiveness of floodflow alteration, sediment stabilization, sediment and toxicant retention, and nutrient removal/transformation, and high probability ratings for social significance of sediment/toxicant reduction and effectiveness of wildlife diversity/abundance. They also have generally high functional probability ratings for opportunity for sediment and toxicant retention. All other characteristics for forested and shrub wetlands generally have functional probability ratings of low to moderate. The emergent wetlands generally have low to moderate functional probability ratings for all characteristics rated.

2. DIRECT IMPACTS

In the local project watersheds of the North Branch of the Potomac River regional project watershed, the IRA would directly impact 10 vegetated wetlands, comprising 1.68 ha (4.15 acres). Ninety percent of the encroachment areas are less than 0.4 ha (1 acre). This encroachment area accounts for approximately 0.09 percent of the predicted wetland area of the regional project watershed. The majority (90 percent) of impacted wetlands are palustrine emergent vegetation communities and most (60 percent) of the wetlands impacted are greater than 0.4 ha (1 acre) in total size. The landscape position of the wetlands affected by the IRA is predominantly headwater (80 percent). Adjacent land cover for wetlands within the proposed construction limits is dominated by agricultural types (70 percent). This alignment would cause the following changes in WET probability ratings for function and values of impacted wetlands as a result of construction of the roadway: no change, 3 sites; slight decrease, 3 sites; decrease, 2 sites; and lost, 2 sites.

In the local project watersheds of the North Branch of the Potomac River regional project watershed, Line A would directly impact 18 vegetated wetlands and five ponds, comprising 3.38 ha (8.35 acres). Ninety one percent of the encroachment areas are less than 0.4 ha (1 acre). This encroachment area accounts for approximately 0.18 percent of the predicted wetland area of the regional project watershed. The majority (70 percent) of impacted wetlands are palustrine emergent vegetation communities and most (74 percent) of the wetlands impacted are less than 0.4 ha (1 acre) in total size. The landscape position of the wetlands affected by Line A is predominantly headwater (96 percent). Adjacent land cover for wetlands within the proposed construction limits is dominated by agricultural and undisturbed types (96 percent). This alignment would cause the following changes in WET probability ratings for function and values of impacted wetlands as a result of construction of the roadway: no change, 2 sites; slight decrease, 7 sites; decrease, 6 sites; and lost, 8 sites.

Within the proposed Patterson Creek Option Area, Line P would directly impact four palustrine emergent wetlands and two ponds, comprising 1.04 ha (2.56 acres), while Line A would impact two palustrine emergent wetlands and one pond, comprising 0.66 ha (1.62 acres). All encroachment areas are less than 0.4 ha (1 acre). Four (4) of the wetlands impacted by Line P are over 0.4 ha (1 acre) in total size, while two of the wetlands impacted by Line A are less than 0.4 ha (1 acre) in total size. Line P would cause more impacts to headwater wetlands and more impacts to "other" wetlands (those adjacent to streams with a drainage area greater than 13 square km (5 square miles)). Line P would cause more impacts to wetlands with adjacent agricultural land and neither alignment impacts wetlands with adjacent disturbed and undisturbed land covers. A comparison of Line P to Line A for the WET probability ratings for function and values of impacted wetlands would show an increased number of wetlands experiencing no change as a result of construction of the roadway, an increased number of wetlands experiencing slight decrease, no difference in the number of wetlands experiencing a decrease, and an increase in the number of wetland functions lost.

Within the proposed Forman Option Area, Line F would directly impact nine vegetated wetlands (8 palustrine emergent, 1 palustrine forested) and two ponds, comprising 1.46 ha (3.62 acres), while Line A would impact six vegetated wetlands (5 palustrine emergent, 1 palustrine forested) and two ponds, comprising 1.36 ha (3.37 acres). Line F would create two (2) encroachment areas greater than 0.4 ha (1 acre), while Line A would create one. Line F impacts would occur in more wetlands greater than 0.4 ha (1 acre) (3 versus 2). Line F would cause a larger number of impacts to headwater wetlands than would Line A. Line F would increase the number of impacts to wetlands with adjacent agricultural land cover and would cause fewer impacts to wetlands with adjacent undisturbed land covers. A comparison of Line F to Line A for the WET probability ratings for function and values of impacted wetlands would show an increased number of wetlands experiencing slight decrease, an increased number of wetlands experiencing decrease, and no change in the number of wetland functions lost.

E. SOUTH BRANCH OF THE POTOMAC RIVER REGIONAL PROJECT WATERSHED

The South Branch of the Potomac River rises in Highland County, Virginia, and flows in a northeasterly direction into West Virginia to its confluence with the North Branch. Within West Virginia, the South Branch of the Potomac River drains 3,756 square kilometers (1,450 square miles) within Pendleton, Grant, Hardy, and Hampshire Counties. This regional project watershed is predicted to contain 338 ha (836 acres) of wetlands based on the GIS analysis and the predictive model.

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1. EXISTING ENVIRONMENT

Within the project area, the South Branch of the Potomac River regional project watershed is composed of the local project watersheds of Anderson Run, Main Channel, and Clifford Hollow. The Anderson Run local project watershed is located west of the community of Old Fields, and drains the eastern flank of Patterson Creek Mountain. This local project watershed includes Anderson Run and Walnut Bottom Run. The Main Channel local project watershed constitutes the central portion of the regional project watershed, and includes Williams Hollow, Fort Run, Dumpling Run, and several small tributaries. The Clifford Hollow local project watershed is located at the eastern side of the regional project watershed and drains the western slope of South Branch Mountain.

Wetland types found in the regional project watershed are dominated by agriculture-related ponds and areas of emergent vegetation in pastures. Functional probability ratings are not available for forested and shrub wetlands because none were delineated along the alignment in this regional project watershed. The emergent wetlands generally have moderate to low functional probability ratings for all characteristics.

2. DIRECT IMPACTS

In the local project watersheds of the South Branch of the Potomac River regional project watershed, the IRA would directly impact six vegetated wetlands and two ponds, comprising 0.56 ha (1.39 acres). All of the encroachment areas are less than 0.4 ha (1 acre). This encroachment area accounts for approximately 0.17 percent of the predicted wetland area of the regional project watershed. All of the impacted vegetated wetlands are palustrine emergent vegetation communities and 62 percent of the wetlands impacted are less than 0.4 ha (1 acre) in total size. The landscape position of the wetlands affected by the IRA is predominantly headwater (63 percent). Adjacent land cover for wetlands within the proposed construction limits is dominated by agricultural types (88 percent). This alignment would cause the following changes in WET probability ratings for function and values of impacted wetlands as a result of construction of the roadway: no change, 5 sites; slight decrease, 1 site; decrease, 2 sites; and lost, no sites.

In the local project watersheds of the South Branch of the Potomac River regional project watershed, Line A would directly impact eight vegetated wetlands and two ponds, comprising 0.80 ha (1.98 acres). All of the encroachment areas are less than 0.4 ha (1 acre). This encroachment area accounts for approximately 0.24 percent of the predicted wetland area of the regional project watershed. The majority (80 percent) of impacted wetlands are palustrine emergent vegetation communities and most (70 percent) of the wetlands impacted are less than 0.4 ha (1 acre) in total size. All wetlands affected by Line A have a headwater landscape position. Adjacent land cover for wetlands within the proposed construction limits is dominated by agricultural types (90 percent). This alignment would cause the following changes in WET

probability ratings for function and values of impacted wetlands as a result of construction of the roadway: no change, 3 sites; slight decrease, 2 sites; decrease, 3 sites; and lost, 2 sites.

F. CACAPON RIVER REGIONAL PROJECT WATERSHED

The Cacapon River originates in the southeastern portion of Hardy County on West Mountain, and encompasses 1,792 square kilometers (692 square miles) in Hardy, Hampshire, and Morgan Counties. This regional project watershed extends north and south across the project area. This regional project watershed is predicted to contain 349 ha (863 acres) of wetlands based on the GIS analysis and the predictive model.

1. EXISTING ENVIRONMENT

Within the project area, the Cacapon River regional project watershed is composed of the local project watersheds of Skaggs Run, Baker Run, Central Cacapon River, Waites Run, and Slate Rock Run. Skaggs Run and Baker Run are located to the west of the Cacapon River, and Waites Run and Slate Rock Run are located to the east.

Wetland types found in the Skaggs Run, Baker Run and Central Cacapon River portions of the regional project watershed typically include floodplain areas of emergent, scrub-shrub, and forested vegetation and agriculture related ponds and areas of emergent vegetation in pastures. The eastern portion of the regional project watershed, which is largely within the George Washington National Forest, contains few wetlands. The forested and shrub wetlands generally have high functional probability ratings for effectiveness of floodflow alteration, sediment stabilization, and sediment and toxicant retention. All other characteristics for forested and shrub wetlands generally have functional probability ratings of low to moderate. The emergent wetlands generally have low to moderate functional probability ratings for all characteristics rated.

2. DIRECT IMPACTS

In the local project watersheds of the Cacapon River regional project watershed, the IRA would directly impact one pond, comprising 0.08 ha (0.19 acres). This is approximately 0.02 percent of the predicted wetland area of the regional project watershed. This wetland is less than 0.4 ha (1 acre) in size. The landscape position of the wetland is headwater. Adjacent land cover for this wetland is agricultural. The IRA would cause a loss of the wetland's functions and values.

In the local project watersheds of the Cacapon River regional project watershed, Line A would directly impact 13 vegetated wetlands and four ponds, comprising 0.97 ha (2.39 acres). All of the encroachment areas are less than 0.4 ha (1 acre). This encroachment area accounts for approximately 0.28 percent of the predicted wetland area of the regional project watershed. The majority (59 percent) of

impacted wetlands are palustrine emergent vegetation communities and most (82 percent) of the wetlands impacted are less than 0.4 ha (1 acre) in total size. The landscape position of the wetlands affected by Line A is predominantly headwater (76 percent). Adjacent land cover for wetlands within the proposed construction limits is dominated by agriculture (76 percent). This alignment would cause the following changes in WET probability ratings for function and values of impacted wetlands as a result of construction of the roadway: no change, 5 sites; slight decrease, 1 site; decrease, 3 sites; and lost, 8 sites.

Within the Hanging Rock Option Area, neither Line R nor Line A would directly impact wetlands.

Within the Baker Option Area, Line B would directly impact two palustrine emergent wetlands and two ponds, comprising 0.21 ha (0.51 acres), while Line A would impact one pond comprising 0.03 ha (0.07 acres). Line B would impact one palustrine emergent wetland greater than 0.4 ha (1 acre) in total size. Line B would cause a larger number of impacts to isolated and headwater wetlands than would Line A. Line B would also increase the number of impacts to wetlands with adjacent agricultural and undisturbed land covers. A comparison of Line B to Line A for the WET probability ratings for function and values of impacted wetlands would show an increased number of wetlands experiencing no change, the same number of wetlands experiencing slight decrease, an increased number of wetlands experiencing decrease, and no change in the number of wetland functions lost.

G. SHENANDOAH RIVER REGIONAL PROJECT WATERSHED

The Shenandoah River regional project watershed drains approximately 7,770 square kilometers (3,000 square miles) in Augusta, Rockingham, Page, Frederick, Shenandoah, Warren, and Clarke Counties in Virginia, and Jefferson and Hardy Counties in West Virginia. The Hardy/Frederick County line and the axis of Great North Mountain marks the division between the Shenandoah River regional project watershed and the Cacapon River regional project watershed to the west. This regional project watershed is predicted to contain 260 ha (644 acres) of wetlands based on the GIS analysis and the predictive model.

1. EXISTING ENVIRONMENT

Within the project area, the Shenandoah River regional project watershed is composed of Cedar Creek local project watershed. Streams included in this local project watershed are Duck Run, Eishelman Run, Zanes Run and Mulberry Run.

Wetland types found in the local project watershed typically include floodplain areas of emergent, scrub-shrub, and forested vegetation and agriculture related ponds and areas of emergent vegetation in pastures. The forested and shrub wetlands generally have high functional probability ratings for social significance of sediment and toxicant retention. All other characteristics for the forested and shrub wetlands

in this local project watershed generally have functional probability ratings of low to moderate. The emergent wetlands generally have low to moderate functional probability ratings for all characteristics rated.

2. DIRECT IMPACTS

In Cedar Creek local project watershed, the IRA would directly impact 17 vegetated wetlands, comprising 0.46 ha (1.14 acres) of wetlands. All of the encroachment areas are less than 0.4 ha (1 acre). This encroachment area accounts for approximately 0.18 percent of the predicted wetland area of the regional project watersheds. Six (6) wetland impacts occur in both palustrine scrub-shrub and palustrine forested vegetation communities. The majority (94 percent) of impacts occur in wetlands that are less than 0.4 ha (1 acre) in total size. Landscape position of the wetlands affected by the IRA is predominantly headwater (82 percent). Adjacent land cover for wetlands within the proposed construction limits is an even mix of agricultural, disturbed and undisturbed types. The following changes in WET probability ratings for function and values of impacted wetlands would likely occur as a result of construction of the roadway: no change, 8 sites; slight decrease, 3 sites; decrease, 5 sites; and lost, 1 site.

In Cedar Creek local project watershed, Line A would directly impact five vegetated wetlands and two ponds, comprising 0.33 ha (0.82 acres). All of the encroachment areas are less than 0.4 ha (1 acre). This encroachment area accounts for approximately 0.13 percent of the predicted wetland area of the Virginia regional project watershed. Most (57 percent) wetland impacts occur in palustrine emergent vegetation communities and all of the wetlands impacted are less than 0.4 ha (1 acre) in total size. No scrub-shrub wetlands are affected. The landscape position of most (86 percent) of the wetlands affected by Line A is headwater. Adjacent land cover for wetlands within the proposed construction limits is a mix of agricultural and undisturbed classes. This alignment would cause the following changes in WET probability ratings for function and values of impacted wetlands as a result of construction of the roadway: no change, 1 site; slight decrease, 2 sites; decrease, 2 sites; and lost, 2 sites.

Within the Duck Run Option Area, Line D1 would directly impact one palustrine scrub-shrub wetland and two ponds, comprising 0.15 ha (0.36 acres), while Line A would impact one palustrine forested wetland and two ponds, comprising 0.21 ha (0.52 acres). All of the wetlands impacted are less than 0.4 ha (1 acre) in total size. Both Line D1 and Line A would cause similar impacts to headwater wetlands. Line D1 would cause a larger number of impacts to wetlands with adjacent agricultural land cover and would cause fewer impacts to wetlands with adjacent undisturbed land cover. A comparison of Line D1 to Line A for the WET probability ratings for function and values of impacted wetlands would show an increased number of wetlands experiencing no change as a result of construction of the roadway, no change in the number of wetlands experiencing slight decrease and decrease, and a decreased number of wetland functions lost.

Within the Duck Run Option Area, Line D2 would directly impact one palustrine forested wetland, comprising 0.11 ha (0.28 acres), while Line A would impact one palustrine forested wetland and two ponds, comprising 0.21 ha (0.52 acres). Line D2 would cause fewer impacts to headwater wetlands. This alignment would also cause fewer impacts to wetlands with adjacent agricultural land cover and would cause the same number of impacts to wetlands with adjacent undisturbed land cover. A comparison of Line D2 to Line A for the WET probability ratings for function and values of impacted wetlands would show no change in the proportion of wetlands experiencing no change and slight decrease as a result of construction of the roadway, a decreased number of wetlands experiencing decrease, and a decreased number of wetland functions lost.

Within the Lebanon Church Option Area, Line L would directly impact three palustrine emergent wetlands and two ponds, comprising 0.35 ha (0.87 acres), while Line A would impact three palustrine emergent wetlands, comprising 0.11 ha (0.27 acres). Only one (1) of the wetlands impacted (Line L) is greater than 0.4 ha (1 acre) in total size. Line L would cause more impacts to headwater wetlands than would Line A and would cause a greater number of impacts to wetlands with adjacent agricultural land cover. A comparison of Line L to Line A for the WET probability ratings for function and values of impacted wetlands would show the same number of wetlands experiencing no change, a decreased number of wetlands experiencing slight decrease, an increased number of wetlands experiencing decrease, and no difference in the number of wetland functions lost.

H. ALIGNMENT COMPARISONS

The IRA and the Build Alternative are compared in this section. Table 9 Summarizes and Figures 15 present the number and area of wetlands that are directly affected by the alignments within West Virginia, Virginia, and combined. Table 10 provides characteristics of the impacted wetlands by alternative.

1. WEST VIRGINIA

Wetland impacts for Line A in West Virginia would: impact more individual wetlands; impact more wetland area; impact a greater proportion of wetlands within the West Virginia regional project watersheds; and impact a greater proportion of wetlands that are greater than 0.4 ha (1 acre) in total size.

Wetland impacts for the IRA in West Virginia would: impact more area of forested wetland; and impact a greater proportion of wetlands with adjacent agricultural and undisturbed land covers.

Post-construction WET probability ratings for functions and values of impacted wetlands would show no change or slight decrease in a greater proportion of IRA wetlands; no difference in wetlands that would show a decrease; and a greater proportion of functional loss for Line A wetlands.

		TABLE 9			
DIRECT	WETLAND	IMPACTS	BY	ALTERNATIVE	

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			IM	PROV	ED ROAL	DWAY (IF	RA)					BUI	LD AL	TERNAT	IVE - LIN	EA		
VEGETATION TYPE		wv			VA			TOTAL			wv			VA			ΤΟΤΑ	L
VEGETATION TIPE		Huctares	Астев	#	Hectores	Acres		Hectares	Acres	#	Hectares	Acres		Hectares	Acres		Hectares	Acres
Emergent	44	6.00	14.83	6	0.15	0,36	50	6.15	15.19	107	12.40	30.64	4	0.12	0.30	111	12.52	30.94
Scrub/Shrub	7	0.57	1.41	6	0.25	0.61	13	0.82	2.02	23	1.19	2.94	0	0.00	0.00	23	1.19	2.94
Forested	5	1.22	3.01	5	0.07	0.17	10	1.29	3.18	6	0.28	0.68	1	0.11	0.28	7	0.39	0,96
Open Water	7	0.43	1.07	0	0.00	0.00	7	0.43	1.07	17	1.05	2.60	7	0.10	0.24	24	1.15	2.84
TOTAL	63	8.22	20.32	17	0.47	1.14	80	8.69	21.46	153	14.92	36.86	12	0.33	0.82	165	15.25	37,68

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FIGURE 15 VEGETATION TYPES OF DIRECTLY IMPACTED WETLANDS ALL ALIGNMENTS

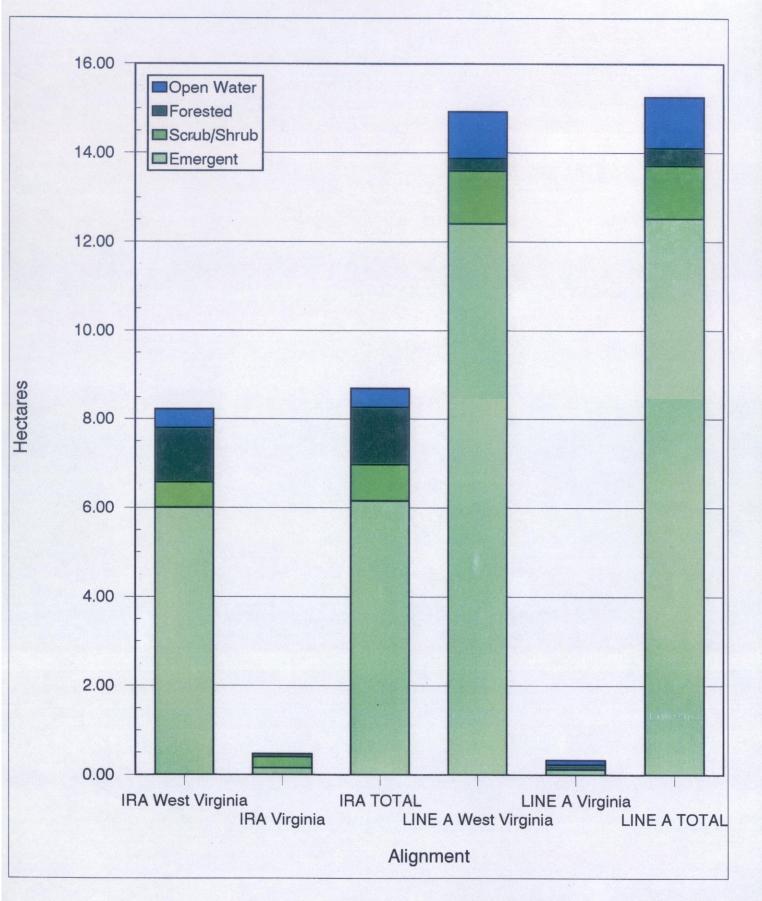


TABLE 10

DIRECT WETLAND IMPACT CHARACTERISTICS BY ALTERNATIVE

Ĩ		· · ·	AL	TERNATIVES					
NUMBER OF WETLANDS WITH		IMPRO)	ED ROADWAY	(IRA)	BUILD ALTERNATIVE - LINE A				
CHARACTERISTIC		WV	VA	TOTAL	WV	VA	TOTAL		
Adjacent Land Cover									
Agricultural	0	27	5	32	59	3	62		
Disturbed	0	19	6	25	67	0	67		
Undisturbed	0	17	6	23	32	4	36		
andscape Position									
isolated	0	9	1	10	26	0	26		
Headwater	0	41	14	55	119	6	125		
Other	0	13	2	15	13	1	14		
Wetland Size									
Less Than 0.4 ha	0	38	15	53	81	7	88		
Greater Than 0.4 ha	0	25	2	27	77	0	77		
Functional Change									
No Change	0	23	8	31	38	1	39		
Slight Decrease	0	16	3	19	31	2	33		
Decrease		15	5	20	41	2	43		
Lost		9	1	10	48	2	50		

Source: Michael Baker Jr., Inc.

2. VIRGINIA

Wetland impacts for Line A in Virginia would: impact more forested and open water wetlands (ponds); impact a greater proportion of wetlands with adjacent agricultural and undisturbed land covers; and would cause a greater proportion of impacts to wetlands smaller than 0.4 ha (1 acre).

Wetland impacts for the IRA in Virginia would: impact more individual wetlands; impact more wetland area; impact a greater proportion of wetlands present in the Virginia regional project watershed; and impact a greater proportion of wetlands with adjacent disturbed land cover.

Post-construction WET probability ratings for functions and values of impacted wetlands would show no change in a smaller proportion of wetlands as a result of construction of the roadway in Line A; a slight decrease or loss in a greater proportion of wetlands in Line A; and no difference in wetlands that show a decrease.

3. COMBINED WEST VIRGINIA AND VIRGINIA ALIGNMENTS

Line A would: impact more individual wetlands; impact more wetland area; impact a greater proportion of wetlands present in the regional project watersheds; impact a slightly greater proportion of wetlands that are smaller than 0.4 ha (1 acre) in total size; and impact a greater proportion of wetlands with isolated and headwater landscape positions.

The IRA would: impact more area of forested wetland; and impact a greater proportion of wetlands with adjacent agricultural and undisturbed land cover.

Post-construction WET probability ratings for functions and values of impacted wetlands would show no change or slight decrease in a smaller proportion of wetlands in Line A; no difference in wetlands that show a decrease as a result of construction of the roadway; and a functional loss in a larger proportion of Line A wetlands.

I. SECONDARY IMPACTS

1. HIGHWAY-RELATED IMPACTS

a. Background

Secondary impacts discussed here are those that occur as the result of the construction and operation of the proposed project. These effects may be the immediate consequences of road construction, or they may be a result of the road's long-term operation. The effects of highway construction may be more likely to occur in wetlands than in uplands because wetlands are the landscape units that receive, retain, and

discharge surface water and groundwater (Southerland, 1993). Secondary impacts can affect wetlands through changing the vegetation communities, erosion and sediment deposition, or altering water regimes and water quality. The majority of these impacts are temporary in nature and their severity can be mitigated through use best of management practices.

b. Erosion and Sedimentation

Wetland water quality could be affected by temporary erosion and sedimentation caused by earth moving activities. Shuldiner, *et al.* (1979) report that highway construction is a major source of sediment loads in surface waters, and sediment loads from highway construction during an average storm can be 10 times greater than that from cultivated land and 200 times greater than that of grassed and forest land. Construction activities within the wetland itself can cause large amounts of organic and mineral matter to be suspended in the surrounding water. Runoff from cleared lands or highway fill is also a source of inorganic matter that could enter wetlands. This could decrease overall wetland productivity by increasing water turbidity, thereby lowering the amount of light available for photosynthesis. Deposition of sediment within wetlands could raise the surface elevation of the wetland, leading to eventual drop in the water table and loss of the wetland. Excess sediment also could smother certain plant species.

Analysis of the vegetation data identified on the Wetland Delineation Forms (Appendix C) determined that 3% of the impacted wetlands for the Build Alternatives contained submerged aquatic vegetation that could be susceptible to the above impacts. Further analysis revealed that within these wetlands, the submerged vegetation was a small component of the overall wetland vegetative community. The dominant existing emergent plants that surround these submerged species, would likely act as a vegetative buffer to reduce runoff and "trap" suspended solids impacts. The employment of proper erosion and sedimentation control practices should reduce and/or minimize these impacts.

c. Hydrological

Changes in water levels and water flow regimes are another potential effect of highway construction and operation. Movement of groundwater could be reduced by constructing low permeable barriers with impervious fills or compressed substrate. This effect could cause ponding of water on the upstream side of the road and drying of the downstream side of the road. Channelization of water flows in a wetland due to placement of culverts also could cause lowering of the water table. The reverse could also occur - greater water levels could occur if water is directed into a wetland from an outside source. Many wetland plant species are sensitive to the amount and level of water that occurs in the wetland. In some cases changes in water levels could cause minor alterations in the vegetation community composition, and in other cases, the changes could be dramatic.

11/09/94

Data analysis for the Build and Improved Roadway Alternatives determined that proposed highway construction restricted the placement of culverts to existing streams, and as such, would not impact wetland vegetation.

Alteration of flooding patterns (timing and flow volume) can impact wetland productivity and vegetative community structure. Flooding provides periodic inputs of needed nutrients into wetlands. Drier conditions accelerate decomposition of dead plant material, and these added nutrients encourage rapid growth. Thus, loss of flooding could cause reduced wetland productivity and changes in wetland community structure and composition.

During wetland field investigations, an assessment was made of potential sources of wetland hydrology. Twelve percent of the delineated wetlands were solely dependent on seasonal flooding for their hydrology. Of these, eight were within 30 m (100') of the construction limits. These wetlands could be susceptible to alterations in flood patterns due to construction activity.

Potentially harmful and toxic materials can be associated with stormwater runoff (Dupuis and Kobriger, 1985). These materials may include nitrogen, phosphorus, metals, salts, petroleum products, and pathogenic bacteria. However, it has been found that stormwater runoff from rural highways with traffic volumes less than 30,000 vehicles per day causes minimal to no impact on the aquatic environment. Projected traffic volumes for the year 2013 for the proposed Build Alternative ranged from 1,000 to 23,000 vehicles per day with an average volume of 9,000 with the IRA traffic volumes being less. At these traffic volumes, the above effects would be minimal.

2. DEVELOPMENT-RELATED IMPACTS

As discussed in the Secondary and Cumulative Impacts Technical Report, all industrial parks except one have already been constructed or are under construction. The one proposed industrial park location north of WV 93 adjacent to Four Mile Run contains a 2.3 hectare (5.5 acre) palustrine scrub-shrub wetland. Development of this site could encroach upon that wetland as well as impact Four Mile Run.

Commercial development analysis revealed that such development could occur without encroaching upon any wetland resources.

Because the definition of raw land excludes wetlands and because sufficient raw land is available to support all predicted residential and residentially related service oriented development, it is possible that the projected development could occur without wetland impacts.

J. CUMULATIVE IMPACTS

Cumulative impacts were evaluated in this study in three categories: the additive effects of direct impacts; the additive effects of direct and secondary impacts; and the additive effects of the proposed projects and other reasonably foreseeable future actions.

1. ADDITIVE DIRECT IMPACTS

Additive direct impact to wetlands by regional project watershed are summarized in Table 4 for both the Improved Roadway and Build Alternatives. The IRA in West Virginia would cumulatively impact 63 individual wetlands, comprising 8.22 ha (20.32 ac), an encroachment area representing 0.07% of the predicted wetland area for the West Virginia regional project watersheds. The IRA in Virginia would cumulatively impact 17 individual wetlands, comprising 0.47 ha (1.14 ac), an encroachment area representing 0.18% of the predicted wetland area for the Virginia regional project watershed. Line A in West Virginia would cumulatively impact 158 individual wetlands, comprising 14.92 ha (36.86 ac), an encroachment area representing 0.12% of the predicted wetland area of the West Virginia regional project watersheds. Line A in Virginia would cumulatively impact 7 individual wetlands, comprising 0.33 ha (0.82 ac), an encroachment area representing 0.13% of the predicted wetland area of the Virginia regional project watershed.

Leibowitz et al. (1992) presented three general categories of wetland functions that should be considered when evaluating cumulative impacts: habitat functions that provide support for wetland dependent species, including food, shelter, and breeding sites; water quality functions including water quality improvement, nutrient cycling and supply; and hydrologic functions such as flood attenuation and moderation of hydrologic flow. These functions are considered below.

Wildlife wetland habitat was assessed using the USFWS Habitat Evaluation Procedure (HEP). This procedure is discussed in detail in the *Vegetation and Wildlife Habitat Technical Report*. Overall, wetland habitat contributed less than 1% to the calculated Habitat Units (HU) total. The wetlands impacted appear to be of seasonal importance, providing limited breeding and feeding habitat during the spring and early summer. The majority of wetlands impacted for both Alternatives were relatively small palustrine emergent communities. As such, they did not provide vegetative habitat components in the quantities necessary to yield appreciable HU's for the chosen evaluation species. While small wetlands can play an important role in the population dynamics of many wetland associated small mammal, bird, amphibian, and insect species, the removal of this wetland area would not have a measurable cumulative effect on these wildlife populations within the regional project watersheds.

In addition, wetland mosaic patterns are an important feature for wetland associated species. Researchers have found that the approximate maximum migration distance for aquatic breeding amphibians, small birds, and small mammals is 1,000 m (Gibbs, 1993). Gibbs also found that small wetlands (less than 4 ha, 10 acres) play an important role in the population dynamics of many wetland associated species by reducing interwetland distances, thereby increasing the probability of successful dispersal, and increasing the number of individuals dispersing among patches within the wetland mosaic. Over 90 % of the delineated wetlands met this size criteria. Alteration of the existing wetland mosaic pattern could result in wetlands becoming "isolated" (greater than 1,000 m, 3,280 ft, from the nearest wetland) which could impact the population dynamics of wetland associated species. GIS analysis examined the existing wetland mosaic pattern of the field investigated wetlands. Twenty of the existing delineated wetlands (4%) were determined to be isolated based on the above definition. The average minimum distance between existing wetlands was 240 m (790 ft).

Construction of the Build Alternative (Line A) could isolate one (1) additional wetland by creating an inter-wetland distance greater than 1,000 m. Overall, the average minimum distance between wetlands would increase by 20 m to 260 m (850 ft). This increase in average minimum distance is not considered an impediment to those species present. Construction of the IRA similarly would isolate one small (< 0.5 hectare) wetland. Construction of either alternative would therefore not alter the current wetland mosaic pattern present.

A functions and values evaluation for each delineated wetland was conducted using the WET 2.1 computer program. In summary, the WET 2.1 program assigns qualitative probability ratings to wetland functions and values including; groundwater recharge, floodflow alteration, sediment stabilization, sediment/toxicant retention, and nutrient removal/transformation. All regional project watershed wetlands generally had high to moderate functional probability values for the above functions. Of the wetlands impacted, 25% were predicted to lose their ability to perform the above functions. These wetlands averaged approximately 0.08 ha (0.2 ac) in total size and would likely have had limited functional capabilities. The cumulative impact of this wetland loss on regional project watershed wetland functional values would be minimal considering the relatively small size of the impacted wetlands, and the relatively small percentage of total regional project watershed wetlands they comprise (less than 1%).

2. ADDITIVE DIRECT AND SECONDARY IMPACTS

The combination of direct and secondary impacts yielded a slight increase in wetland impact area due to secondary industrial park development. A 2.3 ha (5.5 ac) palustrine scrub/shrub community could be impacted by the development of a new Grant County industrial park located in the North Branch of the Potomac River regional project watershed. This would represent an increase of 26% for wetland impacts

associated with the IRA and a 15% increase of wetland impacts associated with Line A. However, for both Alternatives, this increased wetland impact area is less than 1% of the total predicted wetland area within the North Branch of the Potomac River regional project watershed. The loss of this wetland could impact floodflow alteration, sediment stabilization, sediment/toxicant retention, and nutrient removal/transformation functions within the immediate area. However, any development that removed this wetland would be required to replace this acreage through compliance with Federal and state wetland regulatory guidelines. Proper design of the wetland replacement site should replace and possibly enhance lost function values.

3. DEVELOPMENT OF FORESEEABLE FUTURE ACTIONS

Cumulative impacts related to the development of foreseeable future Federal actions was limited to known Federal actions that are currently ongoing or are in the formulative stages of study. Because sufficient raw land is available within the regional project watersheds to support predicted development, encroachment on wetlands to support that development would not be necessary.

Five Federal actions and potential wetlands impacts associated with these actions were identified: 1.) Moorefield, WV, in cooperation with the USDA's Soil Conservation Service, is considering construction of a reservoir on Stony Run to provide sufficient raw water to accommodate future predicted demands (USDA-SCS, 1994); 2.) in addition, Moorefield, in cooperation with the Corps of Engineers, is considering construction of levees along the South Fork of the South Branch of the Potomac River to provide flood protection (COE, 1990); 3.) the effort to establish the Canaan Valley National Wildlife Refuge; 4.) the continued multiple resource use management of the George Washington National Forest (USDA, FEIS George Washington National Forest, 1993); and the continued multiple resource use management of the Monongahela National Forest (USDA, FEIS Monongahela National Forest, 1986).

Table 11 summarizes the wetland impacts due to the above five Federal actions. Only the Moorefield floodwall project would involve future wetland impacts within the South Branch of the Potomac River regional project watershed. Approximately .8 ha (2 ac) of forested wetlands would be removed by the construction of this project. Proposed mitigation measures include land acquisition and planting of .8 ha of bottomland hardwood species to replace wetland functions and values lost (COE, 1990). The proposed Canaan Valley National Wildlife Refuge would protect the largest wetland complex in both West Virginia and the central and southern Appalachians (wetland complex over 3,400 ha or 8,400 ac in size). Both National Forests have prepared Final Environmental Impact Statements that propose no wetland impacts for the immediate future. State and Federal regulatory agencies would be consulted if proposed changes to forest management plans or objectives would impact wetlands.

TABLE 11 CUMULATIVE WETLAND AND WILDLIFE IMPACT ASSESSMENT MATRIX FOR FORESEEABLE FUTURE FEDERAL ACTIONS WITHIN 30-MINUTE CONTOUR

	WILDLIFE HABITAT IMPACTS	WETLAND IMPACTS	BIODIVERSITY IMPACTS	MITIGATION/ MANAGEMENT PLANS
FLOODWALL - MOOREFIELD, WV	Over 90% of impacts to cropland or urban land (21 ac)	1.9 acres forested wetlands	No involvement of threatened or endangered species.	Wetland and upland revegetation plan
STONY RUN WATER SUPPLY DAM - HARDY COUNTY, WV	Approx. loss of 70 acres forested habitat	None, no wetlands identified in feasibility study	No involvement of threatened or endangered species. Creation of open water habitat.	None proposed.
CANAAN VALLEY NATIONAL WILDLIFE REFUGE	Preservation of 28,000 acres	Preservation of largest wetland complex in West Virginia and the central and southern Appalachians.	Preservation of diverse plant and animal populations, including 1 threatened and 1 endangered species	Comprehensive management plan developed
GEORGE WASHINGTON NATIONAL FOREST	Multiple use management of over 100,000 forested acres	None proposed	Management plan to conserve specific elements of biodiversity and restore others where needed.	Comprehensive land and resource management plan
MONOGAHELA NATIONAL FOREST	Multiple use management of over 500,000 forested acres	None proposed	Plan to promote populations of management indicator species, including threatened and endangered species.	Comprehensive land and resource management plan

IV. AVOIDANCE, MINIMIZATION AND MITIGATION

The Council on Environmental Quality, in Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (CEQ, 40 CFR Parts 1500-1508), defines mitigation as:

- Avoiding impacts altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- Restoring impacted areas by repairing or rehabilitating the affected environment;
- Reducing or eliminating impacts over time by preservation and maintenance operations during the life of the action;
- Compensating for impacts by enhancing existing environments or replacing or providing substitute resources or environments.

These five elements of mitigation are considered hierarchical, beginning with avoidance. Once all measures have been taken to avoid impacts, then minimizing impacts is the second step. After avoidance and minimization measures are considered, then compensation methods, including restoration and enhancement are considered. All of the five elements were incorporated into the Wetlands Assessment, as described below.

A. GENERAL AVOIDANCE AND MINIMIZATION MEASURES

Avoiding and minimizing wetland impacts were components of the preliminary engineering design for proposed alignments. Although other resource and engineering constraints were also considered, wetland avoidance was one of the prime factors in initial alignment design. The land use/land cover mapping described in *Methodology*, which contained the preliminarily identified wetlands, was used during initial layout of proposed alignments. Environmental scientists worked directly with roadway engineers to assure that all practical steps were taken to avoid wetlands during the initial design stage.

Field delineation of wetlands followed the preliminary engineering design of proposed alignments. Once delineated wetlands were digitized into the GIS, preliminary alignments were rerouted, with consideration given to the avoidance and minimization of wetland impacts. Field review of the alternative alignments by the various Federal and state resource agencies then occurred. Additional reroutes of alignments occurred as a result of the field reviews, along with further field delineation of wetlands along the rerouted alignments. Numerous wetlands were avoided through rerouting of preliminary alignments.

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B. SPECIFIC AVOIDANCE AND MINIMIZATION MEASURES

Three types of changes were made during the later stages of the design process to avoid and minimize impacts to wetlands, after the alignment changes mentioned above were made. These measures were undertaken, in part, at the suggestion of Federal and state regulatory agencies during field reviews of the proposed project. The measures were: designing alignment shifts; narrowing fill slopes or using retaining walls; and using bridges rather than box culverts or pipes.

Where practical, the alignment was shifted from one location to another (horizontal alignment) so as to completely avoid wetlands or to minimize the area of wetland that would be filled by the proposed alignment. In some cases, changes were made in the "footprint" dimensions of the road. To do this, the grade of the proposed road was increased or decreased, the fill slopes were steepened from 2:1 to 1.5:1, or retaining walls added to the design (vertical alignment). One other way to alter the "footprint" of the roadway is to use a bridge rather than solid fill. Bridges avoid most of the environmental impacts associated with wetland crossings placed on fill (e.g., changes to hydrology, interference with movements of aquatic organisms), but the use of bridges for all wetland crossings is not practical because of cost. Bridges cost approximately eight times more money to construct than the same length of roadway.

Horizontal alignment changes were made at six locations, reducing wetland impacts by 2.69 ha (6.64 acres). Vertical alignment changes were made at six locations, reducing wetland impacts by 0.32 ha (0.63 acres). Bridges were added at four locations, two of which reduced wetland impacts by 0.11 ha (0.28 acres) (Table 12). Additional details regarding measures taken to minimize impacts to wetlands are contained in the Alternatives Analysis prepared in accordance with Section 404 of the Clean Water Act (Appendix G of the SDEIS). Table 13 provides a summary of the Alternatives Analysis.

C. SECONDARY IMPACT AVOIDANCE AND MINIMIZATION

For each section of highway designed, a comprehensive erosion and sedimentation control plan would be implemented to minimize secondary impacts. The WVDOT Standard Specifications for Roads and Bridges (1993) requires that temporary and permanent pollution control measures be provided to prevent contamination of adjacent streams or other watercourses. The measures to be used are described in more detail below. The WVDOT Division of Highways Erosion and Sediment Control Manual (1993) further describes the temporary methods that should be used. The VDOT uses similar measures as outlined in Road and Bridge Specifications (1987) and the Virginia Erosion and Sediment Control Manual (Virginia Department of Conservation and Recreation, 1993).

TABLE 12

MEASURES TAKEN TO MINIMIZE WETLAND IMPACTS FOLLOWING AGENCY FIELD REVIEW

Watershed	Stream Name Associated with Wetland	Measure Taken	Area of Wetland Avoided (ha)	Area of Wetland Avoided (acres)	Type of Wetland Avoided
Tygart Valley River	Trib. to Pearcy Run	Increase Slopes	0.05	0.13	PEM
Tygar Valley River	Leading Creek	Increase Slopes	0.07	0.18	PEM
Cheat River	Big Run	Bridge	0.09	0.22	PFO
Cheat River	Big Run	Shift Horizontal Alignment	0.39	0.96	PEM/PFO
Cheat River	Middle Run	Change Vertical Alignment	0.02	0.05	PEM
Cheat River	Trib. to Beaver Creek	Shift Horizontal Alignment	1.78	4.40	PFO
Cheat River	Abrams Creek	Increase Slopes	0.07	0.17	PEM
Cheat River	Trib. to Elklick Run	Maintain Vertical Alignment	0.07	0.18	PEM
North Branch Potomac	MF Patterson Creek	Bridge	0.02	0.06	PEM
North Branch Potomac	MF Patterson Creek	Shift Horizontal Alignment	0.17	0.42	PEM
North Branch Potomac	Trib. to MF Patterson	Move Access Road	0.02	0.06	PEM
North Branch Potomac	Trib. to Thorn Run	Increase Slopes	0.04	0.09	PEM
Cacapon River	Trib. to Skaggs Run	Move Access Road	0.03	0.08	PEM
Cacapon River	Sauerkraut Run	Shift Horizontal Alignment & Increase Slopes	0.29	0.72	PSS
	Total Wetland Impact Reduction		3.12	7.55	

Source: Michael Baker Jr., Inc.

TABLE 13

ALTERNATIVES ANALYSIS: SUMMARY OF WETLAND IMPACTS BY SECTION

SECTION	LINE DESIGNATIONS ON PREVIOUS PLANS*	WETLAND IMPACT						
		hectares	acres					
3	3-A.1, 3-C, 3-A.1	0.5	1.2					
	Line A	0.5	1.3					
4	4-A.1	0.1	0.2					
	4-A.1, 4-D, 4-A.1	0.2	0.4					
	5-E, 4-A.1, 4-E,5-A.1	0.2	0.6					
	Line A	0.1	0.2					
5	5-A.1, 5-D, 5-A.1	0.4	0.9					
	5-A.1, 5-E	0.4	1.1					
	Line Á	0.4	<u>करिंद</u> न :1					
6	6-A.1, 6-C.1, 6-A.1	0.0	0.0					
	Line A	0.0	0.0					
7	7-A.1, 7-B, 7-A, 7-A.1	1.2	3.0					
·	7-A.1, 7-A, 7-A.1	2.4	6.0					
	7-A.1	0.6						
	Line A	0.7	1.7					
8	8-A.1	1.9	4.8					
·	8-B, 8-A, 8-A.1, 8-D, 8-C	2.3	5.6					
	8-A.1, 8-C	2.1	5.1					
	Line A	2.1	5.1					
9	9-A.1	0.2	0.4					
Ū	9-A.1, 9-B	0.2	0.4					
	Line A	0.0	0.1					
10	10-A.1, 10-A, 10-A.1	3.6	8.8					
10	Line A	1.3	3.2					
11	11-A.1, 11-A, 11-A.1	4.0	9.9					
	11-A.1	3.2	8.0					
	11-A.1, 11-C, 11-B.1, 11-B, 11-B.1	3.4	8.5					
	Line A	1.7	4.2					
12	12-A.1, 12-A, 12-A.1, 12-A, 12-A.1	10.2	25.2					
12	12-A.1	10.2	26.8					
	12-A.1, 12-B	5.5	13.5					
	Line A	4.8	11.8					
13	13-E, 13-A.1, 13-D, 13-A.1	0.6	1.5					
10	13-A.1, 13-A, 13-C	4.2	10.4					
	13-A.1, 13-A, 13-B	3.2	8.0					
	13-A.1	2.1	5.2					
	Line A	0.7	1.6					
14	14-A.1, 14-D, 14-A.1	0.6	1.4					
14	14-A.1, 14-B, 14-A.1	0.6	1.4					
	Line A	0.6	1.4					
15	15-A.1	0.0	0.6					
10	15-A.1 15-A.1, 15-C.1, 15-A.1	0.2	0.0					
	Line A	0.0	0.1					
16	16-A.1	2.8						
0		2.8	6.8 5.0					
	16-A.1, 16-B, 16-F		5.0					
	Line A	2.0	5.0					
TOTALO	Sum of Maximums - Old Lines	32.2	79.6					
TOTALS	Sum of Minimums - Old Lines	19.2	47.3					
	Line A	14.9	36.8					

* Previous plans include agency field review plans and those available after public meetings.

1. EROSION AND SEDIMENTATION

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A comprehensive erosion and sedimentation control plan would be designed and implemented to minimize impacts for each section of highway. To ensure that the erosion and sedimentation plan would be followed during construction, routine inspections in the field would be conducted. None of the erosion and sedimentation measures would be placed in wetlands unless they are necessary to protect the wetlands. Temporary erosion and sedimentation controls that could be used during construction include the following:

<u>Vegetative Soil Stabilization</u>: Seeding and mulching would be performed on a continual basis to reduce the potential for erosion from cut and fill slopes, haul roads, waste sites and borrow pits. Clearing and grading would be minimized, and would be staged in segments small enough to allow stabilization in a timely manner. Seeding would include fast growing annual plant species.

<u>Water Conveyance and Energy Dissipation</u>: Erosion would be reduced by utilizing structures that slow the flow of water and reduce its ability to create erosion. These structures could include temporary berms, slope drains, temporary pipes, contour ditches, check dams and ditch checks.

<u>Clear Water Diversion</u>: Relatively sediment-free stormwater runoff would be intercepted and diverted around construction areas. Use of clear water diversions could reduce the amount of stormwater flowing through construction areas, thereby reducing erosion and minimizing the amount of stormwater runoff requiring treatment.

Sediment Retention Structures: Sediment barriers and basins could be used to reduce the amount of sediment carried by stormwater runoff from construction areas. Sediment barriers such as straw bales and silt fencing could be used in areas where surface water sheet flows would be intercepted. Concentrated runoff could be routed to sediment traps and basins before being redirected to waterbodies downstream of the construction area. Channels used to transport sediment-laden stormwater runoff could be lined with erosion resistant materials and seeded to prevent additional erosion.

Permanent erosion control measures would be established after construction of the facility is completed. None of these measures would be established within wetlands, unless they are necessary to protect the wetlands. These measures could include stabilizing cut and fill slopes, shoulders, medians, and any other areas of exposed soils. Stabilization could be established using non-erosive materials such as rip rap or geotextiles and seeding or planting perennial vegetation. Establishing permanent vegetation capable of preventing erosion could require considerable site preparation. Location of permanent discharge points for stormwater should be designed to dissipate water velocity and prevent erosion of the receiving water body.

2. HIGHWAY STORMWATER RUNOFF

The impact of stormwater runoff pollution to wetlands is expected to be minimal for this project due to the relatively low volumes of traffic that would use the roadway. Nevertheless, techniques exist that would effectively remove pollutants from highway runoff, and these techniques could be used on portions of the project. Techniques designed to control runoff from storms producing less than one inch of rainfall would control pollution from about 90 percent of the storms each year. The majority of pollutants from a storm are delivered by a relatively small percentage of the runoff, occurring during the initial stage of the storm. This runoff, called "first flush", contains the largest proportion of heavy metals and other pollutants, and is the portion of the runoff that should be controlled by stormwater management techniques.

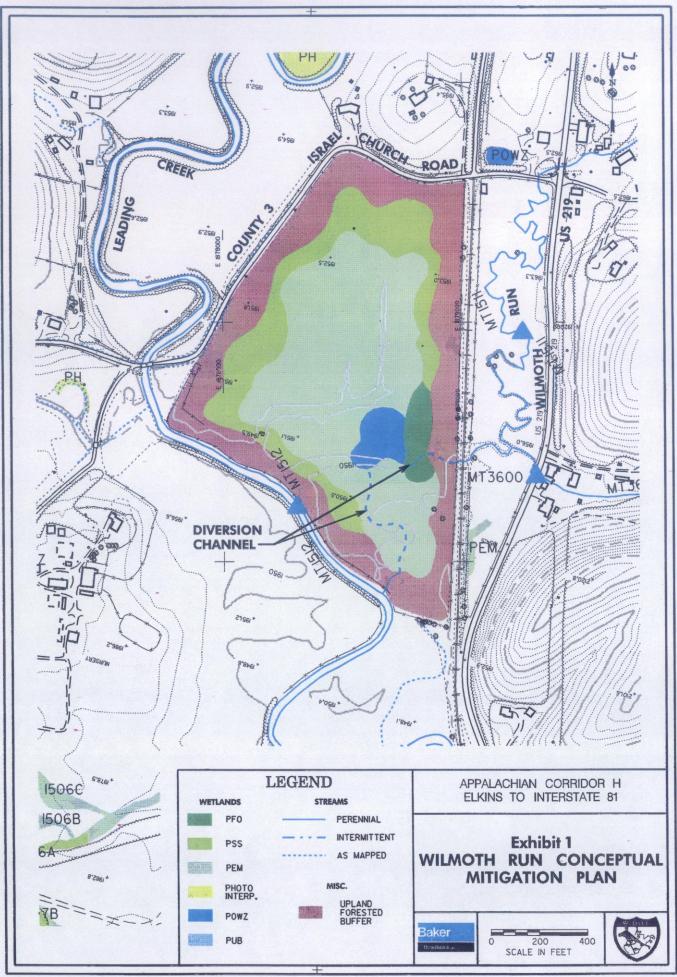
Two techniques have been shown to be highly effective in removing pollutants from runoff (Maestri et al. 1981). The first technique is using vegetated surfaces to capitalize on their natural ability to reduce runoff velocity, filter suspended solids, and increase infiltration. The second technique is using a wet detention basin to create a permanent pool of water capable of pollutant remove through sedimentation.

In Virginia, the proposed project would be subject to Virginia's Stormwater Management Regulations (Virginia Department of Conservation and Recreation, 1993). The goal of these regulations is to inhibit the deterioration of the aquatic environment by instituting a stormwater management program that maintains water quantity and quality equal to or better than prior to construction. The Virginia stormwater management regulations require the detention of runoff from the first 0.5 inch of rainfall, thus providing water quality treatment of the portion of runoff that would carry the greatest load of pollutants. In West Virginia, there are no requirements for permanent management of highway stormwater quantity or quality.

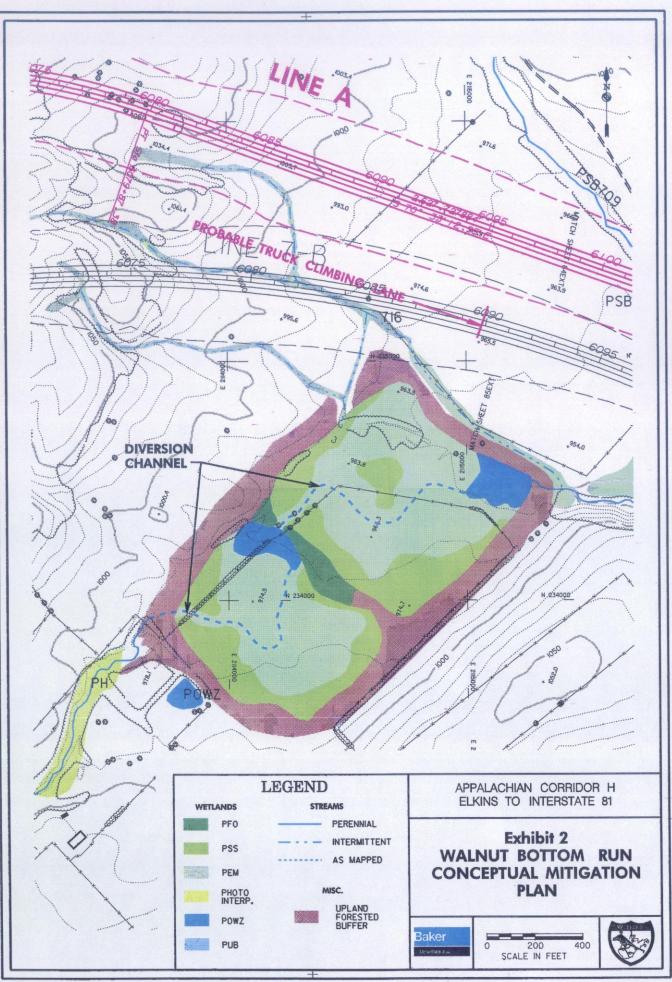
D. MITIGATION

This project is being developed in accordance with the Integrated NEPA/404 Process set forth in the July 23, 1992 Interagency Consensus signed by the US Environmental Protection Agency, the Federal Highway Administration, the US Army Corps of Engineers, the US Fish and Wildlife Service, and the National Marine Fisheries Service. Accordingly, a Section 404 Permit Application, an Alternatives Analysis and a Mitigation Plan have been prepared for the preferred alternative in the West Virginia portion of this project. The mitigation plan and a detailed discussion of the coordination efforts which lead-up to the selection and preliminary design is included in Section III of the SDEIS. Exhibits 1 and 2 present conceptual plans for the two mitigation sites selected. The Wilmoth Run Site is located north of Elkins between US 219 and Israel Church Road. The Walnut Bottom Run Site is located north of Moorefield, approximately 3.2 km (2 mi) west of US 220, north of Fish Pond Road. Once a preferred alternative in Virginia is identified, mitigation for wetland impacts would be developed.

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APPENDIX A DIRECTLY IMPACTED WETLAND DATA

TABLE A-1A DIRECT WETLAND IMPACTS TYGART VALLEY RIVER WATERSHED IMPROVED ROADWAY ALTERNATIVE

Wetland Site	Class	Tot Siz		Impact Area		Percent of Wetland Area
Number		Hectares	Acres	Hectares	Acres	Impacted
1604	PEM	0.43	1.07	0.21	0.51	47.7%
1605	PEM	0.43	1.07	0.20	0.49	45.8%
1621	PEM	0.03	0.08	0.03	0.08	100.0%
1623	PEM	0.05	0.12	0.01	0.03	25.0%
1624	PEM	1.25	3.08	0.00	0.01	0.3%
1655	PSS	0.17	0.42	0.05	0.12	28.6%
3510	PSS	0.10	0.24	0.10	0.24	100.0%
3511	PFO	0.15	0.37	0.11	0.26	70.3%
3512	PEM	0.03	0.08	0.01	0.03	37.5%
3513	PEM	1.10	2.73	0.10	0.25	9.2%
3514	PEM	0.06	0.14	0.04	0.11	78.6%
3516	PEM	0.06	0.15	0.05	0.12	80.0%
3602	PEM	0.29	0.72	0.08	0.21	29.2%
3609	PEM	0.53	1.31	0.00	0.01	0.8%
3610A	PEM	0.18	0.45	0.00	0.00	0.0%
3610B	PEM	1.38	3.41	0.00	0.00	0.0%
	POWZ	0.03	0.07	0.02	0.06	85.7%

TABLE A-1B DIRECT WETLAND IMPACTS CHEAT RIVER WATERSHED IMPROVED ROADWAY ALTERNATIVE

Wetland Site	Class	Tot: Size		Impa Are		Percent of Wetland Area
Number		Hectares	Acres	Hectares	Acres	Impacted
1280	PFO	1.73	4.27	0.08	0.19	4.4%
3303	PSS	0.15	0.37	0.06	0,15	40.5%
3304	PEM	0.61	1.50	0.00	0.00	0.0%
3305	PSS	3.40	8.40	0.23	0.56	6.7%
3304A	PEM	0.06	0.15	0.00	0.01	6.7%
3306	PEM	0.38	0.95	0.18	0.45	47.4%
3307B	PEM	0.29	0.72	0.08	0.19	26.4%
3307C	PEM	0.10	0.25	0.02	0.04	16.0%
3308	PEM	0.85	2.10	0.16	0.40	19.0%
3309	PEM	11.48	28.37	2.14	5.29	18.6%
3311	PFO	5.07	12.52	0.89	2.19	17.5%
3407	PEM	0.03	0.08	0.02	0.04	50.0%
3408	PEM	0.13	0.32	0.08	0.20	62.5%
3409	PSS	0.27	0.66	0.04	0.11	16.7%
3411	PSS	0.06	0.14	0.06	0.14	100.0%
3501	PEM	0.28	0.70	0.07	0.18	25.7%
3502	PFO	0.14	0.35	0.05	0.13	37.1%
3504	PEM	0.22	0.54	0.01	0.03	5.6%
3505A	PEM	0.27	0.67	0.02	0.04	6.0%
3505B	PSS	0.22	0.54	0.04	0.09	16.7%
3506	PEM	1.32	3.26	0.20	0.49	15.0%
3507	PEM	0.13	0.33	0.00	0.01	3.0%
3508	PEM	0.13	0.33	0.03	0.07	21.2%
3509	PEM	0.13	0.32	0.10	0.24	75.0%
	POWZ	0.02	0.04	0.02	0.04	100.0%
	POWZ	0.33	0.81	0.02	0.04	4.9%
	PUB	1.24	3.06	0.30	0.74	24.2%

TABLE A-1C DIRECT WETLAND IMPACTS NORTH BRANCH POTOMAC RIVER WATERSHED IMPROVED ROADWAY ALTERNATIVE

Wetland Site	Class	Total Size		Impact Area		Percent of Wetland Area
Number		Hectares	Acres	Hectares	Acres	Impacted
1006	PEM	1.24	3.07	0.14	0.34	11.1%
1101D	PFO	6.88	17.00	0.10	0.24	1.4%
2801	PEM	0.58	1.43	0.02	0.06	4.2%
2802	PEM	0.94	2.32	0.33	0.82	35.3%
2803	PEM	1.28	3.16	0.01	0.03	0.9%
2804	PEM	0.19	0.46	0.17	0.43	93.5%
2901	PEM	0.04	0.10	0.04	0.10	100.0%
3001	PEM	3.39	8.38	0.73	1.80	21.5%
3003	PEM	0.04	0.09	0.00	0.01	11.1%
3004	PEM	0.26	0.64	0.13	0.32	50.0%

TABLE A-1D DIRECT WETLAND IMPACTS SOUTH BRANCH POTOMAC RIVER WATERSHED IMPROVED ROADWAY ALTERNATIVE

Wetland Site	Class	Total Size		Impact Area		Percent of Wetland Area
Number		Hectares	Acres	Hectares	Acres	Impacted
2602	PEM	0.13	0.31	0.06	0.16	51.6%
2604	PEM	0.52	1.29	0.00	0.00	0.0%
2605	PEM	0.27	0.66	0.10	0.25	37.9%
2701A	PEM	2.32	5.74	0.02	0.04	0.7%
2702A	PEM	0.12	0.30	0.08	0.21	70.0%
2702H	PEM	3.52	8.70	0.30	0.73	8.4%
	POWZ	0.00	0.01	0.00	0.00	0.0%
	POWZ	0.19	0.47	0.00	0.00	0.0%

TABLE A-1E DIRECT WETLAND IMPACTS CACAPON RIVER WATERSHED IMPROVED ROADWAY ALTERNATIVE

Wetland Site	Class	Total Size		Impact Area		Percent of Wetland Area
Number		Hectares	Acres	Hectares	Acres	Impacted
······	POWZ	0.08	0.19	0.08	0,19	100.0%

TABLE A-1F DIRECT WETLAND IMPACTS SHENANDOAH RIVER WATERSHED IMPROVED ROADWAY ALTERNATIVE

Wetland Site	Class	Tot: Size		Impact Area		Percent of Wetland Area
Number	1 1	Hectares	Acres	Hectares	Acres	Impacted
103	PEM	0.24	0.60	0.02	0.06	10.0%
104	PEM	0.04	0.11	0.00	0.00	0.0%
203A	PEM	0.39	0.96	0.06	0.15	15.6%
207	PEM	0.10	0.25	0.03	0.07	28.0%
211	PFO	0.20	0.50	0.00	0.00	0.0%
212	PFO	0.11	0.27	0.00	0.00	0.0%
215	PFO	0.02	0.05	0.01	0.03	60.0%
216	PSS	0.04	0.09	0.03	0.07	77.8%
218	PSS	0.05	0.13	0.05	0.12	92.3%
219	PSS	0.09	0.23	0.01	0.02	8.7%
220B	PSS	0.80	1.98	0.10	0.24	12.1%
2101A	PFO	0.13	0.32	0.03	0.07	21.9%
2101B	PFO	0.09	0.23	0.03	0.07	30.4%
2102	PEM	0.08	0.21	0.03	0.08	38.1%
2103	PEM	0.06	0.16	0.00	0.00	0.0%
2250A	PSS	0.02	0.05	0.00	0.01	20.0%
2250B	PSS-	0.14	0.35	0.06	0.15	42.9%

TABLE A-2A DIRECT WETLAND IMPACTS TYGART VALLEY RIVER WATERSHED LINE A

Wetland Site	Class		Total Size		Impact Area	
Number	[Hectares	Acres	Hectares	Acres	Impacted
1602	PEM	0.30	0.75	0.26	0.65	86.7%
1603	PEM	1.67	4.13	0.28	0.68	16.5%
1604	PEM	0.43	1.07	0.30	0.75	70.1%
1605	PEM	0.43	1.07	0.28	0.70	65.4%
1609	PEM	0.29	0.71	0.11	0.27	38.0%
1621	PEM	0.03	0.08	0.03	0.08	100.0%
1624	PEM	1.25	3.08	0.02	0.04	1.3%
1627C	PEM	2.90	7.17	0.17	0.41	5.7%
1628	PEM	0.70	1.72	0.18	0.44	25.6%
1652A	PEM	0.21	0.51	0.09	0.23	45.1%
1652B	PSS	0.02	0.05	0.02	0.04	80.0%
1652C	PSS	0.02	0.06	0.01	0.03	50.0%
1656	PEM	0.17	0.43	0.08	0.21	48.8%
1660	PEM	0.01	0.03	0.00	0.01	33.3%
3608	PEM	0.26	0.64	0.06	0.15	23.4%
3610A	PEM	0.18	0.45	0.00	0.00	0.0%
	POWZ	0.12	0.30	0.11	0.26	86.7%

TABLE A-2B DIRECT WETLAND IMPACTS CHEAT RIVER WATERSHED LINE A

Wetland	Class		otal	-	pact	Percent of
Site		Size			rea	Wetland Area
Number		Hectares	Acres	Hectares	Acres	Impacted
1110	PEM	26.04	64.34	0.27	0.66	1.0%
1110A	PEM	0.23	0.56	0.00	0.01	1.8%
1112	PEM	0.46	1.13	0.36	0.90	79.6%
1113	PSS	0.04	0.10	0.01	0.02	20.0%
1114A	PSS	0.03	0.08	0.01	0.03	37.5%
1124	PSS	0.10	0.25	0.10	0.25	100.0%
1128	PEM	0.43	1.06	0.06	0.16	15.1%
1130	PEM	0.02	0.04	0.02	0.04	100.0%
1131	PEM	0.19	0.47	0.07	0.17	36.2%
1132	PEM	0.23	0.57	0.21	0.51	89.5%
1141	PEM	0.22	0.55	0.20	0.50	90.9%
1151	PEM	0.13	0.33	0.13	0.33	100.0%
1153	PEM	0.02	0.04	0.02	0.04	100.0%
1154	PSS	2.13	5.26	0.09	0.22	4.2%
1202	PEM	0.07	0.18	0.07	0.18	100.0%
1204	PFO	0.16	0.40	0.04	0.10	25.0%
1205	PEM	0.08	0.19	0.01	0.03	15.8%
1206	PFO	0.03	0.08 `	0.03	0,08	100.0%
1207	PEM	0.04	0.11	0.04	0.11	100.0%
1208	PEM	0.02	0.06	0.02	0.06	100.0%
1212	PEM	0.02	0.06	0.02	0.04	66. 7%
1211B	PEM	0.66	1.63	0.04	0.10	6.1%
1214	PEM	0.12	0.29	0.04	0.09	31.0%
1215A	PSS	0.25	0.63	0.12	0.29	46.0%
1216	PEM	0.22	0.54	0.02	0.06	11.1%
1217	PEM	0.11	0.26	0.09	0.23	88.5%
1218	PSS	0.05	0.12	0.01	0.03	25.0%
1220A	PFO	0.13	0.33	0.05	0.12	36.4%
1220B	PEM	0.25	0.62	0.05	0.12	19.4%
1223	PSS	0.06	0.14	0.02	0.05	35.7%
1229B	PEM	0.04	0.09	0.04	0.09	100.0%
1231C	PSS	2.84	7.03	0.06	0.14	2.0%
1233	PEM	1.04	2.58	0.13	0.31	12.0%
1233 1243A	PSS	9.57	23.66	0.04	0.10	0.4%
12457	PEM	14.30	35.34	0.02	0.05	0.1%
1247 1248A	PEM z	8.15	20.15	0.11	0.26	1.3%

TABLE A-2B DIRECT WETLAND IMPACTS CHEAT RIVER WATERSHED LINE A

Wetland	Class		otal	-	pact rea	Percent of Wetland Area
Site Number	-	Hectares	Acres	Hectares	Acres	Impacted
1249A	PEM	14.33	35.41	0.26	0.64	1.8%
124)A 1251A	PEM	0.88	2.17	0.03	0.07	3.2%
1251R	PEM	0.93	2.31	0.30	0,74	32.0%
1251D 1253A	PSS	0.71	1.76	0.01	0.03	1.7%
125511	PSS	7.52	18.58	0.10	0.25	1.3%
1254	PSS	0.05	0.12	0.04	0.10	83.3%
1258A	PSS	0.08	0.19	0.04	0.09	47.4%
1258B	PEM	2.70	6,66	0.03	0.08	1.2%
1259A	PEM	0.15	0.36	0.00	0.00	0.0%
1250	PEM	0.04	0.10	0.00	0,01	10.0%
1261	PSS	1.49	3.69	0.03	0.07	1.9%
1262	PEM	0.60	1.48	0.51	1.27	85.8%
1262	PEM	0.29	0.71	0.17	0.43	60.6%
1265	PEM	0.47	1.17	0.25	0.61	52.1%
1267 1265B	PEM	0.03	0.07	0.03	0.07	100.0%
1266	PEM	8.77	21.66	1.18	2.92	13.5%
1268	PEM	11.74	29.00	0.08	0.21	0.7%
1200	PEM	0.08	0.20	0.05	0.13	65.0%
1273	PEM	0.08	0.21	0.07	0.17	81.0%
1287A	PEM	2.24	5.54	0.00	0.01	0.2%
1292	PEM	0.19	0.46	0.15	0.38	82.6%
1299	PSS	0.06	0.16	0.01	0.03	18.8%
1306	PEM	0.37	0.91	0.08	0.20	22.0%
1343	PEM	0.01	0.03	0.01	0.03	100.0%
1349	PEM	0.01	0.02	0.01	0.02	100.0%
1353	PEM	0.02	0.05	0.02	0.05	100.0%
1410	PEM	0.05	0.12	0.03	0.08	66.7%
1411	PEM	0.04	0.09	0.02	0.06	66.7%
1412	PEM	0.02	0.05	0.02	0.05	100.0%
1502	PEM	0.15	0.38	0.10	0.24	63.2%
1511	PEM	0.06	0.15	0.06	0.14	93.3%
1301A	PEM	2.54	6.27	0.05	0.12	1.9%
1301B	PEM	0.01	0.02	0.01	0.02	100.0%
1301C	PEM	0.01	0.02	0.00	0.01	50.0%
1333B	PEM	0.44	1.08	0.11	0.26	24.1%
1333C	PEM -	0.50	1.23	0.02	0.04	3.3%

TABLE A-2B DIRECT WETLAND IMPACTS CHEAT RIVER WATERSHED LINE A

Wetland Site	Class	Total Size		Impact Area		Percent of Wetland Area
Number		Hectares	Acres	Hectares	Acres	Impacted
1339D	PEM	0.20	0.49	0.05	0.13	26.5%
1339F	PSS	0.23	0.56	0.15	0.37	66.1%
1362A	PSS	0.02	0.05	0.02	0.05	100.0%
1362B	PSS	0.11	0.26	0.09	0.22	84.6%
1363A	PEM	0.02	0.04	0.02	0.04	100.0%
1363B	PEM	0.05	0.13	0.05	0.13	100.0%
1501A	PEM	0.55	1.36	0.30	0.73	53.7%
1501B	PEM	2.47	6.11	0.08	0.20	3.3%
3301	PEM	0.10	0.24	0.03	0.07	29.2%
	POWZ	0.00	0.01	0.00	0.01	100.0%
	POWZ	0.02	0.04	0.02	0.04	100.0%
	POWZ	0.02	0.05	0.01	0.03	60.0%
	POWZ	0.03	0.07	0.02	0.06	85.7%
	POWZ	0.04	0.10	0.04	0.10	100.0%
	POWZ	0.05	0.12	0.02	0.06	50.0%
	POWZ	0.06	0.16	0.03	0.07	43.8%
	POWZ	0.17	0.43	0.17	0.43	100.0%
	POWZ	0.23	0.56 、	0.06	0.16	28.6%
	POWZ	0.40	1.00	0.07	0.18	18.0%

TABLE A-2C DIRECT WETLAND IMPACTS NORTH BRANCH POTOMAC RIVER WATERSHED LINE A

Wetland Site	Class	Tot: Siz		Impact Area		Percent of Wetland Area
Number		Hectares	Acres	Hectares	Acres	Impacted
801A	PFO	0.02	0.06	0.02	0.06	100.0%
801B	PEM	0.02	0.05	0.02	0.05	100.0%
805	PEM	0.07	0.18	0.05	0.12	66.7%
806	PEM	0.21	0.52	0.16	0.39	75.0%
807	PEM	2.37	5.86	0.34	0.84	14.3%
808B	PEM	0.37	0.91	0.31	0.76	83.5%
810	PEM	1.09	2.70	0.26	0.65	24.1%
815	PEM	5.69	14.05	0.83	2.04	14.5%
818	PEM	0.02	0.04	0.02	0.04	100.0%
906A	PEM	0.29	0.71	0.03	0.08	11.3%
1002	PEM	0.23	0.58	0.02	0.04	6.9%
1006	PEM	1.24	3.07	0.12	0.29	9.4%
1021	PFO	0.04	0.09	0.03	0.08	88.9%
1022A	PEM	0.06	0.15	0.04	0.09	60.0%
1022B	PEM	0.17	0.42	0.17	0.41	97.6%
1102A	PEM	0.66	1.62	0.00	0.00	0.0%
3001	PEM	3.39	8.38	0.69	1.70	20.3%
3003	PEM	0.04	0.09 *	0.04	0.09	100.0%
	POWZ	0.02	0.04	0.02	0.04	100.0%
· · · ·	POWZ	0.03	0.07	0.01	0.02	28.6%
<u> </u>	POWZ	0.04	0.10	0.04	0.10	100.0%
	POWZ	0.08	0.21	0.04	0.11	52.4%
	POWZ	0.14	0,35	0.14	0.35	100.0%

TABLE A-2D DIRECT WETLAND IMPACTS SOUTH BRANCH POTOMAC RIVER WATERSHED LINE A

Wetland Site	Class	Total Size		Impact Area		Percent of Wetland Area
Number		Hectares	Acres	Hectares	Acres	Impacted
506	PEM	0.11	0.26	0.09	0.22	84.6%
507	PEM	0.17	0.41	0.02	0.04	9.8%
702	PEM	0.66	1.62	0.04	0.10	6.2%
716	PEM	1.57	3.88	0.24	0.60	15.5%
717	PSS	0.23	0.56	0.16	0.39	69.6%
720	PEM	0.28	0.70	0.05	0.13	18.6%
721	PEM	0.19	0.46	0.10	0.24	52.2%
722	PEM	0.66	1.62	0.08	0.19	11.7%
	POWZ	0.02	0.06	0.02	0.06	100.0%
	POWZ	0.16	0.40	0.00	0.01	2.5%

TABLE A-2E DIRECT WETLAND IMPACTS CACAPON RIVER WATERSHED LINE A

Wetland Site	Class	Tot: Siz		Impa Are		Percent of Wetland Area
Number		Hectares	Acres	Hectares	Acres	Impacted
301	PFO	0.23	0.56	0.10	0.24	42.9%
303	PEM	0.75	1.85	0.06	0.14	7.6%
304	PEM	0.34	0.84	0.06	0.15	17.9%
305	PEM	0.49	1.21	0.13	0.33	27.3%
311	PEM	0.21	0.51	0.19	0.48	94.1%
401	PSS	1.00	2.46	0.00	0.01	0.4%
502	PEM	0.06	0.16	0.06	0.16	100.0%
505	PEM	0.11	0.28	0.01	0.02	7.1%
508	PEM	0.26	0.65	0.01	0.02	3.1%
509	PEM	0.09	0.22	0.06	0.16	72.7%
520A	PEM	0.02	0.04	0.00	0.00	0.0%
520B	PSS	0.06	0.16	0.05	0.13	81.3%
520C	PEM [®] .	0.02	0.04	0.02	0.04	100.0%
	POWZ	0.00	0.01	0.00	0.01	100.0%
	POWZ	0.03	0.08	0.03	0.07	87.5%
	POWZ	0.08	0.19	0.07	0.17	89.5%
	POWZ	0.11	0.26	0.11	0.26	100.0%

TABLE A-2F DIRECT WETLAND IMPACTS SHENANDOAH RIVER WATERSHED LINE A

Wetland Site	Class	Total Size		Impact Area		Percent of Wetland Area
Number		Hectares	Acres	Hectares	Acres	Impacted
101	PEM	0.07	0.17	0.01	0.03	17.6%
103	PEM	0.24	0.60	0.06	0.14	23.3%
104	PEM	0.04	0.11	0.04	0.10	90.9%
107B	PEM	0.10	0.25	0.01	0.03	12.0%
205	PFO	0.13	0.32	0.11	0.28	87.5%
	POWZ	0.02	0.05	0.01	0.02	40.0%
	POWZ	0.10	0.24	0.09	0.22	91.7%

TABLE A-3A DIRECT WETLAND IMPACTS TYGART VALLEY RIVER WATERSHED OPTION AREA INTERCHANGE COMPARISONS

	Line I									
Wetland Clas Site Number	Class	Total Size		Impact Area		Percent of Wetland Area				
		Hectares	Acres	Hectares	Acres	Impacted				
1621	PEM	0.03	0.08	0.03	0.08	100.0%				
1624	PEM	1.25	3.08	0.02	0.04	1.3%				
3608	PEM	0.26	0.64	0.00	0.01	1.6%				
3610A	PEM	0.18	0.45 🗸	0.00	0.00	0.0%				

Line A										
Wetland Class Site Number	Class	ass Total Size		Impact Area		Percent of Wetland Area				
		Hectares	Acres	Hectares	Acres	Impacted				
1621	PEM	0.03	0.08	0.03	0.08	100.0%				
1624	PEM	1.25	3.08	0.02	0.04	1.3%				
3608	PEM	0.26	0.64	0.06	0.15	23.4%				
3610A	PEM	0.18	0.45	0.00	0.00	0.0%				

TABLE A-3B DIRECT WETLAND IMPACTS CHEAT RIVER WATERSHED OPTION AREA SHAVERS FORK COMPARISONS

	Line S									
Wetland Site	Class	Total Size		Impact Area		Percent of Wetland Area				
Number		Hectares	Acres	Hectares	Acres	Impacted				
1410	PEM	0.05	0.12	0.02	0.04	33.3%				

Line A									
Wetland Cla Site Number	Class	Total Size		Impact Area		Percent of Wetland Area			
		Hectares	Acres	Hectares	Acres	Impacted			
1410	PEM	0.05	0.12	0.03	0.08	66.7%			

TABLE A-3C DIRECT WETLAND IMPACTS NORTH BRANCH POTOMAC RIVER WATERSHED OPTION AREA PATTERSON CREEK COMPARISONS

	Line P										
Wetland Site Number	Class	Total Size		Impact Area		Percent of Wetland Area					
		Hectares	Acres	Hectares	Acres	Impacted					
807	PEM	2.37	5.86	0.32	0.78	13.3%					
808	PEM	0.53	1.31	0.40	0.99	75.6%					
809	PEM	0.78	1.92	0.05	0.13	6.8%					
816	PEM	1.67	4.13	0.22	0.55	13.3%					
· · · · · · · · · · · · · · · · · · ·	POWZ	0.02	0.04	0.02	0.04	100.0%					
, <u> </u>	POWZ	0.03	0.07	0.03	0.07	100.0%					

Line A										
Wetland Site	Class Total Size			1		Percent of Wetland Area				
Number		Hectares	Acres	Hectares	Acres	Impacted				
807	PEM	2.37	5.86	0.34	0.84	14.3%				
808B	PEM	0.37	0,91	0.31	0.76	83.5%				
	POWZ	0.03	0.07	0.01	0.02	28.6%				

TABLE A-3D DIRECT WETLAND IMPACTS NORTH BRANCH POTOMAC RIVER WATERSHED OPTION AREA FORMAN COMPARISONS

			Line	F		
Wetland Site	Class	Tot: Size			Impact Area	
Number		Hectares	Acres	Hectares	Acres	Impacted
801A	PFO	0.02	0.06	0.02	0.06	100.0%
801B	PEM	0.02	0.05	0.02	0.05	100.0%
806	PEM	0.21	0.52	0.16	0.39	75.0%
812A	PEM	0.07	0.18	0.01	0.03	16.7%
812B	PEM	1.96	4.84	0.51	1.26	26.0%
813	PEM	0.59	1.45	0.22	0.54	37.2%
814	PEM	0.02	0.04	0.02	0.04	100.0%
815	PEM	5.69	14.05	0.47	1.17	8.3%
818	PEM	0.02	0.04	0.02	0.04	100.0%
	POWZ	0.00	0.01	0.00	0.00	0.0%
	POWZ	0.02	0.04	0.02	0.04	100.0%

	Line A										
Wetland Site	Class	Total Size		Impact Area		Percent of Wetland Area					
Number		Hectares	Acres 🔪	Hectares	Acres	Impacted					
801A	PFO	0.02	0.06	0.02	0.06	100.0%					
801B	PEM	0.02	0.05	0.02	0.05	100.0%					
806	PEM	0.21	0.52	0.16	0.39	75.0%					
810	PEM	1.09	2.70	. 0.26	0.65	24.1%					
815	PEM	5.69	14.05	0.83	2.04	14.5%					
818	PEM	0.02	0.04	0.02	0.04	100.0%					
	POWZ	0.02	0.04	0.02	0.04	100.0%					
<u> </u>	POWZ	0.04	0.10	0.04	0.10	100.0%					

TABLE A-3E DIRECT WETLAND IMPACTS CACAPON RIVER WATERSHED OPTION AREA BAKER COMPARISONS

Line B									
Wetland Site Number	Class	Total Size		Impact Area		Percent of Wetland Area			
		Hectares	Acres	Hectares	Acres	Impacted			
501	PEM	0.00	0.01	0.00	0.00	0.0%			
530	PEM	0.55	1.37	0.12	0.30	21.9%			
	POWZ	0.03	0.08	0.03	0.07	87.5%			
	POWZ	0.08	0.20	0.06	0.14	70.0%			

	Line A									
Wetland Site	Class	Total Size		Impact Area		Percent of Wetland Area				
Number	[Hectares	Acres	Hectares	Acres	Impacted				
	POWZ	0.03	0.08	0.03	0.07	87.5%				

TABLE A-3F DIRECT WETLAND IMPACTS SHENANDOAH RIVER WATERSHED OPTION AREA DUCK RUN COMPARISONS

Line D1									
Wetland Site	Class		otal ize	Im A	Percent of Wetland Area				
Number	1 I	Hectares	Acres	Hectares	Acres	Impacted			
203B	PSS	0.07	0.17	0.05	0.12	70.6%			
	POWZ	0.02	0.05	0.01	0.02	40.0%			
	POWZ	0.10	0.24	0.09	0.22	91.7%			

Line D2									
Wetland Class Site			otal ize		pact rea	Percent of Wetland Area			
Number		Hectares	Acres	Hectares	Acres	Impacted			
205	PFO	0.13	0.32	0.11	0.28	87.5%			

			Line A	Δ		
Wetland Site	Class		tal ze	Im A	Percent of Wetland Area	
Number		Hectares	Acres	Hectares	Acres	Impacted
205	PFO	0.13	0.32	0.11	0.28	87.5%
	POWZ	0.02	0.05	0.01	0.02	40.0%
· - ·	POWZ	0.10	0,24	0.09	0.22	91.7%

TABLE A-3G DIRECT WETLAND IMPACTS SHENANDOAH RIVER WATERSHED OPTION AREA LEBANON CHURCH COMPARISONS

			Line I	L _		
Wetland Site Number	Class	Tot Siz		Imp Ar	Percent of Wetland Area	
		Hectares	Acres	Hectares	Acres	Impacted
I-66-1	PEM	0.27	0.66	0.18	0.45	68.2%
I-66-3B	PEM	0.03	0.07	0.00	0.01	14.3%
I-66-4	PEM	0.46	1.14	0.14	0.35	30.7%
	POWZ	0.01	0.03	0.01	0.03	100.0%
	POWZ	0.02	0.04	0.01	0.03	75.0%

			Line A	<u> </u>		
Wetland Site	Class		otal ize	Im A	Percent of Wetland Area	
Number		Hectares	Acres	Hectares	Acres	Impacted
101	PEM	0.07	0.17	0.01	0.03	17.6%
103	PEM	0.24	0.60	0.06	0.14	23.3%
104	PEM	0.04	0.11	0.04	0.10	90.9%

TABLE A-4 WATERSHED WETLAND ESTIMATION TABLE ALL PALUSTRINE WETLANDS LINE A

Watershed	NWI Wetlands		Delineated Wetlands		Correction Factor		I Wetlands Vatershed	Predicted Area of Wetlands in Watershed		
	Hectares	Acres	Hectares	Acres		Hectares	Acres	Hectares	Acres	
Shenandoah River	0.50	1.24	1.58	3.89	3.14	82.94	204.78	260.62	643.51	
Cacapon River	0.60	1.48	3.57	8.82	5.96	58.65	144.82	349.39	862.68	
South Branch Potomac River	0.49	1.21	2.19	5.41	4.46	75.95	187.54	338.44	835.65	
North Branch Potomac River	3.05	7.54	11.85	29.25	3.88	496.92	1226.96	1927.27	4758.68	
Cheat River	13.57	33.52	35.26	87.06	2.60	3504.23	8652.43	9102.99	22476.53	
Tygart Valley River	7.53	18,58	9.17	22,64	1.22	127.60	315.06	155.44	383.81	
TOTAL	25.75	63.58	63.62	157.08		4346.29	10731.59	12134.15	29960.86	

TABLE A-5 WETLAND IMPACTS AS PERCENT TOTAL IN WATERSHED ALL PALUSTRINE WETLANDS

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	Wat	tershed			Area acted		ted Wetlands tershed	Wetland Impacts as % Total
				Hectares	Acres	Hectares	Acres	in Watershed
Shenandoa	nh River		Line A	0.33	0.82	260.62	643.51	0.13%
			Line IRA	0.46	1.14			0.18%
	Option Area	Lebanon Church	L	0.35	0.87			0.14%
	Comparisons		Á	0.11	0.27			0.04%
		Duck Run	D1	0.15	0.36			0.06%
			D2	0.11	0.28			0.04%
			Á	0.21	0.52			0.08%
Cacapon R	liver		Line A	0.97	2.39	349.39	862.68	0.28%
			Line IRA	0.08	0.19			0.02%
	Option Area	Hanging Rock	R	0.00	0.00			0.00%
	Comparisons		Ā	0.00	0.00			0.00%
		Baker	В	0.21	0.51			0.06%
			A	0.03	0.07			0.01%
South Brai	nch Potomac Rive	er	Line A	0.80	1.98	338.44	835.65	0.24%
			Line IRA	0.56	. 1.39			0.17%
North Brai	nch Potomac Rive	er	Line A	3.38	8.35	1,927.27	4758.68	0.18%
			Line IRA	1.68	4.15			0.09%
	Option Area	Forman	F	1.47	3.62			0.08%
	Comparisons		Α	1.36	3.37			0.07%
		Patterson Creek	P	1.04	2.56			0.05%
			Ā	0.66	1.62			0.03%
Cheat Rive	er		Line A	7.77	19.19	9,102.99	22476.53	0.09%
			Line IRA	4.88	12.06			0.05%
	Option Area	Shavers Fork	S	0.02	0.04			0.00%
	Comparisons		Α	0.03	0.08			0.00%
Tygart Val	lley River		Line A	2.00	4.95	155.44	383.81	1.29%
			Line IRA	1.02	2.53			0.66%
	Option Area	Interchange	I	0.05	0.13			0.03%
	Comparisons		A	0.11	0.27			0.07%
TOTAL			LINE A	15.26	37.68	12,134.15	29960.86	0.13%
			LINE IRA	8.69	21.46	12,134.15	29960.86	0.07%

TABLE A-6 INDIRECT WETLAND IMPACTS WETLANDS WITHIN 30.5 METERS (100 FEET) OF CONSTRUCTION LIMITS

	Watershed			PFC)		PSS		Γ	PEN	I I		POWZ/	PUB		TOTAL	
			#	ha.	ac.	#	ha.	ac.	#	ha.	ac.	#	ha.	ac.	#	ha.	ac.
Shenandoah Rive	r	Line A	3	0.09	0.23	2	0.03	0.07	4	0.18	0.45	4	0.13	0.31	13	0.43	1.06
		Line IRA	8	0.30	0.74	7	0.62	1.52	12	0.67	1.66	8	0.09	0.22	35	1.68	4.14
Option Area	Lebanon Church	Ĺ							4	0.25	0.61	3	0.03	0.07	7	0.28	0.68
Comparisons		Ā							3	0.10	0.25	2	0.11	0.26	5	0.21	0.51
	Duck Run	D1	1	0.01	0.02	5	0.19	0.48	2	0.03	0.07	3	0.05	0.12	11	0.28	0.69
		D2	2	0.05	0.13	2	0.04	0.11							4	0.10	0.24
		Α	2	0.05	0.13	2	0.03	0.07				2	0.02	0.05	6	0.10	0.25
Cacapon River		Line A	1	0.09	0.23	2	0.19	0.46	14	0.73	1.81	6	0.11	0.26	23	1.12	2.76
		Line IRA							8	0.33	0.82	4	0.27	0.66	12	0.60	1.48
Option Area	Hanging Rock	R							2	0.09	0.23	1	1		3	0.09	0.23
Comparisons		A							2	0.11	0.26	1			3	0.11	0.26
	Baker	В							2	0.10	0.25	2	0.02	0.06	4	0.13	0.31
		Ā							1	0.00	0.01	1			2	0.00	0.01
South Branch Pot	tomac River	Line A				1	0.07	0.18	10	0.51	1.25	7	0.19	0.47	18	0.77	1.90
		Line IRA							9	0.95	2.35	4	0.19	0.46	13	1.14	2.81
North Branch Por	tomac River	Line A	4	0:26	0.65	1	0.09	0.22	24	2.51	6.19	6	0.25	0.61	35	3.11	7.67
		Line IRA	2	0.73	1.81				12	2.15	5.32	4	0.11	0,27	18	3.00	7.40
Option Area	Forman	F							5	1.12	2.76	2	0.01	0.02	7	1.13	2.78
Comparisons		A	1	0.02	0.05				3	1.00	2.48	1	0.01	0.02	5	1.03	2.55
	Patterson Creek	P							6	0.76	1.87	1	0.04	0.10	7	0.80	1,97
		Α							6	0.62	1.53	2	0.02	0.05	8	0.64	1.58
Cheat River		Line A	10	0.65	1.61	25	2.81	6.95	69	6.56	16.19	22	0.84	2.07	126	10.86	26.82
		Line IRA	3	1.88	4.64	7	1.24	3.05	25	5.51	13.60	3	0.51	1.25	38	9.13	22.54
Option Area	Shavers Fork	S							1	0.03	0.08				1	0.03	0.08
Comparisons		Ā				1			1	0.02	0.05				2	0.02	0.05
Tygart Valley Riv	ver	Line A	1	0.12	0.29	3	0.04	0.10	19	2.33	5.76	1	0.02	0.04	24	2.51	6.19
		Line IRA	2	0.26	0.64	2	0.15	0.36	20	2.54	6.28	4	0.10	0.24	28	3.05	7.52
Option Area	Interchange	Ι							5	0.56	1.39				5	0.56	1.39
Comparisons	_	Á							6	0.68	1.69				6	0.68	1.69
TOTAL		Line A	19	1.22	3.01	34	3.23	7.98	140	12.82	31.65	46	1.52	3.76	239	18.79	46.40
L		Line IRA	15	3.17	7.83	16	2.00	4,93	86	12.16	30,03	27	1.26	3.10	144	18.59	45.89

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TABLE A-7 INDIRECT WETLAND IMPACTS WETLAND IMPACTS GREATER THAN 80% COUNTED AS 100%

		Line A		Line IRA			
WATERSHED	#	Hectares	Acres	#	Hectares	Acres	
Tygart Valley River	17	2.00	4.95	17	1.02	2.53	
Cheat River	91	7.77	19.19	27	4.88	12.06	
North Branch Potomac River	23	3.38	8.35	10	1.68	4.15	
South Branch Potomac River	10	0.80	1.98	8	0.56	1.39	
Cacapon River	17	0.97	2,39	1	0.08	0.19	
Shenandoah River	7	0.33	0.82	17	0.46	1.14	
TOTAL	165	15.26	.37.68	80	8.69	21.46	

APPENDIX B WET SUMMARY PROBABILITY RATING FORMS

Improved Roadway Alternative WET Summary Probability Rating Forms Original and Modified

Summary of Evaluation Results for "103"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	L	M	\mathbf{L}
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	L	L	\mathbf{L}
Nutrient Removal/Transformat	ion L	L	\mathbf{L}
Production Export	*	Μ	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	М	*
Aquatic Diversity/Abundance	\mathbf{L}	М	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated. Summary of Evaluation Results for "104"

, S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	\mathbf{L}	M	\mathbf{L}
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	L	L	\mathbf{L}
Nutrient Removal/Transforma	tion L	L	$\mathbf L$
Production Export	*	M	*
Wildlife Diversity/Abundanc	e L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	м	*
Wildlife D/A Wintering	*	M	*
Wildlife D/A Wintering	Т.	M	*
Aquatic Diversity/Abundance	T T	*	*
Uniqueness/Heritage	Ц Т	+	*
Recreation	<u>ل</u> ا	Ŷ	

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated.

Summary of Evaluation Results for "203"

S	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	M	M	*
Floodflow Alteration	M	М	М
Sediment Stabilization	\mathbf{L}	Н	*
Sediment/Toxicant Retention	H	Н	M
Nutrient Removal/Transforma	tion M	L	М
Production Export	*	М	*
Wildlife Diversity/Abundanc	e L	*	*
Wildlife D/A Breeding	*	Н	*
Wildlife D/A Migration	*	H	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	Ľ	*	*
Recreation	L	*	*

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated.

Summary of Evaluation Results for "203MODI"

Soc Signii	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L H M * L * * L L L	L M H H L M * H H L M *	* * M * M * * * * * * * * *

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated. ******************

Summary of Evaluation Results for "207"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	M	\mathbf{L}
Sediment Stabilization	\mathbf{L}	М	*
Sediment/Toxicant Retention	Н	L	${f L}$
Nutrient Removal/Transformation	M	\mathbf{L}	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	\mathbf{L}	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated.

Summary of Evaluation Results for "211"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	\mathbf{L}	*
Floodflow Alteration	\mathbf{L}	M	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	\mathbf{L}
Nutrient Removal/Transformation	n L	L	\mathbf{L}
Production Export	*	М	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	М	*
Uniqueness/Heritage	L	*	*
Recreation	\mathbf{L}	*	*

Summary of Evaluation Results for "212"

Social
Significance

nce	Effectiveness	Opportunity

Ground Water Recharge	м	T.	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	М	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	н	L	L
Nutrient Removal/Transformation	M	L	L
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	\mathbf{L}	*	*

Summary of Evaluation Results for "215"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation	M M L H n M	L L M L L	* * L L L
Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	* * * L L L	M * L M M M * *	* * * * * *

Summary of Evaluation Results for "216"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	\mathbf{L}	*
Floodflow Alteration	M	M	L
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	H	L	\mathbf{L}
Nutrient Removal/Transformation	М	\mathbf{L}	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	м	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	т.	M	*
Uniqueness/Heritage	ī.	*	*
Recreation	Ĺ	*	*

Summary of Evaluation Results for "218"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	М	L
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	H	L	L
Nutrient Removal/Transformatio	n M	\mathbf{L}	\mathbf{L}
Production Export	*	Μ	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	Μ	*
Wildlife D/A Wintering	*	М	*
Aquatic Diversity/Abundance	\mathbf{L}	М	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "219"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	М	\mathbf{L}
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	H	\mathbf{L}	\mathbf{L}
Nutrient Removal/Transformation	n M	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	L	*	*

Summary of Evaluation Results for "220"

Sign:	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	M	M
Sediment Stabilization	L	Н	*
Sediment/Toxicant Retention	H	L	H
Nutrient Removal/Transformation	n M	Н	M
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	н	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	H	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "220MODI"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration	M M L H M * L	L L M H L H M * L H	* * M * H M * * *
Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	* H L L	L M * *	* *

Summary of Evaluation Results for "1006"

S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	tion M * e L * *	U M L L H M L L L *	* * M * M * H M * * * * * * * *

Summary of Evaluation Results for "1006MODI"

	Social mificance	Effectiveness	Opportunity
Ground Water Recharge	М	U	*
Ground Water Discharge	M	M	*
Floodflow Alteration	M	M	M
Sediment Stabilization	\mathbf{L}	L	*
Sediment/Toxicant Retention	M	L	H
Nutrient Removal/Transformati	on M	Н	M
Production Export	*	Μ	*
Wildlife Diversity/Abundance	$\mathbf L$	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	\mathbf{L}	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	\mathbf{L}	L	*
Uniqueness/Heritage	Ľ	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1101"

. Si	Social Ignificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance	L L L L L tion L	L L M H L M *	* + H * M M * *
Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	* * L L L	L L L *	* * * *

Summary of Evaluation Results for "1101MODI"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	M	H
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	н	M
Nutrient Removal/Transformation	M	L	M
Production Export	*	М	*
Wildlife Diversity/Abundance	т.	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	<u>т</u> .	*
Wildlife D/A Migracion	*	— T.	*
Wildlife D/A Wintering	T		*
Aquatic Diversity/Abundance	Li T	*	*
Uniqueness/Heritage	ц -	*	
Recreation	Ъ	*	~

Summary of Evaluation Results for "1280"

S	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	\mathbf{L}	н	*
Floodflow Alteration	L	Н	M
Sediment Stabilization	L	L	*
Sediment/Toxicant Retention	n L	н	${f L}$
Nutrient Removal/Transforma		н	\mathbf{L}
Production Export	*	L	*
Wildlife Diversity/Abundance	ce H	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	s T.	L	*
Uniqueness/Heritage	н Н	*	*
Recreation	м М	*	*
Kecreation	11		

Summary of Evaluation Results for "1280MODI"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	H	*
Floodflow Alteration	L	H	M
Sediment Stabilization	L	L	*
Sediment/Toxicant Retention	L	H	L
Nutrient Removal/Transformat	ion L	H	L
Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding	* + +	L * L L	* * *
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	L	L	*
Aquatic Diversity/Abundance	H	L	*
Uniqueness/Heritage Recreation	n M	*	*

Summary of Evaluation Results for "1604"

So Sign:	ocial Lficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering	L L L L L	L M M L L M * L M M	* * L * L L * * * * *
Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L	M * *	*

Summary of Evaluation Results for "1605"

S Sign	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	L	L .	*
Ground Water Discharge	L	\mathbf{L}	*
Floodflow Alteration	L	M	L
Sediment Stabilization	L	М	*
Sediment/Toxicant Retention	L	L	L
Nutrient Removal/Transformatio	n L	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1621"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L L L * L * L L L L	L M M L L M * L M M * *	* * L * L * * * * * * * *

Summary of Evaluation Results for "1623"

_ S	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	\mathbf{L}	*
Floodflow Alteration	L	М	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	n L	\mathbf{L}	L
Nutrient Removal/Transforma		\mathbf{L}	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	e L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	e L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1624"

Sic	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	М	L	*
Floodflow Alteration	M	M	Н
Sediment Stabilization	L	н	*
Sediment/Toxicant Retention	M	L	H
Nutrient Removal/Transformat:	ion M	L	\mathbf{L}
Production Export	*	М	*
Wildlife Diversity/Abundance	т.	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Dieeding	*	T.	*
Wildlife D/A Migration	*		*
Wildlife D/A Wintering	т	T.	*
Aquatic Diversity/Abundance	т т	+	*
Uniqueness/Heritage	ىل -	т ~	*
Recreation	ىل	*	~

Summary of Evaluation Results for "1624MODI"

Soc Signi:	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance	M M L M M M * L	L L M H L L L M *	* * H * H L *
Wildlife D/A Breeding Wildlife D/A Migration	*	L L	* * *
Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	* L L	L L *	* *
Recreation	Ц		

Summary of Evaluation Results for "1655"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance	*	L L M L L M	* * L * L L *
Wildlife D/A Breeding	*	L M	*
Wildlife D/A Migration Wildlife D/A Wintering	* * T.	M M M	*
Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L	*	*

Summary of Evaluation Results for "2101"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	M	\mathbf{L}	*
Floodflow Alteration	н	М	L
Sediment Stabilization	H	М	*
Sediment/Toxicant Retention	М	\mathbf{L}	L
Nutrient Removal/Transformation	M	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	М	*
Aquatic Diversity/Abundance	\mathbf{L}	M	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	L	*	*

Summary of Evaluation Results for "2102"

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. :	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	М	М	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	n M	\mathbf{L}	` L
Nutrient Removal/Transforma		\mathbf{L}	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	ce L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	М	*
Aquatic Diversity/Abundance	e L	M	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	\mathbf{L}	*	*

Summary of Evaluation Results for "2103"

	Social		
S	ignificance	Effectiveness	Opportunity
Cround Water Dechever	м	-	.
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	М	M	\mathbf{L}
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	M	L	\mathbf{L}
Nutrient Removal/Transforma	tion M	L	L
Production Export	*	М	*
Wildlife Diversity/Abundanc	e L	*	*
Wildlife D/A Breeding	*	\mathbf{L}	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	М	*
Uniqueness/Heritage	L	*	*
Recreation	${f L}$	*	*

Summary of Evaluation Results for "2250"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	М	\mathbf{L}	*
Floodflow Alteration	H	M	\mathbf{L}
Sediment Stabilization	L	М	*
Sediment/Toxicant Retention	н	L	\mathbf{L}
Nutrient Removal/Transformation	M	\mathbf{L}	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	\mathbf{L}	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	н	*	*
Recreation	L	*	*

Summary of Evaluation Results for "2602"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	M	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	$\mathbf L$
Nutrient Removal/Transformation	Μ	L	\mathbf{L}
Production Export	*	М	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	Т.	M	*
	T.	*	*
Uniqueness/Heritage	<u>ب</u>		*
Recreation	ىلە	*	~

Summary of Evaluation Results for "2604"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L M * L * L L L L	L M M L L M * L M M * *	* * L * L * * * * * * * * * * *

Summary of Evaluation Results for "2605"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	${f L}$	*
Floodflow Alteration	M	M	\mathbf{L}
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	Μ	L	\mathbf{L}
Nutrient Removal/Transformatio	n M	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	М	*
Uniqueness/Heritage	Ľ	*	*
Recreation	$\mathbf{\tilde{L}}$	*	*

Summary of Evaluation Results for "2701"

Sc Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering	M M L H	L M H L M M M * M L L L	* * M * H M * * * *
Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L	M * *	* * *

Summary of Evaluation Results for "2701MODI"

Soc Signif	ial icance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L H M * L * L L L	L M H L M * L L L L * *	* * M * H M * * * * * * * *

Summary of Evaluation Results for "2702"

Soc Signit	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	M M L M * L * L * L H	L H M L L M * L M L M *	* M * M M * * * * * *
Recreation	L	*	*

Summary of Evaluation Results for "2702MODI"

Soc. Signif	ial icance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L M M * L * * * L H L	L H M L L M L M L M *	* * M * M * * * * * * *

Summary of Evaluation Results for "2801"

Social Significar	nce Effectiveness	Opportunity
Ground Water Recharge M Ground Water Discharge M Floodflow Alteration H Sediment Stabilization L Sediment/Toxicant Retention M Nutrient Removal/Transformation M Production Export * Wildlife Diversity/Abundance L Wildlife D/A Breeding * Wildlife D/A Migration * Wildlife D/A Wintering * Aquatic Diversity/Abundance L Uniqueness/Heritage L Recreation L	U M M H H H M * M L L L *	* * M * H H * * * * * * *

Summary of Evaluation Results for "2801MODI"

S Sign	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatic Production Export	M M H L M	U M M H H H M	* * M * H H H
Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L * * L L L	* L L L *	* * * * * *

Summary of Evaluation Results for "2802"

Soci Signifi	al cance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L M L M M * L * * L L L	L L M L L M * L M M M * *	* * L * L * * * * * * *

Summary of Evaluation Results for "2803"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	Μ	M	*
Floodflow Alteration	H	H	M
Sediment Stabilization	L	L	*
Sediment/Toxicant Retention	M	L	H
Nutrient Removal/Transformation	M	L	M
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	Ĺ	*
Aquatic Diversity/Abundance	L	М	*
Uniqueness/Heritage	I.	*	*
Recreation	Ľ	*	*

Summary of Evaluation Results for "2803MODI"

S Sign	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	M	- L	*
Ground Water Discharge	M	M	
Floodflow Alteration	H	H	M
Sediment Stabilization	L	L	*
Sediment/Toxicant Retention	M	L	H
Nutrient Removal/Transformatio	n M	L	M
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	
Wildlife D/A Breeding Wildlife D/A Migration	*	L L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	M	
Uniqueness/Heritage Recreation	L L	*	* *

Summary of Evaluation Results for "2804"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	H	M	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	М	${f L}$	L
Nutrient Removal/Transformatic	n M	L	${\tt L}$
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	Μ	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	Ŀ	*	*

Summary of Evaluation Results for "2901"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	L	*
Floodflow Alteration	\mathbf{L}	M	Ľ
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	\mathbf{L}	L	${f L}$
Nutrient Removal/Transformat	ion M	L	\mathbf{L}
Production Export	*	Μ	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	Н	M	*
Uniqueness/Heritage	H	*	*
Recreation	т.	*	*
Recreation	L.		

Summary of Evaluation Results for "3001"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	M	H	*
Floodflow Alteration	L	M	M
Sediment Stabilization	L	М	*
Sediment/Toxicant Retention	М	M	Н
Nutrient Removal/Transformation	n M	L	M
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	M	*
Wildlife D/A Migration	*	н	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	L	*
Uniqueness/Heritage	L	*	*
Recreation	M	*	*

Summary of Evaluation Results for "3001MODI"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M L L M M * L * * L L M	U H M M L M * M H L L L *	* * M * H M * * * * * * *

Summary of Evaluation Results for "3003"

	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	${f L}$	L	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	L	M	L
Sediment Stabilization	L	М	*
Sediment/Toxicant Retention	M	L	L
Nutrient Removal/Transformati	on L	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	\mathbf{L}	*	*

Summary of Evaluation Results for "3004"

Sig	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat: Production Export Wildlife Diversity/Abundance	M M L M ion M *	L L M M L L L M *	* * L * L L L *
Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	* * L L L	L M M * *	* * * * *

Summary of Evaluation Results for "3303"

	ocial lficance	Effectiveness	Opportunity
Ground Water Recharge	\mathbf{L}	L	*
Ground Water Discharge	L	\mathbf{L}	*
Floodflow Alteration	\mathbf{L}	M	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	\mathbf{L}
Nutrient Removal/Transformation	n M	L	L
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	\mathbf{L}	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	\mathbf{L}	M	*
Uniqueness/Heritage	${f L}$	*	*
Recreation	L	*	*

Summary of Evaluation Results for "3304"

	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	M	*
Floodflow Alteration	M	M	M
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	H	L	H
Nutrient Removal/Transformation	on H	L	H
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	\mathbf{L}	*
Wildlife D/A Migration	*	Н	*
Wildlife D/A Migracion	*	т.	*
Wildlife D/A Wintering	Ť		*
Aquatic Diversity/Abundance	т. Т.	*	*
Uniqueness/Heritage	<u>با</u> ۲	~ +	•
Recreation	M	*	~

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated.

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Summary of Evaluation Results for "3304MODI"

S:	Social ignificance	Effectiveness	Opportunity
S: Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration	M M L H tion H *	Effectiveness M M L L L M * L H	opportunity * M * H H H * *
Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	* L L M	L L * *	* * * *

Summary of Evaluation Results for "3305"

Soc Signif	ial icance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export	M M M L H H H	L H M H L M	* * M * H M *
Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L * * L L M	L M L M *	* * * * *

Summary of Evaluation Results for "3305MODI"

Soc Signif	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	М	Н	*
Floodflow Alteration	М	M	M
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	Н	H	H
Nutrient Removal/Transformation	н	\mathbf{L}	M
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	T.	M	*
Uniqueness/Heritage		*	*
Recreation	m	*	*

Summary of Evaluation Results for "3306"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering	M M L H	Effectiveness L M M L L L M * L M M M M M	opportunity * L * L L * * * * *
Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L	*	*

Summary of Evaluation Results for "3307"

Soc Signif	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L M	*
Ground Water Discharge Floodflow Alteration	M M	M	M
Sediment Stabilization Sediment/Toxicant Retention	L H	H L	* H
Nutrient Removal/Transformation Production Export	H *	L M	M *
Wildlife Diversity/Abundance	L +	* M	*
Wildlife D/A Breeding Wildlife D/A Migration	*	H	*
Wildlife D/A Wintering Aquatic Diversity/Abundance	* L	L M	*
Uniqueness/Heritage Recreation	L M	*	*

Summary of Evaluation Results for "3307MODI"

Sc Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	M	*
Floodflow Alteration	M	M	M
Sediment Stabilization	L	H	*
Sediment/Toxicant Retention	H	L	H
Nutrient Removal/Transformation	h H	L	M
Production Export	*	M	* *
Wildlife Diversity/Abundance	L	*	
Wildlife D/A Breeding	*	T.	
Wildlife D/A Migration Wildlife D/A Wintering	* *	H L M	* *
Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L M	*	*

Summary of Evaluation Results for "3308"

· · · · · · · · · · · · · · · · · · ·	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	м	L	*
Ground Water Discharge	M	н	*
Floodflow Alteration	M	Н	H
Sediment Stabilization	\mathbf{L}	М	*
Sediment/Toxicant Retention	n H	Н	Н
Nutrient Removal/Transforma		Н	М
Production Export	*	L	*
Wildlife Diversity/Abundance	ce L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	e L	L	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	M	*	*

Summary of Evaluation Results for "3308MODI"

Social Significa	Ince Effectiveness	Opportunity
Ground Water Recharge M Ground Water Discharge M Floodflow Alteration M Sediment Stabilization L Sediment/Toxicant Retention H Nutrient Removal/Transformation H Production Export * Wildlife Diversity/Abundance L Wildlife D/A Breeding * Wildlife D/A Migration * Wildlife D/A Wintering * Aquatic Diversity/Abundance L Uniqueness/Heritage L Recreation M	L H M H L L L L L *	* * H * H M * * * * * * * *

Summary of Evaluation Results for "3309"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	Μ	L	*
Floodflow Alteration	M	M	M
Sediment Stabilization	\mathbf{L}	н	*
Sediment/Toxicant Retention	M	М	H
Nutrient Removal/Transformation	M	L	M
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	н	*
Wildlife D/A Migration	*	н	*
Wildlife D/A Wintering	*	н	*
Aquatic Diversity/Abundance	L	L	*
Uniqueness/Heritage	L	*	*
Recreation	M	*	*

Summary of Evaluation Results for "3309MODI"

Sig	Social mificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformati Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L M ton M * L * * L L L M	U L M H L M * H H H L *	* * M * H M * * * * * * * *

Summary of Evaluation Results for "3311"

	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	М	M	*
Floodflow Alteration	\mathbf{L}	M	M
Sediment Stabilization	\mathbf{L}	М	*
Sediment/Toxicant Retention	М	L	M
Nutrient Removal/Transformatic	on M	L	Н
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	н	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	\mathbf{L}	L	*
Uniqueness/Heritage	H	*	*
Recreation	M	*	*

Summary of Evaluation Results for "3311MODI"

Ground Water RechargeMU*Ground Water DischargeMM*Floodflow AlterationLMMSediment StabilizationLM*Sediment/Toxicant RetentionMLMNutrient Removal/TransformationMLHProduction Export*M*Wildlife Diversity/AbundanceL**Wildlife D/A Breeding*L*Wildlife D/A Migration*L*Wildlife D/A Wintering*L*Wildlife D/A Wintering*L*Yentric Diversity/AbundanceL*Yentric Diversity/AbundanceL*Yentric Diversity/AbundanceL*Yentric Diversity/AbundanceL*Yentric Diversity/AbundanceK*Yentric Diversity/AbundanceK*Yentric Diversity/AbundanceK*Yentric Diversity/AbundanceK*Yentric Diversity/AbundanceK*Yentric Diversity/AbundanceKYentric Diversity/AbundanceK <t< th=""><th>Soc Signit</th><th>cial ficance</th><th>Effectiveness</th><th>Opportunity</th></t<>	Soc Signit	cial ficance	Effectiveness	Opportunity
Recreation M * *	Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	M L M M * L * L H	M M L L M	* M H * * * *

Summary of Evaluation Results for "3407"

	Social Significance	Effectiveness	Opportunity
			_
Ground Water Recharge	L	L	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	\mathbf{L}	M	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retentio	n L	L	\mathbf{L}
Nutrient Removal/Transform	ation L	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundan	ce L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundanc	e L	M	*
Uniqueness/Heritage	L	*	*
Recreation	M	*	*

Summary of Evaluation Results for "3408"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	м	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	M	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	\mathbf{L}	\mathbf{L}
Nutrient Removal/Transformation	M	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	Μ	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "3409"

	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	М	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	L
Nutrient Removal/Transformation	on M	\mathbf{L}	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	М	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "3411"

Sig	Social mificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	Н	M	${f L}$
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	M	L	\mathbf{L}
Nutrient Removal/Transformati	on M	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	\mathbf{L}	M	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	L	*	*

Summary of Evaluation Results for "3501"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	L	M	\mathbf{L}
Sediment Stabilization	\mathbf{L}	M	* *
Sediment/Toxicant Retention	M	L	\mathbf{L}
Nutrient Removal/Transformation	M	\mathbf{L}	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "3502"

Sc Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration	M M L L M	L L M L L M * L M	* * L * L L * * *
Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	* L L L	M M * *	* * * *

Summary of Evaluation Results for "3504"

Sig	Social mificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformati Production Export Wildlife Diversity/Abundance	M M L L M	L L M L L M	* * L L * *
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration Wildlife D/A Wintering	*	M M	*
Aquatic Diversity/Abundance Uniqueness/Heritage	L L	M *	*
Recreation	L	*	*

Summary of Evaluation Results for "3505"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	\mathbf{L}	*
Floodflow Alteration	\mathbf{L}	M	M
Sediment Stabilization	\mathbf{L}	М	*
Sediment/Toxicant Retention	Μ	L	\mathbf{L}
Nutrient Removal/Transformation	M	Н	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	M	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "3505MODI"

Sig	Social mificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	${\tt L}$	M	M
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	М	L	$\mathbf L$
Nutrient Removal/Transformati	on M	н	${f L}$
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	т.	M	*
	T.	*	*
Uniqueness/Heritage Recreation	L	*	*

Summary of Evaluation Results for "3506"

Sc Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M H L M * L * L L L	U M H L M M L L L *	* * M * M * H M * * * * * * * *

Summary of Evaluation Results for "3506MODI"

So Sign:	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export	M M H L M	U M M H L M M M	* * M * H M *
Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L	L L L *	* * * * *

Summary of Evaluation Results for "3507"

Sign.	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatio Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M H L M M * L L L L	L M M L L M * L M M * * L M M * *	* * L * L * * * * * * * * *
			han and

Summary of Evaluation Results for "3508"

Sic	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	*	L M M L L M * L M M M * *	* * L * L * L * * * * * * * *

Summary of Evaluation Results for "3509"

Sig	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat: Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	*	L M M L L M * L M M * *	* * L * L * * * * * * * * * *

Summary of Evaluation Results for "3510"

, Si	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	\mathbf{L}	*
Floodflow Alteration	L	M	L
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	$\mathbf L$	\mathbf{L}	\mathbf{L}
Nutrient Removal/Transformat	ion L	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	e L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	\mathbf{L}	Μ	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	L	*	*

Summary of Evaluation Results for "3511"

Sign.	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering	L L L L	L M M L L M * L M M	* * L * L L * * * * *
Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L	M * *	*

Summary of Evaluation Results for "3512"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	\mathbf{L}	*
Floodflow Alteration	L	M	\mathbf{L}
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	\mathbf{L}	${f L}$	L
Nutrient Removal/Transformatio	n L	\mathbf{L}	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	М	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "3513"

Sig	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	М	L	*
Floodflow Alteration	\mathbf{L}	н	M
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	М	н	M
Nutrient Removal/Transformati	on M	Н	Н
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	Μ	*
Wildlife D/A Migration	*	\mathbf{L}	*
Wildlife D/A Wintering	*	\mathbf{L}	*
Aquatic Diversity/Abundance	T.	M	*
Uniqueness/Heritage	т .	*	*
Recreation	Ĩ	*	*

Summary of Evaluation Results for "3513MODI"

Social Significance	Effectiveness	Opportunity
Ground Water Recharge M Ground Water Discharge M Floodflow Alteration L Sediment Stabilization L Sediment/Toxicant Retention M Nutrient Removal/Transformation M Production Export * Wildlife Diversity/Abundance L Wildlife D/A Breeding * Wildlife D/A Migration * Wildlife D/A Wintering * Aquatic Diversity/Abundance L Uniqueness/Heritage L Recreation L	U L H M H H M * L L L M *	* * M * M H * * * * * * *

Summary of Evaluation Results for "3514"

S Sign	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatio Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration	L L M L L	L M M L L M * L M	* * L * L L * * * *
Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	* L L L	M M * *	* * *

Summary of Evaluation Results for "3516"

Soc Signi:	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	L	*
Floodflow Alteration	M	M	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	\mathbf{L}	L	\mathbf{L}
Nutrient Removal/Transformation	\mathbf{L}	\mathbf{L}	\mathbf{L}
Production Export	*	М	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	М	*
Aquatic Diversity/Abundance	L	М	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "3602"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	L	M	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	L
Nutrient Removal/Transformation	M	L	L
Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding	* L *	M * L M	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	L	M	
Aquatic Diversity/Abundance	T	M	
Uniqueness/Heritage Recreation	M	*	*

Summary of Evaluation Results for "3609"

Soc Signif		Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	M	L	*
Floodflow Alteration	H	M	Μ
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	Μ	\mathbf{L}	M
Nutrient Removal/Transformation	Μ	L	H
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	Н	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "3609MODI"

Social Significance	e Effectiveness	Opportunity
Ground Water Recharge M Ground Water Discharge M Floodflow Alteration H Sediment Stabilization L Sediment/Toxicant Retention M Nutrient Removal/Transformation M Production Export * Wildlife Diversity/Abundance L Wildlife D/A Breeding * Wildlife D/A Migration * Wildlife D/A Wintering * Aquatic Diversity/Abundance L Uniqueness/Heritage L Recreation L	U L M L L M * L H *	* * M * M * M H * * * * * * * *

Summary of Evaluation Results for "3610"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	М	U	*
Ground Water Discharge	M	\mathbf{L}	*
Floodflow Alteration	H	M	M
Sediment Stabilization	L	· M	*
Sediment/Toxicant Retention	M	\mathbf{L}	M
Nutrient Removal/Transformation	Μ	\mathbf{L}	M
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	\mathbf{L}	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Line A

WET Summary Probability Rating Forms Original and Modified

Summary of Evaluation Results for "101"

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s Sigr	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	м	M	${f L}$
Sediment Stabilization	L	М	*
Sediment/Toxicant Retention	M	L	\mathbf{L}
Nutrient Removal/Transformatic	n M	L	${\tt L}$
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	Μ	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "103"

S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	L	M	L
Sediment Stabilization		M	*
Sediment/Toxicant Retention		L	L
Nutrient Removal/Transforma		L	L
Production Export	*	M	*
Wildlife Diversity/Abundanc		*	*
Wildlife D/A Breeding		L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage Recreation	L L	*	* *

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated.

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Summary of Evaluation Results for "104"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	*	L L M L L M * L M M M * *	* * L * L * * * * * * *

Summary of Evaluation Results for "107"

Ground Water RechargeLL*Ground Water DischargeML*Floodflow AlterationLMLSediment StabilizationLM*Sediment/Toxicant RetentionLLLNutrient Removal/TransformationLLLProduction Export*M*Wildlife Diversity/AbundanceL**Wildlife D/A Breeding*M*Wildlife D/A Migration*M*Wildlife D/A Wintering*M*Aquatic Diversity/AbundanceL**Uniqueness/HeritageL**RecreationL**	s Sign	ocial ificance	Effectiveness	Opportunity
	Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatic Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	L L L	M L L M M M M * *	L * L * * * * * * * * * * * * *

Summary of Evaluation Results for "203"

Sig	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	M	М	*
Floodflow Alteration	M	М	M
Sediment Stabilization	L	Н	*
Sediment/Toxicant Retention	H	Н	M
Nutrient Removal/Transformat:	ion M	L	· M
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	H	*
Wildlife D/A Migration	• 🛨	Н	*
Wildlife D/A Wintering	*	\mathbf{L}	*
Aquatic Diversity/Abundance	L	М	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*
	۲ •		

Summary of Evaluation Results for "203MODP"

— —	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	М	*
Floodflow Alteration	М	М	М
Sediment Stabilization	L	Н	*
Sediment/Toxicant Retention	H	Н	М
Nutrient Removal/Transformation	М	L	M
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	Н	*
Wildlife D/A Migration	*	H	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	$\mathbf{\bar{L}}^{-}$	*	*
Recreation	L	*	*

Summary of Evaluation Results for "205"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatio Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L H n M * H K L H M	L L M L L M * L M M M * *	* * L * L * * * * * * * * *
Recreation	M	*	*

Summary of Evaluation Results for "301"

S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transforma Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	tion M * * * * *	U L H M H H H L L L * *	* * M * L L * * * * * * * *
			and and

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Summary of Evaluation Results for "303"

Soci Signifi	al .cance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M M M M M X X X X X L L L L	U L H L L L L L L *	* * M * L H * * * * * *

Summary of Evaluation Results for "303MOD"

So Signi	ocial Lficance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	Н	M
Sediment Stabilization	\mathbf{L}	L	*
Sediment/Toxicant Retention	М	L	\mathbf{L}
Nutrient Removal/Transformation	n M	L	Н
Production Export	*	Μ	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	\mathbf{L}	*
Wildlife D/A Migration	*	Ē	*
Wildlife D/A Wintering	*	— T.	*
	T		*
Aquatic Diversity/Abundance	T T	*	*
Uniqueness/Heritage	ц т	-	*
Recreation	ىل	*	~

Summary of Evaluation Results for "304"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	М	U	*
Ground Water Discharge	М	L	*
Floodflow Alteration	М	H	M
Sediment Stabilization	\mathbf{L}	L	*
Sediment/Toxicant Retention	М	L	\mathbf{L}
Nutrient Removal/Transformat	ion M	L	H
Production Export	*	М	*
Wildlife Diversity/Abundance	e L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	\mathbf{L}	*
Uniqueness/Heritage	L	*	*
Recreation	Ĺ	*	*

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated.

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Summary of Evaluation Results for "304MOD"

	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	M	L	*
Floodflow Alteration	М	Н	M
Sediment Stabilization	L	L	*
Sediment/Toxicant Retention	n M	L	\mathbf{L}
Nutrient Removal/Transform		L	H
Production Export	*	м	*
Wildlife Diversity/Abundan	ce L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	<u> </u>	*
Wildlife D/A Wintering	*	L	*
	о Т.	L	*
Aquatic Diversity/Abundance	е <u>п</u>	*	*
Uniqueness/Heritage	ц т	*	*
Recreation	ىل	~	

Summary of Evaluation Results for "305"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	М	M	*
Floodflow Alteration	М	н	M
Sediment Stabilization	L	Μ	*
Sediment/Toxicant Retention	M	н	Н
Nutrient Removal/Transformat	ion M	H	H
Production Export	*	М	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	M	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	τ.	M	*
	T.	*	*
Uniqueness/Heritage	T.	*	*
Recreation			

Summary of Evaluation Results for "305MOD"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	M	M	*
Floodflow Alteration	M	H	M
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	M	Н	Н
Nutrient Removal/Transformation	M	Н	Н
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	$\mathbf L$	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	\mathbf{L}	*
Aquatic Diversity/Abundance	\mathbf{r}	М	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "311"

si	Social Ignificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance	M M M L H tion M *	Effectiveness L M M L L L M * L M M M M	Opportunity * L * L L * * * *
Uniqueness/Heritage Recreation	L L	*	*

Summary of Evaluation Results for "401"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	L	U	*
Ground Water Discharge	L	M	*
Floodflow Alteration	L	H	M
Sediment Stabilization	L	М	*
Sediment/Toxicant Retention	Μ	Н	\mathbf{L}
Nutrient Removal/Transformation	L	M	L
Production Export	*	М	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	\mathbf{L}	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "401MOD"

Sigr	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	L	U	*
Ground Water Discharge	L	M	*
Floodflow Alteration	L	H	M
Sediment Stabilization	L	Н	*
Sediment/Toxicant Retention	M	\mathbf{L}	L
Nutrient Removal/Transformatic	on L	\mathbf{L}	L
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	\mathbf{L}	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	\mathbf{L}	L	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "501"

Sig	Social mificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	\mathbf{L}	\mathbf{L}	*
Floodflow Alteration	M	M	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	\mathbf{L}	\mathbf{L}	\mathbf{L}
Nutrient Removal/Transformati	on L	L	L
Production Export	*	М	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	\mathbf{L}	*
Wildlife D/A Migration	` *	M	*
Wildlife D/A Wintering	*	М	*
Aquatic Diversity/Abundance	\mathbf{L}	M	*
Uniqueness/Heritage	\mathbf{L}	*	* .
Recreation	L	*	*
	L	*	*

Summary of Evaluation Results for "502"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	M	\mathbf{L}	*
Floodflow Alteration	н	М	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	L
Nutrient Removal/Transformation	M	\mathbf{L}	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	\mathbf{L}	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	\mathbf{L}	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "505"

Sign.	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	М	L	*
Floodflow Alteration	H	Μ	L
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	М	L	\mathbf{L}
Nutrient Removal/Transformation	n M	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	Μ	*
Wildlife D/A Wintering	*	Μ	*
Aquatic Diversity/Abundance	\mathbf{L}	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "508"

S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	M	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	М	L	\mathbf{L}
Nutrient Removal/Transformat	tion M	L	$\mathbf L$
Production Export	*	M	*
Wildlife Diversity/Abundance	e L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	Τ.	M	*
Uniqueness/Heritage	T.	*	*
Recreation	L	*	*

Summary of Evaluation Results for "509"

:	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	\mathbf{L}	*
Floodflow Alteration	Н	M	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	n M	L	$\mathbf L$
Nutrient Removal/Transform		L	${f L}$
Production Export	*	M	*
Wildlife Diversity/Abundan	ce L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	Μ	*
Wildlife D/A Wintering	*	Μ	*
Aquatic Diversity/Abundance	e L	M	*
Uniqueness/Heritage	τ,	*	*
Recreation	Ĺ	*	*

Summary of Evaluation Results for "520"

	Social		••••••••••••••••••••••••••••••••••••••
Sid	gnificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	M	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	\mathbf{L}	$\mathbf L$
Nutrient Removal/Transformat	ion M	\mathbf{L}	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	$\mathbf L$	*	*
Wildlife D/A Breeding	*	\mathbf{L}	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	$\mathbf L$	M	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	L	*	*

Summary of Evaluation Results for "506"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	H	М	${f L}$
Sediment Stabilization	\mathbf{L}	М	*
Sediment/Toxicant Retention	M	L	L
Nutrient Removal/Transformation	M	L	L
Production Export	*	М	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "507"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	H	M	$\mathbf L$
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	Μ	\mathbf{L}	\mathbf{L}
Nutrient Removal/Transformation	M	L	L
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	М	*
Aquatic Diversity/Abundance	L	М	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "530"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	Н	M
Sediment Stabilization	L	H	*
Sediment/Toxicant Retention	M	\mathbf{L}	L
Nutrient Removal/Transformation	M	H	M
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
WILLIIE D/A WINCELING	L	L	*
Aquatic Diversity/Abundance	. D T.	*	*
Uniqueness/Heritage	T T	*	*
Recreation	L.	~	

Summary of Evaluation Results for "530MOD"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	M	\mathbf{L}	*
Floodflow Alteration	M	н	M
Sediment Stabilization	\mathbf{L}	H	*
Sediment/Toxicant Retention	M	\mathbf{L}	L
Nutrient Removal/Transformation	M	н	M
Production Export	*	М	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	. L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	° #
Aquatic Diversity/Abundance	L	\mathbf{L}	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "530MODP"

c	Social	Effectiveness	Opportunitu
5.	rginiticance	Filectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	Μ	L	*
Floodflow Alteration	M	H	М
Sediment Stabilization	L	H	*
Sediment/Toxicant Retention	M	L	L
Nutrient Removal/Transformat	tion M	Н	M
Production Export	*	М	*
Wildlife Diversity/Abundance	e L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	\mathbf{L}	Ē	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	L	*	*

Summary of Evaluation Results for "701"

s Sign	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	L	*
Floodflow Alteration	\mathbf{L}	M	L
Sediment Stabilization	$\mathbf L$	M	*
Sediment/Toxicant Retention	${f L}$	L	L
Nutrient Removal/Transformatic	on L	L	\mathbf{L}
Production Export	*	М	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	Τ.	M	*
Uniqueness/Heritage	т.	*	*
Recreation	T.	*	*
Recreation	ىد	~	

Summary of Evaluation Results for "716"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	M	М	*
Floodflow Alteration	M	М	H
Sediment Stabilization	\mathbf{L}	М	*
Sediment/Toxicant Retention	M	L	H
Nutrient Removal/Transformation	n M	M	H
Production Export	*	М	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	М	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	М	*
Uniqueness/Heritage	I.	*	*
Recreation	L	*	*

Summary of Evaluation Results for "716MOD"

	ocial lficance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	M	M	*
Floodflow Alteration	М	M	H
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	H
Nutrient Removal/Transformation	n M	М	H
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	\mathbf{L}	M	*
Uniqueness/Heritage	Ľ	*	*
Recreation	L	*	*

Summary of Evaluation Results for "717"

Sig	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	м	L	*
Ground Water Discharge	М	${f L}$	*
Floodflow Alteration	M	M	${f L}$
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	\mathbf{L}
Nutrient Removal/Transformat:	ion M	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	М	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "720"

8	Social Significance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transforma Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance	L L L n ation t ce t * * * *	L L M M L L L M * L M M M M	* * L * L * * * * * * * *
Uniqueness/Heritage Recreation	L	*	*

Summary of Evaluation Results for "702MOD"

S	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	L	U	*
Ground Water Discharge	\mathbf{L}	M	*
Floodflow Alteration	\mathbf{L}	н	M
Sediment Stabilization	\mathbf{L}	Н	*
Sediment/Toxicant Retention	n L	L	H
Nutrient Removal/Transforma		L	H
Production Export	*	М	*
Wildlife Diversity/Abundance	ce L	*	*
Wildlife D/A Breeding	*	M	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	ь Т.	M	*
Uniqueness/Heritage	ב ב T.	*	*
Recreation	T.	*	*
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Summary of Evaluation Results for "721"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	\mathbf{L}	\mathbf{L}	*
Floodflow Alteration	L	M	$\mathbf L$
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	L	\mathbf{L}	L
Nutrient Removal/Transformation	n L	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	\mathbf{L}	*	*

Summary of Evaluation Results for "722"

s Sigr	Social hificance	Effectiveness	Opportunity
Ground Water Recharge	L	U	*
Ground Water Discharge	\mathbf{L}	М	*
Floodflow Alteration	L	H	M
Sediment Stabilization	\mathbf{L}	H	*
Sediment/Toxicant Retention	\mathbf{L}	H	H
Nutrient Removal/Transformatic	on L	\mathbf{L}	H
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	M	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	\mathbf{L}	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated.

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Summary of Evaluation Results for "722MOD"

S	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	L	U	*
Ground Water Discharge	\mathbf{L}	М	*
Floodflow Alteration	\mathbf{L}	н	M
Sediment Stabilization	$\mathbf{\tilde{L}}$	н	*
Sediment/Toxicant Retention	n L	H	H
Nutrient Removal/Transforma		\mathbf{L}	H
Production Export	*	М	*
Wildlife Diversity/Abundance	ce L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	Ē.	*
Aquatic Diversity/Abundance	ь Т.	M	*
	с <u>д</u> Т.	*	*
Uniqueness/Heritage Recreation	T.	*	*
Kectearton	-		

Summary of Evaluation Results for "801"

S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transforma Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	tion L * * * * *	L L M L L M * L M M M * *	* * L * L * * * * * * *

Summary of Evaluation Results for "805"

S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	L	*
Floodflow Alteration	M	M	L
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	${f L}$	L	${f L}$
Nutrient Removal/Transforma	tion L	L	L
Production Export	*	M	*
Wildlife Diversity/Abundance	e L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "806"

Sig	Social mificance	Effectiveness	Opportunity
Sig Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformati Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration	L L M L L	Effectiveness L M M L L L M * L M	opportunity * L * L L L * * *
Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	* L L L	M M * *	* * * *

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated.

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Summary of Evaluation Results for "807"

S	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	М	н	*
Floodflow Alteration	Н	н	H
Sediment Stabilization	L	Н	*
Sediment/Toxicant Retention	n M	н	M
Nutrient Removal/Transforma		Н	M
Production Export	*	M	*
Wildlife Diversity/Abundance	re L	*	*
Wildlife D/A Breeding	*	М	*
Wildlife D/A Migration	*	L	*
	*	L	*
Wildlife D/A Wintering	Т.	M	*
Aquatic Diversity/Abundance		*	*
Uniqueness/Heritage	ىل -		
Recreation	Ч	*	~

Summary of Evaluation Results for "807MOD"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M H L M M * L * * L L L	L H H H H M * L L M *	* * H * H * * * * * * * * * *
		= LOW "II" $=$ UI	certain, and

Summary of Evaluation Results for "807MODP"

S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	Μ	H	*
Floodflow Alteration	Н	Н	Н
Sediment Stabilization	$\mathbf L$	Н	*
Sediment/Toxicant Retention	M	Н	M
Nutrient Removal/Transformat	tion M	Н	M
Production Export	*	M	*
Wildlife Diversity/Abundance	e L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	\mathbf{L}	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	L	*	*

:

Summary of Evaluation Results for "808"

Social ignificance	Effectiveness	Opportunity
M	L	*
M	M	*
H	M	H
L	M	*
М	Н	\mathbf{L}
tion M	H	\mathbf{L}
*	M	*
e L	*	*
*	M	*
*	L	*
*	L	*
т.	L	*
т.	*	*
L	*	*
	ignificance M M H L M	ignificance Effectiveness M L M M H M L M M H tion M H * M e L *

Summary of Evaluation Results for "808MOD"

Sic	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance	M M L M ion M *	U L H L H H L L	* * H * L L L *
Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation		L L L *	* * * * *

Summary of Evaluation Results for "808MODP"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	M	*
Floodflow Alteration	H	M	H
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	M	н	L
Nutrient Removal/Transformation	M	Н	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	${f L}$	*
Wildlife D/A Wintering	*	\mathbf{L}	*
Aquatic Diversity/Abundance	\mathbf{L}	L	*
Uniqueness/Heritage	${\tt L}$	*	*
Recreation	L	*	*

Summary of Evaluation Results for "809"

Si	Social Ignificance	Effectiveness	Opportunity
Ground Water Recharge	м	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	H	M	\mathbf{L}_{i}
Sediment Stabilization	L	М	*
Sediment/Toxicant Retention	M	L	L
Nutrient Removal/Transformat		L	\mathbf{L}
	*	M	*
Production Export	Т.	*	*
Wildlife Diversity/Abundance	- LI 	т.	*
Wildlife D/A Breeding	· ·	M	*
Wildlife D/A Migration	*		*
Wildlife D/A Wintering	*	M	
Aquatic Diversity/Abundance	L	M	т х
Uniqueness/Heritage	L	*	*
Recreation	\mathbf{L}_{i}	*	*
	• •		

Summary of Evaluation Results for "810"

	Social nificance	Effectiveness	Opportunity
Ground Water Decharge	м	L	*
Ground Water Recharge	M	M	*
Ground Water Discharge	T.	M	М
Floodflow Alteration	ц т	н	*
Sediment Stabilization	M	L	н
Sediment/Toxicant Retention		L	M
Nutrient Removal/Transformati	on M	—	*
Production Export	*	M	
Wildlife Diversity/Abundance	\mathbf{L}	*	т х
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	\mathbf{L}	L	*
Uniqueness/Heritage	L	*	*
Recreation	Ľ	*	*
_		T	antain and

Summary of Evaluation Results for "812"

So Sign	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	М	М	*
Floodflow Alteration	M	Н	M
Sediment Stabilization	L	Н	*
Sediment/Toxicant Retention	М	н	H
Nutrient Removal/Transformation	n M	L	M
Production Export	*	М	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	М	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	T.	L	*
Uniqueness/Heritage	L.	*	*
Recreation	L	*	*
Note: "H" = High, "M" = Moder	ate, "L"	= Low, "U" $=$ Un	certain, and

"*"'s identify conditions where functions and values are not evaluated.

Summary of Evaluation Results for "812MOD"

Sc Signi	ocial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L M M * L * L L L L	U M H H L M L L L *	* * M * H M * * * * * * *

Summary of Evaluation Results for "813"

	cial ficance	Effectiveness	Opportunity
-		TT	+
Ground Water Recharge	M	0	-
Ground Water Discharge	M	<u>با</u>	*
Floodflow Alteration	M	H	M
Sediment Stabilization	L	н	*
Sediment/Toxicant Retention	M	н	M
Nutrient Removal/Transformation	M	H	M
Production Export	*	\mathbf{L}	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	M	*
Wildlife D/A Migration	` *	H	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*
	•		

Summary of Evaluation Results for "813MOD"

s Sigr	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	L	U	*
Ground Water Discharge	L	L	*
Floodflow Alteration	L	н	M
Sediment Stabilization	L	н	*
Sediment/Toxicant Retention	\mathbf{L}	н	M
Nutrient Removal/Transformatic	on L	H	M
Production Export	*	L	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	Н	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	T.	М	*
Uniqueness/Heritage	T.	*	*
Recreation	Ĩ	*	*

Summary of Evaluation Results for "815"

Soc Signi:	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	M M L M	U M M L M M * H L L M *	* * M * M M * * * * * *
Recreation	L	*	*

Summary of Evaluation Results for "815MOD"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L M * L * L L L	U L M L M * L L L L M *	* * M * M * * * * *

Summary of Evaluation Results for "816"

Sig	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	м	U	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	Н	M
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	Н	Н
Nutrient Removal/Transformatic		H	L
	*	т.	*
Production Export	T	*	*
Wildlife Diversity/Abundance	<u>ب</u>	M	*
Wildlife D/A Breeding	·	T.	*
Wildlife D/A Migration	*		*
Wildlife D/A Wintering	*		*
Aquatic Diversity/Abundance	· L	M	*
Uniqueness/Heritage	L	*	<u>.</u>
Recreation	L ,	*	*
Note: "H" = High, "M" = Mode	rate, "L"	= Low, "U" $=$ Ur	certain, and

"*"'s identify conditions where functions and values are not evaluated.

Summary of Evaluation Results for "816MODP"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	М	U	*
Ground Water Discharge	М	М	*
Floodflow Alteration	М	H	M
Sediment Stabilization	L	М	*
Sediment/Toxicant Retention	M	Н	H
Nutrient Removal/Transformation	M	Н	\mathbf{L}
Production Export	*	L	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	\mathbf{L}	*	*

Summary of Evaluation Results for "906A"

ŝ	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	M	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	n H	L	\mathbf{L}
Nutrient Removal/Transforma		L	L
Production Export	*	M	*
Wildlife Diversity/Abundance	e I	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Migration Wildlife D/A Wintering	*	M	*
Wildille D/A wincering	. Т.	M	*
Aquatic Diversity/Abundance	H	*	*
Uniqueness/Heritage	п т		*
Recreation	ىل	~	

Summary of Evaluation Results for "1002"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	*	L M M L L M * L M M M * *	* * L * L * * * * * * * *

Summary of Evaluation Results for "1006"

	Social nificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformati Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering	M M L M	Effectiveness U M L L H M * M L L L L	* * M * H M * * * * *
Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L	*	*

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Summary of Evaluation Results for "1006MOD"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	M	М	*
Floodflow Alteration	M	М	M
Sediment Stabilization	\mathbf{L}	\mathbf{L}	*
Sediment/Toxicant Retention	M	\mathbf{L}	H
Nutrient Removal/Transformation	M	H	M
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	\mathbf{L}	L	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1021"

Sig	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat: Production Export Wildlife Diversity/Abundance	L L L L L	LILCOLIVENDI L M L L L M	* * L * L L *
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering Aquatic Diversity/Abundance		M M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1022"

s Sign	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	M M	L L	*
Ground Water Discharge Floodflow Alteration	M	M	L +
Sediment Stabilization Sediment/Toxicant Retention	L M	M L	Ĺ
Nutrient Removal/Transformatic Production Export	on M *	L M	L *
Wildlife Diversity/Abundance	L *	* T.	*
Wildlife D/A Breeding Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering Aquatic Diversity/Abundance	т L	M M	*
Uniqueness/Heritage Recreation	L L	*	*

Summary of Evaluation Results for "1102"

	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	L	*
Floodflow Alteration	Ľ	M	H
Sediment Stabilization	L	н	*
Sediment/Toxicant Retention	on L	Н	Μ
Nutrient Removal/Transform	nation L	L	M
Production Export	*	М	*
Wildlife Diversity/Abundar	nce H	*	*
Wildlife D/A Breeding	*	М	*
Wildlife D/A Migration	· *	L	*
Wildlife D/A Wintering	*	Ē	*
Aquatic Diversity/Abundance	T.	T.	*
Aquatic Diversity/Abdidance		*	*
Uniqueness/Heritage	Ц М	*	*
Recreation	_ P1		

Summary of Evaluation Results for "1102MOD"

Si	Social Ignificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	\mathbf{L}	M	Н
Sediment Stabilization	L	н	*
Sediment/Toxicant Retention	\mathbf{L}	Н	M
Nutrient Removal/Transformat	ion L	L	M
Production Export	*	M	*
Wildlife Diversity/Abundance	e H	*	*
Wildlife D/A Breeding	*	M	*
Wildlife D/A Migration	*	\mathbf{L}	*
Wildlife D/A Wintering	*	\mathbf{L}	*
Aquatic Diversity/Abundance	L	L	*
Uniqueness/Heritage	Ľ	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1110"

5	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	L	U	*
Ground Water Discharge	\mathbf{L}	M	*
Floodflow Alteration	\mathbf{L}	M	H
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	n L	н	H
Nutrient Removal/Transforma	ation L	L	${ m L}$
Production Export	*	M	*
Wildlife Diversity/Abundance	ce H	*	*
Wildlife D/A Breeding	*	м	*
Wildlife D/A Migration	*	M	*
	*	Т.	*
Wildlife D/A Wintering	ь. Т.		*
Aquatic Diversity/Abundance	= 1) T	*	*
Uniqueness/Heritage	L M	+	*
Recreation	М	~	

Summary of Evaluation Results for "1110MOD"

Sign	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatio Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L M M * H * L L M	U M H M L M L L *	* + H * H L * * * * *

Summary of Evaluation Results for "1112"

Soc Signif	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance	L L L L M L * H * L	L L M M L L L M * L M M M M M	* * L * L * L * * * * * *
Uniqueness/Heritage Recreation	L M	*	*

Summary of Evaluation Results for "1113"

Soci Signifi	cance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L L L + + + * + * L L M	L L M L L M * L M M M * *	* * L * L * * * * * * *

Summary of Evaluation Results for "1114A"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L L L	L M M L L M * L M M * *	* * L * L * * * * * *

Summary of Evaluation Results for "1124"

Sign	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatic Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L L L L L L L M	L M M L L M M M M *	* * L * L * * * * * * * * * *
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Summary of Evaluation Results for "1128"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	L	\mathbf{L}	*
Ground Water Discharge	L	L	*
Floodflow Alteration	\mathbf{L}	M	\mathbf{L}
Sediment Stabilization	н	М	*
Sediment/Toxicant Retention	L	L	\mathbf{L}
Nutrient Removal/Transformation	n L	L	\mathbf{L}
Production Export	*	М	*
Wildlife Diversity/Abundance	н	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
	т.	M	*
Aquatic Diversity/Abundance	H	*	*
Uniqueness/Heritage		*	*
Recreation	M	*	

Summary of Evaluation Results for "1130"

Soc Signi:	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	L	M	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	\mathbf{L}	L	L
Nutrient Removal/Transformation	\mathbf{L}^{-1}	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	н	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	м	· *
Aquatic Diversity/Abundance	T.	M	*
Uniqueness/Heritage	T.	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1131"

S	Social ignificance	Effectiveness	Opportunity
S Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transforma Production Export Wildlife Diversity/Abundanc Wildlife D/A Breeding Wildlife D/A Migration	L L L L tion L *	L M M L L M * L M	opportunity * L * L L * * * *
Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	* L L M	M M *	* * *

Summary of Evaluation Results for "1132"

S	Social Significance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge	L L	L L	*
Floodflow Alteration Sediment Stabilization	L L	M M	L *
Sediment/Toxicant Retention Nutrient Removal/Transforma		L L	L L
Production Export Wildlife Diversity/Abundance	*	M *	*
Wildlife D/A Breeding Wildlife D/A Migration	*	L M	*
Wildlife D/A Wintering Aquatic Diversity/Abundance	* e L	M M	*
Uniqueness/Heritage Recreation	L M	*	*

Summary of Evaluation Results for "1141"

	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	L	\mathbf{L}	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	\mathbf{L}	М	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	М	L	\mathbf{L}
Nutrient Removal/Transformati	on L	L	L
Production Export	*	M	*
Wildlife Diversity/Abundance	H	*	*
Wildlife D/A Breeding	*	\mathbf{L}	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	М	*
Aquatic Diversity/Abundance	\mathbf{L}	M	*
Uniqueness/Heritage	T.	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1151"

	ocial Nificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	L	М	L
Sediment Stabilization	\mathbf{L}	М	*
Sediment/Toxicant Retention	L	L	${\tt L}$
Nutrient Removal/Transformatic	n L	L	\mathbf{L}
Production Export	*	М	*
Wildlife Diversity/Abundance	Н	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	M	*	*

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated.

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Summary of Evaluation Results for "1153"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	L	М	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	L	L	\mathbf{L}
Nutrient Removal/Transformat	ion L	${f L}$	\mathbf{L}
Production Export	*	М	*
Wildlife Diversity/Abundance	e H	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	Μ	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	м	*
Uniqueness/Heritage	L	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1154"

Siç	Social mificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L M ion M * H * L L M	L M H M H H H L L *	* * H * H L * * * * * *

Summary of Evaluation Results for "1202"

5	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge Floodflow Alteration	L L	L M	L
Sediment Stabilization	L	M	* -
Sediment/Toxicant Retention	n M ation L	L T.	L L
Nutrient Removal/Transforma Production Export		M	*
Wildlife Diversity/Abundance	ce H	*	*
Wildlife D/A Breeding Wildlife D/A Migration	*	L M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	e L	M *	*
Uniqueness/Heritage Recreation	M	*	*

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Summary of Evaluation Results for "1204"

S Sign	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatio Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L M H * L L M	L L M L L M * L M M * *	* * L * L * * * * * * *
		T NTTN	certain and

Summary of Evaluation Results for "1205"

Soc Signif	ial icance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L M L * H * * L M	L L M L L M * L M M M * *	* * L * L * * * * * * * *

Summary of Evaluation Results for "1206"

Ś	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat: Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	*	L M M L L M M M M * *	* * L * L * * * * * * * * * *

Summary of Evaluation Results for "1207"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L M ion L *	L M M L L M M M M * *	* * L * L * * * * * * *

Summary of Evaluation Results for "1208"

	Social nificance	Effectiveness	Opportunity
Sig Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformati Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance	L L L M	L L M M L L L M * L M M M M M	opportunity * L * L L * * * *
Uniqueness/Heritage Recreation	L M	*	*

Summary of Evaluation Results for "1211"

Si	Social Ignificance	Effectiveness	Opportunity
Ground Water Recharge	L	U	*
Ground Water Discharge	L	L	*
Floodflow Alteration	\mathbf{L}	M	M
Sediment Stabilization	\mathbf{L}	Н	*
Sediment/Toxicant Retention	L	Н	H
Nutrient Removal/Transformat	ion L	L	M
Production Export	*	M	*
Wildlife Diversity/Abundance	e H	*	*
Wildlife D/A Breeding	*	Н	*
Wildlife D/A Migration	*	Н	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	\mathbf{L}	L	*
Uniqueness/Heritage	H	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1211MOD"

Soc Signif	ial icance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L M M * H * L H M	U L M H L M * H H L L * *	* * M * M * H M * * * * * * * *

Summary of Evaluation Results for "1212"

Sic	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat: Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L M ion L * H * L L L	L L M L L M * L M M * *	* * L * L * * * * * * * * *

Summary of Evaluation Results for "1214"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	*	L M M L L M * L M M M * *	* * L * L * * * * * * * *

Summary of Evaluation Results for "1215"

5	Social Significance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transforma Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	L L L n Mation t ce H * * * * E L	LILECCIVENCES L M H L L M * L L L L L	* * H * M M * * * * *
Recreation	M	~	

Summary of Evaluation Results for "1215MOD"

S	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	${f L}$	M	H
Sediment Stabilization	\mathbf{L}	H	*
Sediment/Toxicant Retention	n M	L	M
Nutrient Removal/Transforma		L	M
Production Export	*	M	*
Wildlife Diversity/Abundanc	e H	*	*
Wildlife D/A Breeding	*	${\tt L}$	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	e L	L	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1216"

Sig	Social mificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformati Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering	L L L L M	L M M L L M * L M M	opportunity * L * L * L * * * *
Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L M	M * *	*

Summary of Evaluation Results for "1217"

s Sign	locial lificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatic Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L M H * H * L L M	L M M L L M * L M M M * *	* * L * L * * * * * * * *

Summary of Evaluation Results for "1218"

٤	Social Significance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transforma Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L n M ation L * ce H * * *	L L M L L M * L M M M * *	* * L * L * * * * * * * *
VECTERCION			

Summary of Evaluation Results for "1220"

Social Significa	nce Effectiveness	Opportunity
Ground Water Recharge L Ground Water Discharge L Floodflow Alteration L Sediment Stabilization L Sediment/Toxicant Retention M Nutrient Removal/Transformation L Production Export * Wildlife Diversity/Abundance H Wildlife D/A Breeding * Wildlife D/A Migration * Wildlife D/A Wintering * Aquatic Diversity/Abundance L Uniqueness/Heritage L Recreation M	U M M M L H M * M H L L L *	* * H * H M * * * * * *

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Summary of Evaluation Results for "1220MOD"

S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge	L	U	*
Ground Water Discharge	L	М	*
Floodflow Alteration	L	M	H
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	H
Nutrient Removal/Transformat	tion L	L	M
Production Export	*	M	*
Wildlife Diversity/Abundance	e L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	L	*
Uniqueness/Heritage	– L	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1223"

Ground Water RechargeLL*Ground Water DischargeLL*Floodflow AlterationLMLSediment StabilizationLM*Sediment/Toxicant RetentionMLLNutrient Removal/TransformationLLLProduction Export*M*Wildlife Diversity/AbundanceH**Wildlife D/A Breeding*L*Wildlife D/A Migration*M*Wildlife D/A Wintering*M*Wildlife Diversity/AbundanceLM*Wildlife D/A Wintering*M*Wildlife D/A Wintering*M*Wildlife D/A Wintering*M*Wildlife D/A Wintering*M*Wildlife D/A Wintering*M*Wildlife D/A Wintering***Wildlife D/A Wintering**Yearstrongen (Wardence)L*	Soc Signif	ial icance	Effectiveness	Opportunity
Recreation M * *	Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	L * H * L L	L M L L M * L M M	* * L * L * * * * * * * *

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Summary of Evaluation Results for "1229"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	L L L M	L L M M L L M * L M M M M M *	* * L * L L * * * * * * * *
Recreation	IT1	~	

Summary of Evaluation Results for "1231"

٤	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	Н	*
Floodflow Alteration	L	н	H
Sediment Stabilization	L	М	*
Sediment/Toxicant Retention	n M	н	H
Nutrient Removal/Transforma	•	H	M
Production Export	*	M	*
Wildlife Diversity/Abundance	ce H	*	*
	JC 11 +	Н	*
Wildlife D/A Breeding		т.	*
Wildlife D/A Migration	т ~	Ľ	*
Wildlife D/A Wintering	. т	M	*
Aquatic Diversity/Abundance		M *	• · · · · ·
Uniqueness/Heritage	H		
Recreation	M	*	*

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Summary of Evaluation Results for "1231MOD"

S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge	м	L	*
Ground Water Discharge	М	н	*
Floodflow Alteration	M	Н	H
Sediment Stabilization	T.	м	*
Sediment/Toxicant Retention	H	H	H
Nutrient Removal/Transforma	tion M	H	M
	*	M	*
Production Export	e H	*	*
Wildlife Diversity/Abundanc	e 11 +	н	*
Wildlife D/A Breeding	*	<u>т</u>	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance		ىل +	+ ·
Uniqueness/Heritage	H	*	
Recreation	L	*	*

Summary of Evaluation Results for "1233"

S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge	L	\mathbf{L}	*
Ground Water Discharge	 L	н	*
Floodflow Alteration	т.	M	Н
Sediment Stabilization	т.	H	*
	м м	H	L
Sediment/Toxicant Retention		H	Τ.
Nutrient Removal/Transformat		M	*
Production Export	*		• •
Wildlife Diversity/Abundance	e H	*	~ ~
Wildlife D/A Breeding	*	M	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	T.	L	*
Aquatic Diversity/Abanaance	т.	*	*
Uniqueness/Heritage	M	*	*
Recreation	M		

Summary of Evaluation Results for "1233MOD"

Sign.	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L M N H * L L M	L H M H H M * M L L * *	* * H * L L * * * * * *

Summary of Evaluation Results for "1243"

	Social nificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformati Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L M N H * H * L L M	U M M H H M * M L L *	* * H * H M * * * * * *

Summary of Evaluation Results for "1243MOD"

S Sign	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	М	U	*
Ground Water Discharge	M	M	*
Floodflow Alteration	M	M	H
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	Н	Н	Н
Nutrient Removal/Transformatio	n M	Н	M
Production Export	*	М	*
Wildlife Diversity/Abundance	н	*	*
	*	т.	*
Wildlife D/A Breeding	*	M	*
Wildlife D/A Migration	÷	T.	*
Wildlife D/A Wintering	T		*
Aquatic Diversity/Abundance	ط -	نل ب	+
Uniqueness/Heritage	L	*	
Recreation	M	*	*

Summary of Evaluation Results for "1247"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	*	L L M L H M * M L L *	* * H * H M * * * * * * *

Summary of Evaluation Results for "1247MOD"

S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge	м	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	. M	Н
Sediment Stabilization	т.	м	*
Sediment/Toxicant Retention	H	L	H
Nutrient Removal/Transformat		H	М
	*	M	*
Production Export	••	*	*
Wildlife Diversity/Abundance	е п 	M	*
Wildlife D/A Breeding	*	M	*
Wildlife D/A Migration	*	M	
Wildlife D/A Wintering	*	<u>г</u>	т ,
Aquatic Diversity/Abundance	\mathbf{L}	L	*
Uniqueness/Heritage	L	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1248"

S Sign	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatio Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L H M * L L M	L M M H H L M * H H L L *	* * M * H L * * * * * * *

Summary of Evaluation Results for "1248MOD"

Soc Signif	ial icance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M H H * L * L L M	L M M H H L M * H H L L *	* * M * H L * * * * * * *

Summary of Evaluation Results for "1249"

		Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	M	Н	*
Floodflow Alteration	M	н	Н
Sediment Stabilization	L	н	*
Sediment/Toxicant Retention	M	H	Н
Nutrient Removal/Transformation	M	H	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	н	*	*
Wildlife D/A Breeding	*	Н	*
	*	Ĥ	*
Wildlife D/A Migration	+	L	*
Wildlife D/A Wintering	л т	<u>т</u>	*
Aquatic Diversity/Abundance	т т	لل ب	.
Uniqueness/Heritage	Г	*	
Recreation	M	*	*

Summary of Evaluation Results for "1249MOD"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	H	× 11
Floodflow Alteration	M	H	H +
Sediment Stabilization	L	H	Ĥ
Sediment/Toxicant Retention	M	H	_
Nutrient Removal/Transformatio	n M	H	L *
Production Export	*	M	*
Wildlife Diversity/Abundance	H	*	*
Wildlife D/A Breeding	*	H	*
Wildlife D/A Migration	*	H	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	\mathbf{L}	L	*
Uniqueness/Heritage	L	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1251"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	L	U	*
Ground Water Discharge	\mathbf{L}	М	*
Floodflow Alteration	\mathbf{L}	М	H
Sediment Stabilization	\mathbf{L}	М	*
Sediment/Toxicant Retention	М	Н	H
Nutrient Removal/Transformat	ion L	M	M
Production Export	*	M	*
Wildlife Diversity/Abundance	H	*	*
Wildlife D/A Breeding	*	М	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	L	*
Uniqueness/Heritage	L	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1251MOD"

S	Social ignificance	Effectiveness	Opportunity
S: Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformar Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	L L L M tion L * e H * *	U M M M H M M * M M L L L	* * H * H M * * * * *
Recreation	M	*	*

Summary of Evaluation Results for "1253"

Sig	Social mificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	\mathbf{L}	*
Floodflow Alteration	\mathbf{L}	M	H
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	L	Н	H
Nutrient Removal/Transformati	ion L	Н	M
Production Export	*	M	*
Wildlife Diversity/Abundance	H	*	*
Wildlife D/A Breeding	*	M	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	L	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	M	*	*

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated.

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Summary of Evaluation Results for "1253MOD"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	L	*
Floodflow Alteration	L	M	H
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	H	H
Nutrient Removal/Transformation	L	н	M
Production Export	*	M	*
Wildlife Diversity/Abundance	н	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Migracion	*	L	*
Wildlife D/A Wintering	 T		*
Aquatic Diversity/Abundance	т Т	*	* .
Uniqueness/Heritage	ىل مە	*	*
Recreation	M	*	~

Summary of Evaluation Results for "1254"

S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	${\tt L}$	L	*
Floodflow Alteration	\mathbf{L}	Н	H
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	М	L	\mathbf{H}
Nutrient Removal/Transforma	tion L	М	${f L}$
Production Export	*	М	*
Wildlife Diversity/Abundanc	e H	*	*
	*	M	*
Wildlife D/A Breeding	•	T.	*
Wildlife D/A Migration	- -	<u>т</u> .	*
Wildlife D/A Wintering	т т		*
Aquatic Diversity/Abundance	یل : ج	للا ب	*
Uniqueness/Heritage	<u>با</u>	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1254MOD"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L H M * L L M	L L M M * M L L L *	* * H * H L * * * * * * *

Summary of Evaluation Results for "1255"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	L	\mathbf{L}	*
Ground Water Discharge	L	\mathbf{L}	*
Floodflow Alteration	L	M	\mathbf{L}
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	M	L	\mathbf{L}
Nutrient Removal/Transformatio	n L	L	${\tt L}$
Production Export	*	M	*
Wildlife Diversity/Abundance	н	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1258"

Soc Signif	ial icance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L M L * H * L L M	L H M H H M M L L *	* * H * H M * * * * * * *

Summary of Evaluation Results for "1258MOD"

Si	Social gnificance	Effectiveness	Opportunity
Si Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance	L L L M tion L *	Effectiveness L H M H H H H L L L	Opportunity * H * H M * * * * *
Uniqueness/Heritage Recreation	L M	*	*

Summary of Evaluation Results for "1259"

Socia Signific	cance	Effectiveness	Opportunity
Sediment/Toxicant RecentionNutrient Removal/TransformationProduction ExportWildlife Diversity/AbundanceWildlife D/A BreedingWildlife D/A MigrationWildlife D/A WinteringAquatic Diversity/AbundanceUniqueness/Heritage	L L L L L K K K K K K K K K K K K K K K	L M M L L M * L M M * *	* * L * L * * * * * * *

Summary of Evaluation Results for "1260"

	ocial ificance	Effectiveness	Opportunity
Sign Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatic Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering	L L L M	L L M M L L L M * L M M M	* * L * L L * L * * * * * *
Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L	M * *	* * *

Summary of Evaluation Results for "1261"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	M	*
Floodflow Alteration	T.	H	M
Floodilow Alteration	T.	L	*
Sediment Stabilization	м М	T.	Н
Sediment/Toxicant Retention		Ĥ	L
Nutrient Removal/Transformat	TOU W	M	*
Production Export	*	M +	*
Wildlife Diversity/Abundance	<u>е</u> Г	~	
Wildlife D/A Breeding	*	Ц	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	L	*
Uniqueness/Heritage	т.	*	*
	т.	*	*
Recreation	<u>u</u>		
)))))))		cortain and

Summary of Evaluation Results for "1261MOD"

Sig	Social mificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L H ion H * L * L L L L	L M H L H M * L L L L * *	* * M * H L * * * * * * *
			bac state

Summary of Evaluation Results for "1262"

So Signi:	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L H H * + * L L M	L L H H H M * L L L L *	* * H * H L * * * * * * * *

Summary of Evaluation Results for "1262MOD"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	\mathbf{L}	H	H
Sediment Stabilization	L	H	*
Sediment/Toxicant Retention	M	Н	Н
Nutrient Removal/Transformatio	n M	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	H	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	\mathbf{L}	L	*
Uniqueness/Heritage	L	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1263"

Soc Signif	ial icance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L M M * L * * L L L L	L M M L L M * L M M M * *	* * L * L * * * * * * *

Summary of Evaluation Results for "1264"

Significance Effectiveness Opportun	101
Ground Water RechargeLL*Ground Water DischargeLL*Floodflow AlterationLMLSediment StabilizationLM*Sediment/Toxicant RetentionMLLNutrient Removal/TransformationMLLProduction Export*M*Wildlife Diversity/AbundanceL**Wildlife D/A Breeding*L*Wildlife D/A Migration*M*Wildlife D/A Wintering*M*Aquatic Diversity/AbundanceL**Uniqueness/HeritageL**RecreationL**	

Summary of Evaluation Results for "1265"

$\mathbf L$	*
L M L L M * L M M M *	* L * L * * * * * * * * *
	M L M * L M M

Summary of Evaluation Results for "1266"

S	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	H	*
Floodflow Alteration	L	H	M
Sediment Stabilization	L	H	*
Sediment/Toxicant Retention	H	H	H
Nutrient Removal/Transforma Production Export Wildlife Diversity/Abundance	ation H *	H M *	M * *
Wildlife D/A Breeding	*	H	* *
Wildlife D/A Migration	*	M	
Wildlife D/A Wintering	*	L	
Aquatic Diversity/Abundance	e L	M	*
Uniqueness/Heritage	L	*	
Recreation	M	*	
			sector and

Summary of Evaluation Results for "1266MOD"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	Н	*
Floodflow Alteration	M	Н	M
Sediment Stabilization	L	н	*
Sediment/Toxicant Retention	H	H	н
Nutrient Removal/Transformatic	n H	H	M
Production Export	*	М	*
Wildlife Diversity/Abundance	Н	*	*
Wildlife D/A Breeding	*	${f L}$	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1268"

S	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transforma Production Export Wildlife Diversity/Abundanc Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	tion H * e H * *	L L M M H H H L L *	* * H + H L * * * * * * *

Summary of Evaluation Results for "1268MOD"

Sign	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	м	L	*
Ground Water Discharge	М	L	*
Floodflow Alteration	M	M	H
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	H	н	Н
Nutrient Removal/Transformation	on H	H	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	н	*	*
Wildlife D/A Breeding	*	Н	*
Wildlife D/A Migration	*	H	*
Wildlife D/A Wintering	*	 T.	*
Aquatic Diversity/Abundance	т.		*
	T.	*	*
Uniqueness/Heritage	M	*	*
Recreation	P1	~	

Summary of Evaluation Results for "1271"

Significa	nce Effectiveness	Opportunity
Ground Water Recharge L Ground Water Discharge L Floodflow Alteration L Sediment Stabilization L Sediment/Toxicant Retention L Nutrient Removal/Transformation L Production Export * Wildlife Diversity/Abundance H Wildlife D/A Breeding * Wildlife D/A Migration * Wildlife D/A Wintering * Aquatic Diversity/Abundance L Uniqueness/Heritage L Recreation M	L L M M L L M * L M M M * *	* * L * L * * * * * * * *

Summary of Evaluation Results for "1273"

:	Social Significance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transform Production Export Wildlife Diversity/Abundand Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	L L L n ation t ce H * * *	Effectiveness L M M L L L M * L M M M M M M	* * L * L L * * * * *
Recreation	M	*	*

Summary of Evaluation Results for "1287"

	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	L	U	*
Ground Water Discharge	L	М	*
Floodflow Alteration	L	Н	H
Sediment Stabilization	\mathbf{L}	н	*
Sediment/Toxicant Retention	M	Н	${\tt L}$
Nutrient Removal/Transformati	on L	н	\mathbf{L}
Production Export	*	М	*
Wildlife Diversity/Abundance	H	*	*
Wildlife D/A Breeding	*	M	*
Wildlife D/A Migration	*	Н	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	${f L}$	L	*
Uniqueness/Heritage	L	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1292"

So Sign:	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L L L L L L L L M	L M M L L M * L M M * *	* * L * L * * * * * * * *

Summary of Evaluation Results for "1299"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	L	*
Floodflow Alteration	L	м	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	L
Nutrient Removal/Transformat	ion L	L	L
Production Export	*	M	*
Wildlife Diversity/Abundance	Н	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	т.	M	*
Uniqueness/Heritage	H	*	*
Recreation	M	*	*

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Summary of Evaluation Results for "1301"

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	M	М	*
Floodflow Alteration	M	H	M
Sediment Stabilization	\mathbf{L}	H	*
Sediment/Toxicant Retention	М	H	M
Nutrient Removal/Transformation	М	H	M
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	M	*
Wildlife D/A Migration	*	H	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	H	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1301MOD"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	м	U	*
Ground Water Discharge	M	M	*
Floodflow Alteration	М	H	M
Sediment Stabilization	\mathbf{L}	Н	*
Sediment/Toxicant Retention	M	H	M
Nutrient Removal/Transformation	М	H	M
Production Export	*	М	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	Μ	*
Wildlife D/A Migration	*	Н	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	\mathbf{L}	M	*
Uniqueness/Heritage	H	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1306"

	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	L	*
Floodflow Alteration	\mathbf{L}	M	${f L}$
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	\mathbf{L}	L
Nutrient Removal/Transformatic	on M	\mathbf{L}	L
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	М	*
Aquatic Diversity/Abundance	\mathbf{L}	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1333B"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatio Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance	M M L H H H H * H * L	Effectiveness L M H H H L L * H H L L L	opportunity * M * H L * * * *
Uniqueness/Heritage Recreation	H L	*	*

Summary of Evaluation Results for "1333BMOD"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding	M M L H ion H *	L M H H L * H	* * M * H L * *
Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	* L L M	H L L *	* * * *

Summary of Evaluation Results for "1333C"

Soc: Signif:	ial icance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L H H * L L L L	L L H H H L * M H L L * *	* * M * H L * * * * * * * *

Summary of Evaluation Results for "1333CMOD"

Soc Signi:	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge	M M	L L	* *
Floodflow Alteration Sediment Stabilization	M L H	H H H	M * H
Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export	H *	H L	 L *
Wildlife Diversity/Abundance Wildlife D/A Breeding	L *	* M	*
Wildlife D/A Migration Wildlife D/A Wintering	* *	H L	* *
Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L	بر * *	*

Summary of Evaluation Results for "1339"

Si	Social gnificance	<u>Effectiveness</u>	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration	L L L	U M H L	* * M
Sediment Stabilization	L	H	H
Sediment/Toxicant Retention	M	H	M
Nutrient Removal/Transformat	Lion M	M	*
Production Export	• H	*	*
Wildlife Diversity/Abundance	*	H	*
Wildlife D/A Breeding	*	T.	*
Wildlife D/A Migration	*	L	* *
Wildlife D/A Wintering	L	L	
Aquatic Diversity/Abundance	L	*	
Uniqueness/Heritage Recreation	M	*	*

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Summary of Evaluation Results for "1339MOD"

Soc Signi:	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	M	М	*
Floodflow Alteration	M	н	M
Sediment Stabilization	L	L	*
Sediment/Toxicant Retention	м	Н	H
Nutrient Removal/Transformation	M	H	M
Production Export	*	Μ	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	т.	L	*
Uniqueness/Heritage	H	*	*
Recreation	M	*	*

Summary of Evaluation Results for "1343"

So Signi	ocial lficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration	L L L M	LILCOLIVENCE L M M L L L M * L M M	* * L * L L * * * *
Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L M	M * *	* *

Summary of Evaluation Results for "1349"

S Sign	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatio Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	M M L M	L L M M L L L M * L M M M M M	* * L * L L * * * * * * * *
Recreation	L	*	*

Summary of Evaluation Results for "1353"

s	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	M	M	L
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	M	L	L
Nutrient Removal/Transformat	tion M	L	\mathbf{L}
Production Export	*	Μ	*
Wildlife Diversity/Abundance	e L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	т.	M	* *
Uniqueness/Heritage	ਸ	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1362"

s Sign	Social Nificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatic Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	M M L M	L M M L L M * L M M M M	* * L * L * * * * * * * *
Recreation	M	*	*

Summary of Evaluation Results for "1363"

Significance		
Ground Water Recharge L Ground Water Discharge L Floodflow Alteration L Sediment Stabilization L Sediment/Toxicant Retention L Nutrient Removal/Transformation L Production Export * Wildlife Diversity/Abundance H Wildlife D/A Breeding * Wildlife D/A Migration * Wildlife D/A Wintering A Aquatic Diversity/Abundance L Uniqueness/Heritage L Recreation M	L M M L L M * L M M * * L M M * *	* * L * L * * * * * * * *

Summary of Evaluation Results for "1363MOD"

S Sign	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	L	\mathbf{L}	*
Ground Water Discharge	L	L	*
Floodflow Alteration	\mathbf{L}	M	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	L	L	L
Nutrient Removal/Transformatio	n L	L	L
Production Export	*	M	*
Wildlife Diversity/Abundance	${f L}$	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1410"

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S:	Social ignificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	L	*
Floodflow Alteration	\mathbf{L}	M	\mathbf{L}
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	\mathbf{L}	L	L
Nutrient Removal/Transformat	tion L	L	$\mathbf L$
Production Export	*	M	*
Wildlife Diversity/Abundance	e L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
	*	M	*
Wildlife D/A Wintering	Ť	M	*
Aquatic Diversity/Abundance	т Т	11 +	*
Uniqueness/Heritage	ىل	-	*
Recreation	L	*	*

Summary of Evaluation Results for "1411"

	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	\mathbf{L}	L	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	\mathbf{L}	M	L
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	\mathbf{L}	\mathbf{L}	L .
Nutrient Removal/Transformation	on L	L	L
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	М	*
Aquatic Diversity/Abundance	T.	M `	*
Uniqueness/Heritage	<u>т.</u>	*	*
Recreation	Ĺ	*	*

Summary of Evaluation Results for "1412"

Ground Water Recharge	\mathbf{L}	L	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	L	M	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	L	\mathbf{L}	L
Nutrient Removal/Transformation	L	L .	L
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1501"

s Sign	Social nificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformatic Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	M M L M	L H H L H M * L L L L L	* * M * H H H * * *
Recreation	L	*	~

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated.

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Summary of Evaluation Results for "1501MOD"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	M	Μ	*
Floodflow Alteration	M	Н	M
Sediment Stabilization	L	Н	*
Sediment/Toxicant Retention	M	L	H
Nutrient Removal/Transformation	n M	Н	H
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	\mathbf{L}	L	*
Uniqueness/Heritage	${f L}$	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1502"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	L	M	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	L	L	L
Nutrient Removal/Transformation	L	L	L
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	Ĺ	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1511"

Soc Signi:	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	М	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	H	M	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	\mathbf{L}
Nutrient Removal/Transformation	М	L	L
Production Export	*	M	*
Wildlife Diversity/Abundance	I.	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Migracion	*	M	*
Wildlife D/A Wintering	T.	M	*
Aquatic Diversity/Abundance	T T	*	*
Uniqueness/Heritage	т т	*	*
Recreation	Ц	*	~

Summary of Evaluation Results for "1602"

	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	L	*
Floodflow Alteration	\mathbf{L}	M	L
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	n L	L	\mathbf{L}
Nutrient Removal/Transform		L	\mathbf{L}
Production Export	*	М	*
Wildlife Diversity/Abundan	ce L	*	*
Wildlife D/A Breeding	*	\mathbf{L}	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundanc	о T.	M	*
	E D T.	*	*
Uniqueness/Heritage	T.	*	*
Recreation	<u>ц</u>		

Summary of Evaluation Results for "1603"

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	cial ficance	Effectiveness	Opportunity
Ground Water Recharge	M	U	*
Ground Water Discharge	M	M	*
Floodflow Alteration	L	M	H
Sediment Stabilization	\mathbf{L}	L	*
Sediment/Toxicant Retention	M	L	Н
Nutrient Removal/Transformation	М	М	Μ
Production Export	*	м	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*		*
Aquatic Diversity/Abundance	т.		*
Uniqueness/Heritage	т.	*	*
Recreation	T.	*	*

Summary of Evaluation Results for "1603MOD"

Soc Signif	ial icance	Effectiveness	Opportunity
Ground Water Recharge	М	U	*
Ground Water Discharge	M	\mathbf{L}	*
Floodflow Alteration	L	М	Н
Sediment Stabilization	L	L	*
Sediment/Toxicant Retention	М	\mathbf{L}	H
Nutrient Removal/Transformation	М	М	M
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	L	*
Uniqueness/Heritage	$\mathbf{\tilde{L}}$	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1604"

So Sign:	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	L	М	${f L}$
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	L	L	\mathbf{L}
Nutrient Removal/Transformation	n L	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	\mathbf{L}	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	М	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1605"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	*	L M M L L M * L M M M *	* * L * L * * * * * * * * * *

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Summary of Evaluation Results for "1609"

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	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	\mathbf{L}	*
Floodflow Alteration	L	M	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	L	L	\mathbf{L}
Nutrient Removal/Transformation	on L	L	L
Production Export	*	M	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	М	*
Wildlife D/A Wintering	*	М	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1621"

So Signi	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L L L * L L L L	L L M L L M * L M M * *	* * L * L * * * * * * * * *

Summary of Evaluation Results for "1624"

Ground Water RechargeML*Ground Water DischargeML*Floodflow AlterationMMHSediment StabilizationLH*Sediment/Toxicant RetentionMLHNutrient Removal/TransformationMLLProduction Export*M*Wildlife Diversity/AbundanceL**Wildlife D/A Breeding*L*Wildlife D/A Migration*L*Wildlife D/A Wintering*L*Wildlife D/A Wintering*L*Wildlife D/A Wintering*L*Wildlife D/A Wintering*L*Wildlife D/A Wintering*L*Wildlife Diversity/AbundanceL*Wildlife D/A Wintering*LYenderse (Upper Set 1000000000000000000000000000000000000	Soc Signif	ial icance	Effectiveness	Opportunity
Recreation L * *	Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	M M L M	L M H L M * L	* * H * H

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated.

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Summary of Evaluation Results for "1624MOD"

Socia Signific	ance Effectiveness	Opportunity
Ground Water Recharge M Ground Water Discharge M Floodflow Alteration M Sediment Stabilization I Sediment/Toxicant Retention M Nutrient Removal/Transformation M Production Export M Wildlife Diversity/Abundance I Wildlife D/A Breeding M Wildlife D/A Migration M Wildlife D/A Wintering A Quatic Diversity/Abundance I Uniqueness/Heritage I Recreation I	L L M H L L L L L L *	* * H * H L * * * * * * * *

Summary of Evaluation Results for "1627"

;

	cial ficance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration	M M L M M M * L *	L H M L L H M * M L	* + H * L L * *
Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	* L L	L L *	* * *

Summary of Evaluation Results for "1627MOD"

Soci Signifi	ial icance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	M M L M M * L * * L L L	L H M L L H M * L L L L	* * H * L L * * * * *

Summary of Evaluation Results for "1628"

Sig	Social mificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformati Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding	M M L M	U M H H H H H M * L	* * H * H L *
Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	* L L L	L L * *	* *

Summary of Evaluation Results for "1628MOD"

So Signi	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge	M M	U M	*
Floodflow Alteration	M	H	H
Sediment Stabilization	L	H	* H
Sediment/Toxicant Retention	M	H H	L L
Nutrient Removal/Transformation	n M *	M N	*
Production Export Wildlife Diversity/Abundance	Ľ	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	\mathbf{L}	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	L	L	*
Uniqueness/Heritage Recreation	L L	*	*

Summary of Evaluation Results for "1652"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	L	L	*
Floodflow Alteration	\mathbf{L}	M	、 L .
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	\mathbf{L}	\mathbf{L}	\mathbf{L}
Nutrient Removal/Transformation	n L	L	\mathbf{L}
Production Export	*	M	*
Wildlife Diversity/Abundance	L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	\mathbf{L}	M	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	L	*	*

Summary of Evaluation Results for "1656"

Soc. Signif	ial icance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L L L * L * L L L L	L L M L L M * L M M M * *	* * L * L * * * * * * * *

Summary of Evaluation Results for "3001"

Si	Social Ignificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	*	U H M M L M + H L L * *	* * M * H M * * * * * *

Summary of Evaluation Results for "3001MOD"

Ground Water Recharge M U * Ground Water Discharge M H *	Si	Social Ignificance	Effectiveness	Opportunity
Floodflow AlterationLMMSediment StabilizationLM*Sediment/Toxicant RetentionMMHNutrient Removal/TransformationMHMProduction Export*M*Wildlife Diversity/AbundanceL**Wildlife D/A Breeding*H*Wildlife D/A Migration*H*Wildlife D/A Wintering*L*Aquatic Diversity/AbundanceL**Uniqueness/HeritageL**RecreationL**	Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformat Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage	M L L M tion M	H M M H M H L	

Summary of Evaluation Results for "3003"

So Sign:	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration	L L L M	L M M L L M * L M	* * L * L L * * *
Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	* L L L	M M * *	*

Summary of Evaluation Results for "3301"

Soci Signifi	al cance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L L L L L L * L * * L L L L	L M M L L M * L M M * *	* * L * L * * * * * * *

Summary of Evaluation Results for "3608"

	ocial ificance	Effectiveness	Opportunity
Ground Water Recharge	L	L	*
Ground Water Discharge	\mathbf{L}	L	*
Floodflow Alteration	\mathbf{L}	M	\mathbf{L}
Sediment Stabilization	\mathbf{L}	M	*
Sediment/Toxicant Retention	\mathbf{L}	L	L
Nutrient Removal/Transformatio	n L	L	\mathbf{L}
Production Export	*	М	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	L	*	*
Recreation	L	*	*

Summary of Evaluation Results for "3610"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	м	U	*
Ground Water Discharge	M	\mathbf{L}	*
Floodflow Alteration	Н	M	M
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	M
Nutrient Removal/Transformat	ion M	\mathbf{L}	M
Production Export	*	M	*
Wildlife Diversity/Abundance	e L	*	*
Wildlife D/A Breeding	*	\mathbf{L}	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Wintering	*	\mathbf{L}	*
Aquatic Diversity/Abundance	L	M	*
Uniqueness/Heritage	\mathbf{L}	*	*
Recreation	L	*	*

Summary of Evaluation Results for "3610MOD"

Sign	Social nificance	Effectiveness	Opportunity
Ground Water Recharge Ground Water Discharge Floodflow Alteration Sediment Stabilization Sediment/Toxicant Retention Nutrient Removal/Transformation Production Export	M M H L M	U L H M H H H	* * M * M M *
Wildlife Diversity/Abundance Wildlife D/A Breeding Wildlife D/A Migration Wildlife D/A Wintering Aquatic Diversity/Abundance Uniqueness/Heritage Recreation	L * * L L L	L M L *	* * * *

Summary of Evaluation Results for "I661"

	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	м	L	*
Ground Water Discharge	M	\mathbf{L}	*
Floodflow Alteration	M	Μ	L
Sediment Stabilization	L	М	*
Sediment/Toxicant Retention	M	L	\mathbf{L}
Nutrient Removal/Transformation	on M	L	\mathbf{L}
Production Export	*	М	*
Wildlife Diversity/Abundance	\mathbf{L}	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	· *	M	*
Wildlife D/A Wintering	*	M	*
Aquatic Diversity/Abundance	T.	M	*
Uniqueness/Heritage	<u>т.</u>	*	*
Recreation	Ľ	*	*
			certain and

Summary of Evaluation Results for "I663"

Si	Social gnificance	Effectiveness	Opportunity
Ground Water Recharge	м	L	*
Ground Water Discharge	M	L	*
Floodflow Alteration	М	M	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	\mathbf{L}
Nutrient Removal/Transformat	ion M	L	\mathbf{L}
Production Export	*	М	*
Wildlife Diversity/Abundance	e L	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	· *	M	*
Wildlife D/A Wintering	*	M	*
Wildille D/A Wincering	Τ.	M	*
Aquatic Diversity/Abundance	T	*	*
Uniqueness/Heritage	T T	*	*
Recreation	بل		
	•		

Summary of Evaluation Results for "I664"

	Social nificance	Effectiveness	Opportunity
Ground Water Recharge	м	L	*
Ground Water Discharge	М	L	*
Floodflow Alteration	M	М	\mathbf{L}
Sediment Stabilization	L	M	*
Sediment/Toxicant Retention	M	L	L
Nutrient Removal/Transformatic	on M	L	
Production Export	*	M	*
Wildlife Diversity/Abundance	т.	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	M	*
Wildlife D/A Migracion	*	M	*
Wildlife D/A Wintering	т.	M	*
Aquatic Diversity/Abundance	ц т	*	*
Uniqueness/Heritage	T T	*	*
Recreation	، بل	~	
Water WWW - Wigh WWW - Moder		= Low. "U" = Un	certain. and

NELAND TECHNICAL REPORT

Alignment Selection SDEIS

A PPALACHIAN <u>ORRIDOR</u> <u>Elkins to Interstate 81</u>

APPENDIX C WETLAND DELINEATION FORMS



West Virginia Department of Transportation



SITE/PLOT#: 102A DATE: 07/27/1993 INVESTIGATOR: CMH, DMB COUNTY: Shenandoah STATE: VA STREAM: unnamed WATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no yes Remarks: meadow/pasture-heavily used by cattle making ID of veq. difficult VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover 132 Carex sp.
198 Juncus sp.
281 Polygonum punctatum
285 Carex tribuloides
286 Agrostis perennans
287 Festuca arundinacea Herb FACW Herb NI Herb OBL Herb FACW Herb FACW Herb FACU Herb OBL _____ SOIL PROFILE: (Minimum 18 inches) Series Name: 42A Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments _____ -------0-1 organic 1-6 silty clay 10 YR 4/2 10 YR 6/8 (2%) 6-12 silty clay 10 YR 4/2 10 YR 6/8 (5%) Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY: _____ Field Observations: Wetland Hydrology Indic Depth of Surface Water: 12.0 (in.) Primary Indicators: Depth to Free Water in Pit: 12.0 (in.) [] Inundated Depth to Saturated Soil: 12.0 (in.) [] Saturated in U Wetland Hydrology Indicators: Primary Indicators:
 [] Inundated
 [] Saturated in Upper 12
 [] Water Marks
 [] Drift Lines
 [] Sediment Deposit
 [X] Drainage Patterns in Wetlands
 Secondary Indicators (2 or more reg() Source/Site Characterization: [X] Seasonal High Water Table
[X] Spring/Seep Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [X] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: drought Recorded Data (Describe in Remarks): Recent Rainfall: heavy previous nite [] Other WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: best prof.judgement exercised on the veg. parameter which was heavily grazed

SITE/PLOT#: 102B DATE: 07/27 COUNTY: Frederick STATE: VA STREAM: unn COWARDIN CLASSIFICATION: PF01E Do Normal Circumstances exist on the sit Is the site significantly disturbed (Aty Is the area a potential Problem Area? Remarks: forested wetland along small dr	e? yes pical Situation)? no no	
VEGETATION: Percent Dominant Species tha Code Scientific Name	t are OBL, FACW or FAC 54.00 Stratum Status % Areal Cover	
	5.00	
 194 Juncus dichotomus 224 Polygonum cuspidatum 313 Agrostis perennans 320 Vernonia novėboracensis 371 Dulichium arundinaceum 446 Fraxinus pennsylvanica 507 Rosa multiflora 630 Fraxinus pennsylvanica 	10.00 20.00 Herb FACW 70.00 Herb FACU- 5.00 Herb FACU Herb FACW 15.00 Herb OBL Shrub FACW Shrub FACU 20.00 Tree FACW	
SOIL PROFILE: (Minimum 18 inches) Serie: Depth Texture Matrix Color	s Name: Mauretown Hydric Soil? yes Mottle Color(%) Comments	
0-1 organic 1-2 silty clay 2.5 Y 4/2 2-6 silty clay 2.5 Y 4/2 6-12 10 YR 4/2	barelyrmn 10 YR 6/8 (50%)"" 10 YR 6/8 (50%)"" none ""	
Hydric Soil Indicators: [] Histosol [] Histosol [] Sulfidic Material [] Aquanti and a statements [] Gleyed [X] Low [X] mottles	stic Epipedon uic Moisture Regime w Chroma tisol (organic context, vertical reaking, chroma 3, wet spodosol)	
HYDROLOGY:		
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:12.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[] Saturated in Upper 12Depth to Saturated Soil:12.0 (in.)[] Water MarksSource/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[] Water-Stained Leaves[] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[X] Other (Explain in Remarks)		
[] Aerial Photographs Re	ecent Weather: drought ecent Rainfall: heavy	
WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: deep hoof imprints, all 3 criteria met		

SITE/PLOT#: 103 DATE: 07/27/1993 INVESTIGATOR: CMH, DMB COUNTY: Shenandoah STATE: VA STREAM: Eishelman RunWATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEM1A Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? пo no Remarks: pasture/fallow field wetland in along drainageway/ditch VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover Herb OBL Herb FACW Herb OBL Herb FACU 100 Acorus calamus 189 Impatiens capensis 30.00 70.00 281 Polygonum punctatum 287 Festuca arundinacea 10.00 10.00 ---------------SOIL PROFILE: (Minimum 18 inches) Series Name: 55A Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments ----
 0-1
 organic

 1-6
 silty clay
 10 YR 4/2
 10 YR 6/8barely moist

 6-12
 silty clay
 10 YR 5/2
 10 YR 6/8
 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:1.0 (in.)Depth to Free Water in Pit:12.0 (in.)Depth to Saturated Soil:12.0 (in.) Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floodplain
[] Backwater
[] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Other (Explain [] Aerial Photographs Recent Weather: drought [] Other Recent Rainfall: T-storm last nite WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 104 DATE: 07/28/ COUNTY: Shenandoah STATE: VA STREAM: unnar COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp. Is the area a potential Problem Area? Remarks: PEM along pasture drainageway	? ves
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 89.00 Stratum Status % Areal Cover
<pre>100 Acorus calamus 129 Carex lurida 187 Hypericum mutilum 189 Impatiens capensis 195 Juncus effusus 228 Polygonum sp. 243 Scirpus atrovirens 268 Typha latifolia 282 Leersia virginica</pre>	Herb OBL 2.00 Herb OBL 20.00 Herb FACW 5.00 Herb FACW 10.00 Herb FACW+ 20.00 Herb NI 2.00 Herb OBL 20.00 Herb OBL 20.00 Herb OBL 15.00 Herb FACW 10.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: 4B Hydric Soil? nl Mottle Color(%) Comments
0-1 1-6 silty clay 10 YR 5/2 6-9 silty clay 10 YR 4/1	
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqu: [] Gleyed [X] Low [X] mottles [] Ent:	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)
HYDROLOGY:	
	<pre>tland Hydrology Indicators: Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks</pre>
Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional	<pre>[] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data</pre>
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec [] Other Rec	[] FAC-Neutral Test [] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: drought cent Rainfall: T-storm 2 days prior
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met	ent? yes Hydrophytic Vegetation? yes ? yes Wetland? yes

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SITE/PLOT#: 105 DATE: 07/28/1993 INVESTIGATOR: CMH, DMB COUNTY: Shenandoah STATE: VA STREAM: unnamed WATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: wetland in shallows surrounding pond VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover -----
 Herb
 OBL
 10.00

 Herb
 FACW+
 6.00

 Herb
 OBL
 60.00

 Herb
 FACW
 25.00

 Herb
 FACU
 5.00

 Shrub
 FACW+
 15.00
 179 Galium asprellum 244 Scirpus cyperinus 252 Sparganium americanum
282 Leersia virginica
284 Ageratina altissima
522 Salix nigra SOIL PROFILE: (Minimum 18 inches) Series Name: 68D Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ . 0-8 organic silt 2.5 Y 4/2none sat., >50% org. _____ Hydric Soil Indicators: [X] Histic Epipedon
[X] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Histosol [X] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: _____ Field Observations:Wetland Hydrology IndiaDepth of Surface Water:12.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [x] Water-Stained Leaves Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [X] Water-Stained Leaves [] Depressional [X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Recent Weather: drought
Recent Rainfall: T-storm 2 day prior Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [X] Aerial Photographs [] Other _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 106 DATE: 07 COUNTY: Shenandoah STATE: VA STREAM: COWARDIN CLASSIFICATION: PFO1/PEM1E Do Normal Circumstances exist on the Is the site significantly disturbed (Is the area a potential Problem Area? Remarks:	site? yes Atypical Situation)? no	CMH, DMB nandoah River	
VEGETATION: Percent Dominant Species Code Scientific Name	that are OBL, FACW or FAC Stratum Status	60.00 % Areal Cover	
 153 Dichanthelium clandestinum 179 Galium asprellum 282 Leersia virginica 284 Ageratina altissima 473 Nyssa sylvatica 511 Rubus allegheniensis 602 Acer rubrum 662 Robinia pseudoacacia 810 Toxicodendron spp. 	Herb FAC+ Herb OBL Herb FACW Herb FACU Shrub FAC Shrub FACU- Tree FAC Tree FAC Vine FAC	$ \begin{array}{c} 10.00\\ 70.00\\ 10.00\\ 40.00\\ 20.00\\ 10.00\\ 25.00\\ 10.00\\ 10.00\\ 20.00 \end{array} $	
SOIL PROFILE: (Minimum 18 inches) Sei Depth Texture Matrix Colo 0 refusal Hydric Soil Indicators: [] Histosol [] [] Sulfidic Material [] [] Gleyed [] [] mottles []	ries Name: 68D - H or Mottle Color(%) Comm	Hydric Soil? nl ments	
<pre>HYDROLOGY: Field Observations: Depth of Surface Water: (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other</pre>	Wetland Hydrology Indicat Primary Indicators: [] Inundated [] Saturated in Upp [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Pattern Secondary Indicators ([] Oxidized Root Ch [] Water-Stained Le [] Local Soil Surve [] FAC-Neutral Tes [] Other (Explain Recent Weather: drought	eors: ber 12 is in Wetlands 2 or more req'd) annels/Upper 12 aves by Data it in Remarks)	
WETLAND DETERMINATION:Hydric soils present?Hydrophytic Vegetation? yesWetland Hydrology?Wetland? yesRemarks:this area is tentatively considered wetland but a subsequent survey should be c			

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SITE/PLOT#: 107B DATE: 07/29/1993 INVESTIGATOR: CMH, DMB COUNTY: Shenandoah STATE: VA STREAM: Cedar Creek WATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? yes пo no Remarks: floodplain of Cedar Creek @ small stream confluence VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 82.00 Code Scientific Name Stratum Status % Areal Cover 114Bochmeria cylindricaHerbFACW153Dichanthelium clandestinumHerbFAC+176Eupatoriadelphus maculatusHerbFACW189Impatiens capensisHerbFACW227Polygonum sagittatumHerbOBL280Alisma subcordatumHerbOBL289Ludwigia palustrisHerbOBL291Echinochloa crusgalliHerbFACU292Polygonum hydropiperoidesHerbOBL293Leersia oryzoidesHerbOBL294Commelina communisHerbFAC-25.00 30.00 5.00 5.00 5.00 5.00 40.00 40.00 5.00 40.00 20.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Weikert-Berks Hydric Soil? nl Depth Texture Matrix Color Mottle Color (%) Comments 0-2organic silt10 YR 4/2nonefe.conc,satura.2-6org.silt murk10 YR 4/1noneundecomposed org6-12organic silt10 YR 4/1noneundecomposed org Hydric Soil Indicators: [] Histosol[] Histic Epipedon[X] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Depth of Surface Water: 2.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Seasonal High Water Table [] Seasonal High Water Table [] Secondary Indicators (2 or more reg' _____ [] Spring/Seep [X] Floodplain [X] Backwater [] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[X] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[X] Water-Stained Leaves[X] Depressional[X] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Cother (Explain in Remarks)[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: drought[] OtherRecent Rainfall: 2 thdst last 4 days WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 107C DATE: 07/29/1993 INVESTIGATOR: CMH, DMB COUNTY: Shenandoah STATE: VA STREAM: Cedar Creek WATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no ves Is the area a potential Problem Area? no Remarks: shallow bank/bar along Cedar Creek VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover 114Bochmeria cylindricaHerbFACW15.00129Carex luridaHerbOBL20.00153Dichanthelium clandestinumHerbFAC+10.00176Eupatoriadelphus maculatusHerbFACW10.00293Leersia oryzoidesHerbOBL40.00294Commelina communisHerbFAC-30.00295Scirpus microcarpusHerbOBL10.00296Saponaria officinalisHerbFACU5.00 ______ SOIL PROFILE: (Minimum 18 inches) Series Name: Glodehill fsl Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-2fine sand2.5 Y 6/2none saturated2-6fine sand/silt10 YR 5/1none ox.roots6-12fine sand/grave2.5 Y 5/2none saturated -----Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [X] Aquic Moisture Regime] Gleyed] mottles [X] Low Chroma [X] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[V] FloodplainSecondary Indicators (2 or more reg/ [X] Floodplain Secondary Indicators (2 or more req'd) [] Backwater [] Depressional [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Water-Stained Louis [] Local Soil Survey Data [] The Neutral Test Recorded Data (Describe in Remarks):[] Hocar Borr Burvey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: drought[] OtherRecent Rainfall: 2 thsts past 4 days WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 201 DATE: 07/27/1993 INVESTIGATOR: JMG, ABC SITE/PLOT#: 201DATE: 07/27/1993INVESTIGATOR: JMG, ABCCOUNTY: FrederickSTATE: VA STREAM: Duck RunWATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: man-made trout pond which seeps into the PEM VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover -----Herb FACW Herb FACW+ Herb OBL Herb OBL Tree FAC 166 Eleocharis tenuis 20.00 Juncus effusus
Scirpus atrovirens
Scirpus polyphyllus
Acer rubrum 10.00 40.00 30.00 100.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Craigsville Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-3 sandy organic 10 YR 4/1 3" auger refusal ox.roots _____ Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations:Wetland Hydrology IndicDepth of Surface Water:1.0 (in.)Depth to Free Water in Pit:1.0 (in.)Depth to Saturated Soil:1.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Drainage Patterns in wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: sunny [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge[] Other (Explation of the formation _____

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: piles of rock & dirt stored in wetland-a trout pond proposed constructed in loc

SITE/PLOT#: 202 DATE: 07/27/1993 INVESTIGATOR: JMG, ABC COUNTY: Frederick STATE: VA STREAM: Duck Run WATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: dirt road through the wetland no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status & Areal Cover 178Eupatorium perfoliatumHerbFACW+5.00193Juncus canadensisHerbOBL30.00195Juncus effususHerbFACW+40.00290Panicum dichotomiflorumHerbFACW10.00324Oenothera fruticosaHerbFAC15.00636Liriodendron tulipiferaTreeFACU100.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Craigsville Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-3 sand 10 YR 4/1 3" refusal ox.roots _____ Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma
[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Drift Lines [] Seasonal High Water Table [] Sediment Deposit [X] Spring/Seep [X] Secondary Indicators (2 or more req' [A] Drainage Facterins in wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] Drach Soil Survey Data [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remar [] Aerial Photographs Recent Weather: sunny 90 degrees Recent Rainfall: 7/26/93 [] FAC-Neutral Test [] Other (Explain in Remarks) _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 203A DATE: 07/17/1993 INVESTIGATOR: JMG, ABC SITE/PLOT#: 203A DATE: 07/17/1993 INVESTIGATOR: JMG, ABC COUNTY: Frederick STATE: VA STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves no Is the area a potential Problem Area? no Remarks: several tributaries flow through the wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 e Stratum Status % Areal Cover Code Scientific Name HerbFACWHerbFACW+HerbFACWHerbFACWShrubFACShrubFACW+TreeFAC 189 Impatiens capensis 20.00 189 Impatiens capensis
195 Juncus effusus
227 Polygonum sagittatum
282 Leersia virginica
320 Vernonia noveboracensis
401 Acer rubrum
404 Alnus rugosa
602 Acer rubrum 15.00 20.00 30.00 15.00 10.00 602 Acer rubrum 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-2
 organic
 10 YR 2/1

 2-6
 sandy loam
 5 YR 5/2
 5 YR 6/8 (20%) ox.roots

 6-18
 silty loam
 5 Y 5/2
 10 YR 3/6 (15%) ox.roots
 -Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] Histic Epipedon [X] Aquic Moisture Regime [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:2.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[] Water-Stained Leaves[] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge[] Other[] Other[] Other[] Aerial Photographs[] Other[] Recent Weather: sunny 90 degrees[] OtherRecent Rainfall: 7/26/93 _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Remarks:

SITE/PLOT#: 203B DATE: 07/27/1993 INVESTIGATOR: JMG, ABC COUNTY: Frederick STATE: VA STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PSS Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: a tributary flows through the wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 129 Carex lurida 178 Eupatorium perfoliatum 189 Impatiens capensis
 Herb
 OBL
 20.00

 Herb
 FACW+
 30.00

 Herb
 FACW
 20.00

 Herb
 FACW+
 30.00

 Shrub
 FACW+
 100.00
 195 Juncus effusus 404 Alnus rugosa SOIL PROFILE: (Minimum 18 inches) Series Name: Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-1 organic 10 YR 4/2 ox.roots 1-3 silty loam 10 YR 5/1 10 YR 5/6 (5%)ox.roots 3" refusal Hydric Soil Indicators: C SOLL Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:1.0 (in.)[] InundatedDepth to Saturated Soil:1.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water MarksSource/Site Characterization:[] Sediment DepositSource/Site Characterization:[] Sediment DepositSource/Site Characterization:[] Drift LinesSource/Site Characterization:[] Sediment DepositSource/Site Characterization:[] Sediment [X] Drainage Patterns in Wetlands [X] Spring/Seep [A] Drainage Facterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in According) [] Stream, Lake, or Tide Gauge [] Otner [] Aerial Photographs Recent Weather: Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 204 DATE: 07/29 COUNTY: Frederick STATE: VA STREAM: unr COWARDIN CLASSIFICATION: PSS1/PEM Do Normal Circumstances exist on the sit Is the site significantly disturbed (Aty Is the area a potential Problem Area? Remarks: floodplain wetland (includes a	te? ypical Situ	yes vation)? no	
VEGETATION: Percent Dominant Species tha Code Scientific Name	at are OBL, Stratum	FACW or FAC Status	92.00 % Areal Cover
		FACW OBL FACW FACW+ OBL FACW FACW+ FACW FACW+	
SOIL PROFILE: (Minimum 18 inches) Serie Depth Texture Matrix Color 0-12 sandy silt 10 YR 3/2	Mottle (Color(%) Comm	ents
Hydric Soil Indicators: [] Histosol [] Hi [] Sulfidic Material [X] Aq [] Gleyed [X] Lo [X] mottles [X] En st	stic Epipe puic Moistu: w Chroma tisol (orga reaking, cl	don re Regime anic context, ⁻ hroma 3, wet sj	vertical
HYDROLOGY:			
Field Observations: W Depth of Surface Water: 2.0 (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floodplain [X] Backwater [] Depressional	etland Hydr Primary : [] Inu [X] Sat [] Wat [] Dri [] Sec [] Dra Secondary [X] Oxi [] Wat	dized Root Cha cer-Stained Lea	2 or more req'd) annels/Upper 12 aves
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Re [] Other Re	[] FA [] Ot ecent Weath	Cal Soil Survey AC-Neutral Test ther (Explain f ner: drought Call: 2 T storm	: in Remarks)
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met			

SITE/PLOT#: 205 DATE: 07/27/1993 INVESTIGATOR: JMG, ABC COUNTY: Frederick STATE: VA STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PFO1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: a tributary flows though the wetland no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 66.00 Code Scientific Name Stratum Status % Areal Cover 2Sphagnum sp.BryoNI10.00189Impatiens capensisHerbFACW10.00219Osmunda cinnamomeaHerbFACW30.00261Thalictrum pubescensHerbFACW+20.00297Carex gynandraHerbNI10.00325Glyceria melicariaHerbOBL20.00401Acer rubrumShrubFAC100.00602Acer rubrumTreeFAC100.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Laidig Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-12 organic 10 YR 2/1 _____ Hydric Soil Indicators: [] Histosol[X] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical [] Histosol streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: sunny 90 degrees Recent Rainfall: last night Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 206 DATE: 07/27/ COUNTY: Frederick STATE: VA STREAM: unna COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: a tributary flows through the we	? yes pical Situation)? no no
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 86.00 Stratum Status % Areal Cover
<pre>179 Galium asprellum 189 Impatiens capensis 288 Pilea pumila 325 Glyceria melicaria 326 Viola incognita 332 Rhododendron roseum 464 Lindera benzoin</pre>	Herb OBL 10.00 Herb FACW 30.00 Herb FACW 20.00 Herb OBL 30.00 Herb OBL 30.00 Herb FACW 10.00 Herb FACW 10.00 Herb NI 50.00 Shrub FACW 50.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Laidig Hydric Soil? no Mottle Color(%) Comments
0-4 organic 10 YR 4/1 4-18 sandy silt 10 YR 4/1	10 YR 5/6 (10%) ox.roots
Hydric Soil Indicators: [] Histosol [] His [] Sulfidic Material [X] Aqu [] Gleyed [X] Low [X] mottles [] Ent	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)
HYDROLOGY:	
Field Observations: We Depth of Surface Water: 2.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain	<pre>tland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12</pre>
Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional	 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rea [] Other Rea	[] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: sunny 90 degrees cent Rainfall: 7/26/93
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology	ent? yes Hydrophytic Vegetation? yes ? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 207 DATE: 07/28/1993 INVESTIGATOR: JMG, ABC COUNTY: Frederick STATE: VA STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEM Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: a tributary flows through the wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover 189Impatiens capensisHerbFACW195Juncus effususHerbFACW+227Polygonum sagittatumHerbOBL524Sambucus canadensisShrubFACW SOIL PROFILE: (Minimum 18 inches) Series Name: Laidig Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-6 silty loam 10 YR 6/2 6-18 silty loam 10 YR 4/1 10 YR 6/8 (20%)saturated -----

 Hydric Soil Indicators:
 [] Histic Epipedon

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [X] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 4.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny 90 degrees[] OtherRecent Rainfall: 7/26/93 Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks:

SITE/PLOT#: 208 DATE: 07/28, COUNTY: Frederick STATE: VA STREAM: Duck COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: abandoned Beaver Pond	e? yes	BC iver
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.0 Stratum Status %	0 Areal Cover
<pre>100 Acorus calamus 122 Carex crinita 129 Carex lurida 189 Impatiens capensis 195 Juncus effusus 282 Leersia virginica 401 Acer rubrum 602 Acer rubrum</pre>	HerbOBLHerbOBLHerbFACWHerbFACW+HerbFACWShrubFACTreeFAC	15.00 10.00 10.00 15.00 40.00 100.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	s Name: Laidig Hydric Mottle Color(%) Comments	Soil? no
0-4 organic/sandy N 4/ 4-18 sandy silt 5 Y 7/1	saturated ox.roots	
Hydric Soil Indicators: [] Histosol [] His [] Sulfidic Material [X] Aqu [X] Gleyed [X] Lov [] mottles [] Ent str	stic Epipedon nic Moisture Regime w Chroma cisol (organic context, vertic reaking, chroma 3, wet spodoso	
HYDROLOGY:		
Field Observations: We Depth of Surface Water: 24.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [X] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Re [] Other Re	Secondary Indicators (2 or r [X] Oxidized Root Channels [X] Water-Stained Leaves [] Local Soil Survey Data	nore req'd) s/Upper 12 a
WETLAND DETERMINATION: Hydric soils pres	sent? yes Hydrophytic Vege	etation? yes

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Hydrophytic Vegetation? yes Wetland? yes

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SITE/PLOT#: 209 DATE: 07/28/1993 INVESTIGATOR: JMG, ABC COUNTY: Frederick STATE: VA STREAM: Duck Run COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: Duck Run flows through the wetland no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 88.00 Code Scientific Name Stratum Status % Areal Cover -----HerbOBLHerbFACWHerbFACHerbGBLHerbFACWShrubFACShrubFACShrubFAC-ShrubFACW 116 Caltha palustris
189 Impatiens capensis 15.00 20.00 217 Onoclea sensibilis 20.00 277 Viola spp.
325 Glyceria melicaria
327 Apios americana 15.00 20.00 10.00 401 Acer rubrum
451 Hamamelis virginiana
464 Lindera benzoin 30.00 30.00 40.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Laidig Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-2 organic sandy 7.5 YR 2/0 saturated 2-8 sandy silt 10 YR 3/1 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: _____ Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Indicators: Primary Indicators: Inundated Depth to Saturated Soil: Depth to Satur [X] Saturated In opper 12
[] Water Marks
[] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data Source/Site Characterization: [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional [] Local Soil Survey Data

 Recorded Data (Describe in Remarks):
 [] FAC-Neutral Test

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Aerial Photographs
 Recent Weather: sunny 90 degrees

 [] Other
 Recent Rainfall: 7/26/93

 WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 210A DATE: 07/28/1993 INVESTIGATOR: JMG, ABC COUNTY: Frederick STATE: VA STREAM: Duck Run WATERSHED: Cacapon River SITE/PLOT#: 210A COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? Remarks: Duck Run flows through the wetland no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status % Areal Cover Herb OBL Herb FACW 195 Juncus effusus Herb FACW+ 227 Polygonum sagittatum Herb OBL 262 Thelypteris noveboracensis Herb FAC 282 Leersia virginica Herb FACW 566 Rubus sp. Shrub NI SOIL PROFILE: (Minimum 18 inches) Series 10.00 10.00 15.00 30.00 15.00 30.00 100.00 Hydric Soil? no Depth Texture Matrix Color Mottle Color (%) Comments 10 YR 3/1 auger refusal ---------0-2 silty sand 10 YR 3/1 auger refusa 2-8 sandy clay 10 YR 6/1 10 YR 6/6 (5%)8" Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [X] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGI.

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 2.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 [] Water Marks
 [] Water Marks

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [] Sediment Deposit

 [X] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req'

 [X] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[] Water-Stained Leaves[] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny 90 degrees[] OtherRecent Rainfall: 7/26/93 WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

Remarks: floodplain area along Duck Run

SITE/PLOT#: 210B COUNTY: Frederick STATE: VA COWARDIN CLASSIFICATION: PFO Do Normal Circumstances exist Is the site significantly dis Is the area a potential Probl Remarks: Duck Run flows throu	on the site? sturbed (Atypi lem Area?	? ical Situ	Ves	MG, ABC pon River
VEGETATION: Percent Dominant Code Scientific Name	Species that	are OBL, Stratum	FACW or FAC Status	71.00 % Areal Cover
<pre>116 Caltha palustris 129 Carex lurida 189 Impatiens capensis 262 Thelypteris novebora 290 Panicum dichotomiflo 325 Glyceria melicaria 328 Lindera benzoin 401 Acer rubrum 416 Betula lenta 464 Lindera benzoin 565 Rhododendron roseum 602 Acer rubrum 609 Betula lenta</pre>	censis orum	Herb Herb Herb Herb Herb Shrub Shrub Shrub Shrub Tree Tree	OBL OBL FACW FAC FACW OBL FACW FAC FACU FACU FAC FACU FAC	$ \begin{array}{r} 10.00\\ 10.00\\ 15.00\\ 20.00\\ 30.00\\ 5.00\\ 50.00\\ 30.00\\ 40.00\\ 30.00\\ 50.00 \end{array} $
SOIL PROFILE: (Minimum 18 inc Depth Texture Ma	hes) Series trix Color	Name: Lai Mottle (ldig Hy Color(%) Commo	ydric Soil? no ents
0-3 muck 10 3-10 silty loam 10	YR 2/1 YR 3/2		10 YR 4/6 (109	*)
Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles	[] Hist [X] Aqui [X] Low [] Enti	ic Epiped c Moistur Chroma sol (orga	don ce Regime unic context, t uroma 3, wet sp	vertical
HYDROLOGY:				
Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Ren [] Stream, Lake, or Tide Gaus [] Aerial Photographs [] Other	Wet 2.0 (in.) 0.0 (in.) 0.0 (in.) marks): ge Reco Reco	Secondary [X] Oxi [X] Wat [] Loc [] FA [] Ot ent Weath	' Indicators (2	2 or more req'd) annels/Upper 12 aves / Data : .n Remarks)
WETLAND DETERMINATION: Hydrid Wetlan Remarks: floodplain area along	ha Hyarology?	nt? yes yes	Hydrophytic Wetland? ye	vegetation? yes s

SITE/PLOT#: 211 DATE: 07/28/2 COUNTY: Frederick STATE: VA STREAM: Duck COWARDIN CLASSIFICATION: PF01E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks: Duck Run flows through the wetlan	? yes ical Situation)? no no
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum Status % Areal Cover
219 Osmunda cinnamomea 277 Viola spp. 290 Panicum dichotomiflorum 325 Glyceria melicaria 327 Apios americana 329 Betula lenta 401 Acer rubrum 416 Betula lenta 451 Hamamelis virginiana 464 Lindera benzoin 602 Acer rubrum 609 Betula lenta	Herb FACW 30.00 Herb FAC 5.00 Herb FACW 20.00 Herb FACW 20.00 Herb FACW 5.00 Herb FACW 5.00 Herb FACW 5.00 Herb FACU 15.00 Shrub FAC 20.00 Shrub FAC 20.00 Shrub FAC 20.00 Shrub FACW 40.00 Tree FAC 40.00 Tree FACU 60.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Laidig Hydric Soil? Mottle Color(%) Comments
0-1 organic 10 YR 2/1 1-12 sandy silt 10 YR 3/1	10 YR 5/6 (10%)
Hydric Soil Indicators: [] Histosol [] Hist [] Jistosol [] Aqui [] Sulfidic Material [] Aqui [] Gleyed [X] Low [X] mottles [] Enti stre	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical aking, chroma 3, wet spodosol)
	land Hydrology Indicators
[] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Reco [] Other Reco	Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) ent Weather: sunny 90 degrees ent Rainfall: 7/26/93
WETLAND DETERMINATION: Hydric soils preser Wetland Hydrology? Remarks: all 3 criteria met	nt? yes Hydrophytic Vegetation? yes yes Wetland? yes

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SITE/PLOT#: 212 DATE: 07/28/1993 INVESTIGATOR: JMG, ABC COUNTY: Frederick STATE: VA STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PFO1E Do Normal Circumster Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: a tributary flows through the wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 82.00 Code Scientific Name Stratum Status % Areal Cover 139 Carex vulpinoidea
189 Impatiens capensis
195 Juncus effusus
227 Polygonum sagittatum
282 Leersia virginica
401 Acer rubrum
401 Acer rubrum HerbOBLHerbFACWHerbFACW+HerbOBLHerbFACWShrubFACShrubFACWShrubFACUTreeFACTreeFACU 10.00 15.00 15.00 $\begin{array}{r}
15.00\\
20.00\\
40.00\\
50.00\\
50.00\\
50.00\\
50.00\\
50.00\\
50.00\\
\end{array}$ 461 Acer fubrum
464 Lindera benzoin
467 Liriodendron tulipifera
602 Acer rubrum
636 Liriodendron tulipifera SOIL PROFILE: (Minimum 18 inches) Series Name: Laidig Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-8sandy silt2.5 Y 5/010 YR 5/6 (10%)8-16silty clay10 YR 6/110 YR 6/8 (15%) ------Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY:

 HYDROLOGI.

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 2.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 [] Water Marks
 [] Water Marks

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [] Sediment Deposit

 [X] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more reg'

 [] Seasonal High Water Table
[X] Spring/Seep
[] Floodplain
[] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Depressional [] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge[] Other[] Other[] Other[] Aerial Photographs[] Other[] Recent Weather: sunny 90 degrees[] OtherRecent Rainfall: 7/26/93 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 213 DATE: 07/28/1993 INVESTIGATOR: JMG, ABC COUNTY: Frederick STATE: VA STREAM: Duck Run WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: floodplain area along Duck Run VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 OBL
 30.00

 Herb
 FACW
 20.00

 Herb
 OBL
 40.00

 Herb
 FACW
 10.00

 Shrub
 FACU
 30.00

 Shrub
 FACW+
 20.00

 Shrub
 FACW+
 80.00
 129 Carex lurida
189 Impatiens capensis
325 Glyceria melicaria
330 Viola affinis 416 Betula lenta 456 Ilex verticillata 464 Lindera benzoin SOIL PROFILE: (Minimum 18 inches) Series Name: Laidig Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-6 organic muck 10 YR 2/1 auger refusal Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: Unit of the Saturated Soil: (X) Saturated [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[X] Floodplain[X] Drainage Patterns in Wetlands[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves[] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Aerial Photographs[] Other[] Other[] Other[] Other[] Other[] Other[] Other[] Other[] Other Source/Site Characterization: ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 214 DATE: 07/28/1993 INVESTIGATOR: JMG, ABC COUNTY: Frederick STATE: VA STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PF01E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: headwater area to a tributary no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 60.00 Code Scientific Name Stratum Status & Areal Cover
 Bryo
 NI

 Herb
 FACW
 20.00

 Herb
 FACW
 20.00

 Herb
 FACW
 20.00

 Herb
 FACW
 20.00

 Herb
 FAC
 5.00

 Herb
 FAC
 5.00

 Shrub
 FACW
 10.00

 Shrub
 NI
 50.00

 Tree
 FAC
 100.00
 2 Sphagnum sp. 217 Onoclea sensibilis 219 Osmunda cinnamomea 263 Thelypteris thelypteroides Therproduced Therp 277 290 Panicum dichotomiflorum 464 Lindera benzoin 565 Rhododendron roseum 602 Acer rubrum SOIL PROFILE: (Minimum 18 inches) Series Name: Laidig Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-1 organic 10 YR 2/1 auger refusal 1-6 sandy clay 10 YR 4/1 10 YR 4/6 (10%)6" Hydric Soil Indicators:

 C Soli Indicators:
 [] Histic Epipedon

 [] Histic Material
 [] Histic Epipedon

 [] Sulfidic Material
 [X] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:1.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg/ [X] Drainage Facterns in metricine Secondary Indicators (2 or more req'd) [] Floodplain [] Backwater [] Depressional [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other[] Aerial Photographs[] Other[] Other[] Recent Weather: sunny 90 degrees[] OtherRecent Rainfall: 7/26/93 _____ WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

I.

SITE/PLOT#: 215 DATE: 07/29 COUNTY: Frederick STATE: VA STREAM: unn COWARDIN CLASSIFICATION: PFO1E Do Normal Circumstances exist on the sit Is the site significantly disturbed (Aty Is the area a potential Problem Area? Remarks: seep area along road	e? ves	
VEGETATION: Percent Dominant Species tha Code Scientific Name	t are OBL, FACW or FAC 90.00 Stratum Status % Areal Cover	
	Herb OBL 10.00 Herb FACW+ 15.00 Herb OBL 20.00 Herb FACW 20.00 Herb FACW 20.00 Herb FACW 15.00 Shrub FAC 40.00 Shrub FACU 60.00	
SOIL PROFILE: (Minimum 18 inches) Serie; Depth Texture Matrix Color	s Name: Weikert Hydric Soil? no Mottle Color(%) Comments	
0-3 silty loam 10 YR 4/2 3-6 silty clay 10 Yr 4/1 6-12 silty clay 10 YR 6/2	10 YR 3/6 (5%)ox.root channels 7.5YR 4/6 (30%) 10 YR 5/8 (40%)	
Hydric Soil Indicators: [] Histosol [] Histosol [] Sulfidic Material [X] Aquanti [X] Low [] Gleyed [X] Low [X] mottles [] Ent	stic Epipedon lic Moisture Regime v Chroma cisol (organic context, vertical reaking, chroma 3, wet spodosol)	
HYDROLOGY:		
Field Observations: We Depth of Surface Water: 2.0 (in.) Depth to Free Water in Pit: 6.0 (in.) Depth to Saturated Soil: 6.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep	etland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks	
Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional	Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves	
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Re [] Other Re	<pre>[] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) ccent Weather: sunny 90 degrees ccent Rainfall: 7/26/93</pre>	
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met		

Remarks: all 3 criteria met

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SITE/PLOT#: 216 DATE: 07/29/1993 INVESTIGATOR: JMG, ABC COUNTY: Frederick STATE: VA STREAM: Duck Run COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: tributary flows through the area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 OBL
 10.00

 Herb
 FACW+
 10.00

 Herb
 OBL
 10.00

 Herb
 NI
 20.00

 Herb
 FACW
 10.00

 Herb
 OBL
 10.00

 Herb
 FACW
 10.00

 Herb
 OBL
 30.00

 Shrub
 FACW
 100.00
 129 Carex lurida 195 Juncus effusus 227 Polygonum sagittatum
269 Unidentifiable grass
288 Pilea pumila
323 Scirpus polyphyllus
325 Glyceria melicaria
464 Lindera benzoin SOIL PROFILE: (Minimum 18 inches) Series Name: Weikert Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no
 0-2
 organic
 10 YR 3/1
 auger refusal

 2-5
 silty clay
 2.5 Y 5/2
 7.5YR 5/8 (20%)10"

 5-10
 silty clay
 7.5 YR 5/0
 7.5YR 6/8 (20%)
 [] Histosol[] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (1) Hydric Soil Indicators: [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[X] Water-Stained Leaves[] Local Soil Survey Data[] FAC-Neutral Test Recorded Data (Describe in Remarks):[] Hotal Soll Sulvey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] Other[] Recent Weather: sunny 90 degrees[] OtherRecent Rainfall: 6/26/93 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 217 DATE: 07/29/1993 COUNTY: Frederick STATE: VA STREAM: Duck Run INVESTIGATOR: CMH, DMB WATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PSS1B Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: sm. fl.plain/seep wetland caused by impounding effect dirt road VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover -----189 Impatiens capensis
282 Leersia virginica
296 Saponaria officinalis
464 Lindera benzoin Herb FACW Herb FACW Herb FACU Shrub FACW 25.00 90.00 Saponaria officinalis 20.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Craigsville Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-12 organic silt 10 YR 5/2 5 YR 5/6undecomposed veg Hydric Soil Indicators: [X] Histosol [] Sulfidic Material [] Gleyed [X] mottles [X] Histic Epipedon
[X] Aquic Moisture Regime
[X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology IndicDepth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in U Wetland Hydrology Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks [X] Drift Lines Source/Site Characterization: [X] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Recent Weather: drought [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [X] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: drought Recent Rainfall: 2 Tstorms last 4 day 1 Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 218 DATE: 07/29/1993 INVESTIGATOR: JMG. ABC COUNTY: Frederick STATE: VA STREAM: Duck Run WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PSSIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: depressional ponded area with tributary through it VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 88.00 Code Scientific Name Stratum Status % Areal Cover HerbOBLHerbOBLHerbFACW+HerbOBLHerbOBLHerbNIShrubFACShrubFACW 129 Carex lurida 193 Juncus canadensis 195 Juncus effusus 15.00 20.00 15.00 243 Scirpus atrovirens
268 Typha latifolia
269 Unidentifiable grass 10.00 20.00 20.00 401 Acer rubrum 464 Lindera benzoin SOIL PROFILE: (Minimum 18 inches) Series Name: Weikert Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-2 sandy/fiberous 10 YR 4/1 2-6 silty clay 10 YR 5/1 10 YR 5/6auger refusal Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations:Wetland Hydrology IndicDepth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[] Saturated in U Wetland Hydrology Indicators: [X] Inducated
[] Saturated in Upper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary, Indicators (2) on more read Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Backwater [X] Depressional [X] Depressional[X] Oxidized Root Channels/Upper[X] Depressional[X] Water-Stained LeavesRecorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: sunny 90 degrees[] OtherRecent Rainfall: 7/26/93 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 219 DATE: 07/29/1993 INVESTIG COUNTY: Frederick STATE: VA STREAM: Duck Run WATERSHE COWARDIN CLASSIFICATION: PSSIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: tributaries flow through the area	Ves	
VEGETATION: Percent Dominant Species that are OBL, FACW of Code Scientific Name Stratum St.	or FAC 100.00 atus % Areal Cover	
189Impatiens capensisHerbF.217Onoclea sensibilisHerbF.282Leersia virginicaHerbF.288Pilea pumilaHerbF.325Glyceria melicariaHerbF.333Polygonum persicariaHerbF.401Acer rubrumShrubF.415Betula alleghaniensisShrubF.602Acer rubrumTreeF.608Betula alleghaniensisTreeF.	ACW 10.00 ACW 10.00 ACW 30.00 ACW 20.00 BL 20.00 ACW 20.00 ACW 20.00 ACW 20.00 AC 35.00 AC 35.00 ACW 40.00 AC 50.00 AC 50.00	
SOIL PROFILE: (Minimum 18 inches) Series Name: weikert Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments		
0-12 sandy silt 10 YR 4/1 10 YR 4 Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [X] Aquic Moisture Regin [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic cor streaking, chroma 3,	me ntext, vertical	
HYDROLOGY:		
HYDROLOGY: Field Observations: Wetland Hydrology I Depth of Surface Water: 1.0 (in.) Primary Indicate Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [] Water Mark Source/Site Characterization: [] Drift Line [] Seasonal High Water Table [X] Sediment I [X] Spring/Seep [X] Drainage I [X] Floodplain Secondary Indicate	Indicators: ors: in Upper 12	
[] Depressional [X] Water-Stai	ned Leaves	
Recorded Data (Describe in Remarks):[] Local Soil[] Stream, Lake, or Tide Gauge[] Other (Ex[] Aerial PhotographsRecent Weather: sun[] OtherRecent Rainfall: 7/	ral Test xplain in Remarks) my 90 degrees	
WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Wetland Hydrology? yes		

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INVESTIGATOR: CMH, DMB SITE/PLOT#: 220A DATE: 07/29/1993 COUNTY: Frederick STATE: VA STREAM: near Duck RunWATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: PEM1E meadow in drainage swale VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 57.00 Code Scientific Name Stratum Status & Areal Cover 132Carex sp.HerbFACW10.00153Dichanthelium clandestinumHerbFAC+75.00189Impatiens capensisHerbFACW25.00195Juncus effususHerbFACW+15.00200Juncus tenuisHerbFAC-15.00227Polygonum sagittatumHerbOBL10.00662Robinia pseudoacaciaTreeFACU-10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Weikert-Berks Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments ____
 0-1
 organic

 1-6
 loam
 10 YR 4/2
 none

 6-12
 loam
 2.5 Y 5/2
 10 YR 6/8 (5%)
 Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic conte [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:12.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:18.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Dackwater[X] Oxidized Root Channels/Upper 12 [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Backwater [] Depressional

 Recorded Data (Describe in Remaine);
 [] Other (Explain in Remaine);

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remaine);

 [] Aerial Photographs
 [] Recent Weather: drought

 Recent Rainfall: 2 Tstorms last 4 day

 [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks:

SITE/PLOT#: 220B DATE: 03/01/1994 INVESTIGATOR: MZ, DAK COUNTY: Frederick STATE: VA STREAM: trib. Duck RunWATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PSSIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: Part of complex associated with unnamed stream and swale VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover Code Scientific Name Stratum FACW 110 Aster umbellatus Solidago rugosa Herb 30.00 HerbFACWHerbFACHerbNIHerbNIHerbFACShrubOBLShrubFACUShrubFACWTreeFACUTreeFACW+HerbFACU 249 30.00 269 Unidentifiable grass 269 Unidentifiable grant
300 Asclepias sp.
395 Aster vimineus
405 Alnus serrulata
507 Rosa multiflora 40.00 10.00 10.00 80.00 5.00 Sambucus canadensis 10.00 524 636 Liriodendron tulipifera 665 Salix nigra 903 Daucus carota 20.00 10.00 30.00 30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Weikert-Berks Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-1 organic 1-6 loam 10 YR 4/2 6-12 loam 2.5 Y 5/2 10 YR 6/8 (5%) _____ -----Hydric Soil Indicators: [] Histosol [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:(in.)[] Saturated in Upper 12Depth to Saturated Soil:(in.)[] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)Recent Weather:[] Other (Explain in Remarks) HYDROLOGY : WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 301 DATE: 04/13/1993 COUNTY: Hardy STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PF01E DATE: 04/13/1993 INVESTIGATOR: all crews WATERSHED: Cacapon River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: headwater wetland to an unnamed tributary VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status & Areal Cover 2Sphagnum sp.BryoNI60.00180Galium tinctoriumHerbOBL30.00270Unidentifiable herbHerbNI30.00645Pinus strobusTreeFACU20.00646Platanus occidentalisTreeFACW50.00813Toxicodendron radicansVineFAC20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Potamac fsl Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no _____ 0-1 organic detritu 10 YR 3/2 no 1-4 silty loam 10 YR 3/1 no ox.root channel Hydric Soil Indicators: c Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [X] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking chroma 3, wet spodosol) streaking, chroma 3, wet spodosol) HYDROLOGY: HiDROLOGI.Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)I InundatedDepth to Saturated Soil:0.0 (in.)[] Water MarksSource/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit[X] Drainage Patterns in WetlandsSecondary Indicators (2 or more req' Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Floodplain [] Backwater [] Depressional [] Local Soil Survey Data

 Recorded Data (Describe in Remarks):
 [] FAC-Neutral Test

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Aerial Photographs
 Recent Weather: clear

 [] Other
 Recent Rainfall:

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 302ADATE: 04/14/1993COUNTY: HardySTATE: WV STREAM: unnamed INVESTIGATOR: MZ, EFA, DAE WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PSSIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes yes Is the area a potential Problem Area? no Remarks: apparently a former farm pond filled in & adjacent shrub zone VEGETATION: Percent Dominant Species that are OBL, FACW or FAC .00 Code Scientific Name Stratum Status % Areal Cover Herb FACU Herb NI Herb NI 106 Apocynum cannabinum156 Dipsacus sylvestris269 Unidentifiable grass 10.00 10.00 100 00 SOIL PROFILE: (Minimum 18 inches) Series Name: AvBHydric Soil? noDepthTextureMatrix ColorMottle Color(%)Comments0-3silty clay10 YR 3/2none3-8clayey10 YR 5/110YR 5/6 (60%) Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma] Gleyed [] mottles [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations:Wetland Hydrology IndicDepth of Surface Water:5.0 (in.) Primary Indicators:Depth to Free Water in Pit:0.0 (in.) [X] InundatedDepth to Saturated Soil:0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: clear sunny/cloudy Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? no Wetland Hydrology? yes Wetland? yes

Remarks: (see note on 302B)

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SITE/PLOT#: 302B DATE: 04/14/1993 INVESTIGATOR: MZ, EFA, DA COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEM1E INVESTIGATOR: MZ, EFA, DAE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? ves Is the area a potential Problem Area? Remarks: shrub area between road and PEM 'nο VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 14.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 NI
 20.00

 Herb
 NI
 80.00

 Shrub
 NI
 20.00

 Shrub
 OBL
 20.00

 Shrub
 FAC 20.00

 Shrub
 FAC 20.00
 250 Solidago sp. 269 Unidentifiable grass 403 Aesculus sp.
426 Cephalanthus occidentalis
449 Gleditsia triacanthos 507 Rosa multiflora SOIL PROFILE: (Minimum 18 inches) Series Name: AvB Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-4 silty clay 10 YR 2/2 4-10 clay 2.5 Y 5/2 10+ref. 2.5 Y 5/6 (20%)ox.roots Hydric Soil Indicators: I HISTOSOL[] HiSTIC Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Epticel ([] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[X] PleodulainSecondary Indicators (2 or more reg/ Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge[] Other (Explain in Re[] Aerial PhotographsRecent Weather: partly cloudy[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: vegetation likely to be hydrophytic when identifiable based on BPJ

SITE/PLOT#: 303 DATE: 04/14/199 COUNTY: Hardy STATE: WV STREAM: DATE: 04/14/1993 INVESTIGATOR: MZ, EFA, DAE COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: pasture wetland with soft rush VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 33.00 Code Scientific Name Stratum Status % Areal Cover 195Juncus effususHerbFACW+269Unidentifiable grassHerbNI271Unidentifiable sedgeHerbNI 30.00 80.00 20.00 SOIL PROFILE:(Minimum 18 inches)Series Name: BuCHydric Soil? noDepthTextureMatrix ColorMottle Color(%)Comments0-8silty clay loam 10 YR 3/1noneox.root channels8-14silty clay loam 10 YR 4/1noneox.root channels Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [] Inundated [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Drift Lines [X] Sediment Deposit
[] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Floodplain [] Backwater [] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: overcast Recent Rainfall: none Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs [] Other

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: vegetation likely to bydrophytic when identifiable based on BPJ

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SITE/PLOT#: 304 DATE: 04/14/1993 INVESTIGATOR: MZ, EFA, DA COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: Cacapon River INVESTIGATOR: MZ, EFA, DAE COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no ves Remarks: pasture wetland with soft rush VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 33.00 Code Scientific Name Stratum Status % Areal Cover 195Juncus effususHerbFACW+30.00269Unidentifiable grassHerbNI20.00271Unidentifiable sedgeHerbNI20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BuC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-3 silty loam 10 YR 3/1 none ox.roots 3-18 sandy 10 YR 6/2 none ox.roots Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY: _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[] Floodplain[] Drainage Patterns in Wetlands[] Depressional[X] Oxidized Root Channels/Upper 12[] Local Soil Survey Data[] FAC-Neutral Test [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge[] Other (Explain[] Aerial PhotographsRecent Weather: overcast[] OtherRecent Rainfall: none

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? no Wetland Hydrology? yes Wetland? yes Remarks: vegetation likely to be hydrophytic when identifiable based on BPJ

SITE/PLOT#: 305 DATE: 04/14/1993 INVESTIGATOR: MZ, EFA, DA COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEMIA INVESTIGATOR: MZ, EFA, DAE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: pasture wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover 195 Juncus effusus
202 Lemna minor
269 Unidentifiable grass
271 Unidentifiable sedge Herb FACW+ Herb OBL Herb NI Herb NI 75.00 80.00 50.00 60.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: ByB Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0-8 silty loam 10 YR 3/1 8+ref. none ox.root channel Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional [] Depressional[A] Water-Stained LeavesRecorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other[] Aerial Photographs[] Other[] OtherRecent Weather: partly cloudy
Recent Rainfall: none

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 311 DATE: 04/15/1993 INVESTIGATOR: JMG, CMH, C COUNTY: Hardy STATE: WV STREAM: Trout Run WATERSHED: Cacapon River INVESTIGATOR: JMG, CMH, JMD, BS COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: wetland located within a cow pasture, area has been grazed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC .00 Code Scientific Name Stratum Status % Areal Cover 90.00 269Unidentifiable grassHerbNI270Unidentifiable herbHerbNI 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Tioga Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-12 silty clay loam 2.5 Y 5/2.3 none tramped Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Histosol [] Sulfidic Material [] Sufficie Materiai [] Gleyed [X] mottles [X] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: 3.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Seasonal High Water Table [] Seasonal High Water Table [] Secondary Indicators (2 or more req'(Secondary Indicators (2 or more req'([] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): Recorded Data (Describe in Remarks): [] FAC-Neutral [] Stream, Lake, or Tide Gauge [] Other (Expla [X] Aerial Photographs Recent Weather: sunny Recent Rainfall: 4/12/93 [] Other

WETLAND DETERMINATION:Hydric soils present? yesHydrophytic Vegetation? no
Wetland Hydrology? yesRemarks:assumption made that under normal circumstances veg.could become established

SITE/PLOT#: 312 DATE: 04/15/1993 COUNTY: Hardy STATE: WV STREAM: DATE: 04/15/1993 INVESTIGATOR: Ong, C..., WATERSHED: Cacapon River INVESTIGATOR: JMG, CMH, JMD COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: within pasture land, located at toe of forested slope VEGETATION: Percent Dominant Species that are OBL, FACW or FAC .00 Code Scientific Name Stratum Status % Areal Cover 142Cirsium sp.HerbNI5.00200Juncus tenuisHerbFAC-30.00231Pycnanthemum leptodonHerbUPL5.00269Unidentifiable grassHerbNI60.00 _____ -----SOIL PROFILE: (Minimum 18 inches) Series Name: Mkb Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments
 0-6
 silty clay loam 2.5 Y 3/5
 10 YR 5/6 (20%)

 6-12
 clay loam
 2.5 Y 2/6
 10 YR 5/6 (40%) high clay conten
 Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleved [X] Low Chrome [X] Low Chroma [] Entisol (organic context, vertical [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [] Inudated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Floodplain [] Backwater [] Depressional [] Local Soil Survey Data Recorded Data (Describe in Action 1) [] Stream, Lake, or Tide Gauge [] Otner (Explain [] Aerial Photographs Recent Weather: sunny Recent Rainfall: 4/12/93 [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): _____

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: bpj that wetland veg. exists

SITE/PLOT#: 401 DATE: 04/27/1993 INVESTIGATOR: LDG COUNTY: Hardy STATE: WV STREAM: Saurkraut RunWATERSHED: Cacapon River COWARDIN CLASSIFICATION: PSSIF Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover HerbOBLHerbUPLHerbOBLHerbFACW+HerbOBLHerbOBLShrubOBLTreeFACTreeFACW 100 Acorus calamus 147 Cuscuta gronovii 10.00 162 Elatine americana 10.00 192 Bratine americana
195 Juncus effusus
258 Symplocarpus foetidus
268 Typha latifolia
405 Alnus serrulata
262 Annu mukuma 10.00 50.00 20.00 80.00 602 Acer rubrum 646 Platanus occ 10.00 Platanus occidentalis 90 00

 SOIL PROFILE: (Minimum 18 inches) Series Name: Purdy
 Hydric Soil? yes

 Depth
 Texture
 Matrix Color
 Mottle Color(%)
 Comments

 0-8clay loam2.5 Y 5/07.5YR 3/4 (50%)8-12clay loam2.5 Y 5/07.5YR 3/4 (50%)12-18clay2.5 Y 5/07.5YR 3/4 (50%) Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[] Saturated in Upper 12Depth to Saturated Soil:(in.)[] Water MarksSource/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained Leaves[X] Local Soil Survey Data[X] Local Soil Survey Data

 [X] Depressional
 [X] Local Soil Survey Data

 [X] Local Soil Survey Data

 [X] Stream, Lake, or Tide Gauge
 [] Other

 [X] Aerial Photographs
 [] Other

 [] Other
 Recent Weather: heavy rains

 [] Other
 Recent Rainfall: yesterday

 -----WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 402 DATE: 04/27/1993 INVESTIGATOR: LDG COUNTY: Hardy STATE: WV STREAM: WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PSS1F Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks:		
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover	
<pre>116 Caltha palustris 153 Dichanthelium clandestinum 195 Juncus effusus 209 Lysimachia nummularia 216 Nymphaea odorata 244 Scirpus cyperinus 258 Symplocarpus foetidus 405 Alnus serrulata 464 Lindera benzoin 672 Ulmus rubra</pre>	Herb OBL 15.00 Herb FAC+ 5.00 Herb FACW+ 10.00 Herb OBL 15.00 Herb OBL 5.00 Herb OBL 5.00 Herb OBL 5.00 Herb OBL 40.00 Shrub OBL 40.00 Shrub FACW 40.00 Tree FAC 10.00	
SOIL PROFILE: (Minimum 18 inches) Series Name: Melvin Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments		
0-8 sandy loam 10 YR 5/1 8-18 silty loam 10 YR 6/1	7.5 YR 4/4 7.5 YR 5/6	
Hydric Soil Indicators: [] Histosol [] His [] Sulfidic Material [] Aqu [] Gleyed [X] Low [X] mottles [] Ent	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)	
HYDROLOGY :		
Field Observations: We Depth of Surface Water: 5.0 (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floedplain	<pre>tland Hydrology Indicators: Primary Indicators: [X] Inundated [] Saturated in Upper 12 [] Water Marks</pre>	
Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [X] Depressional	[X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves	
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [X] Aerial Photographs Red [] Other Red	<pre>[X] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: heavy rains cent Rainfall: yesterday</pre>	
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met		

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SITE/PLOT#: 403 DATE: 04/29/1993 INVESTIGATOR: LDG COUNTY: Hardy STATE: WV STREAM: Lost River WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEMIE/PSS Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: at toe of slope w/Rt.55 west of hanging rock VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 162Elatine americanaHerbOBL10.00195Juncus effususHerbFACW+5.00258Symplocarpus foetidusHerbOBL80.00405Alnus serrulataShrubOBL15.00 15.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Buchanan Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
 0-8
 clay loam
 2.5 Y 5/0
 7.5 YR 3/4

 8-12
 clay loam
 2.5 Y 5/0
 7.5 YR 3/4

 12-18
 clay loam
 2.5 Y 5/0
 7.5 YR 3/4
 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[] Saturated in Upper 12[] Water Marks[] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] Hotal Soll Sulvey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[X] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: fair[] OtherRecent Rainfall: 3 days ago Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 404 DATE: 04/28/ COUNTY: Hardy STATE: WV STREAM: COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	? ves	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 88.00 Stratum Status % Areal Cover	
2 Sphagnum sp. 100 Acorus calamus 116 Caltha palustris 195 Juncus effusus 216 Nymphaea odorata 258 Symplocarpus foetidus 268 Typha latifolia 405 Alnus serrulata	Bryo NI 10.00 Herb OBL 30.00 Herb OBL 5.00 Herb FACW+ 20.00 Herb OBL 5.00 Herb OBL 5.00 Herb OBL 5.00 Herb OBL 30.00 Herb OBL 5.00 Shrub OBL 5.00	
SOIL PROFILE: (Minimum 18 inches) Series Name: Rk Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments		
0-8 silty clay 7.5 YR 3/10 8-12 silty clay 7.5 YR 3/10 12-18 clay 7.5 YR 3/10		
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqu: [] Gleyed [X] Low [] mottles [] Ent: stree	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)	
HYDROLOGY :		
Field Observations: Wet Depth of Surface Water: 2.0 (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: (in.) Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [X] Backwater	<pre>tland Hydrology Indicators: Primary Indicators: [X] Inundated [] Saturated in Upper 12 [] Water Marks</pre>	
[X] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [X] Backwater [X] Depressional	<pre>[] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data</pre>	
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [X] Aerial Photographs Rec [] Other Rec	[] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: fair cent Rainfall: 4 days aqo	
WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Wetland Hydrology? yes		

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SITE/PLOT#: 405 DATE: 04/28/1993 INVESTIGATOR: LDG COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks:			
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover		
 100 Acorus calamus 116 Caltha palustris 162 Elatine americana 195 Juncus effusus 216 Nymphaea odorata 256 Spirodela polyrhiza 258 Symplocarpus foetidus 405 Alnus serrulata 522 Salix nigra 	Herb OBL 30.00 Herb OBL 5.00 Herb OBL 10.00 Herb FACW+ 10.00 Herb OBL 10.00 Herb OBL 10.00 Herb OBL 10.00 Shrub OBL 10.00 Shrub OBL 10.00		
SOIL PROFILE: (Minimum 18 inches) Series Name: Melvin Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments			
0-6 sandy loam 5 Y 3/1 10" silty loam 5 Y 4/1 12-18 silty loam 5 Y 3/1	none none none		
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [] mottles [] Enti stree	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical eaking, chroma 3, wet spodosol)		
HYDROLOGY :			
Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional	<pre>[] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data</pre>		
	[] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: fair		
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met			

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DATE: 04/28/1993 INVESTIGATOR: LDG STATE: WV STREAM: unnamed WATERSHED: Cacapon River SITE/PLOT#: 406 COUNTY: Hardy COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes лo Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover Herb OBL Herb OBL Herb FACW+ 100 Acorus calamus 70.00 162 Elatine americana 195 Juncus effusus 50.00 30.00 ------

 SOIL PROFILE: (Minimum 18 inches) Series Name: OpF
 Hydric Soil? no

 Depth
 Texture
 Matrix Color
 Mottle Color(%)
 Comments

 0-8 organic muck 2.5 YR 2.5/0 muck 8-18 clay loam 5 Y 6/1 Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Histosol [] Sulfidic Material [X] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland HydrologyDepth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[] Saturated in UImage: Control of Saturated Soil:Image: Control of Saturated Soil: _____ Wetland Hydrology Indicators: [X] Inundated
[] Saturated in Upper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep Secondary Indicators (2 or more req'd) [] Floodplain [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Backwater [] Depressional [] Water-Stained Louis [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: fair Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [X] Aerial Photographs Recent Rainfall: 3 days ago [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

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SITE/PLOT#: 501 DATE: 04/28/1993 INVESTIGATOR: MZ, JAP, AB COUNTY: Hardy STATE: WV STREAM: Baker Run WATERSHED: Cacapon River INVESTIGATOR: MZ, JAP, ABC COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: natural seep/stream area surrounded by forest no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 153Dichanthelium clandestinumHerbFAC+50.00189Impatiens capensisHerbFACW80.00258Symplocarpus foetidusHerbOBL30.00803Lonicera japonicaVineFAC-30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments
 2-8
 silty sand
 10 YR 3/1
 10 YR 4/6 (10%) saturated

 8-14
 sandy
 10 YR 4/2
 10 YR 4/6 (5%) saturated
 Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic conte [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:5.0 (in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12[] Water Marks[] Water MarksSource/Site Characterization:[X] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit [X] Seasonal High Water Table [X] Spring/Seep Source/site Characterization:[X] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] Floodplain[X] Drainage Patterns in Wetlands[] Backwater[] Oxidized Root Channels/Upper 12[X] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: suppy clear [] Stream, Lake, or Tide Gauge[] Other (Explain in Rem[] Aerial PhotographsRecent Weather: sunny clear[] OtherRecent Rainfall: 2 days before -----

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Hydrology? yes Wetland? yes

SITE/PLOT#: 502 DATE: 04/28/1993 INVESTIGATOR: JAP, ABC, MZ COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: natural area, undisturbed			
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, Stratum	FACW or FAC Status	88.00 % Areal Cover
100 Acorus calamus 103 Agrostis alba 129 Carex lurida 195 Juncus effusus 222 Poa palustris 227 Polygonum sagittatum 270 Unidentifiable herb 	Herb Herb Herb Herb Herb Herb	OBL FACW OBL FACW+ FACW OBL NI	5.00 30.00 30.00 20.00 50.00 40.00 30.00
SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments			
0-12 silty sand 10 YR 2/2 12-18 clay loam 7.5 YR 5/0		7.5YR 5/6 (20	8)
Hydric Soil Indicators: [] Histic Epipedon [] Sulfidic Material [] Gleyed [X] mottles [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY:			
Field Observations: Wei Depth of Surface Water: 3.0 (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [X] Depressional	[] Sed [X] Dra Secondary [X] Oxi	liment Deposit inage Patterns Indicators (2	s in Wetlands 2 or more req'd) annels/Upper 12
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec	[] Loc [] FA [] Ot cent Weath	al Soil Survey C-Neutral Test her (Explain j	y Data : in Remarks)
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met			

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SITE/PLOT#: 503 DATE: 04/28/1993 INVESTIGATOR: JAP, ABC, M COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEMIE INVESTIGATOR: JAP, ABC, MZ Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: area was probably created as a result of fill material across Cr. VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 88.00 Code Scientific Name Stratum Status % Areal Cover baHerbFACW20.00laHerbOBL30.00cespitosaHerbFACW50.00apensisHerbFACW20.00susHerbFACW+20.00agittatumHerbOBL20.00oliaHerbOBL50.00ble herbHerbNI30.00draHerbNI20.00 103 Agrostis alba 129 Carex lurida 152 Deschampsia cespitosa 189 Impatiens capensis 189 Impatiens capensis 195 Juncus effusus 227 Polygonum sagittatum 268 Typha latifolia 270 Unidentifiable herb 297 Carex gynandra SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-8 loamy sand 5 YR 3/2 5 YR 4/6 (10%) ox.roots 8- sandy 7.5 YR 4/2 7.5YR 4/4 (10%) Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 2.0 (in.) Primary Indicators: Depth to Free Water in Pit: 3.0 (in.) [X] Inundated Depth to Saturated Soil: 3.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Drift Lines [] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater Secondary Indicators (2 or more reg'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] LOCAL SOLL SURVEY Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather:[] OtherRecent Rainfall: _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 504 DATE: 04/29/1993 INVESTIGATOR: JAP, ABC, M COUNTY: Grant STATE: WV STREAM: unnamed WATERSHED: Cacapon River INVESTIGATOR: JAP, ABC, MZ COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: relatively undisturbed pasture area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover HerbFACWHerbOBLHerbFACW+HerbFACWHerbOBLHerbNI 103 Agrostis alba 20.00 Carex lurida 129 30.00 Juncus effusus 195 20.00 Poa palustris
Polygonum pensylvanicum
Polygonum sagittatum
Carex gynandra 20.00 10.00 10.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: ErD Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments -----0-14 silt 2.5 YR 4/2 2.5YR 4/6 (10%) 14-18 silt/some sand 5 YR 4/2 2.5YR 4/6 (10%) Hydric Soil Indicators: .c Soil Indicators:[] Histic Epipedon[] Histosol[] Aquic Moisture Regime[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical
streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGY:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 2.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 2.0 (in.)
 [X] Saturated in Upper 12

 Image: Source/Site Characterization:
 Image: Secondary Indicators (2 or more reg/

 Image: Secondary Indicators (2 or more reg/

 [X] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [A] FlootplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves[] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 504A DATE: 04/29/1993 INVESTIGATOR: JAP, ABC, M COUNTY: Grant STATE: WV STREAM: unnamed WATERSHED: Cacapon River INVESTIGATOR: JAP, ABC, MZ COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: relatively undisturbed pasture area no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover HerbFACWHerbOBLHerbFACW+HerbFACWHerbFACWHerbOBLHerbNI 103 Agrostis alba 129 Carex lurida 195 Juncus effusus 20.00 30.00 20.00 222 Poa palustris
226 Polygonum pensylvanicum
227 Polygonum sagittatum 20.00 20.00 10.00 10.00 297 Carex gynandra SOIL PROFILE: (Minimum 18 inches) Series Name: ErD Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments
 0-14
 silt
 2.5 YR 4/2
 2.5 YR 4/6 (10%)

 14-18
 silt/some sand 5 YR 4/2
 2.5 YR 4/6 (10%)
 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical) [] Histosol streaking, chroma 3, wet spodosol) HYDROLOGY : ------Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Indicators: Metland Hydrology Indicators: Metland Hydrology Indicators: [1] Inundated [2] Water Marks [A] Baturated in opper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
[X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Depressional [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other [] O WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 505 DATE: 04/29/1993 INVESTIGATOR: JAP, ABC, M COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEM1E INVESTIGATOR: JAP, ABC, MZ Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: grazed pasture but not significantly disturbed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover HerbFACWHerbOBLHerbFACWHerbFACWHerbFACW+HerbOBL 103 Agrostis alba 129 Carex lurida 30.00 40.00 152 Deschampsia cespitosa
189 Impatiens capensis
195 Juncus effusus
227 Polygonum sagittatum 20.00 15.0020.00 10.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: CaF Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments

 0-12
 silt
 2.5 YR 4/1
 2.5YR 4/6 (10%)

 12-18
 sandy silt
 2.5 YR 4/2
 2.5YR 4/6 (15%)

 -----Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:1.0 (in.)Depth to Free Water in Pit:3.0 (in.)Depth to Saturated Soil:2.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [] Sediment Deposit [X] Drainage Patterns in Wetlands [] Spring/Seep [X] Floodplain [] Backwater [] Depressional

 [X] Floodplain
 [X] Drining/ Seep

 [X] Floodplain
 Secondary Indicators (2 or more req'd)

 [] Backwater
 [X] Oxidized Root Channels/Upper 12

 [] Depressional
 [] Water-Stained Leaves

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

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SITE/PLOT#: 506DATE: 04/29/1993INVESTIGATOR: JAP, ABC, MCOUNTY: HardySTATE: WV STREAM: unnamedWATERSHED: Cacapon River INVESTIGATOR: JAP, ABC, MZ COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: wetland in open pasture VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 129Carex luridaHerbOBL30.00135Carex teneraHerbOBL30.00189Impatiens capensisHerbFACW20.00195Juncus effususHerbFACW+30.00227Polygonum sagittatumHerbOBL20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BkD Hydric Soil? no Depth Texture Matrix Color Mottle Color (%) Comments ----------0-14 clay silt 2.5 YR 4/2 2.5YR 4/6 (10%) 14-18 gravely silt 2.5 YR 4/2 2.5YR 4/6 (10%) Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 6.0 (in.) [] Inundated Depth to Saturated Soil: 6.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: Primary indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg/ Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 507 DATE: 04/29/1993 INVESTIGATOR: JAP, ABC, MZ COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: pasture, but not heavily grazed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 135 Carex tenera
139 Carex vulpinoidea
189 Impatiens capensis
195 Juncus effusus
222 Poa palustris OBL Herb 30.00 Herb OBL 20.00 Herb OBL Herb FACW Herb FACW+ Herb FACW Herb FACU 40.00 40.00 50.00 10.00 238 Rumex obtusifolius SOIL PROFILE: (Minimum 18 inches) Series Name: BkD Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ----------------0-10silt2.5 YR 4/22.5YR 4/8 (20%)10-18gravely silt2.5 YR 4/22.5 Y 6/2 (15%) Hydric Soil Indicators: c Soil Indicators: [] Histosol [] Histic Epipedon [X] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical tracking chrome 3 wet spodosol) [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.) Primary Indicators:Depth to Free Water in Pit:6.0 (in.) [X] InundatedDepth to Saturated Soil:4.0 (in.) [X] Saturated in Upper 12 [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Floodplain [] Backwater [] Depressional [A] water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 508 DATE: 05/05/1993 INVESTIGATOR: JAP, ABC, M COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: Cacapon River INVESTIGATOR: JAP, ABC, MZ COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: active pasture, not significantly disturbed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 OBL
 70.00

 Herb
 FACW
 10.00

 Herb
 FACW
 30.00

 Herb
 OBL
 20.00

 Herb
 FACW+
 30.00

 Herb
 FACW 20.00

 Herb
 FAC 20.00
 100 Acorus calamus
103 Agrostis alba
117 Carex atlantica
129 Carex lurida
195 Juncus effusus
200 Juncus tenuis _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ---------------
 0-10
 sandy loam
 5 YR 4/2
 5 YR 5/8 (20%)

 10-18
 coarse sa.loam
 5 YR 4/2
 7 YR 2/0 (5%)
 _____ Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:6.0 (in.)[] InundatedDepth to Saturated Soil:10.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Water MarksSource/Site Characterization:[] Drift Lines[X] Concercal Wich Water Table[] Sediment Deposit Source/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] Floodplain[X] Drainage Patterns in Wetlands[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[] Water-Stained LeavesRecorded Data (Describe in Remarks):[] Other (Explain in Remarks)[] Aerial Photographs[] Other (Explain in Remarks) Recorded Data (Describe in Remaine). [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 509 DATE: 05/05/1 COUNTY: Hardy STATE: WV STREAM: unnam COWARDIN CLASSIFICATION: PEM1A Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypi Is the area a potential Problem Area? Remarks: active pasture, not significantly	yes ical Situation)? no no	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover	
<pre>103 Agrostis alba 139 Carex vulpinoidea 165 Eleocharis sp. 195 Juncus effusus 200 Juncus tenuis 227 Polygonum sagittatum 247 Senecio aureus</pre>	Herb FACW 20.00 Herb OBL 30.00 Herb NI 40.00 Herb FACW+ 50.00 Herb FAC- 20.00 Herb OBL 20.00 Herb OBL 20.00 Herb FACW 20.00	
SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments		
0-12 silt 5 YR 3/1 12-18 silt 5 YR 4/2	5 YR 4/6 (15%) 5 YR 4/6 (10%)	
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)		
HYDROLOGY :		
Field Observations: Wet Depth of Surface Water: 1.0 (in.) Depth to Free Water in Pit: 5.0 (in.) Depth to Saturated Soil: 8.0 (in.) Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater	<pre>land Hydrology Indicators: Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks</pre>	
Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional	<pre>[] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data</pre>	
Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: [] Other Recent Rainfall:		
WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Wetland Hydrology? yes		

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SITE/PLOT#: 511 DATE: 06/22/1993 INVESTIGATOR: MZ, ABC COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEM1B/ML Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves no Is the area a potential Problem Area? no Remarks: pasture area not significantly disturbed by grazing VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover ------------BryoNIHerbFACWHerbFACUHerbOBLHerbFACWHerbFACWHerbFACWHerbFACWHerbNI 1 Polytrichum sp. 103 Agrostis alba 127 Carex laxiflora 135 Carex tenera 152 Deschampsia cespitosa 166 Eleocharis tenuis 194 Juncus dichotomus 247 Senecio aureus 200 Trifolium corporium 80.00 30.00 20.00 10.00 10.00 80.00 20.00 10.00 298 Trifolium agrarium 10.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-3
 clayey loam
 10 YR 5/
 none ox.roots

 3-8
 silty clay
 10 YR 7/1
 7.5YR 5/8 (30%) ox.roots

 8-12
 clay
 10 YR 7/1
 7.5YR 5/8 (40%) no ox.roots

 12+
 refusal
 7.5YR 5/8 (40%) no ox.roots
 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[X] Saturated in Upper 12 [] Inundated
[X] Saturated in Upper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional I J Water-Stained LeavesRecorded Data (Describe in Remarks):[] Stream, Lake, or Tide Gauge[] Aerial Photographs[] Other[] Other[] OtherRecent Weather: sunny[] Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes

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SITE/PLOT#: 512 DATE: 06/22/1993 INVESTIGATOR: MZ, ABC SITE/PLOT#: 512 DATE: 06/22/1993 COUNTY: Hardy STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEM1A WATERSHED: Cacapon River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? ño no Remarks: pasture not significantly disturbed by grazing VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 139 Carex vulpinoidea 165 Eleocharis sp. Herb OBL Herb NI Herb FACW+ Herb FACW Herb OBL 80.00 30.00 195 Juncus effusus 20.00 222 Poa palustris 20.00 . ------SOIL PROFILE: (Minimum 18 inches) Series Name: ErB Hydric Soil? nl DepthTextureMatrix ColorMottle Color(%)Comments0-3sandy silt10 YR 4/1oxy roots3-7sandy silt10 YR 4/15 YR 4/6 (30%) oxy roots 0-3 sandy silt 10 YR 4/1 3-7 sandy silt 10 YR 4/1 7+ refusal Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Histosol [] Sulfidic Material] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:(in.)[] Saturated in U Wetland Hydrology Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: sunny [] Stream, Lake, or Tide Gauge
[] Aerial Photographs [] Other Recent Rainfall: 0.3" WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 513 DATE: 06/23/1993 COUNTY: Hardy STATE: WV STREAM: unnamed INVESTIGATOR: MZ, ABC WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: pasture but not significantly disturbed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover Herb FACW Herb FACW Herb FACW Herb FACW+ Herb OBL 103 Agrostis alba 20.00 103 Agrostis alla 152 Deschampsia cespitosa 30.00 189 Impatiens capensis
195 Juncus effusus
227 Polygonum sagittatum 20.00 30.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-5
 fine sandy loam 5 YR 3/2
 oxy roots

 5-13
 sand loam
 5 YR 3/2
 5 YR 4/6 (30%)
 ------Hydric Soil Indicators: [] Histosol [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY: HYDROLOGY:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Depth to Free Water in Pit:12.0 (in.)Depth to Saturated Soil:12.0 (in.)Depth to Saturated Soil:12.0 (in.)Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Water-Stained Leaves[] Local Soil Survey Data [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe 10 Remaine). [] Stream, Lake, or Tide Gauge [] Otner (England) [] Aerial Photographs Recent Weather: sunny Recent Rainfall: .25 2 days ago WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 520A DATE: 09/20/ COUNTY: Hardy STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: lightly grazed pasture	1993 INVESTIGATOR: MZ, DAK med WATERSHED: South Br. Potomac River ? yes ical Situation)? no no			
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover			
<pre>189 Impatiens capensis 195 Juncus effusus 227 Polygonum sagittatum 249 Solidago rugosa 269 Unidentifiable grass 350 Polygonum hydropiper 382 Mentha citrata</pre>				
SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments				
0-4 silty loam 10 YR 4/3 4-18 silty loam 10 YR 3/2	none ox.roots,organic ox.roots,concr.			
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)				
HYDROLOGY:				
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 18.0 (in.) Depth to Saturated Soil: 18.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [] Depressional	<pre>cland Hydrology Indicators: Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks [X] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data</pre>			
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec [] Other Rec	[] FAC-Neutral Test [] Other (Explain in Remarks) eent Weather: eent Rainfall:			
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: although chroma does not fit, BPJ indicates soils can be considered hydric - 37				

SITE/PLOT#: 520B DATE: 09/20/2 COUNTY: Hardy STATE: WV STREAM: unnar COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks: forest patch in lightly grazed pa	? yes ical Situation)? no no			
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum Status	<pre>% Areal Cover</pre>		
189 Impatiens capensis 195 Juncus effusus 227 Polygonum sagittatum 249 Solidago rugosa 269 Unidentifiable grass 350 Polygonum hydropiper 382 Mentha citrata 404 Alnus rugosa 665 Salix nigra	HerbFACWHerbFACW+HerbOBLHerbFACHerbNIHerbOBLHerbFACW+ShrubFACW+TreeFACW+	20.00 20.00 10.00 20.00 80.00 10.00 30.00 20.00 80.00		
SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments				
0-4 silty loam 10 YR 4/3 4-18 silty loam 10 YR 3/2	none ox.roc	ots,organic		
Hydric Soil Indicators: [] Histic Epipedon [] Histosol [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)				
HYDROLOGY:				
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:18.0 (in.)[] InundatedDepth to Saturated Soil:18.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water MarksSource/Site Characterization:[X] Drift Lines[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more reg'd)				
Source/Site Characterization:[X] Drift Lines[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[] Water-Stained Leaves[] Local Soil Survey Data				
	[] FAC-Neutral Te [] Other (Explair cent Weather: cent Bainfall.	est		
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: although chroma does not fit, BPJ indicates soils can be considered hydric - 37				

SITE/PLOT#: 520C DATE: 09/20/1993 INVESTIGATOR: MZ, DAK COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: lightly grazed pasture VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover
 Herb
 FACW
 10.00

 Herb
 FACW+
 20.00

 Herb
 OBL
 20.00

 Herb
 FAC
 30.00

 Herb
 NI
 80.00

 Herb
 OBL
 10.00

 Herb
 NI
 20.00
 Impatiens capensis Juncus effusus 189 195 Polygonum sagittatum Solidago rugosa Unidentifiable grass 227 249 269 269 Unidencifiable grant 350 Polygonum hydropiper 383 Setaria faberii SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hvdric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-4silty loam10 YR 4/3noneox.roots,organic4-18silty loam10 YR 3/2ox.roots,concr. 4-18 silty loam 10 YR 3/2 ox.roots, concr. Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [] Histosol [] Sulfidic Material [X] Low Chroma
[] Entisol (organic context, vertical) [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : HYDROLOGI:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Depth to Free Water in Pit:18.0 (in.)Depth to Saturated Soil:18.0 (in.)Depth to Saturated Soil:18.0 (in.)Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[X] Drift Lines[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves[] Local Soil Survey Data

 Recorded Data (Describe in Remarks):
 [] HGAL Soll Sulvey Data

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Aerial Photographs
 Recent Weather:

 [] Other
 Recent Rainfall:

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: although chroma does not fit, BPJ indicates soils can be considered hydric - 37

INVESTIGATOR: MZ, DAK SITE/PLOT#: 530 DATE: 03/01/1994 STATE: WV STREAM: COUNTY: Hardy STATE: WV ST COWARDIN CLASSIFICATION: PEMIA WATERSHED: South Br. Potomac River Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no ves Is the area a potential Problem Area? no Remarks: pasture-vegetation disturbed by grazing; 2 sub-surface drainpipes VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover ----NI 156 Dipsacus sylvestris Herb 10.00 Herb NI Herb FACW+ Herb FAC Herb NI 195 Juncus effusus 10.00 249 Solidago rugosa 269 Unidentifiable grass 20 00 90.00 -SOIL PROFILE: (Minimum 18 inches) Series Name: Ba-Basher Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-4 clay/loam 10 YR 4/4 4-12 clay/loam 10 YR 4/2 10 YR 6/8 (10%)ox.roots Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [] Histosol

 [] Histosoi
 [] Histic Epip

 [] Sulfidic Material
 [] Aquic Moist

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [X] Low Chroma

 [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology India Depth of Surface Water: 0.0 (in.) Primary Indicators: Wetland Hydrology Indicators: Primary indicators:
 [] Inundated
 [X] Saturated in Upper 12
 [] Water Marks
 [] Drift Lines
 [] Sediment Deposit
 [X] Drainage Patterns in Wetlands
 Secondary Indicators (2 or more reg' Depth to Free Water in Pit: 12.0 (in.) Depth to Saturated Soil: 8.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Floodplain [] Backwater [] Depressional [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: snow Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge] Aerial Photographs Recent Rainfall: [] Other _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met; expect additional hydrophytic vegetation during growing sea

SITE/PLOT#: 601 DATE: 06/24/1993 INVESTIGATOR: MZ, ABC DATE: 06/24/1993 INVESTIGATOR, M2, M2 STATE: WV STREAM: Clifford HollowWATERSHED: South Br. Potomac River COUNTY: Hardy COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no yes Remarks: only veg. present is sparse sprouts of unknown herb VEGETATION: Percent Dominant Species that are OBL, FACW or FAC Code Scientific Name Stratum Status % Areal Cover -----------_ _ _ _ _ _ _ _ _ _ -----_____ SOIL PROFILE: (Minimum 18 inches) Series Name: Pc Hvdric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-36 peat 10 YR 6/1 36 refusal Hydric Soil Indicators: [] Histosol [X] Sulfidic Material [X] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma [] Gleyed [] Entisol (organic context, vertical [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 Primary indicators:
 [] Inundated
 [X] Saturated in Upper 12
 [] Water Marks
 [] Drift Lines
 [X] Sediment Deposit
 [] Drainage Patterns in Wetlands
 Secondary Indicators (2 or more reg() Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] Backwater [] Depressional [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: Recent Rainfall: [] Other -----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? no Wetland Hydrology? yes Wetland? yes Remarks: even the veg. not present-hydrophytic veg.will be present during growing season

SITE/PLOT#: 610A DATE: 06/23/1993 INVESTIGATOR: MZ, ABC COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: stormwater detention pond that has dried out & contains 40% veg. VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status & Areal Cover 135Carex teneraHerbOBL20.00153Dichanthelium clandestinumHerbFAC+10.00189Impatiens capensisHerbFACW5.00227Polygonum sagittatumHerbOBL5.00269Unidentifiable grassHerbNI20.00297Carex gynandraHerbNI20.00299Panicum xalapenseHerbNI80.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BkF Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-12 organic loam 10 YR 2/1 none 12+ refusal Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations:Wetland Hydrology IndicDepth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U[] Water Marks Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [X] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more reg'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny hot[] OtherRecent Rainfall: .25 2 days ago WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

DATE: 06/23/1993 INVESTIGATOR: MZ, ABC STATE: WV STREAM: unnamed WATERSHED: Cacapon River SITE/PLOT#: 610B COUNTY: Hardy STATE: WV STREAM: unname COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: stormwater detention pond that has dried out & contains 50% yeg. VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover Herb FACW Herb NI Herb NI 128 Carex leptonervia 297 Carex gynandra 299 Panicum xalapense 20.00 80.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: BkF Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-12 organic loam 10 YR 2/1 12+ refusal none Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: -----Field Observations:Wetland Hydrology IndicDepth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[X] Inundated Wetland Hydrology Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12 [X] Floodplain [] Backwater [] Depressional [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: sunny hot Recent Rainfall: .25 2 days ago Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 611 DATE: 06/24/1993 INVESTIGATOR: MZ, ABC COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC75.00CodeScientific NameStratumStatus% Areal Cover Herb FACW Herb NI Herb FAC-Herb OBL Herb NI Herb NI 152 Deschampsia cespitosa
165 Eleocharis sp.
200 Juncus tenuis
243 Scirpus atrovirens
250 Solidago sp.
270 Unidentifiable herb 20.00 50.00 20.00 20.00 20.00 20.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Pc Depth Texture Hydric Soil? no DepthTextureMatrix ColorMottle Color(%)Comments0-2gravelly sand10 YR 3/2none2-6sand10 YR 3/17.5YR 4/6 (20%) Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[X] Entisol (organic contents [X] Low Chroma [X] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 1.0 (in.) Primary Indicators: Depth to Free Water in Pit: 6.0 (in.) [] Inundated Depth to Saturated Soil: 1.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Drift Lines [] Seasonal High Water Table [X] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg' _____ Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [X] Floodplain [] Backwater [] Depressional [] Local Soil Survey Data

 Recorded Data (Describe in Remarks):
 [] FAC-Neutral Test

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Aerial Photographs
 Recent Weather: sunny high 80's

 [] Other
 Recent Rainfall:

 WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 612 DATE: 06/24/1993 COUNTY: Hardy STATE: WV STREAM: unnamed INVESTIGATOR: MZ, ABC WATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: grazed pasture not significantly disturbed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover -----------126 Carex hystericina 144 Collinsonia canadensis Herb OBL Herb OBL Herb FAC Herb FAC Herb FACU Herb FACW Herb OBL 10.00 154 Dichanthelium acuminatum
155 Dichanthelium sphaerocarpon
189 Impatiens capensis
201 Justicia americana 20.00 40.00 20.00 5.00 40.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Pc Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no ------
 0-2
 sand
 10 YR 3/3
 none
 ox.root,vert str

 2-4
 sand
 10 YR 3/2
 none
 ox.root,vert str

 4-7
 sand
 10 YR 4/2
 5 YR 4/6 (20%) ox.root

 7+
 refusal
 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [X] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:4.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift LinesL Sectored With Water Table[V] Sectored Perosit [] Seasonal High Water Table [] Spring/Seep [X] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) [X] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] OTNEI (EAPIGIA Recent Weather: sunny warm Recent Rainfall: .25' 3 days ago [] Other ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 613 DATE: 06/24/1993 COUNTY: Hardy STATE: WV STREAM: unnamed SITE/PLOT#: 613 INVESTIGATOR: MZ, ABC WATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks:] VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status % Areal Cover 135 Carex tenera 139 Carex vulpinoidea Herb OBL 20.00 139Carex vulpinoideaHerbOBL20.00155Dichanthelium sphaerocarponHerbFACU20.00197Juncus scirpoidesHerbFACW20.00200Juncus tenuisHerbFAC-30.00225Polygonum lapathifoliumHerbFACW20.00300Asclepias sp.HerbNI30.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: BrD Hydric Soil? yes DepthTextureMatrix ColorMottle Color(%)Comments0-8silt loam10 YR 5/27.5YR 4/6 (20%)ox.roots8+refusal _ _ _ _ _ _ _ _ _ _ Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context)] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 8.0 (in.) [] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Seasonal High Water Table [] Secondary Indicators (2 or more reg' Secondary Indicators (2 or more reg' [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional [] Water-Stained Leaves
[] Local Soil Survey Data Recorded Data (Describe in Remarks):[] Hotal Soll Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: sunny[] OtherRecent Rainfall: Recorded Data (Describe in Remarks): -----WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 701 DATE: 05/03/1993 INVESTIGATOR: LDG COUNTY: Hardy STATE: VA STREAM: unnamed WATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks:				
VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover				
176Eupatoriadelphus maculatusHerbFACW10.00195Juncus effususHerbFACW+60.00247Senecio aureusHerbFACW30.00256Spirodela polyrhizaHerbOBL5.00				
SOIL PROFILE: (Minimum 18 inches) Series Name: Pc Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments				
0-3 loam 10 YR 3/4 3-10 clay loam 7.5 YR 5/0 7.5 YR 4/6				
Hydric Soil Indicators: [] Histic Epipedon [] Histosol [] Aquic Moisture Regime [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)				
HYDROLOGY :				
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:5.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg/d)				
Backwater				
[X] Depressional[] Water-Stained Leaves[] Water-Stained Leaves[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[X] Aerial PhotographsRecent Weather: fair[] OtherRecent Rainfall: last week				
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes				

Wetland Hydrology? yes Remarks: all 3 criteria met

Wetland? yes

DATE: 05/03/1993 STATE: WV STREAM: unnamed SITE/PLOT#: 702 INVESTIGATOR: LDG COUNTY: Hardy STATE: WV ST COWARDIN CLASSIFICATION: PEMIE WATERSHED: South Br. Potomac River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no yes Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 OBL
 40.00

 Herb
 NI
 10.00

 Herb
 FACW+
 30.00

 Herb
 FACW
 10.00

 Herb
 OBL
 10.00
 100 Acorus calamus 165 Eleocharis sp. 195 Juncus effusus 247 Senecio aureus 268 Typha latifolia SOIL PROFILE: (Minimum 18 inches) Series Name: TgA Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-6clay loam10 YR 5/17.5 YR 4/66-12clay loam2.5 Y 5/07.5 YR 4/412-18clay loam2.5 Y 5/07.5 YR 4/4 Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:4.0 (in.)Primary Indicators:Depth to Free Water in Pit:6.0 (in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines Source/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[X] Aerial PhotographsRecent Weather: fair [] Stream, Lake, or Tide Gauge[] Other (Explain in[X] Aerial PhotographsRecent Weather: fair[] OtherRecent Rainfall: last week WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 708 DATE: 05/03/1993 COUNTY: Hardy STATE: WV STREAM: unnamed INVESTIGATOR: LDG WATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 195 Juncus effusus Herb FACW+ 100.00 SOIL PROFILE: (Minimum 18 inches) Series Name: TgA Hydric Soil? nl Depth Texture Matrix Color Mottle Color (%) Comments muck -------0-3 7.5 YR 3/0 muck 3-12 clay loam 10 YR 7/2 7.5 YR 4/4 ------Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [] Histoso1
[] Sulfidic Material] Histosol] Gleyed [X] Low Chroma [] Entisol (organic context, vertical [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 2.0 (in.) Primary Indicators: Wetland Hydrology Indicators: [] Inundated
[X] Saturated in Upper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more reg()) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Water-Stained Leaves
[] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: fair[] OtherRecent Rainfall: last week WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 709 DATE: 05/03/1993 INVESTIGATOR: LDG COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover _____ 195 Juncus effusus Herb FACW+ 80.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Tygart Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments _____ Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[] Low Chroma
[] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:(in.)[] Saturated in Upper 12[] Water Marks[] Water MarksSource (Site Characterization:[] Drift Lines Source/Site Characterization: [] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands [] Spring/Seer [] Floodplain] Spring/Seep Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) Recorded Data (Describe III Remaine) [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: Recent Rainfall:

WETLAND DETERMINATION: Hydric soils present? Hydrophytic Vegetation? Wetland Hydrology? Wetland? Remarks:

SITE/PLOT#: 710 DATE: 05/04/1993 COUNTY: Hardy STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEM1B DATE: 05/04/1993 INVESTIGATOR: LDG WATERSHED: South Br. Potomac River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 150.00 Code Scientific Name Stratum Status & Areal Cover _____ 132 Carex sp. 195 Juncus effusus
 Herb
 FACW
 10.00

 Herb
 FACW+
 90.00
 SOIL PROFILE: (Minimum 18 inches) Series Name: CkB Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-3 muck 3-8 10 YR 7/1 7.5 YR 4/4 10 YR 7/1 7.5 YR 5/6 8-18 Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical [] Sulfidic Material [] Gleyed [X] mottles [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : ------Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:5.0 (in.)[] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [X] Drainage Patterns in Wetlands [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: fair Recent Rainfall: last week [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [X] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

DATE: 05/04/1993 STATE: WV STREAM: unnamed SITE/PLOT#: 711 INVESTIGATOR: LDG COUNTY: Hardy STATE: WV ST COWARDIN CLASSIFICATION: PEMIE WATERSHED: South Br. Potomac River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover Herb FACW Herb OBL Herb FACW+ Herb FACW 132 Carex sp. 20.00 164 Eleocharis rostellata 10.00 195 Juncus effusus 217 Onoclea sensibilis 60.00 5.00

 SOIL PROFILE: (Minimum 18 inches) Series Name: CkB
 Hydric

 Depth
 Texture
 Matrix Color
 Mottle Color(%)
 Comments

 Hydric Soil? nl
 0-3
 clay loam
 10 YR 6/1
 2.5 YR 4/6

 3-10
 clay loam
 10 YR 6/2
 2.5 YR 5/6

 10-18
 10 YR 6/2
 2.5 YR 5/6
 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical) [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indic Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 10.0 (in.) [] Inundated Wetland Hydrology Indicators: Depth to Free Water in Pit: 10.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [A] Saturated in opper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep
[X] Floodplain
[] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data

 Recorded Data (Describe in Remarks):
 [] FAC-Neutral Test

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [X] Aerial Photographs
 Recent Weather: fair

 Recorded Data (Describe in Remarks): [X] Aerial Photographs [] Other Recent Rainfall: last week WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 712 DATE: 05/04/ COUNTY: Hardy STATE: WV STREAM: Waln COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	(1993 INVESTIGATOR: LDG nut WATERSHED: South Br. Potomac River ? yes pical Situation)? no no			
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 78.00 Stratum Status % Areal Cover			
<pre>100 Acorus calamus 132 Carex sp. 165 Eleocharis sp. 189 Impatiens capensis 195 Juncus effusus 211 Mentha aquatica 245 Scirpus validus 268 Typha latifolia 464 Lindera benzoin</pre>	Herb OBL 30.00 Herb FACW 20.00 Herb NI 15.00 Herb FACW 10.00 Herb FACW+ 10.00 Herb OBL 5.00 Herb OBL 5.00			
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Me Hydric Soil? yes Mottle Color(%) Comments			
0-6 silty loam 10 YR 5/1 6-12 7.5 YR 6/0 12-18 7.5 YR 6/0	7.5 YR 4/6 7.5 YR 4/8 7.5 YR 4/6			
Hydric Soil Indicators: [] Histosol [] His [] Sulfidic Material [] Aqu [X] Gleyed [X] Low [X] mottles [] Ent strue	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)			
HYDROLOGY:				
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:6.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[X] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands				
[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[X] Water-Stained Leaves				
Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: fair[] OtherRecent Rainfall: last week				
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met				

DATE: 05/04/1993 SITE/PLOT#: 713 DATE: 05 COUNTY: Hardy STATE: WV STREAM: INVESTIGATOR: LDG WATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status & Areal Cover 2 Sphagnum sp.
100 Acorus calamus
132 Carex sp.
165 Eleocharis sp.
169 Equisetum fluviatile
195 Juncus effusus
247 Senecio aureus
 Bryo
 NI
 2.00

 Herb
 OBL
 10.00

 Herb
 FACW
 20.00

 Herb
 NI
 10.00

 Herb
 OBL
 5.00

 Herb
 FACW+
 50.00

 Herb
 FACW+
 2.00
 Hydric Soil? yes SOIL PROFILE: (Minimum 18 inches) Series Name: Ma, Du Depth Texture Matrix Color Mottle Color(%) Comments _____ ------
 0-6
 sandy loam
 10 YR 4/2

 6-12
 10 YR 6/2
 7.5 YR 4/6

 12-18
 10 YR 6/1
 7.5 YR 4/6
 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: (in.) (in.) (X) Inundated Depth to Saturated Soil: (in.) (X) Saturated in Upper 12 (X) Seasonal High Water Table (X) Seasonal High Water Table (X) Secondarv Indicators (2 or more req' Secondarv Indicators (2 or more req' Secondary Indicators (2 or more req' [X] Spring/Seep [X] Floodplain [] Backwater [X] Drainage Facterns in wettands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional [X] Depressional[] water-Stained Heaves[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)

 [] Stream, Lake, or Tide Gauge
 [] Other
 [] Other
 [] Other

 [] Other
 Recent Weather:

 [] Other
 Recent Rainfall:

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 714 SITE/PLOT#: 714 DATE: 05/05/1993 INVESTIGATOR: LDG COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: South Br. Potomac River DATE: 05/05/1993 COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover 100 Acorus calamus 132 Carex sp. Herb OBL 20.00 Herb FACW Herb FACW Herb FACW Herb OBL 60.00 189 Impatiens capensis 247 Senecio aureus 258 Symplocarpus foetidus 5.00 2.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Massanetta Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-6
 10 YR 4/2
 7.5 YR 4/6

 6-12
 10 YR 5/1
 7.5 YR 4/6
 -----Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 3.0 (in.) Primary Indicators: Depth to Free Water in Pit: (in.) [X] Inundated Depth to Saturated Soil: (in.) [X] Saturated in U [1] Water Marks Wetland Hydrology Indicators: Indicators:
[X] Inundated
[X] Saturated in Upper 12
[] Water Marks
[] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] FAC-Neutral Test [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: [] Other Recent Rainfall: _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria observed

DATE: 05/05/1993 SITE/PLOT#: 715 DATE: 05 COUNTY: Hardy STATE: WV STREAM: INVESTIGATOR: LDG WATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover Herb FACW Herb FACW Herb FACW+ Herb FACW Herb OBL 20.00 132 Carex sp. 171 Equisetum sylvaticum
195 Juncus effusus
247 Senecio aureus
268 Typha latifolia 10.00 30.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Clarksburg Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-4 muck 7.5 YR 2/0 4-12 10 YR 7/0 7.5 YR 4/4 Hydric Soil Indicators: [] Histosol [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12 [X] Saturated in Upper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: fair[] OtherRecent Rainfall: last week -----WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? Hydrophytic Vegetation? yes Remarks: all 3 criteria observed

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SITE/PLOT#: 716 DATE: 05/05/2 COUNTY: Hardy STATE: WV STREAM: unnar COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks:	VAS	Potomac River		
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum Status & A	real Cover		
 100 Acorus calamus 112 Barbarea orthoceras 132 Carex sp. 164 Eleocharis rostellata 178 Eupatorium perfoliatum 189 Impatiens capensis 195 Juncus effusus 211 Mentha aquatica 247 Senecio aureus 258 Symplocarpus foetidus 268 Typha latifolia 	HerbOBLHerbOBLHerbFACWHerbOBLHerbFACW+HerbFACW+HerbFACW+HerbOBLHerbOBLHerbOBLHerbOBLHerbOBLHerbOBL	5.00 5.00 10.00 10.00 5.00 10.00 5.00 5.00 5.00 5.00 5.00 5.00 5.00		
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Dunning Hydric : Mottle Color(%) Comments	Soil? yes		
0-6 10 YR 4/3 6-12 10 YR 5/1 12-18 10 YR 6/1	7.5 YR 4/4 7.5 YR 4/6 7.5 YR 4/6 7.5 YR 4/6			
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [X] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)				
HYDROLOGY:				
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:6.0 (in.)Primary Indicators:Depth to Free Water in Pit:8.0 (in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Drift Lines[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Aerial Photographs[] Other[] OtherRecent Weather: fair[] OtherRecent Rainfall: last week				
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met				

DATE: 05/05/1993 INVESTIGATOR: LDG STATE: WV STREAM: Tombs Run WATERSHED: South Br. Potomac River SITE/PLOT#: 717 COUNTY: Hardy STATE: WV ST COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover Herb FACW Herb OBL Herb FACW Shrub FACW Shrub FAC 189 Impatiens capensis 211 Mentha aquatica 30.00 40.00 247 Senecio aureus 464 Lindera benzoin 537 Ulmus rubra 10.00 40.00 60.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Potomac Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments _____
 0-6
 10 YR 4/3
 7.5 YR 4/4

 6-12
 10 YR 7/1
 7.5 YR 4/6

 12-18
 10 YR 6/1
 5 YR 5/8
 12-18 _ _ _ _ _ _ _ _ _ _ Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic conte [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:(in.)[] Mater MarksSource/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] OtherRecent Weather: light rain[] OtherRecent Rainfall: last week WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria observed

SITE/PLOT#: 718 DATE: 05/06/1993 INVESTIGATOR: LDG COUNTY: Hardy STATE: WV STREAM: Tombs HollowWATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEM1/PUB Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover -----100 Acorus calamus 132 Carex sp. 169 Equisetum fluviatile 322 Cardamine rotundifolia Herb OBL Herb FACW Herb OBL Herb OBL 50.00 30.00 10.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Clarksburg Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments
 0-3
 muck
 7.5 YR 2/0
 muck

 3-10
 clay loam
 2.5 YR 5/0
 7.5 YR 4/4

 10-18
 7.5 YR 5/0
 7.5 Yr 4/6
 muck -----------Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[X] Gleyed[X] Low Chroma [X] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:6.0 (in.)Primary Indicators:Depth to Free Water in Pit:3.0 (in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12 Field Observations: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: light rain Recent Rainfall: last week -----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria observed

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SITE/PLOT#: 720DATE: 08/23/1993INVESTIGATOR: CMH, DMKCOUNTY: HardySTATE: WV STREAM: unnamedWATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: pasture swale wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover Herb OBL Herb FACW+ Herb FACW Herb FAC Herb FAC 129 Carex lurida 25.00 195 Juncus effusus 320 Vernonia noveboracensis 364 Setaria glauca 365 Juncus biflorus 20.00 30.00 20.00 40.00 SOIL PROFILE: (Minimum 18 inches) Series Name: TgA Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments -----0-1organicFe mg. conc.1-3loam5 Y 2.5/1none3-8clay2.5 Y 4/2noneox.roots8-12fine sandy clay 2.5 Y 5/0noneox.roots Hvdric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:18.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in WetlandsSecondary Indicators (2 or more reg/ _____ [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: drought[] OtherRecent Rainfall: ? Recorded Data (Describe in Remarks): _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: while not presently saturated there is evidence suggest sat.-early growing seas

SITE/PLOT#: 721 DATE: 08/23/1993 INVESTIGATOR: CMH, DMK STATE: WV STREAM: unnamed WATERSHED: South Br. Potomac River COUNTY: Hardy STATE: WV ST COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: pasture drainage swale VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status & Areal Cover 103Agrostis albaHerbFACW133Carex stipataHerbOBL194Juncus dichotomusHerbFACW195Juncus effususHerbFACW+269Unidentifiable grassHerbNI320Vernonia noveboracensisHerbFACW 20.00 20.00 20.00 20.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: TgA Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments -----0-3 organic silt 10 YR 4/3 3-12 silt loam 5 Y 4/2 ox.roots,Fe conc Hydric Soil Indicators: [] Histosol] Histocol[] Histic Epipedon] Sulfidic Material[] Aquic Moisture Regime] Gleyed[X] Low Chroma] mottles[] Entisol (organic context, vertical) [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in WetlandsSecondary Indicators(2 or more reg/ _____ [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Depressional[] Water-Stained Leaves[] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: drought[] OtherRecent Rainfall: none -----

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: best prof. judgement of investigator area likely sat. to surface early growing

SITE/PLOT#: 722DATE: 08/23/1993INVESTIGATOR: CMH, DMKCOUNTY: HardySTATE: WV STREAM: unnamedWATERSHED: South Br. Potomac RiverCOWARDIN_CLASSIFICATION: PEM1EPEM1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: pasture swale wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status % Areal Cover -----103Agrostis albaHerbFACW132Carex sp.HerbFACW194Juncus dichotomusHerbFACW195Juncus effususHerbFACW+317Solidago altissimaHerbFACU320Vernonia noveboracensisHerbFACW366Agrimonia parvifloraHerbFAC 15.00 20.00 20 00 20.00 30.00 20.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: CkB Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-4 organic loam 7.5 YR 3/4 none 4-12 clay 5 Y 4/2 none ox.root zones,Fe Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[X] Produlatin[X] Drainage Patterns in Wetlands [X] Drainage Facterns in wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[X] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: drought[] OtherRecent Rainfall: none Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: best prof judgement, area is likely sat. to surface early in growing season

SITE/PLOT#: 723 DATE: 08/24/1993 INVESTIGATOR: CMH, DMK COUNTY: Hardy STATE: WV STREAM: Walnut BottomWATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: pasture/floodplain wetland no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover ----------103 Agrostis alba 194 Juncus dichotomus Herb FACW 15.00
 Herb
 FACW
 15.00

 Herb
 FACW
 10.00

 Herb
 FACW+
 20.00

 Herb
 OBL
 20.00

 Herb
 FACW
 30.00

 Herb
 NI
 30.00

 Herb
 OBL
 20.00

 Shrub
 FACW+
 40.00
 194 Juncus archives
195 Juncus effusus
243 Scirpus atrovirens
320 Vernonia noveboracensis 367 Arthraxon hispidus 368 Carex frankii 522 Salix nigra - - - - -------SOIL PROFILE: (Minimum 18 inches) Series Name: Ln Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0-8silt loam10 YR 4/2conc. Fe conc. ox.root8-12fine sandy clay 2.5 Y 4/2conc. ox.root, Fe conc Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Depent [X] Seasonal High Water Table [] Sediment Deposit [X] Drainage Patterns in Wetlands] Spring/Seep [X] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Backwater [] Depressional [] Depressional[] Oxidized Root Channels/Uppe[] Depressional[] Water-Stained LeavesRecorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: drought[] OtherRecent Rainfall: none WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: not presently saturated, area is probably early in growing season

SITE/PLOT#: 801A DATE: 05/10/1993 INVESTIGATOR: MZ, ABC STATE: WV STREAM: unnamed WATERSHED: North Br. Potomac River COUNTY: Grant COWARDIN CLASSIFICATION: PFO1C Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: floodplain forested wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 FAC+
 30.00

 Herb
 FACW
 90.00

 Shrub
 FACW
 20.00

 Shrub
 FACW
 20.00

 Tree
 FACU 30.00
 153 Dichanthelium clandestinum 189 Impatiens capensis
539 Vaccinium corymbosum
543 Viburnum cassinoides
616 Carya ovata SOIL PROFILE: (Minimum 18 inches) Series Name: Basher Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? yes
 0-6
 sandy silt
 10 YR 4/2
 no

 6-12
 silt
 10 YR 6/1
 7.5YR 5/8 (40%) ox.roots

 12+
 silt
 10 YR 5/1
 10 YR 5/8 (20%)
 [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entirol (and the second Hydric Soil Indicators: [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[] Saturated in Upper 12[X] Water Marks[X] Water MarksSource/Site Characterization:[X] Drift Lines[] Seasonal High Water Table[X] Sediment Deposit Source/Site Characterization:[X] Drift Lines[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] Floodplain[X] Drainage Patterns in Wetlands[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other[] Other[] Other[] OtherRecent Weather: sunny[] OtherRecent Rainfall: 0 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 801B DATE: 05/10/1993 COUNTY: Grant STATE: WV STREAM: unnamed COWARDIN_CLASSIFICATION: PEM1E INVESTIGATOR: MZ, ABC WATERSHED: North Br. Potomac River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: floodplain pasture no no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover 133 Carex stipata 153 Dichanthelium clandestinum Herb OBL 75.00
 Herb
 FAC+
 20.00

 Herb
 FACW+
 20.00
 195 Juncus effusus SOIL PROFILE: (Minimum 18 inches) Series Name: Hydric Soil? Depth Texture Matrix Color Mottle Color(%) Comments -----
 0-6
 sandy silt
 10 YR 4/2
 no

 6-12
 silt
 10 YR 6/1
 7.5YR 5/8 (40%) ox.roots

 12+
 silt
 10 YR 5/1
 10 YR 5/8 (20%)
 ------Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[] Saturated in Upper 12[X] Water Marks[X] Water MarksSource/Site Characterization:[X] Drift Lines[] Seasonal High Water Table[X] Sediment Deposit [] Seasonal High Water Table [] Spring/Seep [X] Sediment Deposit
[X] Drainage Patterns in Wetlands [X] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Backwater
[] Depressional [] Water-Stained Leaves [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: sunny Recent Rainfall: 0 Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other ------

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: adjoining area 801 A to north-all 3 criteria met

SITE/PLOT#: 802DATE: 05/11/1993INVESTIGATOR: MZ, ABCCOUNTY: GrantSTATE: WV STREAM: unnamedWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PFO1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: open & light in forested floodplain wetland with spring seeps VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 10.00 139 Carex vulpinoidea 139 Carex vulpinotata
170 Equisetum sp.
189 Impatiens capensis OBL Herb Herb OBL Herb NI Herb FACW Herb FACW+ Herb FACW Tree FACU-Tree FACW 60.00 10.00 30.00 212 Mentha spicata 222 Poa palustris 616 Carya ovata 20.00 40.00 10.00 30.00 646 Platanus occidentalis SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-2 organic 2-12 loam 12+ refusal-gravel N 2.5/0 (black) no roots & fib.mats Hydric Soil Indicators: [] Histosol [] Sulfidic Material [X] Gleyed [] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:5.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[X] Water Marks[X] Water MarksSource/Site Characterization:[X] Drift Lines[] Seasonal High Water Table[] Sediment Deposit [] Seasonal High Water Table [X] Spring/Seep [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [X] Floodplain [] Backwater [] Depressional

 Recorded Data (Describe in Nemeric)
 [] Other (Explain]

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain]

 [] Aerial Photographs
 Recent Weather: sunny hot Recent Rainfall: 0

 [] FAC-Neutral Test [] Other (Explain in Remarks) WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 803 DATE: 05/11/1993 INVESTIGATOR: MZ, ABC COUNTY: Grant STATE: WV STREAM: unnamed WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: typical pasture wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 132 Carex sp. 153 Dichanthelium clandestinum Herb FACW Herb FAC+ Herb FACW+ Herb FACW 40.00 20.00 195 Juncus effusus 222 Poa palustris 20.00 80.00 SOIL PROFILE: (Minimum 18 inches) Series Name: CkB Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments

 0-6
 silt loam
 10 YR 3/2
 2.5YR 4/6 (10%) ox.roots

 6-12
 loam
 10 YR 4/1
 5 YR 5/8 (15%)

 12+
 refusal
 5 YR 5/8 (15%)

 Hvdric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime] Histosol] Sulfidic Material] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology IndicDepth of Surface Water:5.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in U Wetland Hydrology Indicators: [X] Inundated [X] Inundated [X] Saturated in Upper 12 [] Water Marks [X] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands [] Orainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional [] Water-Stained Log [] Local Soil Survey Data [] Tocal Neutral Test [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: sunny Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Rainfall: 0 _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 804 DATE: 05/11/1993 INVESTIGATOR: MZ, ABC STATE: WV STREAM: unnamed WATERSHED: North Br. Potomac River INVESTIGATOR: MZ, ABC COUNTY: Grant COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: typical pasture wetland-extends along several drainage ways VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 165Eleocharis sp.HerbNI60.00195Juncus effususHerbFACW+60.00198Juncus sp.HerbNI30.00219Osmunda cinnamomeaHerbFACW10.00222Poa palustrisHerbFACW30.00243Scirpus atrovirensHerbOBL50.00 50.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: CkB Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments _ _ _ _ _ _ _ _ -----0-18 clayey silt 2.5 N many roots Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [X] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical ctrocking chrome 3 wet spedesel) streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Water [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Drainage Patterns in Wetlands [II] Dialmage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks)

 Recorded Data (Describe in Remains),
 [] Other (Explain 1)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain 1)

 [] Aerial Photographs
 Recent Weather: sunny hot Recent Rainfall: none

 Recorded Data (Describe in Remarks): ------WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 805 DATE: 05/11/1993 INVESTIGATOR: MZ, ABC COUNTY: Grant STATE: WV STREAM: unnamed WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Gimmerter Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: floodplain emergent wetland surrounded by trees no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover Herb OBL Herb FACW Herb FACW Herb FACW Herb NI 133 Carex stipata 189 Impatiens capensis 20.00 20.00 20.00 20.00 222 Poa palustris 247 Senecio aureus 250 Solidago sp. 40 00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: CkC Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no 0-12 gravelly silt 2.5 Y 6/2 7.5YR 6/8 (10%) ox.roots 12+ refusal Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.0 (in.) Primary Indicators:Depth to Free Water in Pit:(in.)Depth to Saturated Soil:(in.)[X] Saturated in U Wetland Hydrology Indicators: [] Inundated
[] Inundated
[X] Saturated in Upper 12
[] Water Marks
[X] Drift Lines
[X] Sediment Deposit
[] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: sunny [] Other Recent Rainfall: 0 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 806DATE: 05/12/1993INVESTIGATOR: MZ, ABCCOUNTY: GrantSTATE: WV STREAM: unnamedWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: typical pasture wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover 132 Carex sp.
165 Eleocharis sp.
222 Poa palustris
247 Senecio aureus
 Herb
 FACW
 30.00

 Herb
 NI
 20.00

 Herb
 FACW
 40.00

 Herb
 FACW
 20.00
 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: CkC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-6 clayey silt 10 YR 3/1 5 YR 4/6 (10%)ox.roots,lots 6-12+ clayey silt 10 YR 4/1 5 YR 4/6 (10%)lots of roots Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleved [X] Low Chroma [] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12Depth to Saturated Soil:(in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Floodplain[X] Drainage Patterns in Wetlands [X] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more reg'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge[] Other (Expla[] Aerial PhotographsRecent Weather: sunny[] OtherRecent Rainfall: 0

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: stream above flows in dispersed over land pattern to lower channel zone,3 crite

SITE/PLOT#: 807 DATE: 05/12/1993 COUNTY: Grant STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstance INVESTIGATOR: MZ, ABC WATERSHED: North Br. Potomac River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: pasture wetland-relatively undisturbed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 133 Carex stipata
195 Juncus effusus
222 Poa palustris
247 Senecio aureus Herb OBL Herb FACW+ Herb FACW Herb FACW 40.00 20.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsB, BrD3 Hydric Soil? Depth Texture Matrix Color Mottle Color(%) Comments 0-18 silty clay N4/ 2.5YR 4/8 (2007)0A.10000 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:1.0 (in.)[] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Drift LinesI Sediment Deposit[] Sediment DepositI Sediment Deposit[] Drainage Patterns in V [] Seasonal High Water Table
[] Spring/Seep
[X] Floodplain [X] Drainage Patterns in Wetlands [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data : [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: sunny Recent Rainfall: 0 [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 807B DATE: 08/25/1993 INVESTIGATOR: CMH, DMK COUNTY: Grant STATE: WV STREAM: near Thorn RunWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: meadow swale VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 129 Carex lurida 184 Glyceria striata 195 Juncus effusus 129Carex luridaHerbOBL184Glyceria striataHerbOBL195Juncus effususHerbFACW+320Vernonia noveboracensisHerbFACW Herb 30.00 50.00 70.00 20.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: BrC3 Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments ---------------
 0-3
 loam
 7.5 YR 3/2
 none

 3-12
 loamy clay
 5 Y 5/1
 none ox.root,Fe Conc
 Hydric Soil Indicators: [] Histosol] Histosol[] Histic Epipedon] Sulfidic Material[] Aquic Moisture RegimeX] Gleyed[X] Low Chroma] mottles[] Entisol (organic context, vertical) [X] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:16.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Drift Lines[] Saturated Senterization: [] Sediment Deposit [X] Drainage Patterns in Wetlands [X] Seasonal High Water Table [X] Spring/Seep Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks)

 Recorded Data (Describe in Remaine);
 [] Other (Explain in Remaine);

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remaine);

 [] Aerial Photographs
 [] Recent Weather: drought

 [] Other
 Recent Weather: drought

 [] Other
 Recent Rainfall: shower previous nite

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: best prof judgement area is sat. to surgace early in growing season

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SITE/PLOT#: 808 DATE: 05/13/1 COUNTY: Grant STATE: WV STREAM: unnam COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypic Is the area a potential Problem Area? Remarks: linear floodplain wetland with PE	cal Situation)? no	25		
VEGETATION: Percent Dominant Species that a Code Scientific Name	are OBL, FACW or FAC Stratum Status	C 100.00 % Areal Cover		
132 Carex sp. 133 Carex stipata 189 Impatiens capensis 195 Juncus effusus 222 Poa palustris 665 Salix nigra		5.00		
SOIL PROFILE: (Minimum 18 inches) Series M Depth Texture Matrix Color	Iame: Me Mottle Color(%) Co	Hydric Soil? yes mments		
0-6 sandy silt 10 YR 4/1 6-12 silt 10 YR 5/1 12+ refusal-rock	2.5YR 3/6 (7.5YR 4/6 (40%) 25%)ox.roots, many		
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [X] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)				
HYDROLOGY :				
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more reg(d)				
[] Backwater [X] Oxidized Root Channels/Upper 12 [] Depressional [] Water-Stained Leaves				
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rece [] Other Rece	[] Local Soil Sur- [] FAC-Neutral T [] Other (Explain nt Weather: cloudy nt Rainfall: .5 in !	est n in Remarks)		
WETLAND DETERMINATION: Hydric soils presen Wetland Hydrology? Remarks: all 3 parameters met	t? yes Hydrophyt yes Wetland?	tic Vegetation? yes yes		

SITE/PLOT#: 808BDATE: 08/25/1993INVESTIGATOR: CMH, DMKCOUNTY: GrantSTATE: WV STREAM: unnamedWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? ves Remarks: pasture swale wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 60.00 Code Scientific Name Stratum Status & Areal Cover 132 Carex sp.
166 Eleocharis tenuis
195 Juncus effusus
269 Unidentifiable grass
281 Polygonum punctatum Herb FACW Herb FACW Herb FACW+ Herb NI Herb OBL 30.00 20.00 30.00 40.00 15.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Me Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----0-1org.sandy loam2.5 Y 3/3none1-8clay5 Y 4/2noneox.roots8-12clay5 Y 4/1noneFe conc.ox.roots Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[X] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:(in.)[] Saturated in Upper 12[] Water Marks[] Drift LinesSource/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit [] Seasonal High Water Table [X] Spring/Seep [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Floodplain
[] Backwater
[] Depressional [] Depressional[] Water-Stained Leaves[] Depressional[] Water-Stained Leaves[] Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: drought[] OtherRecent Rainfall: shower previous day WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: not presently sat., evidence of seasoned sat., early in growing season

SITE/PLOT#: 809 INVESTIGATOR: MZ, ABC DATE: 05/13/1993 SITE/PLOT#: 809 DATE: 05/13/1993 COUNTY: Grant STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEM1E WATERSHED: South Br. Potomac River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? пo Is the area a potential Problem Area? no Remarks: typical pasture wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover _____ 132 Carex sp. 195 Juncus effusus Herb FACW 30.00 20.00 Herb FACW+ Herb FACW 222 Poa palustris 60.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Me Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-6gravelly clay10 YR 6/27.5YR 5/8 (15%) ox.roots6-12sandy clay10 YR 5/17.5YR 5/8 (25%)12-18sandy clay10 YR 5/25 YR 5/8 (15%) Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:(in.)[] Saturated in Upper 12 [] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Sediment Deposit
[] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) [X] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs _ Recent Weather: Recent Rainfall: [] Other

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 810 DATE: 12/03/1993 INVESTIGATOR: EFA, DAK COUNTY: Grant STATE: WV STREAM: unnamed WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: toxic waste trib? multible deer & livestock carcass VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover HerbFACWHerbNIHerbFAC+HerbFACW+HerbNIHerbOBLHerbNIHerbFACWShrubFACW+ 10.00 119 Carex bromoides 142 Cirsium sp.
153 Dichanthelium clandestinum
195 Juncus effusus
237 Rubus hispidus 50.00 80.00 25.00 90.00 250 Solidago sp.
268 Typha latifolia
271 Unidentifiable sedge 90.00 15.00 320 Vernonia noveboracensis 404 Alnus rugosa 10.00 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LdA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments
 0-8
 silty clay
 10 YR 6/1
 none

 8-12
 silty clay
 10 YR 6/1
 10 YR 6/8 (50%) mang.concr
 Hvdric Soil Indicators: [] Histool[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 1.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Water Marks Source/Site Characterization: [] Drift Lines [X] Seasonal High Water Table [X] Sediment Deposit [X] Secondary Indicators (2 or more req' Secondary Indicators (2 or more req' _____ [X] Seasonal High Water Table [] Spring/Seep [] Floodplain Secondary Indicators (2 or more reg'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream. Lake, or Tide Gauge [] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge[] FAC-N[] Aerial Photographs[] Other[] OtherPecent Deif Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 812A DATE: 03/14/1994 INVESTIGATOR: EFA, DAK COUNTY: Grant STATE: WV STREAM: trib.PattersonWATERSHED: North Br. Potomac River COWARDIN_CLASSIFICATION: PEM1F Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: sediment deposit from upslope & road VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 6 Moss sp. 129 Carex lurida Bryo NI 10.00 129Carex luridaHerbOBL156Dipsacus sylvestrisHerbNI178Eupatorium perfoliatumHerbFACW+228Polygonum sp.HerbNI237Rubus hispidusHerbFACW242Scirpus americanusHerbOBL250Solidago sp.HerbNI268Typha latifoliaHerbOBL269Unidentifiable grassHerbNI320Vernonia noveboracensisHerbFACW Herb OBL 5.00 5.00 5.00 15.00 40.00 10.00 50.00 80.00 5.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: BrF Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-4silty loam10 YR 5/210 YR 7/8 (20%)O.R.C./sat4-12sandy clay10 YR 6/210 YR 7/8 (35%)O.R.C./sat Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[Y] Second Wich Water Table[Y] Second Wich Water Table [] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Recent Weather: 30 degrees
Recent Rainfall: snow showers [X] Seasonal High Water Table
[X] Spring/Seep [X] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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DATE: 03/14/1994 INVESTIGATOR: EFA, DAK STATE: WV STREAM: trib. PattersonWATERSHED: North Br. Potomac River SITE/PLOT#: 812B COUNTY: Grant COWARDIN CLASSIFICATION: PEM1F Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: sediment deposit from upslope & road VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 156Dipsacus sylvestrisHerbNI164Eleocharis rostellataHerbOBL177Eupatoriadelphus purpureusHerbFAC195Juncus effususHerbFACW+198Juncus sp.HerbNI268Typha latifoliaHerbOBL269Unidentifiable grassHerbNI271Unidentifiable sedgeHerbNI320Vernonia noveboracensisHerbFACW 30.00 50.00 10.00 40.00 20.00 50.00 90.00 75.00 60.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BrF Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-6 silty clay 10 YR 5/0 O.R.C. 0-6 silty clay 10 YR 5/0 O.R.C. 6-18 silty clay 10 YR 5/0 10 YR 5/4 (50%)O.R.C. Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical) [] Histosol streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 8.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines [X] Sediment Deposit _____ Wetland Hydrology Indicators: [X] Seasonal High Water Table [X] Sediment Deposit
[X] Drainage Patterns in Wetlands [X] Spring/Seep
[X] Floodplain
[] Backwater
[] Depressional [X] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[] Water-Stained Leaves[] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] OtherRecent Weather: 30 Degrees[] OtherRecent Rainfall: snow showers WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 813 DATE: 03/14/1994 INVESTIGATOR: EFA, DAK COUNTY: Grant STATE: WV STREAM: trib. PattersonWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEM1F Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: hummocks of grass, heavily grazed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover -----156 Dipsacus sylvestris 164 Eleocharis rostellata Herb NI 5.00
 Herb
 NI
 5.00

 Herb
 OBL
 25.00

 Herb
 FACW+
 10.00

 Herb
 NI
 25.00

 Herb
 FACW
 25.00

 Herb
 FACW
 25.00

 Herb
 NI
 90.00

 Herb
 NI
 25.00

 Herb
 NI
 25.00

 Herb
 NI
 25.00

 Herb
 OBL
 10.00

 Herb
 FACU
 10.00
 195 Juncus effusus Juncus sp. Rubus hispidus 198 237 269 Unidentifiable grass
271 Unidentifiable sedge
320 Vernonia noveboracensis 377 Potentilla palustris 903 Daucus carota ------SOIL PROFILE: (Minimum 18 inches) Series Name: ErC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-18 clay 10 YR 3/2 10 YR 4/4 (10%)ox.roots channel -----Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical)
[] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations: Wetland Hydrology India Depth of Surface Water: 4.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [X] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more rest Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more reg'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: 30 degrees Recent Rainfall: snow showers [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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DATE: 03/15/1994 INVESTIGATOR: EFA, DAK STATE: WV STREAM: Patterson CreekWATERSHED: North Br. Potomac River SITE/PLOT#: 814 COUNTY: Grant COWARDIN CLASSIFICATION: PEMIH Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: hummocks of grass VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover Herb FACW+ Herb OBL Herb NI Herb NI Herb FAC 195 Juncus effusus
242 Scirpus americanus
250 Solidago sp.
269 Unidentifiable grass
277 Viola spp. 10.00 90.00 5.00 90.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: ErC Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no -----0-4 silty clay 2.5 Y 4/2 ox.roots channel 4 refusal Hydric Soil Indicators: [] Histosol [] Histic Epipedon] Histosol] Sulfidic Material [] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:12.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: Primary indicators: [X] Inundated [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines [X] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg(Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [X] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) [X] Depressional

 Recorded Data (Describe in Remainer)
 [] Other (Explain in Remainer)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remainer)

 [] Aerial Photographs
 [] Recent Weather: cold 30, windy

 [] Aerial Photographs
 Recent Rainfall: snow showers

 WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 815 DATE: 03/17/ COUNTY: Grant STATE: WV STREAM: Thor COWARDIN CLASSIFICATION: PEM1F Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	2?	ves	FA, DAK h Br. Potomac River	
VEGETATION: Percent Dominant Species that Code Scientific Name				
 153 Dichanthelium clandestinum 178 Eupatorium perfoliatum 195 Juncus effusus 214 Mimulus ringens 237 Rubus hispidus 269 Unidentifiable grass 270 Unidentifiable herb 271 Unidentifiable sedge 320 Vernonia noveboracensis 507 Rosa multiflora 	Herb Herb Herb Herb Herb Herb Herb Herb	FAC+ FACW+ FACW+ OBL FACW NI NI FACW FACU	5.00 5.00 75.00 15.00 60.00 95.00 50.00 65.00 85.00 25.00	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Me Mottle Colo	Hy r(%) Comme	ydric Soil? yes ents	
0-6 silt loam 10 YR 6/2 6-18 silty clay 10 YR 6/1	7 5	ox.roots	s s) ov root channel	
Hydric Soil Indicators: [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)				
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:6.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[] Drainage Patterns in Wetlands				
Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional	Secondary Ind [X] Oxidize [X] Water-S	dicators (2 ed Root Cha Stained Lea	2 or more req'd) annels/Upper 12 aves	
	[] FAC-Ne	cold 17 in	: in Remarks)	
WETLAND DETERMINATION: Hydric soils pres Wetland Hydrology Remarks: all 3 criteria met	ent? yes I ? yes V	Hydrophytic Wetland? ye	c Vegetation? yes es	

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SITE/PLOT#: 816 DATE: 03/17/1994 INVESTIGATOR: EFA, DAK STATE: WV STREAM: M.F.PattersonWATERSHED: North Br. Potomac River COUNTY: Grant COWARDIN CLASSIFICATION: PEM1F/PFO Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? ves Remarks: most of the vegitation is hummocked VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover
 Bryo
 NI
 30.00

 Herb
 FACW+
 25.00

 Herb
 FACW+
 30.00

 Herb
 NI
 25.00

 Herb
 OBL
 30.00

 Herb
 OBL
 30.00

 Herb
 NI
 25.00

 Herb
 NI
 25.00

 Herb
 NI
 90.00

 Herb
 NI
 75.00

 Herb
 FACU
 40.00

 Shrub
 FACU
 5.00

 Tree
 FACW
 5.00

 Tree
 FACW 10.00
 6 Moss sp. 178 Eupatorium perfoliatum 195 Juncus effusus Juncus effusus 198 Juncus sp. 242 Scirpus americanus
269 Unidentifiable grass
271 Unidentifiable sedge 271 Unidentifiable sedge
391 Andropogon virginicus
507 Rosa multiflora
602 Acer rubrum
646 Platanus occidentalis
664 Salix babylonica SOIL PROFILE: (Minimum 18 inches) Series Name: CiC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-6
 silt loam
 10 YR 5/1
 sat suface

 6-16
 silty clay
 10 YR 3/1
 7.5YR 4/4 (30%)

 16-18
 silty clay
 7.5 YR 5/0
 7.5YR 4/8 (25%)
 sat suface ox.rt Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Indicators: Primary Indicators: Mater Marks [X] Water Marks [X] Depth Lines Source/Site Characterization: [X] Drift Lines [] Seasonal High Water Table [X] Spring/Seep [X] Sediment Deposit [] Drainage Patterns in Wetlands [X] Spring/Seep[] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves[] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: cold 20 degrees[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 818 DATE: 04/20/1994 COUNTY: Grant STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEM Do Normal Circuit INVESTIGATOR: MZ WATERSHED: North Br. Potomac River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC Code Scientific Name Stratum Status % Areal Cover _ _ _ _ _ _ _ _ _ . _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Hydric Soil? Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Depth to Free Water in Pit:(in.)Depth to Saturated Soil:(in.)[] Saturated in Upper 12 [] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs Recent Weather: [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? Hydrophytic Vegetation? Wetland Hydrology? Wetland?

Remarks:

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SITE/PLOT#: 901 DATE: 05/10/1993 INVESTIGATOR: EFA, DAE STATE: WV STREAM: Patterson CreekWATERSHED: North Br. Potomac River COUNTY: Grant COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? Remarks: small swale in pasture no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 66.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 FACW
 10.00

 Herb
 FACW+
 25.00

 Herb
 NI
 100.00
 189 Impatiens capensis 195 Juncus effusus 269 Unidentifiable grass SOIL PROFILE: (Minimum 18 inches) Series Name: CkB Hydric : Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no 0-12 silty loam 10 YR 4/2 (80%) 10 YR 5/6 (20%)ox.roots ch 0-10 12 auger refusal _ _ _ _ _ _ _____ Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 4.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [V] Sediment Deposit _____ [] Seasonal High Water Table [X] Spring/Seep [X] Sediment Deposit
[] Drainage Patterns in Wetlands [] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny clear Recorded Data (Describe in Remarks): Recent Rainfall: no data [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: best Professional Judgement-3 parameters present

SITE/PLOT#: 902 DATE: 05/11/1993 INVESTIGATOR: EFA, DAE COUNTY: Grant STATE: WV STREAM: Patterson CreekWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE SITE/PLOT#: 902 Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: floodplain, partial pasture VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 66.00 Code Scientific Name Stratum Status & Areal Cover -----132 Carex sp.
140 Chrysosplenium americanum
247 Senecio aureus
636 Liriodendron tulipifera
646 Platanus occidentalis
656 Quercus alba HerbFACWHerbOBLHerbFACWTreeFACUTreeFACWTreeFACU 90.00 30.00 20 00 SOIL PROFILE: (Minimum 18 inches) Series Name: CkC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments --------------0-4 muck 10 YR 3/2 auger refusal 4" Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:4.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [X] Inundated [X] Saturated in Upper 12 [X] Water Marks Source/Site Characterization: [] Seasonal High Water Table [] Drift Lines [X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: sunny clear [] Other Recent Rainfall: no data · · · WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 903 DATE: 05/11/1993 INVESTIGATOR: EFA, DAE COUNTY: Grant STATE: WV STREAM: Patterson CreekWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status % Areal Cover -----132Carex sp.HerbFACW50.00169Equisetum fluviatileHerbOBL90.00189Impatiens capensisHerbFACW90.00247Senecio aureusHerbFACW10.00274Viola cucullataHerbFACW10.00603Acer saccharinumTreeFACW10.00613Carpinus carolinianaTreeFAC5.00630Fraxinus pennsylvanicaTreeFACW5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: CkC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-12 muck 10 YR 2/1 auger refusal 12 Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 4.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [X] Water Marks [] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg' Source/Site Characterization: [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny clear[] OtherRecent Rainfall: no data WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 904 DATE: 05/12/1993 INVESTIGATOR: EFA, DAE COUNTY: Grant STATE: WV STREAM: Elklick Run WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status % Areal Cover HerbFAC+HerbOBLHerbOBLHerbFACWHerbFACWHerbNITreeFACW 153 Dichanthelium clandestinum 164 Eleocharis rostellata Herb 20.00 100.00 164 Equisetum fluviatile 169 Equisetum fluviatile 179 Galium asprellum 217 Onoclea sensibilis 247 Senecio aureus 20.00 90.00 20.00 10.00 250 Solidago sp. 603 Acer saccharinum 75.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-4silt loam10 YR 3/1root material4-18silt loam2.5 YR 3/22.5YR 3/20x.root channel Hydric Soil Indicators:] Histosol] Sulfidic Material] Gleyed X mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[X] InundatedDepth to Saturated Soil:6.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Water MarksCourse/Site Characterization:[X] Drift Lines[] Sediment Deposit[] Sediment Deposit [] Sediment Deposit
[] Drainage Patterns in Wetlands [X] Spring/Seep [X] Floodplain Secondary Indicators (2 or more req'd) [] Backwater [] Depressional [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other[] OtherRecent Weather: clear 90 degrees[] OtherRecent Rainfall: none ------WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 905 DATE: 05/12/1993 INVESTIGATOR: EFA, DAE COUNTY: Grant STATE: WV STREAM: Elklick Run WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes ves Is the area a potential Problem Area? no Remarks: channeled by farmer VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover -----132Carex sp.HerbFACW153Dichanthelium clandestinumHerbFAC+183Glechoma hederaceaHerbUPL274Viola cucullataHerbFACW 75.00 20.00 20.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments _____ 0-18 sandy silt loam 10 YR 4/1 7.5YR 5/6 (10%)ox.rt.ch./Mn Com Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: (in.) Primary Indicators: Depth to Free Water in Pit: 12.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines
[X] Sediment Deposit
[] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [X] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [X] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: Recent Rainfall: [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: 3 parameters present

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SITE/PLOT#: 906 DATE: 05/12/1993 INVESTIGATOR: EFA, DAE COUNTY: Grant STATE: WV STREAM: Elklick Run WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: there is a pond upslope of the wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Stratum Status % Areal Cover -----100 Acorus calamus
105 Anthoxanthum odoratum
137 Carex trichocarpa
153 Dichanthelium clandestinum
164 Eleocharis rostellata
247 Senecio aureus
270 Unidentifiable herb HerbOBLHerbFACUHerbOBLHerbFAC+HerbOBLHerbFACWHerbNI 90.00 5.00 75.00 75.00 50.00 80.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Pb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0-18 silt loam 10 YR 5/1 7.5YR 5/6 (30%) ox.root channels Hydric Soil Indicators:] Histocol[] Histic Epipedon] Sulfidic Material[] Aquic Moisture Regime] Gleyed[X] Low ChromaX] mottles[] Entisol (organic context, vertical [] Histosol [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Drift Lines[] Spring/Seep[X] Drainage Patterns in Wetlands[Y] FloodplainSecondary Indicators (2 or more reg/ ------[X] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny clear[] OtherRecent Rainfall: none Recorded Data (Describe in Remarks):

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met-see 906 A for further info

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SITE/PLOT#: 906A DATE: 05/13/1993 INVESTIGATOR: EFA, DAE COUNTY: Grant STATE: WV STREAM: Elklick Run WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status & Areal Cover
 Herb
 FACU
 5.00

 Herb
 FACW
 90.00

 Herb
 OBL
 100.00

 Herb
 FACW+
 70.00

 Herb
 FACU
 80.00

 Herb
 FACU
 50.00

 Shrub
 FACU
 50.00

 Tree
 FACU 30.00
 105 Anthoxanthum odoratum 132 Carex sp. 164 Eleocharis rostellata 195 Juncus effusus 229 Potentilla simplex 274 Viola cucullata 507 Rosa multiflora 616 Carya ovata SOIL PROFILE: (Minimum 18 inches) Series Name: BrF Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----0-6 silty clay 10 YR 5/1 10 YR 4/6 (20%) 6" auger refusal Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical [] Histosol streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Depth of Surface Water: 2.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Water Marks Source/Site Characterization: [] Seasonal High Water Table [Y] Spring/Seep [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req' [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: rain previous night[] OtherRecent Rainfall: previous night -------

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: BPJ swale contains 3 parameters-veg. distinctly different from lower section

SITE/PLOT#: 907 DATE: 09/21/1993 INVESTIGATOR: EFA, BJJ COUNTY: Grant STATE: WV STREAM: Patterson CreekWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIF Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 91.00 Code Scientific Name Stratum Status % Areal Cover ------100 Acorus calamus 129 Carex lurida OBL Herb 75.00 Herb OBL Herb OBL Herb FACW+ Herb OBL Herb FACW+ Herb FACW Herb NI Herb OBL Herb FACW Herb FACW Herb FACW Herb FACU Herb OBL 10.00 10.00 195 Juncus effusus 195 Juncus effusus 199 Juncus subcaudatus 227 Polygonum sagittatum 10.00 70.00 244 Scirpus cyperinus 247 Senecio aureus 5.00 Unidentifiable grass 269 90.00 Lycopus uniflorus Polygonum persicaria 50.00 75.00 302 333 374 Juncus torreyi 381 Cyperus lancastriensis 5.00 30.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: BkD Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-4 silt loam 10 YR 4/1 7.5YR 5/8 (20%) faint sulfidic refusal odor odor Hydric Soil Indicators: [] Histosol [X] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:6.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Drift Lines[X] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[X] Depressional[] Water-Stained Leaves[X] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: rain in AM Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

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SITE/PLOT#: 908 DATE: 09/21/1993 INVESTIGATOR: EFA, WJJ COUNTY: Grant STATE: WV STREAM: Patterson CreekWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIF Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover HerbOBLHerbFACWHerbOBLHerbOBLHerbFACWHerbOBLHerbOBLHerbFACWHerbFACWHerbFACW+ 100 Acorus calamus 50.00 114 Bochmeria cylindrica 129 Carex lurida 90.00 10.00 40.00 40.00 169 Equisetum fluviatile 189 Impatiens capensis 227 Polygonum sagittatum 302 Lycopus uniflorus 100.00 80.00 30.00 333 Polygonum persicaria 380 Aster nemoralis 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BkD Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -------0-6 gravelly silt 10 YR 4/3 7.5YR 5/8 (10%) saturated gravel 6-18 silty clay 7.5 YR 4/2 7.5 YR 5/8 contain charcoal Hvdric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:6.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Water MarksSource/Site Characterization:[] Drift Lines[] Sedement Deposit[] Sedement Deposit [] Sediment Deposit
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [X] Backwater [X] Depressional Recorded Data (Describe in Actuality) [] Stream, Lake, or Tide Gauge [] Other (Explain in AM [] Aerial Photographs Recent Weather: rain in AM Recent Rainfall: [] FAC-Neutral Test [] Other (Explain in Remarks) WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: 3 parameters present

SITE/PLOT#: 1001 DATE: 05/18/ COUNTY: Grant STATE: WV STREAM: unnar COWARDIN CLASSIFICATION: PFO1W Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks: PFO surrounded by deciduous fores	? ical Situation)?	yes no no	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FA Stratum Status	AC 77.00 5 % Areal Cover	
 263 Thelypteris thelypteroides 401 Acer rubrum 406 Amelanchier arborea 451 Hamamelis virginiana 497 Quercus rubra 503 Rhododendron viscosum 602 Acer rubrum 661 Quercus rubra 	Herb FACW Shrub FAC Shrub FAC- Shrub FAC- Shrub FACU Shrub OBL Tree FAC Tree FAC	90.00 70.00 40.00 25.00 40.00 25.00 70.00 30.00	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: WoC Mottle Color(%) (Hydric Soil? nl Comments	
0-4 in organic 10 YR 4/1 4-12 in SCL 10 YR 3/1 12-16 in SCL 10 YR 4/1	WoC known to hav high and/or perched water		
Hydric Soil Indicators: [] Histosol [X] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY :			
Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 10.0 (in.) [] Inundated Depth to Saturated Soil: 10.0 (in.) [X] Saturated in Upper 12			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:10.0 (in.)[] InundatedDepth to Saturated Soil:10.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[X] Water-Stained Leaves[] Local Soil Survey Data[X] Pata			
	[] FAC-Neutral [] Other (Expla cent Weather: sunny cent Rainfall: today	Test ain in Remarks)	
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met		ytic Vegetation? yes ? yes	

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SITE/PLOT#: 1002DATE: 05/18/1993INVESTIGATOR: JMG, JDCOUNTY: GrantSTATE: WV STREAM: unnamedWATERSHED: North Br. Potomac RiverCOWARDIN CLASSIFICATION: PEM1BCOUNTY: GrantCOUNTY: Grant Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: PEM within a cow pasture with perenial tributaries. VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 134Carex strictaHerbOBL60.00140Chrysosplenium americanumHerbOBL30.00195Juncus effususHerbFACW+40.00217Onoclea sensibilisHerbFACW50.00258Symplocarpus foetidusHerbOBL80.00412Aronia arbutifoliaShrubFACW10.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: WoC Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments _____ -----0-12 in silty loam 10 YR 5/1 7.5 YR 5/8 (30) saturated 12-16 in silty clay loam 10 YR 5/2 10 YR 6/6 (40) saturated _____ Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Drift LinesSource/Site Characterization:[] Drift Lines[] Sediment Deposit[] Sediment Deposit Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] Floodplain[X] Drainage Patterns in Wetlands[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[X] Oxidized Root Channels/Upper 12[X] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Derist Lines [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other ------WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Netland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 1003 DATE: 05/18/ COUNTY: Grant STATE: WV STREAM: unnar COWARDIN CLASSIFICATION: PFO1W Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks: Portions of the wetland were fill	? ical Situation)?	yes no no	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or B Stratum Statu	FAC 55.00 us % Areal Cover	
258 Symplocarpus foetidus 401 Acer rubrum 401 Acer rubrum 409 Amelanchier laevis 451 Hamamelis virginiana 497 Quercus rubra 497 Quercus rubra 602 Acer rubrum 661 Quercus rubra	Herb OBL Shrub FAC Shrub FAC Shrub UPL Shrub FAC Shrub FAC Shrub FAC Tree FAC Tree FAC	100.00 15.00 60.00 30.00 40.00 U 15.00 U 40.00 60.00 U 40.00	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: WoC Mottle Color(%)	Hydric Soil? nl Comments	
0-6 in SC 10 YR 4/1 6-12 in CL 10 YR 5/1 12-16 in SCL 10 YR 5/1	sat sat sat	turated turated turated	
Hydric Soil Indicators: [] Histosol [X] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY :			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Depth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[] Sediment Deposit[] Floodplain[X] Oxidized Root Channels/Upper 12[X] Depressional[X] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other[] Aerial PhotographsRecent Weather: sunny[] OtherRecent Rainfall: today			
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met		phytic Vegetation? yes nd? yes	

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SITE/PLOT#: 1004 DATE: 05/20/1993 COUNTY: Grant STATE: WV STREAM: unnamed INVESTIGATOR: JMG, JD WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEM2B Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: area has been logged, adjacent to Rt. 93 and BP gas station VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover HerbFACHerbFACShrubFACShrubFACShrubFACUTreeFACTreeFACU 218 Osmunda claytoniana 237 Rubus hispidus 30.00 20.00 249 Solidago rugosa 50.00 415 Betula alleghaniensis
415 Hamamelis virginiana
497 Quercus rubra
602 Acer rubrum
661 Quercus rubra 30.00 50.00 20.00 40.00 60.00 SOIL PROFILE: (Minimum 18 inches) Series Name: WoC Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-4 in organic 10 YR 2/1 known to have 4-6 in sandy silt 10 YR 4/2 a high and or 6-12 in sandy silt 10 YR 5/2 10 YR 7/8 (10%perched water Hydric Soil Indicators: [] Histosol[X] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:6.0 (in.)[] InundatedDepth to Saturated Soil:6.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[Y] Seasonal High Water Table[] Sediment Deposit [] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional

 Recorded Data (Describe in Remaine, .
 [] Other (Explaine in Recent Weather: rain

 [] Aerial Photographs
 [] Other (Explaine in Recent Weather: rain

 [] Aerial Photographs
 Recent Rainfall: 5/18 5/19

 [] FAC-Neutral Test [] Other (Explain in Remarks) WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 1005 DATE: 05/19/1993 INVESTIGATOR: JMG, JD COUNTY: Grant STATE: WV STREAM: unnamed WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIB Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: within and around the wetland has been logged. VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 60.00 Code Scientific Name Stratum Status % Areal Cover Herb NI Herb FACW+ Herb FAC Herb FACW Herb NI Shrub FACU 104 Alopecurus sp.
195 Juncus effusus
218 Osmunda claytoniana
237 Rubus hispidus
271 Unidentifiable sedge
487 Prunus serotina 20.00 10.00 10.00 30.00 100.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: WoC Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments known to have _ _ _ _ _ _ _ _ _ _ _ _ _ -----
 0-6 in organic
 10 YR 2/1
 known to have

 6-12 in sandy silt
 10 YR 5/2
 10 YR 7/6 (10%) high and/or

 12-16 in sandy silt
 10 YR 6/2
 19 YR 7/8 (15%) petched water
 Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 2.0 (in.) Primary Indicators: Depth to Free Water in Pit: 7.0 (in.) [] Inundated Depth to Saturated Soil: 7.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: Rain Recent Rainfall: 5/18 5/19 [] Other ------

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: confirmed hydric soil and wetland hydrology indicate the vegetation hydrophytic

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SITE/PLOT#: 1006 DATE: 05/20/1993 INVESTIGATOR: JMG, JD COUNTY: Grant STATE: WV STREAM: Little CreekWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEM Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves yes Is the area a potential Problem Area? пo Remarks: a reclaimed coal strip mine is located above the wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status & Areal Cover 2 Sphagnum sp. Bryo NI 132 Carex sp. 166 Eleocharis tenuis FACW Herb FACW FACW FACW+ Herb Herb 195 Juncus effusus 195Duncus erfustsHerbFACW-237Rubus hispidusHerbFACW249Solidago rugosaHerbFAC401Acer rubrumShrubFAC415Betula alleghaniensisShrubFAC451Hamamelis virginianaShrubFAC-469Lyonia ligustrinaShrubFACW541Vaccinium myrtilloidesShrubFAC SOIL PROFILE: (Minimum 18 inches) Series Name: CeB Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments -----0-2organicCeB known to2-6loam10 YR 3/1have low permea-6-12sandy loam7.5 YR 2/0bility & high Hydric Soil Indicators: [] Histosol[X] Histic Epipedon[X] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [X] Seasonal High Water Table [X] Seasonal High Water Table [X] Secondary Indicators (2 or more req' Secondary Indicators (2 or more req' [X] Seasonal High Water Table
[X] Spring/Seep
[X] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional [] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge[] Other (Explain in[] Aerial PhotographsRecent Weather: sunny[] OtherRecent Rainfall: 5/18 5/19 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks:

DATE: 05/20/1993 INVESTIGATOR: JMG, JD STATE: WV STREAM: Little CreekWATERSHED: North Br. Potomac River SITE/PLOT#: 1007 COUNTY: Grant COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: seep within pasture land/old farmstead site VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 122 Carex crinita
219 Osmunda cinnamomea
237 Rubus hispidus
249 Solidago rugosa OBL Herb Herb FACW Herb Herb FACW FAC SOIL PROFILE: (Minimum 18 inches) Series Name: WoC Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-3 in organic WIH 3-12 in silty loam 5 Y 6/1 12-16 in clayey loam 10 YR 7/1 saturated Fe, Ma concretio Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [X] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical [X] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY :

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 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 1.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Drift Lines

 [X] Seasonal High Water Table
 [] Sediment Deposit

 [X] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more reg'

 _____ [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge Recent Weather: sunny] Aerial Photographs Recent Rainfall: 5/18 5/19 [] Other _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 1008 DATE: 06/01/1993 INVESTIGATOR: CMH, DAE COUNTY: Grant STATE: WV STREAM: Little CreekWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PFOIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: wooded seep area				
VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 77.00 Code Scientific Name Stratum Status % Areal Cover				
2Sphagnum sp.BryoNI131Carex scabrataHerbOBL166Eleocharis tenuisHerbFACW218Osmunda claytonianaHerbFAC219Osmunda cinnamomeaHerbFACW237Rubus hispidusHerbFACW262Thelypteris noveboracensisHerbFAC269Unidentifiable grassHerbNI451Hamamelis virginianaShrubFAC-464Lindera benzoinShrubFACW602Acer rubrumTreeFAC608Betula alleghaniensisTreeFAC661Quercus rubraTreeFACU				
SOIL PROFILE: (Minimum 18 inches) Series Name: CeB Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments				
0-5 organic muck 10 YR 2/1 none 5-12 sandy org. loam 10 YR 3/1 none Ma, Fe conc. Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [X] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)				
HYDROLOGY :				
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:5.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny[] OtherRecent Rainfall: ?				
WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Wetland Hydrology? yes				

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SITE/PLOT#: 101 INVESTIGATOR: Cmn, Drug WATERSHED: Shenandoah River DATE: 07/26/1993 COUNTY: Shenandoah STATE: VA STREAM: unnamed COWARDIN CLASSIFICATION: PEM1/PUB Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: sm. wetland in along swale drainage way/ditch VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover 132Carex sp.HerbFACW202Lemna minorHerbOBL280Alisma subcordatumHerbOBL281Polygonum punctatumHerbOBL282Leersia virginicaHerbFACW283Veronica anagallis-aquaticaHerbOBL 30.00 20.00 10.00 10.00 60.00 15.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: 51D Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? nl ----------0-6 silty clay 10 YR 4/2 none saturated -----Hydric Soil Indicators:] Histosol [] Histic Epipedon] Sulfidic Material [X] Aquic Moisture Regime] Gleyed [X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY:

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 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 2.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 3.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Water Marks

 [] Seasonal High Water Table
 [] Sediment Deposit

 [X] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more reg'c

 [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Oxidized Root Channels/Upper 12Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: drought
Recent Rainfall: none Recent Rainfall: none WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes

Remarks: all 3 criteria met

SITE/PLOT#: 1020DATE: 05/18/1993INVESTIGATOR: CMH, ABCCOUNTY: GrantSTATE: WV STREAM: unnamedWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE/PSS Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no ves Is the area a potential Problem Area? no Remarks: area is an abandoned farmstead along small drainageway VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status % Areal Cover 132Carex sp.HerbFACW15.00133Carex stipataHerbOBL20.00189Impatiens capensisHerbFACW20.00217Onoclea sensibilisHerbFACW5.00219Osmunda cinnamomeaHerbFACW10.00251Solidago uliginosaHerbOBL15.00405Alnus serrulataShrubOBL100.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Ca Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? nl 0-2fssl10 YR 4/3none w/organics2-8fsl5 GY 5/17.5 YR 5/8 (10)8-12sl5 GY 5/17.5 YR 5/8 (20) Hydric Soil Indicators:

 C Soll Indicators:
 [] Histic Epipedon

 [] Histic Material
 [] Histic Epipedon

 [] Sulfidic Material
 [X] Aquic Moisture Regime

 [X] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:4.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Image: Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more regy) [X] Floodplain
[] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves . [] Depressional

 Recorded Data (Describe in Remarks):
 [] Local Soil Survey Data

 [] Stream, Lake, or Tide Gauge
 [] Other

 [] Aerial Photographs
 [] Other

 [] Other
 [] Recent Weather: light rain/fog

 WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes

Remarks: all 3 criteria met

SITE/PLOT#: 1021 DATE: 05/18/1993 COUNTY: Grant STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PFO1B Do Normal Circumstance INVESTIGATOR: CMH, ABC WATERSHED: North Br. Potomac River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: seep area in woods VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status % Areal Cover 2.00
 Herb
 FAC
 10.00

 Herb
 FACW
 10.00

 Herb
 FACW
 15.00

 Herb
 FACW
 5.00

 Herb
 NI
 10.00

 Shrub
 FAC
 5.00

 Tree
 FAC
 100.00
 10.00 111 Anthyrium felix-femina 111 Anthyrrum reasons 132 Carex sp. 189 Impatiens capensis 263 Thelypteris thelypteroides 269 Unidentifiable grass 115 Datule alleghaniensis 415 Betula alleghaniensis 602 Acer rubrum _ _ _ _ _ _ _ _ _____ -----SOIL PROFILE: (Minimum 18 inches) Series Name: Wharton Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments -------_ _ _ _ _ _ _ _ _ _ -----0-2 organic muck 4-10-12 silty loam 10 YR 4/1 7.5 YR 4/6 (5) Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon
[X] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations: Wetland Hydrology Indic Depth of Surface Water: 1.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [] Sediment Deposit [] Drainage Patterns in Wetlands [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: clear several weeks [] Other and the content of the content Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1022A DATE: 05/19/1993 COUNTY: Grant STATE: WV STREAM: unnamed COWARDIN_CLASSIFICATION: PEM1E INVESTIGATOR: CMH WATERSHED: North Br. Potomac River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: pasture swale wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 87.00 Code Scientific Name Stratum Status % Areal Cover 113 Bidens frondosa Herb FACW 116 Caltha palustris 133 Carex stipata Herb OBL Herb OBL. 166 Eleocharis tenuis Herb FACW Herb FACW Herb FACW Herb FACW+ Herb NI Herb FACW 189 Impatiens capensis 195 Juncus effusus 250 Solidago sp. 274 Viola cucullata SOIL PROFILE: (Minimum 18 inches) Series Name: Wharton Hydric Soil? nl Depth Texture Matrix Color Mottle Color (%) Comments 0-4 organic 4-16 sl 10 YR 5/1 10 YR 6/8 (5) Hydric Soil Indicators: c Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [X] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical ctrocking chroma 3 wet spodosol) streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Depth of Surface Water: 1.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [X] Seasonal High Water Table [X] Season [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more reg'd) [] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Oxidized Root Channels/Upper 12[] Depressional[] Water-Stained LeavesRecorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: rain w/in last 2days[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes

Remarks: all 3 criteria

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SITE/PLOT#: 1022B DATE: 05/19/1993 INVESTIGATOR: CMH COUNTY: Grant STATE: WV STREAM: unnamed WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: pasture swale wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 87.00 Code Scientific Name Stratum Status & Areal Cover 113 Bidens frondosa116 Caltha palustris FACW Herb Herb OBL 133 Carex stipata 133 Carex stipata 166 Eleocharis tenuis 189 Impatiens capensis 195 Juncus effusus 250 Solidago sp. 274 Viola cucullata Herb OBL Herb Herb FACW FACW Herb FACW+ Herb NI Herb FACW SOIL PROFILE: (Minimum 18 inches) Series Name: Wharton Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-4 organic 4-16 <1 10 YR 5/1 10 YR 6/8 (5%) Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [X] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY: -----Field Observations: Wetland Hydrology Indic Depth of Surface Water: 1.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg(Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Oxidized Root Channels/Upper 12[] Depressional[] Water-Stained LeavesRecorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: rain w/in last 2 day[] OtherRecent Rainfall: _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1023 DATE: 05/19/1993 INVESTIGATOR: JMG, JD COUNTY: Grant STATE: WV STREAM: Head Water WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: wetland located in pastureland adjacent to Rt. 93 VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status & Areal Cover
 Herb
 OBL
 50.00

 Herb
 NI
 30.00

 Herb
 FACW
 15.00

 Herb
 OBL
 5.00
 133 Carex stipata
165 Eleocharis sp.
189 Impatiens capensis
275 Viola pallens SOIL PROFILE: (Minimum 18 inches) Series Name: WnB Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments -----------------
 0-4
 organic

 4-12
 sl
 10 YR 5/1
 10 YR 6/8 (5) saturated

 12-18
 sl
 10 YR 6/1
 10 YR 6/8 (25) saturated
 -----Hydric Soil Indicators: ------[] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY :

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 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 1.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more regy

 Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Backwater [] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: clear w/light rain[] OtherRecent Rainfall: 0.5 Recorded Data (Describe in Remarks): -----

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 1024 DATE: 05/19/1993 INVESTIGATOR: JMG, ABC COUNTY: Grant STATE: WV STREAM: Headwater WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status & Areal Cover -----229 Potentilla simplex 241 Saxifraga pennsylvanica Herb FACU Herb OBL Herb FAC Herb NI 10.00 20.00 249 Solidago rugosa 250 Solidago sp. 40.00 30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: WnB Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments -----
 0-2
 organic

 2-6
 clay loam
 2.5 Y 6/2

 6-12
 clay loam
 10 YR 6/2
 7.5 YR 6/8 (15)

 12-16
 clay loam
 10 YR 5/2
 7.5 YR 6/8 (15)
 _____ Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:1.0 (in.)[]Depth to Saturated Soil:0.0 (in.)[X]Saturated in Upper 12 Primary Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge[] Other (Explain in[] Aerial PhotographsRecent Weather: sunny[] OtherRecent Rainfall: 5/18 5/19 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 1101ADATE: 05/24/1993COUNTY: GrantSTATE: WV STREAM: unnamed INVESTIGATOR: MZ, JMD WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEM1A Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: area cleared for power line ROW, some disturbance, not significant VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover Bryo NI Herb OBL Herb NI Herb FACW+ Herb FACW 1 Polytrichum sp. 30.00 131 Carex scabrata 165 Eleocharis sp. 195 Juncus effusus 196 Juncus marginatus 80.00 30.00 20.00 20.00 ~ SOIL PROFILE: (Minimum 18 inches) Series Name: Cavode Hydric Soil? no Depth Texture Matrix Color Mottle Color (%) Comments _ _ _ _ _ _ _ _ _ _ _ _ _ -----0-4 organic 4-12 clay 10 YR 6/1 7.5YR 6/8 (5%)few ox.roots 12-18 clay 10 YR 7/1 7.5YR 5/8 (20%) Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [X] Saturated in Upper 12
[] Water Marks
[] Drift Lines Source/Site Characterization: [] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Recent Weather: partly cloudy [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional

 Recorded Data (Describe in Neurality)
 [] Other (Explain in Neurality)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Neurality)

 [] Aerial Photographs
 Recent Weather: partly cloudy

 [] Other
 Recent Rainfall: 1/2 " yesterday

 Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

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SITE/PLOT#: 1101BDATE: 05/24/1993COUNTY: GrantSTATE: WVSTATE: WVSTREAM: unnamed INVESTIGATOR: EFA, DAE WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PFO4A Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? пo Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover Bryo NI Herb NI Shrub FAC Tree FACU 2 Sphagnum sp. 269 Unidentifiable grass 501 Rhododendron maximum 669 Tsuga canadensis 80.00 25.00 30.00 100.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Cavode Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-12 muck deg. peat 10 YR 2/1 none organic peat Hydric Soil Indicators: [] Histic Epipedon] Histosol [] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines Source/Site Characterization: [X] Seasonal High Water Table [] Sediment Deposit
[] Drainage Patterns in Wetlands [] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Depressional [] Local Soil Survey Data [] FAC-Neutral Test [X] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs Recent Weather: Recent Rainfall: [] Other WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

Remarks: BPJ suggests 3 parameters present

SITE/PLOT#: 1101CDATE: 05/24/1993INVESTIGATOR: MZ, JMDCOUNTY: GrantSTATE: WV STREAM: unnamedWATERSHED: North Br. Potomac RiverCOWARDIN_CLASSIFICATION: PF05EPF05E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes ves Is the area a potential Problem Area? no Remarks: area has been logged & apparently flooded at some time VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 60.00 Code Scientific Name Stratum Status & Areal Cover 1Polytrichum sp.BryoNI40.00119Carex bromoidesHerbFACW20.00150Cystopteris bulbiferaHerbFAC20.00250Solidago sp.HerbNI50.00474Ostrya virginianaShrubFACU-32.00511Rubus allegheniensisShrubFACU-40.00 1 Polytrichum sp. _____ SOIL PROFILE: (Minimum 18 inches) Series Name: CeB Cavode Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments --------------
 0-6
 loamy clay
 10 YR 5/2
 none with org. streak

 6-12
 clay
 10 YR 6/2
 10YR 5/8 (10%)

 12-18
 clay
 10 YR 6/8
 10YR 5/1 (5%)
 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: (in.) Wetland Hydrology Indicators: Primary Indicators: Primary Indicators:
 [] Inundated
 [X] Saturated in Upper 12
 [X] Water Marks
 [] Drift Lines
 [] Sediment Deposit
 [X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
 [] Oxidized Root Channels/Upper 12
 [X] Water-Stained Leaves
 [] Local Soil Survey Data
 [] FAC-Neutral Test Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional

 (Describe in Remarks):
 [] FAC-Neutral Test

 Jake, or Tide Gauge
 [] Other (Explain in Remarks)

 Jotographs
 Recent Weather: partly cloudy

 Recent Rainfall: 1/2" yesterday

 Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs [] Other _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 1101D DATE: 05/24/1993 COUNTY: Grant STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PF04A DATE: 05/24/1993 INVESTIGATOR: EFA, DAE WATERSHED: North Br. Potomac River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover Bryo NI Herb NI Shrub FACU Tree FACU 2 Sphagnum sp. 269 Unidentifiable grass 80.00 25.00 561 Acer spicatum 669 Tsuga canadensis 100.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Cavode Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0-12 muck deg. peat 10 2/1 none organic peat Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context, vertical) [] Histosol] Sulfidic Material] Gleyed] mottles] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[X] Water Marks[X] Water MarksCourse (Site Characterization:[X] Drift Lines[] Sediment Deposit [] Sediment Deposit
[] Drainage Patterns in Wetlands [X] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [X] Other (Explain in Remarks) [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs
[] Other Recent Weather: Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Remarks: BpJ suggests 3 parameters present

SITE/PLOT#: 1102 INVESTIGATOR: MZ, JMD DATE: 05/25/1993 SITE/PLOT#: 1102 DATE: 05/25/1993 INVESTIGATOR: MZ, JMD COUNTY: Grant STATE: WV STREAM: Four Mile RunWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: adjacent to beaver pond-water seeps overland thru site VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover Herb FACW Herb OBL Herb NI 132 Carex sp.133 Carex stipata165 Eleocharis sp. 40.00 50.00 40.00 SOIL PROFILE: (Minimum 18 inches) Series Name: CeB Cavode Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no
 0-3
 silty loam
 7.5 YR 4/0
 7.5YR 4/6 (40%) ox.roots

 3-8
 silty loam
 2.5 Y 5/2
 10 YR 4/6 (20%) ox.roots

 8-16
 silty clay
 2.5 Y 6/2
 none ox.roots
 Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic contents) [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg(Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [X] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional [] Water-Stained Louis [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: partly cloudy[] OtherRecent Rainfall: 1/2 inch 2 days ago Recorded Data (Describe in Remarks): ______

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1102A DATE: 05/25/1993 INVESTIGATOR: M2, ORD COUNTY: Grant STATE: WV STREAM: Four Mile RunWATERSHED: North Br. Potomac River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: adjacent to beaver pond - water seeps overland thru site VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover _____ -----_ _ _ _ _ _ _ _ _ -------------132 Carex sp. 133 Carex stipata 165 Eleocharis sp. FACW Herb 40.00 Herb OBL Herb NI 50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: CeB Cavode Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no _____ -----_____ _____
 0-3
 silty loam
 7.5 Yr 4/0
 7.5YR 4/6 (40%) ox.roots

 3-8
 silty loam
 2.5 Y 5/2
 10 YR 4/6 (20%) ox.roots

 8-16
 silty clay
 2.5 Y 6/2
 none ox.roots
 Hydric Soil Indicators: [] nistosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY ______ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Sediment Deposit [X] Drainage Patterns in Wetlands [] Seasonal High Water Table [] Spring/Seep [] Floodplain [X] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: partly cloudy Recent Rainfall: .5" 2 days ago [] Other

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

SITE/PLOT#: 1102B DATE: 05/25/1993 INVESTIGATOR: MZ, JMD COUNTY: Grant STATE: WV STREAM: Four Mile RunWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PSS1E/PEM Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? пo Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover 139 Carex vulpinoidea 189 Impatiens capensis 269 Unidentifiable grass Herb OBL Herb FACW Herb NI Shrub FAC 50.00 40.00 269 Unidentifiable grass 401 Acer rubrum 40.00 50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: CeB Cavode Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-6 sandy silt 2.5 Y 3/0 6-12 sandy silt 2.5 Y 2/0 12-16 clay loam 2.5 Y 4/2 _____ Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical [] Histosol [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY:

 HYDROLOGI.

 Field Observations:
 Wetland Hydrology Indicators.

 Depth of Surface Water:
 0.5 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 [] Water Marks
 [] Water Marks

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [X] Sediment Deposit

 [X] Drainage Patterns in Wetlands
 Secondary Indicators (2 or more reg'

 [] Spring/Seep [X] Floodplain [X] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Depressional [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks):

 Recorded Data (Describe in Action of Stream, Lake, or Tide Gauge
 [] Other (Explain in Action of Stream, Lake, or Tide Gauge

 [] Aerial Photographs
 Recent Weather: partly cloudy

 Recent Rainfall: .5" 2 days ago

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

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SITE/PLOT#: 1103 DA COUNTY: Grant STATE: WV ST COWARDIN CLASSIFICATION: PEM1E/ Do Normal Circumstances exist o Is the site significantly distu Is the area a potential Problem Remarks: mine land emergent wet	ML n the site? rbed (Atypical Si Area?	ves	Z, JMD n Br. Potomac River
VEGETATION: Percent Dominant Sp Code Scientific Name	ecies that are OF Stratu	BL, FACW or FAC m Status	.00 % Areal Cover
1 Polytrichum sp. 198 Juncus sp. 250 Solidago sp. 270 Unidentifiable herb	Bryc Herk Herk Herk	O NI O NI O NI O NI	40.00 40.00 20.00 20.00
SOIL PROFILE: (Minimum 18 inche Depth Texture Matr	1x Color Mottl	e Color(%) Comme	ents
0-6 clay loam 7.5 6-12 clay 7.5 12-16 clay 7.5	YR 5/8 YR 7/0 YR 7/8	7.5YR 7/0 (15% 7.5YR 7/8 (50% 2.5 Y 7/0 (30%	5) 5) 5)
Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles	[] Histic Epi [] Aquic Mois [X] Low Chroma [] Entisol (c		rertical
HYDROLOGY:			
Field Observations: Depth of Surface Water: 0 Depth to Free Water in Pit: 0 Depth to Saturated Soil: 0	Wetland H .5 (in.) Primar .0 (in.) [X] .0 (in.) [X] [X]	ydrology Indicato y Indicators: Inundated Saturated in Uppe Water Marks	er 12
[] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional	[X] [X] Second [X] [X]	Sediment Deposit Drainage Patterns ary Indicators (2 Oxidized Root Cha Water-Stained Lea	in Wetlands or more req'd) nnels/Upper 12 ves
Recorded Data (Describe in Rema [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other	rks): [] [] Recent We Recent Ra	Local Soil Survey FAC-Neutral Test Other (Explain i ather: partly clo infall: .5" 2 day	n Remarks) udy s ago
WETLAND DETERMINATION: Hydric Wetland			

Wetland Hydrology? yesWetland? yesRemarks: vet. was unidentifiable - hydrophytic veg. exists during the growing season

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SITE/PLOT#: 1104 DATE: 05/25/1993 COUNTY: Tucker STATE: WV STREAM: unnamed INVESTIGATOR: MZ. JMD WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE/PSS Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: firebreak cleared in forested area, regrown to shrub level VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover 132Carex sp.HerbFACW40.00168Epilobium hirsutumHerbFACW20.00237Rubus hispidusHerbFACW30.00270Unidentifiable herbHerbNI40.00541Vaccinium myrtilloidesShrubFAC30.00559Viburnum recognitumShrubFACW+20.00 132 Carex sp.168 Epilobium hirsutum237 Rubus hispidus SOIL PROFILE: (Minimum 18 inches) Series Name: Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----
 0-6
 silt loam
 10 YR 4/1
 many roots

 6-12
 silt loam
 7.5 YR 2/0
 10 YR 8/8 (10%) ox.root channel

 12-16
 sandy loam
 10 YR 3/1
 10 YR 8/8 (10%) ox.root channel
 Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Indicators: Primary Indicators: [X] Inundated Depth to Saturated Soil: University of the set of t [A] Baturated in opper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
[X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Spring/Seep [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data

 Recorded Data (Describe in Remarks):
 [] Ibcal Survey Data

 [] Stream, Lake, or Tide Gauge
 [] FAC-Neutral Test

 [] Aerial Photographs
 [] Other (Explain in Remarks)

 [] Other
 Recent Weather: partly cloudy

 [] Other
 Recent Rainfall: .5" 2 days ago

 ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

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SITE/PLOT#: 1110 DATE: 05/25/1993 INVESTIGATOR: EFA, DAE COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE/PSS Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 88.00 Code Scientific Name Stratum Status % Areal Cover
 Bryo
 NI
 100.00

 Herb
 FACW
 10.00

 Herb
 FACW+
 10.00

 Herb
 FACW+
 100.00

 Herb
 OBL
 10.00

 Herb
 OBL
 5.00

 Shrub
 FACW
 25.00

 Shrub
 FACW
 50.00

 Shrub
 FACW+
 5.00
 2 Sphagnum sp.
132 Carex sp.
195 Juncus effusus
237 Rubus hispidus
251 Solidago uliginosa
275 Viola pallens
538 Vaccinium angustifoliu 538 Vaccinium angustifolium 539 Vaccinium corymbosum 559 Viburnum recognitum SOIL PROFILE: (Minimum 18 inches) Series Name: BsC/Lsa Hydric Soil? yes Depth Texture Matrix Color Mottle Color (%) Comments 0-18 muck silt 10 YR 3/1 none org.root mat. Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[V] FloodplainSecondary Indicators (2 or more reg/ [] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[X] Backwater[] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained Leaves[X] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] OtherRecent Weather: overcast cool[] OtherRecent Rainfall: last weekend WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met; past beaver activity-good water quality/clarity

SITE/PLOT#: 1110A DATE: 05/25/ COUNTY: Tucker STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PEM1E/PSS1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	e? ves		
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 88.00 Stratum Status % Areal Cover		
2 Sphagnum sp. 132 Carex sp. 195 Juncus effusus 237 Rubus hispidus 251 Solidago uliginosa 275 Viola pallens 538 Vaccinium angustifolium 539 Vaccinium corymbosum 559 Viburnum recognitum	Bryo NI 100.00 Herb FACW 10.00 Herb FACW+ 100.00 Herb FACW 100.00 Herb OBL 100.00 Herb OBL 5.00 Shrub FACU 25.00 Shrub FACW+ 50.00 Shrub FACW+ 5.00		
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color			
0-18 muck/silt 10 YR 3/1	none organic root		
Hydric Soil Indicators: [] Histosol [] His [] Sulfidic Material [] Aqu [] Gleyed [X] Low [] mottles [] Ent	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)		
HYDROLOGY:			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[X] Backwater[] Oxidized Root Channels/Upper 12[X] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] I FAC-Neutral Test[] Aerial PhotographsRecent Weather: overcast, cool[] OtherRecent Rainfall: last weekend			
WETLAND DETERMINATION. Hydric soils present? yes Hydrophytic Vegetation? yes			

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: past beaver activity, good water quality/clarity

SITE/PLOT#: 1111 DATE: 05/25 COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PSSIE Do Normal Circumstances exist on the sit Is the site significantly disturbed (Aty Is the area a potential Problem Area? Remarks:	
VEGETATION: Percent Dominant Species tha Code Scientific Name	t are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover
2 Sphagnum sp. 237 Rubus hispidus 251 Solidago uliginosa 452 Hypericum densiflorum 539 Vaccinium corymbosum 541 Vaccinium myrtilloides	Bryo NI 95.00 Herb FACW 50.00 Herb OBL 90.00 Shrub FAC+ 30.00 Shrub FACW 50.00 Shrub FACW 50.00
SOIL PROFILE: (Minimum 18 inches) Serie Depth Texture Matrix Color	
0-3 peat 10 YR 2/1 3-5 silty sand 10 YR 6/2 5-6 sand 10 YR 6/8	none org. silt root none none auger refusal
Hydric Soil Indicators: [] Histosol [] Hi [] Sulfidic Material [] Aq [] Gleyed [X] Lo [] mottles [] En	stic Epipedon uic Moisture Regime w Chroma tisol (organic context, vertical reaking, chroma 3, wet spodosol)
HYDROLOGY:	
Field Observations: W Depth of Surface Water: 4.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater	etland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines [X] Sediment Deposit
<pre>[X] Spring/Seep [] Floodplain [] Backwater [] Depressional</pre>	<pre>[X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data</pre>
[] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs R [] Other R	<pre>[] FAC-Neutral Test [] Other (Explain in Remarks) ecent Weather: scattered showers ecent Rainfall:</pre>
	sent? yes Hydrophytic Vegetation? yes v? yes Wetland? yes

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Wetland Hydrology? yes Wetland? yes Remarks: BPJ suggests sphagnum mat & peat material serves as hydric supporting hydrophyt

SITE/PLOT#: 1112 DATE: 05/25/1993 INVESTIGATOR: EFA, DAE COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? yes Remarks: strip mine site-borders unnamed perennial stream VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp. 164 Eleocharis rostellata 195 Juncus effusus 237 Rubus hispidus
 Bryo
 NI
 80.00

 Herb
 OBL
 95.00

 Herb
 FACW+
 50.00

 Herb
 FACW
 30.00
 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments ------_____ ------------0-4 silt loam 10 YR 4/2Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical [] Histosol [] Sulfidic Material] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg/ [X] Spring/Seep
[] Floodplain
[] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other [] Other [] Other [] Other Recorded Data (Describe in Remarks): Recent Rainfall: scattered showers

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WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: disturbed site <1 acre-voland shrub cover intact along stream

SITE/PLOT#: 1113 DATE: 05 COUNTY: Tucker STATE: WV STREAM: SITE/PLOT#: 1113 DATE: 05/26/1993 INVESTIGATOR: DAE, EFA WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status % Areal Cover BryoNIHerbOBLShrubFACUShrubFACUShrubFACWShrubFACW+TreeFAC Sphagnum sp. Solidago uliginosa 2 100.00 251 10.00 20.00 80.00 Kalmia latifolia 462 538 Vaccinium angustifolium 539 Vaccinium corymbosum 559 Viburnum recognitum 70.00 5.00 602 Acer rubrum ------SOIL PROFILE: (Minimum 18 inches) Series Name: VeC/ViC/Vb Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? nl -----0-3 peat organic 3-6 silty sand 5 YR 2.5/1 6-10 silty sand 10 YR 4/2 6/8 10 YR (50%) -----Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic contents

 [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Indicators: Metland Hydrology Indicators: Methan Methanistics Methan Methanisti [X] Inundated [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines Source/Site Characterization: [A] Difference bines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] BEC Newtral Teat [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remeine)[] Stream, Lake, or Tide Gauge[] Other (Explain[] Aerial PhotographsRecent Weather: overcastRecent Rainfall: 0 Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks; all 3 criteria met; see notes swale typical of other c/o WBTZ

SITE/PLOT#: 1114 DATE: 00, Tucker STATE: WV STREAM: INVESTIGATOR: EFA, DAE, JMD COWARDIN CLASSIFICATION: PSS1E/ML Do Normal Circumstances exist on the site? yes no Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 66.00 Code Scientific Name Stratum Status % Areal Cover 2Sphagnum sp.BryoNI538Vaccinium angustifoliumShrubFACU539Vaccinium corymbosumShrubFACW 100.00 80.00 10.00

 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC
 Hydric Soil? yes

 Depth
 Texture
 Matrix Color
 Mottle Color(%)
 Comments

 0-4
 peat organic

 4-6
 silty clay
 10 YR 6/2
 10 YR 7/8

 6-12
 silty sand
 10 YR 4/2
 10 YR 7/6
 - ----_____ Hydric Soil Indicators:

 C Soll Indicators:
 [] Histic Epipedon

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] Gleyed [X] mottles [X] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : ····· Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:8.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Water MarksSource/Site Characterization:[] Drift Lines [] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization:] Seasonal High Water Table [X] Spring/Seep [] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: overcast[] OtherRecent Rainfall: 1/2 3 days ago

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: may be separated hydrologically from elder swamp by Rt.93

SITE/PLOT#: 1114A DATE: 05/ COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PSS1E/PFO DATE: 05/26/1993 INVESTIGATOR: EFA, DAE WATERSHED: Cheat River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 2Sphagnum sp.BryoNI90.00539Vaccinium corymbosumShrubFACW50.00541Vaccinium myrtilloidesShrubFAC20.00559Viburnum recognitumShrubFACW+50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments _ _ _ _ _ _ _ _ _ _ 0-6silty loam10 YR 2/2none6-12clay loam10 YR 3/2none12-16clay loam10 YR 4/1none16auger refusalnone _____ -----Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical [] Histosol [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:4.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Drift Lines [] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12 [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Depressional [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks):

 Recorded Data (Describe in Actuality)
 [] Other (Explain in Remainer)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remainer)

 [] Aerial Photographs
 [] Recent Weather: overcast

 [] Abrial Photographs
 [] Recent Rainfall: 1/2 " few days ago

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? Remarks: all 3 criteria met; seep directly south and upslope from 36"culvert beneath Rt.9

SITE/PLOT#: 1114B DATE: 05 COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1/ML1E INVESTIGATOR: EFA, DAE, JMD DATE: 05/25/1993 WATERSHED: Cheat River Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes πo Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 66.00 Code Scientific Name Stratum Status % Areal Cover 2Sphagnum sp.BryoNI100.00538Vaccinium angustifoliumShrubFACU80.00539Vaccinium corymbosumShrubFACW10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Brinkerton Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-4 peat/organic 4-6 silty lay 10 YR 6/2 10 YR 7/8 6-12 silty-sand 10 YR 4/2 10 YR 7/6 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [] Gleyed [X] mottles [X] Low Chroma [X] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: (in.) Primary Indicators: Depth to Free Water in Pit: (in.) [] Inundated Depth to Saturated Soil: 8.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source (Site Characterization: [] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: overcast[] OtherRecent Rainfall: 1/2" 3 days ago Recorded Data (Describe in Remarks):

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: may be seperated hydrologically from elder swamp by Rt.93. all 3 criteria met

SITE/PLOT#: 1115 DATE: 05/26 COUNTY: Tucker STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Aty Is the area a potential Problem Area? Remarks:			
VEGETATION: Percent Dominant Species that Code Scientific Name	t are OBL, FACW or FAC 75.00 Stratum Status % Areal Cover		
2 Sphagnum sp. 462 Kalmia latifolia 538 Vaccinium angustifolium 539 Vaccinium corymbosum	Bryo NI 50.00 Shrub FACU 10.00 Shrub FACU 60.00 Shrub FACW 40.00		
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	s Name: Vb/DmC Hydric Soil? nl Mottle Color(%) Comments		
0-6 clay loam 10 YR 4/1 6-12 clay loam 10 YR 7/1 12-18 clay 10 YR 6/1	no mottle no mottle 10 YR 6/8 (30%)		
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY:			
<pre>HYDROLOGY: Field Observations: We Depth of Surface Water: 1.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [X] Depressional</pre>	etland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines		
[] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [X] Depressional	<pre>[X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Local Soil Survey Data</pre>		
[x] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Re	[] FAC-Neutral Test [] Other (Explain in Remarks) ecent Weather: ecent Rainfall: 5" 3 days ago		
WETLAND DETERMINATION: Hydric soils pres			

 WEILAND DETERMINATION:
 Hydrology:
 Yes
 Hydrophytic Vegetation? yes

 Wetland Hydrology:
 yes
 Wetland?
 yes

 Remarks:
 BPJ Beaver activity ponded & flooded area - area silted in partly

.

SITE/PLOT#: 1120DATE: 05/26/1993COUNTY: TuckerSTATE: WV STREAM: unnamed INVESTIGATOR: MZ, JMD DATE: 05/26/1993 WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: clearing fed by spring seep and small unnamed stream VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status & Areal Cover 1Polytrichum sp.BryoNI119Carex bromoidesHerbFACW195Juncus effususHerbFACW+237Rubus hispidusHerbFACW270Unidentifiable herbHerbNI453Hypericum prolificumShrubFACU541Vaccinium myrtilloidesShrubFAC 40.00 40.00 20.00 40.00 30.00 30.00 30.00 20.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Brinkerton Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments
 0-6
 sandy silt
 10 YR 4/1
 none ox.roots

 6-12
 sandy silt
 10 YR 5/1
 none ox.roots

 12-16
 sandy silt
 10 YR 4/1
 10 YR 6/8 (5%) ox.roots
 Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)Image: Saturated Soil:Image: Saturated in Upper 12Image: Saturated Soil:Image: Saturated in Upper 12 [A] Bacarate In Spect II [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Backwater [] Depressional [] Depressional[] Water-Stained Leaves[] Depressional[] Water-Stained LeavesRecorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: cloudy[] OtherRecent Rainfall: .5" 3 days ago

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 parameters met Hydrophytic Vegetation? yes Wetland? yes

DATE: 05/26/1993 INVESTIGATOR: MZ, JMD STREAM: WATERSHED: Cheat River SITE/PLOT#: 1122 STATE: WV STREAM: COUNTY: Tucker COWARDIN CLASSIFICATION: PSS1B/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: relatively undisturbed area fed by spring seeps - on slope VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover 1Polytrichum sp.BryoNI2Sphagnum sp.BryoNI119Carex bromoidesHerbFACW237Rubus hispidusHerbFACW539Vaccinium corymbosumShrubFACW541Vaccinium myrtilloidesShrubFAC 50.00 50.00 20.00 20.00 40.00 40.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Brinkerton Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments ---------0-4 moss organic 4-8 sandy silt 10 YR 6/2 8-12 silty clay 10 YR 4/1 none 10 YR 7/8 (15%) 12+ _____ Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Floodplain [] Backwater [] Depressional [] Depressional[X] Water-Stained LeavesRecorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other[] Aerial Photographs[] Other[] OtherRecent Weather: partly cloudy[] OtherRecent Rainfall: .5" 3 days ago WETLAND DETERMINATION:Hydric soils present? yesHydrophytic Vegetation? yesWetland Hydrology? yesWetland? yesRemarks: all 3 parameters met in wet spots - BPJ used to draw boundary around zone 50%+

SITE/PLOT#: 1123 DATE: 05/ COUNTY: Tucker STATE: WV STREAM: DATE: 05/27/1993 INVESTIGATOR: EFA, DAE, JMD WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 2Sphagnum sp.BryoNI132Carex sp.HerbFACW237Rubus hispidusHerbFACW251Solidago uliginosaHerbOBL 100.00 90.00 90.00 5.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? ves Depth Texture Matrix Color Mottle Color(%) Comments -----0-6silt loam10 YR 2/1noneorganic material6-12muck10 YR 4/1none12-16silty loam10 YR 4/1noneauger refusal 16 ------Hydric Soil Indicators: [] Histosol[] Histic Epipedon[X] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:4.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[V] PierdeleinSecondary Indicators (2 or more reg/ [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] PLC Neutral Test [] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Recent) [] Stream, Lake, or Tide Gauge [] Other [] Parial Photographs Recent Weather: Describe Photographs Recent Weather: Recorded Data (Describe in Remarks): [] Aerial Photographs [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met; system is associated with larger wetland system upslope

1

SITE/PLOT#: 1124 DATE: 05 COUNTY: Tucker STATE: WV STREAM: DATE: 05/27/1993 INVESTIGATOR: EFA, DAE, JMD WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover -----Bryo NI Bryo NI Shrub FACU Shrub FACW 2 Sphagnum sp. 70.00 4 Lycopodium sp. 30.00 90.00 538 Vaccinium angustifolium 539 Vaccinium corymbosum 60.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Vb/ViC Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments -----
 0-4
 organic peat

 4-6
 sandy clay
 10 YR 5/1
 10YR 6/8 (5%) ox.root channel

 6-12
 sandy clay
 10 YR 6/1
 10YR 6/8 (30%) ox.root channel

 12-16
 sandy clay
 10 YR 6/1
 10 YR 6/8
 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 Primary Indicators:
 [X] Inundated
 [X] Saturated in Upper 12
 [] Water Marks
 [] Drift Lines
 [] Sediment Deposit
 [X] Drainage Patterns in Wetlands
 Secondary Indicators (2 or more reg' Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Other (Explain [] Aerial Photographs Recent Weather: overcast Recent Rainfall: 1/2" few days ago [] Other

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met; seeps ties into roadside ditch along Rt.93 (south of road)

i.

SITE/PLOT#: 1125 DATE: 05/27/1993 COUNTY: Tucker STATE: WV STREAM: INVESTIGATOR: EFA, DAE, JMD WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status & Areal Cover Bryo NI Shrub FACU Shrub FACW Shrub OBL 2 Sphagnum sp. 538 Vaccinium angustifolium 539 Vaccinium corymbosum 569 Myrica gale 90.00 90.00 20.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Vb/ViC/Dob Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-1organic peatorganic mu1-4silt clay10 YR 3/1none saturated4-6silt clay10 YR 5/2none saturated6-8silt sand10 YR 5/8 organic muck Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:4.0 (in.) Primary Indicators:Depth to Free Water in Pit:2.0 (in.) [X] InundatedDepth to Saturated Soil:0.0 (in.) [X] Saturated in Upper 12 [X] Inundated
[X] Saturated in Upper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Floodplain [] Backwater [] Depressional [A] Matter Stained Louise [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge[] Other[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1126A DATE: U5 COUNTY: Tucker STATE: WV STREAM: DATE: 05/27/1993 INVESTIGATOR: EFA, DAE, JMD INVESTIGATOR: ELL, WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp. 453 Hypericum prolificum 538 Vaccinium angustifolium Bryo NI Shrub FACU Shrub FACU Shrub FACW 80.00 70.00 539 Vaccinium corymbosum 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC/brinkerton Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments _____ ------0-8 organic peat 8-10 sandy clay 10 YR 5/1 10-12 sandy clay 2.5 Y 5/2 12" auger refusal saturated none saturated 10 YR 6/8 (50%) saturated ------Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Tes [] Stream, Lake, or Tide Gauge [] Other (Explain Recent Weather: overcast Recent Weather: overcast [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Other Recent Rainfall: 1/2" few days ago WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes

Remarks: all 3 criteria met

SITE/PLOT#: 1126B DATE: 05/27/1993 COUNTY: Tucker STATE: WV STREAM: INVESTIGATOR: EFA, DAE, JMD WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1F Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover -----2Sphagnum sp.BryoNI453Hypericum prolificumShrubFACU538Vaccinium angustifoliumShrubFACU539Vaccinium corymbosumShrubFACW 80.00 70.00 80.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Brinkerton Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-8"organic peatsaturated8-10"sandy/clay10 YR 5/1nonesaturated10-12"sandy/clay2.5 Y 5/210YR 6/8 (50%) saturatedaugerrefusal auger refusal - - - - -Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moiete [] Histosol [] Aquic Moisture Regime
[X] Low Chroma
[X] Entisol (organic context, vertical [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [X] Inundated [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep
[] Floodplain
[] Backwater [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: overcast[] OtherRecent Rainfall: 1/2" a few days ago -------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

L

SITE/PLOT#: 1127 DATE: 05/27/1993 INVESTIGATOR: EFA, DAE, JMD SITE/PLOT#: 1127 DATE: 05 COUNTY: Tucker STATE: WV STREAM: COWARDIN_CLASSIFICATION: PSS1E/PEM1E WATERSHED: Cheat River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover _____ _____ _____ Bryo NI Herb FACW Shrub FACU Shrub FACU Shrub FACW 2 Sphagnum sp. 100.00 80.00 20.00 40.00 132 Carex sp. 462 Kalmia latifolia 538 Vaccinium angustifolium 20.00 539 Vaccinium corymbosum _____ SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments - - - - - - - - -0-12 sphagnum peat 12-16 sandy muck 10 YR 3/1 saturated none sulfidic smell _____ Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Histosol [X] Sulfidic Material [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Inucators.Depth of Surface Water:4.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[X] Water Marks[X] Drift LinesCourse /Site Characterization:[X] Sediment Deposit [X] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Weather: overcast Recent Rainfall: 1/2" few days ago _____

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met; two swales-one wet meadow

SITE/PLOT#: 1128 DATE: 05/28/ COUNTY: Tucker STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PEM1E/PSS Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	?	ves	FA, DAE, JMD t River
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum	Status	<pre>% Areal Cover</pre>
2 Sphagnum sp. 132 Carex sp. 195 Juncus effusus 237 Rubus hispidus 249 Solidago rugosa 251 Solidago uliginosa 452 Hypericum densiflorum 539 Vaccinium corymbosum	Bryo Herb Herb Herb Herb Shrub Shrub	NI FACW FACW+ FAC OBL FAC+ FACW	$\begin{array}{c} 90.00 \\ 40.00 \\ 20.00 \\ 60.00 \\ 90.00 \\ 30.00 \\ 60.00 \\ 40.00 \end{array}$
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Mottle Colo	H pr(%) Comm	ydric Soil? yes ents
0-6 organic 10 YR 3/1 6-12 silty loam 10 YR 3/2 12-16 sandy clay 10 YR 5/2 16" auger refusal	nor 10	saturato ne YR 6/8 (10 ⁹	ed %)
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [X] mottles [] Enti stree	cic Epipedon ic Moisture R Chroma isol (organic eaking, chrom	egime context, v a 3, wet sp	vertical
HYDROLOGY:			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:5.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg'd)			
Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional	[] Oxidiz [X] Water-	ed Root Cha Stained Lea	nnels/Upper 12 aves
Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: overcast[] OtherRecent Rainfall: 1/2" few days ago			
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met; see notes	nt? yes yes	Hydrophytic Wetland? ye	vegetation? yes

SITE/PLOT#: 1130 DATE: 08/30/1993 INVESTIGATOR: EFA, DAK COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIF/ML Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? ves no no Remarks: sphagnum hummocks VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp. 169 Equisetum fluviatile 182 Gentiana linearis Bryo NI 90.00 Bryo NI Herb OBL Herb FACW Herb OBL Herb OBL Herb OBL Herb NI 10.00 5.00 237 Rubus hispidus 95.00 243 Scirpus atrovirens
251 Solidago uliginosa
268 Typha latifolia 10.00 90.00 20.00 297 Carex gynandra 25.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Vb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----_____ -----0-2 peat sphagnum 2 rock/ refusal _ _ _ **_ _ _ _ _ _** Hydric Soil Indicators: [X] Histosol

 [X] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Water Marks [] Drift Lines [X] Sediment Deposit _____ [X] Sediment Deposit
[X] Drainage Patterns in Wetlands [] Spring/Seep [] Floodplain [] Backwater [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: heavy rain Recent Rainfall: [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

SITE/PLOT#: 1131 DATE: 08/30/1993 INVESTIGATOR: EFA, DAK COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIF/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp. 164 Eleocharis rostellata Bryo NI 100.00 2Sphagnum sp.BryoNI100.00164Eleocharis rostellataHerbOBL50.00174Eriophorum virginicumHerbOBL70.00182Gentiana linearisHerbOBL5.00195Juncus effususHerbFACW+25.00219Osmunda cinnamomeaHerbFACW10.00237Rubus hispidusHerbFACW90.00251Solidago uliginosaHerbOBL90.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Vb Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no 0-2 peat sphagnum 2 rock/ ---------refusal Hydric Soil Indicators:

 [X] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGI:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 12.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [X] Water Marks

 [] Seasonal High Water Table
 [X] Sediment Deposit

 [X] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req'

 [] Spring/Seep [] Floodplain [X] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: heavy rain[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

SITE/PLOT#: 1132 DATE: 08/30/1993 INVESTIGATOR: EFA, DAK STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COUNTY: Tucker COWARDIN CLASSIFICATION: PEMIF/ML Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover -----_ 2Sphagnum sp.BryoNI100.00161Dryopteris spinulosaHerbFAC+40.00174Eriophorum virginicumHerbOBL25.00199Juncus subcaudatusHerbOBL219Osmunda cinnamomeaHerbFACW5.00237Rubus hispidusHerbFACW100.00243Scirpus atrovirensHerbOBL10.00251Solidago uliginosaHerbOBL40.00268Typha latifoliaHerbOBL5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: VeC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ------------0-2 peat sphagnum 2refusal /bedrock Hydric Soil Indicators: [X] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:6.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12) Primary Indicators: [X] Inundated) [X] Saturated in Upper 12 [X] Water Marks [] Drift Lines [] Oridized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [X] Other (Explain in Remarks) Recent Weather: heavy rain Recent Rainfall: Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Rainfall: _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

DATE: 08/31/1993 INVESTIGATOR: EFA, DAK STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River SITE/PLOT#: 1133 COUNTY: Tucker COWARDIN CLASSIFICATION: PEM/ML1J Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: wetland is associated with roadside ditch VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover -----178 Eupatorium perfoliatum Herb FACW+ Herb FACw+ Herb FACw+ Herb OBL Herb OBL Herb OBL Herb FACW 195 Juncus effusus 30.00 243 Scirpus atrovirens
251 Solidago uliginosa
268 Typha latifolia 25.00 5.00 305 Carex scoparia 75.00 SOIL PROFILE: (Minimum 18 inches) Series Name: VeC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ----------_____ 0-4 peat sphagnum 4-6 sandy clay 10 YR 7/1 ox.roots channel 6-10 sandy muck 10 YR 3/8 Hydric Soil Indicators: [X] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[] Low Chroma[] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: heavy rain yesterday [] Other Recent Rainfall:

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: associated with roadside ditch, 3 parameters present

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SITE/PLOT#: 1134 DATE: 08/31/1993 INVESTIGATOR: EFA, DAK COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIJ/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? ño Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 89.00 Code Scientific Name Stratum Status % Areal Cover ------2 Sphagnum sp. 178 Eupatorium perfoliatum Bryo NI 90.00 Herb FACW+ Herb FACW+ Herb FACW Herb FACU Herb FACW Herb OBL Herb OBL Herb OBL Herb FACW 15.00 80.00 195 Juncus effusus Osmunda cinnamomea Pteridium aquilinum 219 5.00 230 15.00 237 Rubus hispidus 90.00 243 Scirpus atrovirens 251 Solidago uliginosa 268 Typha latifolia 20.00 10.00 25.00 80.00 305 Carex scoparia SOIL PROFILE: (Minimum 18 inches) Series Name: VeC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-6
 peat sphagnum
 satu

 6-8
 sand
 10 YR 3/1
 ox.r

 8-10
 sand
 7.5YR 6/8 (50%)
 10 YR 7/1

 10-12
 sand
 7.5YR 6/8
 6/8
 saturated ox.roots channel ------Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] PAC-Neutral Teat [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge
[] Aerial Photographs Recent Weather: Recent Rainfall: heavy rain yesterday [] Other WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

SITE/PLOT#: 1140 DATE: 08/26/1993 INVESTIGATOR: CMH, DMK STATE: WV STREAM: near Four MileWATERSHED: North Br. Potomac River COUNTY: Tucker COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: mine waste material ditch VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 193 Juncus canadensis Herb OBL 80.00 -------SOIL PROFILE: (Minimum 18 inches) Series Name: mined land Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? nl -----Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:4.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in U Wetland Hydrology Indicators: [X] Inundated [] Saturated in Upper 12 [] Water Marks [X] Drift Lines [X] Sediment Deposit [] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table] Spring/Seep Γ [] Floodplain Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Backwater [X] Depressional [X] Water-Stained Leaves [] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks[] Aerial Photographs[] Other[] OtherRecent Weather: drought[] OtherRecent Rainfall: shower 2 days ago -----WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

Remarks: soils need not be checked since innundation/OBL Sp. present - sat. year rou

SITE/PLOT#: 1141 DATE: 08/26/1993 INVESTIGATOR: CMH COUNTY: Tucker STATE: WV STREAM: near Beaver CrWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B/ML Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? Remarks: moss lichen wetland on slab bedrock slopes yes VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover _ _ _ _ _ _ ----------. BryoNIHerbOBLHerbFACWHerbOBLHerbFACUHerbFACHerbFACW 2 Sphagnum sp. 174 Eriophorum virginicum 237 Rubus hispidus 251 Solidago uliginosa Bryo 100.00 10.00 30.00 15.00 304 Hypericum prolificum 315 Vaccinium myrtilloides 369 Viburnum cassinoides 15.00 Vaccinium myrtilloides 40.00 25.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Vb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-2 organic 2-5 sand 5 bedrock saturated 7.5 YR 8/0 Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[X] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: -----Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Drift LinesSource/Site Characterization:[] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [] Sediment Deposit [X] Drainage Patterns in Wetlands [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Depressional [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks):

 Recorded Data (Describe in Remainer)
 [] Other (Explainer)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explainer)

 [] Aerial Photographs
 Recent Weather: drought

 [] Other
 Recent Rainfall:

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1151 COUNTY: Tucker STATE: W COWARDIN CLASSIFICATION: PE Do Normal Circumstances exi Is the site significantly d Is the area a potential Pro Remarks:	st on the site listurbed (Atyp	?	ves	IZ, JMD It River
VEGETATION: Percent Dominan Code Scientific Nam	t Species that	are OBL, H Stratum	FACW or FAC Status	56.00 % Areal Cover
1 Polytrichum sp. 2 Sphagnum sp. 174 Eriophorum virgini 200 Juncus tenuis 237 Rubus hispidus 251 Solidago uliginosa 268 Typha latifolia				
SOIL PROFILE: (Minimum 18 inches) Series Name: BSC BRINKERTON Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments				
0-4 Organic 4-8 clay loam 8-12 clay loam 12-18 clay loam	10 YR 4/1 10 YR 6/2 10 YR 7/8	n n 1 1	one saturat one saturat 0 YR 7/8 (40 0 YR 4/1 (40	ed ed %)saturated %)saturated
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)				
HYDROLOGY:				
Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Source/Site Characterization [X] Seasonal High Water Tabl [] Spring/Seep	Wet (in.) (in.) 0.0 (in.)	land Hydro Primary In [] Inun [X] Satu	logy Indicato dicators: dated rated in Uppe	ors: er 12
Source/Site Characterization [X] Seasonal High Water Tab] [] Spring/Seep [] Floodplain [] Backwater [] Depressional	n: le	Secondary [] Oxid [] Wate	Indicators (: ized Root Cha r-Stained Lea	2 or more req'd) annels/Upper 12 aves
Recorded Data (Describe in F [] Stream, Lake, or Tide Ga [] Aerial Photographs [] Other	auge Rec Rec	[] FAC [] Oth	l Soil Survey -Neutral Test er (Explain : r: cloudy, ho ll:	t in Remarks)
WETLAND DETERMINATION: Hydr			Hydrophytic Wetland? ye	c Vegetation? yes es

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DATE: 08/30/1993 INVESTIGATOR: MZ, JMD STATE: WV STREAM: unnamed WATERSHED: Cheat River SITE/PLOT#: 1152 COUNTY: Tucker COWARDIN CLASSIFICATION: PEMIE/ML Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover _____ 110Aster umbellatusHerbFACW251Solidago uliginosaHerbOBL297Carex gynandraHerbNI452Hypericum densiflorumShrubFAC+ 20.00 20.00 80.00 25.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Vb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-6organic10 YR 2/1saturated6-12sandy silt10 YR 5/110 YR 5/6 (40%)12-18sandy silt5 YR 4/1none ------Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Inurcators: Depth of Surface Water: 3.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks [] Water Marks [] Drift Lines [] Sediment Deposit [] Seasonal High Water Table
[] Spring/Seep [] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water Steined Learnel [X] Floodplain [] Backwater [] Depressional [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: cloudy, rainy Recent Rainfall: 0.5 in [] Other _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all three criteria met

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SITE/PLOT#: 1153DATE: 08/31/1993COUNTY: TuckerSTATE: WV STREAM: unnamed SITE/PLOT#: 1153 INVESTIGATOR: H2, 51-WATERSHED: Cheat River INVESTIGATOR: MZ, JMD DATE: 08/31/1993 COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: vegetated channel area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status & Areal Cover Herb FAC+ Herb FACW Herb OBL Herb NI Tree FAC 153 Dichanthelium clandestinum
219 Osmunda cinnamomea
251 Solidago uliginosa
297 Carex gynandra 40.00 20.00 50.00 297 Carex gynandra 602 Acer rubrum 20.00 20.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: Vb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-8
 sandy silt
 10 YR 4/2
 saturated

 8-12
 clay loam
 10 YR 5/1
 ox.roots

 12-18
 sandy clay
 10 YR 5/1
 10 5/8 (10%)
 Hydric Soil Indicators: c Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical attracting chroma 3 wet spodosol) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [X] Saturated in Upper 12
[] Water Marks
[X] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table] Spring/Seep Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Floodplain [] Backwater [] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks)

 Recorded Data (Describe in Actual)

 [] Stream, Lake, or Tide Gauge
 [] Otner

 [] Aerial Photographs
 Recent Weather:

 [] Aerial Photographs
 Recent Rainfall:

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

DATE: 08/31/1993 SITE/PLOT#: 1154 DATE: 08/31/1993 COUNTY: Tucker STATE: WV STREAM: unnamed INVESTIGATOR: MZ, JMD WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE/PSS Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: Open and brushy area north of 93, part of Elder Swamps. VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 87.00 Code Scientific Name Stratum Status % Areal Cover 2Sphagnum sp.BryoNI100.00174Eriophorum virginicumHerbOBL30.00200Juncus tenuisHerbFAC-20.00237Rubus hispidusHerbFACW40.00251Solidago uliginosaHerbOBL30.00297Carex gynandraHerbNI40.00452Hypericum densiflorumShrubFAC+20.00559Viburnum recognitumShrubFACW+20.00 ______ SOIL PROFILE: (Minimum 18 inches) Series Name: BSC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments _____ _____ _ _ _ _ _ _ _ _ _ _ _ _ _ 0-4organicsaturated4-8sandy loam10 YR 3/2nonesaturated8-12sandy loam10 YR 5/1noneox.roots12-18sandy loam10 YR 4/1noneox.roots Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [] Histosol [] Sulfidic Material [] Gleyed [] mottles [X] Low Chroma
[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY :

 Field Observations:
 Wetland Hydrology Indicators.

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Drift Lines

 Image Patterns in 1
 [] Drainage Patterns in 1

 _____ Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Floodplain
[] Backwater
[X] Depressional [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 1160DATE: 10/19/1993INVESTIGATOR: TJS,DMTSCOUNTY: GrantSTATE: WV STREAM: unnamedWATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? ves Remarks: AREA HAS BEEN PARTIALLY FILLED W/=12" OF CINDER MATERIAL VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 2 Sphagnum sp.
110 Aster umbellatus
195 Juncus effusus
244 Scirpus cyperinus
249 Solidago rugosa
404 Alnus rugosa
452 Hypericum densiflorum
 Bryo
 NI
 5.00

 Herb
 FACW
 15.00

 Herb
 FACW+
 25.00

 Herb
 FACW+
 10.00

 Herb
 FAC
 20.00

 Shrub
 FACW+
 10.00

 Shrub
 FACH+
 10.00
 SOIL PROFILE: (Minimum 18 inches) Series Name: CeB Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? nl _____ _____ 0-1" ORGANIC 1-10" SANDY CLAP 10 YR 3/2 Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Drift Lines[] Spring/Seep[] Sediment Deposit[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: -----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: ALL 3 CRITERIA MET

SITE/PLOT#: 1201DATE: 06/01/1993INVESTIGATOR: JMG, ABCCOUNTY: TuckerSTATE: WV STREAM: unnamedWATERSHED: North Br. Potomac RivCOWARDIN CLASSIFICATION: PEM1EDoNormal Circumstances exist on the site?yesIs the site significantly disturbed (Atypical Situation)?noIs the area a potential Problem Area?no	rer
Remarks: the wetland is within a reclaimed strip mine-tributary flow thru	
VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover	
2Sphagnum sp.BryoNI40.00132Carex sp.HerbFACW30.00195Juncus effususHerbFACW+20.00251Solidago uliginosaHerbOBL5.00301Solidago ohioensisHerbOBL5.00	
SOIL PROFILE: (Minimum 18 inches) Series Name: Sm stripmine Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments	
0-2 silty/organic 10 YR 4/1 2-6 gravelly silt 10 YR 4/2 10 YR 5/6 (5)Auger refusal	
[] Histosol[] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)	
HYDROLOGY :	
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:6.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Depressional[] Water-Stained Leaves[] Local Soil Survey Data	
Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: sunny [] Other Recent Rainfall: unknown	
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met	

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INVESTIGATOR: CMH, DAE SITE/PLOT#: 1202 DATE: 06/01/1993 STATE: WV STREAM: near Beaver CrWATERSHED: Cheat River COUNTY: Tucker COWARDIN CLASSIFICATION: PEMIBx Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: mine reclamation pond which has filled in-no inlet/outlet channel VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover
 Bryo
 NI
 80.00

 Herb
 OBL
 10.00

 Herb
 OBL
 50.00

 Herb
 FACW
 10.00

 Herb
 FACW+
 20.00

 Herb
 OBL
 20.00
 2 Sphagnum sp. 121 Carex canescens Carex scabrata Carex sp. 131 132 195 Juncus effusus 251 Solidago uliginosa SOIL PROFILE: (Minimum 18 inches) Series Name: mined land Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ---------------Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [X] Aquic Moisture Regime [] Gleved [] Low Chroma [] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit Source/Site Characterization: [] Sediment Deposit
[X] Drainage Patterns in Wetlands [X] Seasonal High Water Table [] Spring/Seep [] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [X] Other (Explain in Remarks) [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [X] Other (Expla [] Aerial Photographs Recent Weather: sunny Recent Bainfall: unknow Recent Rainfall: unknown [] Other _ _ _ _ _ _ _ _ _ _ _ -----

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: best professional judgement exercised on soils-hydric soil present

SITE/PLOT#: 1203 DATE: 06/02/ COUNTY: Tucker STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PFO1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: area is on a hill side	?	VAC	JMG, ABC at River
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum	Status	<pre>% Areal Cover</pre>
2 Sphagnum sp. 247 Senecio aureus 262 Thelypteris noveboracensis 275 Viola pallens 302 Lycopus uniflorus 415 Betula alleghaniensis 487 Prunus serotina 561 Acer spicatum 562 Crataegus sp. 608 Betula alleghaniensis 651 Prunus serotina	Bryo Herb Herb Herb Shrub Shrub Shrub Shrub Tree Tree	NI FACW FAC OBL OBL FAC FACU FACU FACU FAC FACU	$\begin{array}{c} 20.00\\ 30.00\\ 30.00\\ 10.00\\ 10.00\\ 20.00\\ 20.00\\ 80.00\\ 20.00\\ 60.00\\ 40.00\\ \end{array}$
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: DmC Mottle Co	H olor(%) Comm	ydric Soil? no ents
0-2 organic 10 YR 2/1 2-8 sandy loam 10 YR Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [] mottles [] Enti stree	tic Epipedo ic Moisture Chroma isol (organ	on e Regime nic context, r coma 3, wet sp	vertical
HYDROLOGY:		-	
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Sediment Deposit[] Floodplain[] Oxidized Root Channels/Upper 12[] Depressional[] Oxidized Root Channels/Upper 12[] Stream, Lake, or Tide Gauge[] Other[] Aerial Photographs[] Other[] OtherRecent Weather: sunny[] OtherRecent Rainfall: 5/31/93			
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: Sphagnum moss and Crataegus speci	VAC	Wetland? ve	

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SITE/PLOT#: 1204 DATE: 06/02/ COUNTY: Tucker STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PF01E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: head water area to an unnamed tr	? yes pical Situation)? no no	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 78.00 Stratum Status % Areal Cover	
2 Sphagnum sp. 122 Carex crinita 219 Osmunda cinnamomea 275 Viola pallens 303 Rubus pubescens 409 Amelanchier laevis 415 Betula alleghaniensis 608 Betula alleghaniensis 669 Tsuga canadensis	Bryo NI 30.00 Herb OBL 20.00 Herb FACW 30.00 Herb OBL 10.00 Herb FACW 10.00 Herb FACW 10.00 Shrub UPL 100.00 Tree FAC 40.00 Tree FACU 60.00	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BsC Hydric Soil? yes Mottle Color(%) Comments	
0-2 organic 7.5 YR 2/0 2-5 organic silt 10 YR 3/1 5-9 silty sand 10 YR 3/2	Auger refusal 9" 10 YR 5/8 (3)	
Hydric Soil Indicators:[] Histosol[] Histosol[] Sulfidic Material[] Aqu.[] Gleyed[X] Low[X] mottles[] Ent.	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)	
HYDROLOGY :	ч.	
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] Floodplain[] Source/Site Characterization:		
<pre>[X] Seasonal High water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional</pre>	<pre>[X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data</pre>	
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Red [] Other Red	[] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: sunny cent Rainfall: 5/31/93	
WETLAND DETERMINATION: Hydric soils press Wetland Hydrology	ent? yes Hydrophytic Vegetation? yes ? yes Wetland? yes	
Remarks: all 3 criteria met		

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SITE/PLOT#: 1205 DATE: 06/02/1993 INVESTIGATOR: JMG, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: a tributary flows through the wetland		
VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover		
122Carex crinitaHerbOBL10.00219Osmunda cinnamomeaHerbFACW30.00237Rubus hispidusHerbFACW20.00269Unidentifiable grassHerbNI30.00275Viola pallensHerbOBL10.00519Salix fragilisShrubFAC+100.00		
SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments		
0-3 organic 5 YR 2.5/1 saturated 3-8 fine sandy loam 5 YR 5/1 saturated 8-12 fine sandy loam 7.5 YR 6/0 7.5 YR 6/8 (49) saturated		
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [X] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)		
HYDROLOGY:		
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Floodplain[] Drainage Patterns in Wetlands[] Backwater[] Oxidized Root Channels/Upper 12		
Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[] Drainage Patterns in Wetlands[] Floodplain[] Drainage Patterns (2 or more req'd)[] Backwater[] Oxidized Root Channels/Upper 12[] Depressional[] Local Soil Survey Data		
Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: sunny [] Other Recent Rainfall: 5/31/93		
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met		

SITE/PLOT#: 1206DATE: 06/02/1993COUNTY: TuckerSTATE: WV STREAM: unnamed INVESTIGATOR: JMG, ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PFO1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: tributary flows through the wetland, small ponded area w/in 1-2ft VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status & Areal Cover 2Sphagnum sp.BryoNI30.00122Carex crinitaHerbOBL40.00237Rubus hispidusHerbFACW10.00249Solidago rugosaHerbFAC20.00415Betula alleghaniensisShrubFAC100.00453Hypericum prolificumShrubFACU50.00561Acer spicatumShrubFACU40.00608Betula alleghaniensisTreeFAC100.00 SOIL PROFILE: (Minimum 18 inches) Series Name: ErC Hydric Soil? nl DepthTextureMatrix ColorMottle Color(%)Comments0-2organic10 YR 2/1Auger refusal2-6silty loam10 YR 3/110 YR 6/6 (5%)6 inches Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [X] Sulfidic Material
 [X] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 2.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks):[] Botal Boil Sulvey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: sunny[] OtherRecent Rainfall: 5/31/93 Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes

Remarks: all 3 criteria met

SITE/PLOT#: 1207 DATE: 06/02/1993 INVESTIGATOR: JMG, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: large seep area next to Rt. 93 VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover -----2 Sphagnum sp. 122 Carex crinita 237 Rubus hispidus 251 Solidago uliginosa 563 Prunus arbutifolia Bryo NI Herb OBL Herb FACW Herb OBL Shrub NI 40.00 40.00 10.00 10.00 100.00 SOIL PROFILE: (Minimum 18 inches) Series Name: ErC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-4organic10 YR 2/2Auger refusal at4-12gravely sandy 1 5 Y 5/112 inches -------Hydric Soil Indicators: [] Histosol[] Histic Epipedon[X] Sulfidic Material[] Aquic Moisture Regime[X] Gleyed[X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 2.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Sediment Deposit [] Drainage Patterns in Wetlands [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Depressional [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks)

 Recorded Data (Describe in Remainer, 1)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain (Expl Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks:

SITE/PLOT#: 1208 DATE: 06/02/1993 INVESTIGATOR: JMG, ABC COUNTY: Tucker STATE: WV STREAM: unnamed COWARDIN_CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: seep area at the edge of deciduous forest VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 OBL
 50.00

 Herb
 OBL
 30.00

 Shrub
 FAC
 70.00

 Shrub
 FACU
 20.00

 Shrub
 FACW+
 30.00
 122 Carex crinita 251 Solidago uliginosa 401 Acer rubrum 453 Hypericum prolificum 559 Viburnum recognitum SOIL PROFILE: (Minimum 18 inches) Series Name: ErC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments --------------0-2 organic 10 YR 2/1 2-8 sandy loam 10 YR 5/1 10 YR 4/6 (20%) 8-16 sandy loam 10 YR 4/1 10 YR 6/8 Hvdric Soil Indicators:] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 1.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg' Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny[] OtherRecent Rainfall: ? WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 1209 DATE: 06/02/2 COUNTY: Tucker STATE: WV STREAM: unnar COWARDIN CLASSIFICATION: PF01E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks: headwater area of a perennial tr	yes ical Situation)? no no	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 70.00 Stratum Status % Areal Cover	
2 Sphagnum sp. 249 Solidago rugosa 262 Thelypteris noveboracensis 275 Viola pallens 415 Betula alleghaniensis 501 Rhododendron maximum 561 Acer spicatum 561 Acer spicatum 608 Betula alleghaniensis 669 Tsuga canadensis	Bryo NI 50.00 Herb FAC 10.00 Herb FAC 10.00 Herb FAC 10.00 Shrub FAC 60.00 Shrub FAC 100.00 Shrub FAC 100.00 Shrub FACU 10.00 Shrub FACU 10.00 Tree FAC 40.00 Tree FACU 50.00	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BsC Hydric Soil? yes Mottle Color(%) Comments	
0-2 organic 10 YR 2/1 2-4 sandy gravel 10 YR 6/1	probe refusal 4"	
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [X] Aqui [] Gleyed [X] Low [] mottles [] Enti	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical aking, chroma 3, wet spodosol)	
HYDROLOGY :		
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg'd)		
[] Backwater [] Depressional Recorded Data (Describe in Remarks):	[] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test	
	[] Other (Explain in Remarks) ent Weather: sunny ent Rainfall: ?	
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met		

SITE/PLOT#: 1210DATE: 06/02/1993COUNTY: TuckerSTATE: WV STREAM: unnamed DATE: 06/02/1993 INVESTIGATOR: JMG, ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: isolated seep wetland on a rocky slope VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover
 Bryo
 NI
 20.00

 Herb
 OBL
 20.00

 Herb
 FACW
 30.00

 Herb
 FACW
 20.00

 Herb
 OBL
 10.00

 Tree
 FACU
 100.00
 20.00 2 Sphagnum sp. 122 Carex crinita 219 Osmunda cinnamomea 237 Rubus hispidus 251 Solidago uliginosa 651 Prunus serotina SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-3organic7.5 YR 2/0Auger refusal3-10sandy loam10 YR 4/110 inches _____ Hydric Soil Indicators: c Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [X] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical ctreaking chroma 3. wet spodosol) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Sediment Deposit [X] Drainage Patterns in Wetlands [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[] Oxidized Root Channels/Upper 12[X] Depressional[] Oxidized Root Channels/Upper 12[X] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny[] OtherRecent Rainfall: 5/31/93 _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 1211A DATE: 06/03/1993 COUNTY: Tucker STATE: WV STREAM: unnamed INVESTIGATOR: JMG, ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: perennial tributary flows through the wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp. 122 Carex crinita Bryo NI 20.00 Herb OBL Herb FACW Herb FAC Herb OBL Herb OBL Shrub FACU 30.00 237 Rubus hispidus 249 Solidago rugosa 251 Solidago uliginosa 275 Viola pallens 453 Hypericum prolificum 15.00 10.00 10.00 15.00 100.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm stripmine Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-1
 organic silt
 10 YR 3/2
 saturated

 1-16
 sandy silt
 10 YR 6/2
 10 YR 6/8 (10%)
 saturated Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 1.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Seasonal High Water Table [X] Spring/Seep [] Sediment Deposit
[X] Drainage Patterns in Wetlands [] Floodplain Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Backwater [] Depressional [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge Recent Weather: overcast Recent Rainfall: 6/2/93] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all criteria met - hydric soil indicators Hydrophytic Vegetation? yes Wetland? yes

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SITE/PLOT#: 1211B DATE: 06/03/1993 INVESTIGATOR: CMH, DAE COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E/ML Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes ves Is the area a potential Problem Area? no Remarks: manmade wetland within mine reclamation area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover
 Bryo
 NI
 20.00

 Bryo
 NI
 60.00

 Herb
 OBL
 50.00

 Herb
 OBL
 15.00

 Herb
 FACW+
 10.00

 Herb
 FACW
 10.00

 Herb
 OBL
 5.00

 Herb
 FACW
 5.00
 1 Polytrichum sp. 2 Sphagnum sp. 131 Carex scabrat 131 Carex scabrata 133 Carex scabrata 133 Carex stipata 195 Juncus effusus 196 Juncus marginatus 251 Solidago uliginosa 274 Viola cucullata SOIL PROFILE: (Minimum 18 inches) Series Name: Sm stripmine Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ----------0-2-4 organic muck root ma 4-16 sandy clay loam 10 YR 5/2 none apparantFe concretions ------Hydric Soil Indicators: [] Histosol [] Histic Epipedon
[X] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) [] Sulfidic Material [] Gleyed [] mottles HYDROLOGY : HYDROLOGI:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)Depth to Saturated Soil:0.0 (in.)Image: Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[] Local Soil Survey Data [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other[] OtherRecent Weather:[] OtherRecent Rainfall: intermittent pre wks _____

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met; water quality appears acid (mine drainage)

SITE/PLOT#: 1211C DATE: 06/03/1993 INVESTIGATOR: CMH, DAE COUNTY: Tucker STATE: WV STREAM: trib.Beaver CrWATERSHED: Cheat River COWARDIN_CLASSIFICATION: PEMIE/ML Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes ves Is the area a potential Problem Area? ño Remarks: wetland within mine reclamation area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Scientific Name Stratum Status & Areal Cover Code Scientific Name
 Bryo
 NI
 10.00

 Bryo
 NI
 90.00

 Herb
 OBL
 10.00

 Herb
 FACW+
 80.00

 Herb
 OBL
 10.00
 1 Polytrichum sp. 2 Sphagnum sp. 131 Carex scabrata 195 Juncus effusus 268 Typha latifolia SOIL PROFILE: (Minimum 18 inches) Series Name: Sm stripmined Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [X] Aquic Moisture Regime

 [] Gleyed
 [] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 2.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Drift Lines [X] Seasonal High Water Table [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req' _____ [] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Water-Stalled Low.__ [] Local Soil Survey Data [] The Neutral Test [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: clear/last week rain Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Rainfall:

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Wetland Hydrology? yes Remarks: soils meet hydric criteria based on BPJ

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SITE/PLOT#: 1212 DATE: 06/03/1993 COUNTY: Tucker STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEM1E INVESTIGATOR: JMG, ABC WATERSHED: Cheat River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: wetland located within a swale. no surface water at observation VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status & Areal Cover 2Sphagnum sp.BryoNI20.00122Carex crinitaHerbOBL40.00219Osmunda cinnamomeaHerbFACW5.00237Rubus hispidusHerbFACW10.00249Solidago rugosaHerbFAC5.00251Solidago uliginosaHerbOBL20.00453Hypericum prolificumShrubFACU100.00 SOIL PROFILE: (Minimum 18 inches) Series Name: DmC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----
 0-1
 org. material
 10 YR 2/2
 auger refusal

 1-2
 sandy silt
 10 YR 3/1
 8 inches

 3-8
 sandy silt
 10 YR 5/1
 10 YR 1/8 (20%)
 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic conte [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Hibrolect:Wetland Hydrology Indicators:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Drift Lines[] Secondary Indicators (2 or more req'[] Secondary Indicators (2 or more req') [X] Dialinge Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather, cloudy [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: cloudy Recent Rainfall: 6/2/93 [] Other ------

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: hydric soil indicators present-all 3 criteria met

SITE/PLOT#: 1213 DATE: 06/14/1993 INVESTIGATOR: ABC, JMG COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E INVESTIGATOR: ABC, JMG, DAE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: tributary flows through the wetland - a small POW is w/in wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover Bryo NI Herb OBL Herb FACW+ Herb FACW Herb OBL Shrub FAC 2 Sphagnum sp. 122 Carex crinita 195 Juncus effusus 237 Rubus hispidus 20.00 50.00 10.00 10.00 251 Solidago uliginosa 401 Acer rubrum 10.00 100.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Vb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ------_ 0-1 organic 7.5 YR 2/0 1-4 silty clay 5 Y 4/1 4-16 silty clay 10 YR 4/1 gleyed Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[X] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations: Wetland Hydrology Indic Depth of Surface Water: 1.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Coordary Indicators (2 or more reg' Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more reg'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny 80 degrees [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: hydric soil indicators present/all 3 criteria met

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SITE/PLOT#: 1214 DATE: 06/14/1993 INVESTIGATOR: JMG, DAE, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: POW seeps into swale/depressional area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status & Areal Cover 2Sphagnum sp.BryoNI30.00110Aster umbellatusHerbFACW5.00195Juncus effususHerbFACW+30.00248Euthamia graminifoliaHerbFAC5.00251Solidago uliginosaHerbOBL10.00453Hypericum prolificumShrubFACU20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? ves DepthTextureMatrix ColorMottle Color(%)Comments0-1organic10 YR 2/2saturated1-5silt loam10 YR 5/110 YR 5/8 (40%)5-12silt loam10 YR 7/110 YR 4/6 (45%) Hydric Soil Indicators: [] Histosol [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:4.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg/ [X] Spring/Seep [] Floodplain [] Backwater [X] Dialinge Facterns in wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks):

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remar

 [] Aerial Photographs
 [] Other

 [] Other
 Recent Weather: sunny 80 degrees

 [] Other
 Recent Rainfall: 3

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 1215A DATE: 06/15/1993 COUNTY: Tucker STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Is the area a potential Problem Area? Remarks: a tributary flows through the wetlar	yes l Situation)? no no	
VEGETATION: Percent Dominant Species that are Code Scientific Name Str	e OBL, FACW or FAC ratum Status	71.00 % Areal Cover
2Sphagnum sp.I122Carex crinitaI237Rubus hispidusI251Solidago uliginosaI304Hypericum prolificumI453Hypericum prolificumS559Viburnum recognitumS	Bryo NI Herb OBL Herb FACW Herb OBL Herb FACU Shrub FACU Shrub FACW+	20.00 40.00 15.00 10.00 15.00 50.00 50.00
SOIL PROFILE: (Minimum 18 inches) Series Nam Depth Texture Matrix Color Mo		
0-1 organic 10 YR 3/2 1-18 silty sand 10 YR 4/1		
Hydric Soil Indicators:[] Histosol[] Histic[] Sulfidic Material[X] Aquic M[] Gleyed[X] Low Chn[] mottles[] Entisol	Epipedon Moisture Regime coma (organic context, Ing, chroma 3, wet s	vertical
HYDROLOGY:		
	nd Hydrology Indicat mary Indicators: [X] Inundated [X] Saturated in Upp [] Water Marks	ors: er 12
[] Floodplain Sec [] Backwater [[X] Depressional	Drift Lines [X] Sediment Deposit [X] Drainage Pattern condary Indicators ([X] Oxidized Root Ch] Water-Stained Le] Local Soil Surve	2 or more req'd) annels/Upper 12 aves
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent	<pre>FAC-Neutral Tes J FAC-Neutral Tes J Other (Explain Weather: sunny 80 Rainfall: 3</pre>	t in Remarks)
WETLAND DETERMINATION: Hydric soils present? Wetland Hydrology? ye Remarks: all 3 criteria met		c Vegetation? yes es

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SITE/PLOT#: 1215B DATE: 06/15/1993 INVESTIGATOR: JMG, DAE, COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PF01E INVESTIGATOR: JMG, DAE, ABC Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: headwater seeps and tributaries flow through the area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover BryoNIHerbOBLHerbFACWHerbFACHerbOBLShrubFACShrubFACShrubFACShrubFACTreeFACTreeFAC 2 Sphagnum sp. 40.00 122 Carex crinita 219 Osmunda cinnamomea 249 Solidago rugosa 30.00 10.00 10.00 Viola pallens
401 Acer rubrum
409 Amelanchier laevis 10.00 50.00 20.00 50.00 415 Betula alleghaniensis 501 Rhododendron maximum 602 Acer rubrum 608 Betula alleghaniensis 30.00 30.00 70.00

 SOIL PROFILE: (Minimum 18 inches) Series Name: LSA
 Hydric Depth

 Depth
 Texture
 Matrix Color
 Mottle Color(%)
 Comments

 10 YR
 Auger refusal

 SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? yes 0-3organic10 YRAuger refusal3-5sandy loam7.5 YR 4/107.5 YR 5/8 (20%5 inches) Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [X] Aquic Moisture Regime [] Gleved [X] Low Chroma [] Gleyed [X] mottles [X] Low Chroma
[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in WetlandsSecondary Indicators (2 or more reg/ ------[] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny 80 degrees[] OtherRecent Rainfall: ? WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 1216 DATE: 06/15/1993 INVESTIGATOR: JMG, DAE, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? πo no Remarks: tributary flows through the wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover -----_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ ------_ _ _ _ _ _ _ _ _ 132 Carex sp.
166 Eleocharis tenuis
195 Juncus effusus
249 Solidago rugosa
251 Solidago uliginosa
305 Carex scoparia FACW Herb Herb FACW FACW FACW+ FAC Herb Herb OBL Herb Herb FACW _____ SOIL PROFILE: (Minimum 18 inches) Series Name: BSC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments
 0-1
 peat/sphagnum
 organic m

 1-6
 silty sand
 10 YR 5/2
 10 YR 6/8 (10%)

 6-18
 silty clay
 10 YR 6/1
 10 YR 7/6 (20%)
 organic material Hydric Soil Indicators: [] Histosol [] Histic Epipedon [X] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical [] Sulfidic Material Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology India Depth of Surface Water: 2.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in N Wetland Hydrology Indicators: [] Inundated
[] Inundated
[X] Saturated in Upper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Oxidized Root Channels/Upper 12 [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge Recent Weather: sunny 80 degrees [] Aerial Photographs [] Other Recent Rainfall: _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1217 DATE: 06/15/1993 INVESTIGATOR: ABC, DAE, JMG COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: a tributary flows through the wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 2Sphagnum sp.BryoNI122Carex crinitaHerbOBL237Rubus hispidusHerbFACW251Solidago uliginosaHerbOBL305Carex scopariaHerbFACW 40.00 30.00 30.00 10.00 10.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-8 silt loam 10 YR 5/1 10 YR 6/8 (30%)Auger refusal -----Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic contents) [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit Source/Site Characterization: [] Seasonal High Water Table [] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks):[] Hotal Soll Sulvey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: sunny 80 degrees[] OtherRecent Rainfall: ? Recorded Data (Describe in Remarks): ------

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 1218 DATE: 06/15/ COUNTY: Tucker STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: a tributary flows through the we	? yes vical Situation)? no no
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 86.00 Stratum Status % Areal Cover
122 Carex crinita 219 Osmunda cinnamomea 237 Rubus hispidus 249 Solidago rugosa 251 Solidago uliginosa 559 Viburnum recognitum 564 Unidentifiable shrub	Herb OBL 70.00 Herb FACW 10.00 Herb FACW 5.00 Herb FAC 10.00 Herb FAC 5.00 Herb OBL 5.00 Shrub FACW+ 50.00 Shrub NI 50.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BsC Hydric Soil? yes Mottle Color(%) Comments
0-3 silty loam 10 YR 3/1 3-16 silty clay 10 YR 6/1	10 YR 7/8 (30%)
Hydric Soil Indicators:[] Histosol[] Histosol[] Sulfidic Material[X] Aquant[] Gleyed[X] Low[X] mottles[] Ent	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)
HYDROLOGY:	
<pre>Field Observations: Wet Depth of Surface Water: 1.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Records</pre>	Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology Remarks: all 3 criteria met	ent? yes Hydrophytic Vegetation? yes ? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 1219 DATE: 06/15/1993 COUNTY: Tucker STATE: WV STREAM: unnamed DATE: 06/15/1993 INVESTIGATOR: JMG, DAE, ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: piles of dirt and logs have been dumped in the wetland
 VEGETATION: Percent Dominant Species that are OBL, FACW or FAC
 87.00

 Code
 Scientific Name
 Stratum
 Status
 % Areal Cover
 BryoNIHerbOBLHerbFACWHerbFACW+HerbFACWHerbFACWHerbFACWHerbOBL 2 Sphagnum sp. 122 Carex crinita 129 Carex lurida 5.00 10.00 15.00 10.00 10.00 20.00 20.00 166 Eleocharis tenuis 195 Juncus effusus219 Osmunda cinnamomea237 Rubus hispidus 251 Solidago uliginosa 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments ____ 0-1 sandy silt 10 YR 4/1 10 YR 4/6 (40%)organic material 1-3 silty loam 10 YR 3/1 3-9 sandy silt 10 YR 3/2 10 YR 4/4 (20%) 10 YR 4/6 (40%)organic material Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:4.0 (in.)Primary Indicators:Depth to Free Water in Pit:5.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Dackwater[] Oxidized Root Channels/Upper 12 _____ [] Floodplain [] Backwater [X] Depressional secondary Indicators (2 or more req'd)
 [] Oxidized Root Channels/Upper 12
 [] Water-Stained Leaves
 [] Local Soil Survey Data
 [] FAC-Neutral Test
 [] Other (Explain in Remarks)
Recent Weather: sunny 80 degrees
Recent Rainfall. ? Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Aerial Photographs Recent Rainfall: ? [] Other . . WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1220A DATE: 06/15/ COUNTY: Tucker STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PFO1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: a tributary flows through the we	e? yes pical Situation)? no no
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover
 122 Carex crinita 262 Thelypteris noveboracensis 275 Viola pallens 306 Viburnum recognitum 401 Acer rubrum 415 Betula alleghaniensis 543 Viburnum cassinoides 559 Viburnum recognitum 602 Acer rubrum 608 Betula alleghaniensis 	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: LSA Hydric Soil? yes Mottle Color(%) Comments
0-5 silty sand 10 YR 4/2 5/18 silty loam 5 Y 4/2	saturated saturated
Hydric Soil Indicators: [] Histosol [] His [] Sulfidic Material [X] Aqu [] Gleyed [X] Low [X] mottles [] Ent	stic Epipedon nic Moisture Regime v Chroma cisol (organic context, vertical ceaking, chroma 3, wet spodosol)
HYDROLOGY:	
Field Observations: We Depth of Surface Water: 2.0 (in.) Depth to Free Water in Pit: 4.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater	Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12
[] Other Re	<pre>[X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) ecent Weather: sunny 80 degrees ecent Rainfall:</pre>
WETLAND DETERMINATION: Hydric soils pres Wetland Hydrology Remarks: all 3 criteria present	

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SITE/PLOT#: 1220B DATE: 06/15/1993 INVESTIGATOR: ABC, DAE, COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River INVESTIGATOR: ABC, DAE, JMG COWARDIN CLASSIFICATION: PEMIE/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: tributary flows through the wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00
 Code
 Scientific Name
 Stratum
 Status
 % Areal Cover

 Bryo
 NI
 30.00

 Herb
 OBL
 50.00

 Herb
 FACW
 5.00

 Herb
 OBL
 10.00

 Herb
 FACW
 5.00

 Shrub
 FACW
 30.00

 Shrub
 FACW+
 70.00
 2 Sphagnum sp. 122 Carex crinita 237 Rubus hispidus 251 Solidago uliginosa 306 Viburnum recognitum
543 Viburnum cassinoides
559 Viburnum recognitum SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments silty loam 10 YR 3/1 organic material 0-4 silty loam 10 YR 3/1 organic material 4-16 silty loam 10 Yr 7/1 10 YR 6/8 (30%) Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:5.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[X] PloodplainSecondary Indicators (2 or more reg/ [] Floodplain
[] Backwater
[X] Depressional [X] Dialinge Facterins in wetlands Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny 80 degrees[] OtherRecent Rainfall: ? Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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DATE: 06/15/1993 INVESTIGATOR: JMG, DAE, ABC SITE/PLOT#: 1221 SITE/PLOT#: 1221 DATE: 06/15/1993 COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: a tributary flows through the wetland no no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover Bryo NI Herb OBL Herb NI Herb FACW+ Herb OBL Shrub FACU 20.00 2 Sphagnum sp. 122 Carex crinita 124 Carex folliculata 20.00 30.00 195 Juncus effusus 10.00 251 Solidago uliginosa 453 Hypericum prolificum 20 00 100.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LSA Hydric Soil? ves
 Depth
 Texture
 Matrix Color
 Mottle Color(%)
 Comments

 0-3
 silt loam
 10 YR 3/1
 organic

 0-3
 silt loam
 10 YR 3/1
 organic

 3-6
 silt loam
 10 YR 4/2
 10 YR 6/8 (20%) organic
 Hydric Soil Indicators: [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.) Primary Indicators:Depth to Free Water in Pit:0.0 (in.) [X] InundatedDepth to Saturated Soil:0.0 (in.) [X] Saturated in Upper 12 [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more reg'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: sunny Recorded Data (Describe in Remarks): [] Other Recent Rainfall: 0.01 WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1222 DATE: 06/16/1993 COUNTY: Tucker STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEM1B DATE: 06/16/1993 INVESTIGATOR: JMG, DAE, ABC WATERSHED: Cheat River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: located on the periphery of a reclaimed strip mine VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status & Areal Cover _____ 2 Sphagnum sp. 195 Juncus effusus 237 Rubus hispidus Bryo NI Herb FACW+ Herb FACW Herb OBL Shrub FACU 10.00 20.00 10.00 251 Solidago uliginosa 453 Hypericum prolificum 30.00 30.00 _____

 SOIL PROFILE: (Minimum 18 inches) Series Name: LsA
 Hydric Soil? yes

 Depth
 Texture
 Matrix Color
 Mottle Color(%)
 Comments

 0-2
 organic
 10 YR 4/1
 none

 2-3
 silt clay
 7.5 YR 4/0
 10 YR (30%)ox.root channel

 3-12
 silt clay
 10 YR 5/1
 10 YR (10%)ox.root channel
 _____ Hydric Soil Indicators: c Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical ctracking chroma 3, wet spodosol) [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:18.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg/ [] Floodplain [] Backwater [A] Drainage Factorins in wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] Drainage Factoring Factoring [] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks)

 Recorded Data (Describe in Remarks)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Aerial Photographs
 [] Recent Weather: sunny clear

 [] Other
 Recent Rainfall: brief thunder/sh 1wk

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: reclaimed strip mine area - all 3 criteria met

SITE/PLOT#: 1223 DATE: 06/16/1 COUNTY: Tucker STATE: WV STREAM: unnam COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypi Is the area a potential Problem Area? Remarks: a tributary flows through the wet	yes .cal Situation)? no no
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover
2 Sphagnum sp. 122 Carex crinita 237 Rubus hispidus 262 Thelypteris noveboracensis 307 Carex interior 543 Viburnum cassinoides 559 Viburnum recognitum	Bryo NI 20.00 Herb OBL 30.00 Herb FACW 30.00 Herb FAC 10.00 Herb OBL 10.00 Shrub FACW 20.00 Shrub FACW+ 80.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	
0-3 silty loam 10 YR 3/1 3-9 silty clay 10 YR 5/1	Auger refusal 10 YR 6/8 (30%)9 inches
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [X] mottles [] Enti stree	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical aking, chroma 3, wet spodosol)
HYDROLOGY:	
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep	<pre>land Hydrology Indicators: Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks</pre>
[] Floodplain [] Backwater [X] Depressional	Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Reco [] Other Reco	[] FAC-Neutral Test [] Other (Explain in Remarks) ent Weather: sunny 80 degrees ent Rainfall: ?
WETLAND DETERMINATION: Hydric soils presex Wetland Hydrology?	

Remarks: all 3 criteria met

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SITE/PLOT#: 1224 DATE: 06/16/1993 COUNTY: Tucker STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEM1H INVESTIGATOR: JMG, DAE, ABC WATERSHED: Cheat River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 66.00 Code Scientific Name Stratum Status % Areal Cover -----2Sphagnum sp.BryoNI237Rubus hispidusHerbFACW269Unidentifiable grassHerbNI 30.00 20.00 50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----0-4 org.mat./peat 10 YR 3/2 none Hydric Soil Indicators: [] Histosol [] Histic Epipedon [X] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 6.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Seasonal High Water Table [] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands [] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: sunny clear Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Rainfall: heavy rain last week -----

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: the grass is growing within the water of the POWZ - all 3 criteria met

DATE: 06/16/1993 INVESTIGATOR: UMG, Junamed WATERSHED: Cheat River SITE/PLOT#: 1225 INVESTIGATOR: JMG, DAE, ABC STATE: WV STREAM: unnamed COUNTY: Tucker COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: a tributary flows into the wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp. 122 Carex crinita 237 Rubus hispidus 251 Solidago uliginosa Bryo NI Herb OBL Herb FACW Herb OBL 10.00 50.00 30.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? yes 0-2org. material10 YR 2/2none2-6sandy silt5 Y 5/2none6-8gravely sand5 Y 5/210 YR 5/6 (20%) ox.root channel 0-2 org. material 10 YR 2/2 2-6 sandy silt 5 Y 5/2 6-8 gravely sand 5 Y 5/2 Hydric Soil Indicators: [] Histic Epipedon
[X] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) [] Histosol] Sulfidic Material] Gleyed [X] mottles HYDROLOGY : _____ Field Observations:Wetland Hydrology IndiaDepth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in T Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: sunny clear Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Rainfall: heavy rain last week WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1226 DATE: 06/16/1993 INVESTIGATOR: JMG, DAE COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIB Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: area has been strip mined and reclaimed no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00
 Code
 Scientific Name
 Stratum
 Status
 % Areal Cover

 Bryo
 NI
 20.00

 Herb
 FACW+
 50.00

 Herb
 FACW
 30.00
 2 Sphagnum sp. 195 Juncus effusus 237 Rubus hispidus -----SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-6clay siltN 4/none ox.roots6-18clay5 Y 4/1none ox.roots Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[X] Gleyed[X] Low Chroma [X] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 12.0 (in.) Primary Indicators: Depth to Free Water in Pit: 12.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Water Marks Source/Site Characterization: [] Drift Lines [] Seasonal High Water Table [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req' [] Seasonal High Water Table
[] Spring/Seep
[] Floodplain
[] Backwater
[X] Depressional Secondary Indicators (2 or more req'd) [] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[X] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Local Soil Survey Data[] Aerial Photographs[] Other[] OtherRecent Weather: sunny clear[] OtherRecent Rainfall: brief thunderstorms Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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DATE: 06/16/1993 INVESTIGATOR: UNG, WATERSHED: Cheat River SITE/PLOT#: 1227 INVESTIGATOR: JMG, DAE, ABC COUNTY: Tucker STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: area has been strip mined and reclaimed yes ves VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover 198 Juncus sp. 305 Carex scoparia
 Herb
 NI
 70.00

 Herb
 FACW
 30.00
 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-8 silty clay n/4 5 YR 5/8 (10%) ox.roots 8-12 gravelly/sandy 7.5 YR 2/0 7.5 YR 4/0 Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical [] Histosol [] Sulfidic Material [X] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Primary Indicators: Matter Market in Upper 12 [X] Water Marks
[] Drift Lines
[] Sediment Deposit Source/Site Characterization: [] Seasonal High Water Table] Spring/Seep [] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Floodplain [] Backwater [X] Depressional a (Describe in Remarks): [] FAC-Neutral Test Lake, or Tide Gauge [] Other (Explain in Remarks) hotographs Recent Weather: sunny 80 degrees Recent Rainfall: last week [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge] Aerial Photographs [] Other _ _ _ _ _ _ WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 1228 DATE: 06/16/1993 INVESTIGATOR: JMG, DAE, COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River INVESTIGATOR: JMG, DAE, ABC COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: area has been strip mined & reclaimed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status & Areal Cover -------------195Juncus effususHerbFACW+268Typha latifoliaHerbOBL269Unidentifiable grassHerbNI305Carex scopariaHerbFACW 10.00 30.00 20.00 40.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0"-18" gravel/sand 10 YR 4/2 none Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Histic Epipedon [X] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 24.0 (in.) Primary Indicators: Depth to Free Water in Pit: 18.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Water Marks [] Drift Lines [V] Sediment Deposit _____ [] Seasonal High Water Table [] Spring/Seep [X] Sediment Deposit [] Drainage Patterns in Wetlands [] Spring/Seep [] Drainage Patterns in Wetlands
[] Floodplain [] Backwater [] Oxidized Root Channels/Upper 12
[X] Depressional [] Water-Stained Leaves [] Local Soil Survey Data
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks)
[] Aerial Photographs Recent Weather: sunny/clear
[] Other Recent Rainfall: heavy rain last week [] Floodplain [] Backwater WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 1229A DATE: 06/02/1993 COUNTY: Tucker STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEM1E INVESTIGATOR: CMH, DAE WATERSHED: Cheat River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? ño Is the area a potential Problem Area? no Remarks: seep wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover ------2 Sphagnum sp.
131 Carex scabrata
219 Osmunda cinnamomea
237 Rubus hispidus Bryo Herb NI 80.00 Herb OBL Herb FACW Herb FACW 30.00 20.00 30.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: LSA Typerto Depth Texture Matrix Color Mottle Color(%) Comments undecomposed SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? yes 0-5 organic muck 5-12 silty clay loam 10 YR 5/1 none with Mn, fe conc Hydric Soil Indicators: [] Histic Epipedon [X] Aquic Moisture Regime [X] Low Chroma [] Histosol
[] Sulfidic Material [] Gleyed [X] mottles [] Entisol (organic context, vertical. streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit [X] Seasonal High Water Table
[X] Spring/Seep [] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FOC Newtral Weyt [] Floodplain [] Backwater
[] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: Recent Rainfall: -[] Other WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 1229B DATE: 06/02/1993 INVESTIGATOR: CMH, DAE COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: seep wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 2 Sphagnum sp. 131 Carex scabrata 219 Osmunda cinnamomea
 Bryo
 NI
 80.00

 Herb
 OBL
 30.00

 Herb
 FACW
 20.00

 Herb
 FACW
 30.00
 237 Rubus hispidus SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? ves Depth Texture Matrix Color Mottle Color(%) Comments undecomposed 0-5 5-12 silty clay loam 10 YR 5/1 none with Mn, fe conc -----Hydric Soil Indicators: [] Histosol [] Sulfier] Histosol[] Histic Epipedon] Sulfidic Material[X] Aquic Moisture Regime] Gleyed[X] Low ChromaX] mottles[] Entisol (organic context, vertical) [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: (in.) Primary Indicators: Depth to Free Water in Pit: (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Drift Lines [X] Seasonal High Water Table [] Sediment Deposit [X] Spring/Seep [] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg([] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge[] Other[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: -----

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1230 DATE: 06/16/ COUNTY: Tucker STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:		
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 50.00 Stratum Status % Areal Cover	
2 Sphagnum sp. 106 Apocynum cannabinum 237 Rubus hispidus 251 Solidago uliginosa 308 Rumex acetosella 487 Prunus serotina	Bryo NI 10.00 Herb FACU 10.00 Herb FACW 30.00 Herb OBL 40.00 Herb NI 10.00 Shrub FACU 100.00	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BsC Hydric Soil? yes Mottle Color(%) Comments	
0-1 organic 7.5 YR 3/3 0-4 sandy silt 10 YR 4/1 4-18 silty clay 10 YR 5/1	10 YR 6/8 (10%)moist	
[] Histosol [] His [] Sulfidic Material [] Aqu [] Gleyed [X] Low [X] mottles [] Ent	stic Epipedon nic Moisture Regime 7 Chroma sisol (organic context, vertical reaking, chroma 3, wet spodosol)	
HYDROLOGY :		
Field Observations: We Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: 18.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep	tland Hydrology Indicators: Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Watter Marks	
Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional	<pre>[] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data</pre>	
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Re [] Other Re	[] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: sunny 80 degrees cent Rainfall:	
WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Wetland Hydrology? yes		

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SITE/PLOT#: 1231A DATE: 06/16/1993 INVESTIGATOR: DAE, JMG, COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River INVESTIGATOR: DAE, JMG, ABC COWARDIN CLASSIFICATION: PEM Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: unland islands throughout the wetland area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover Herb OBL Herb OBL Herb FAC Herb FAC 122 Carex crinita 25.00 133 Carex stipata 248 Euthamia graminifolia 25.00 20.00 30.00 249 Solidago rugosa SOIL PROFILE: (Minimum 18 inches) Series Name: Bo,ErC,Bp,Ty,BcHydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments --------------0-2 sandy loam 10 YR 2/1 2-18 sandy clay 10 YR 4/1 organic material in layers _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ Hydric Soil Indicators: [] Histosol [] Sulffal Soli indicators.[] Histic Epipedon] Histosol[] Aquic Moisture Regime] Sulfidic Material[] Aquic Moisture Regime] Gleyed[X] Low Chroma] mottles[] Entisol (organic context, vertical) [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[]Depth to Saturated Soil:0.0 (in.)[X]Saturated in Upper 12 [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Depressional [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other [] O ----------_____

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1231C DATE: 09/02/ COUNTY: Tucker STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PSS/ML1A Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: Shrubby area along intermittent	? Dical Sit	ves	MZ, JMD at River
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL Stratum	, FACW or FAC Status	70.00 % Areal Cover
 Polytrichum sp. Sphagnum sp. Juncus effusus Z37 Rubus hispidus Z51 Solidago uliginosa Z62 Thelypteris noveboracensis 305 Carex scoparia 338 Bromus purgans 452 Hypericum densiflorum 541 Vaccinium myrtilloides 	Bryo Bryo Herb Herb Herb Herb Herb Shrub Shrub	NI FACW+ FACW OBL FAC FACW FACU FACU FACU FAC+ FAC	$\begin{array}{c} 70.00\\ 30.00\\ 20.00\\ 60.00\\ 30.00\\ 20.00\\ 20.00\\ 20.00\\ 20.00\\ 40.00\\ 30.00\\ \end{array}$
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: L: Mottle	SA H Color(%) Comm	ydric Soil? yes ents
0-4 organic 4-6 clay loam 10 YR 4/2 6-12 clay loam 10 YR 7/1 12-18 clay loam 10 YR 7/1		none 10 YR 7/8 (20 10 YR 6/8 (30	%) %)ox.roots
Hydric Soil Indicators:[] Histosol[] Hist[] Sulfidic Material[] Aqu:[] Gleyed[X] Low[X] mottles[] Ent:	tic Epipe ic Moistu Chroma isol (org	edon ire Regime ganic context, chroma 3, wet s	vertical
HYDROLOGY:			
<pre>Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 18.0 (in.) Depth to Saturated Soil: 18.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recorded</pre>	tland Hyc Primary [] Ir [] Sa [] Wa [] Dr [] Dr [] Dr Secondar [] Da Secondar [] Wa [] Lc [] F	y Indicators (didized Root Ch ter-Stained Le cal Soil Surve AC-Neutral Tes Other (Explain)	2 or more req'd) annels/Upper 12 aves y Data t
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met		Hydrophyti Wetland? y	c Vegetation? yes es

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SITE/PLOT#: 1232 DATE: 06/30/1993 INVESTIGATOR: JMG, DMB COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: isolated wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover
 Bryo
 NI
 30.00

 Herb
 FACW
 10.00

 Herb
 FACW
 30.00

 Herb
 FACW+
 20.00

 Herb
 FACW
 10.00

 Shrub
 FACW
 10.00
 2 Sphagnum sp. 132 Carex sp. 166 Eleocharis tenuis 195 Juncus effusus
237 Rubus hispidus
543 Viburnum cassinoides _____ SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric S Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? yes -----0-1 organic 10 YR 2/2 saturated 1-3 silt 10 YR 3/1 Auger refa 3-6 sandy silt 10 YR 4/1 6 inches saturated Auger refusal 6 inches Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 18.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg' Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: sunny 80 degrees [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs
[] Other Recent Rainfall: ------_ _ _ _ _ _ _ _ _ _ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met, small depressional wetland Pub fringed by emergent

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SITE/PLOT#: 1233 DATE: 07/ COUNTY: Tucker STATE: WV STREAM: U COWARDIN CLASSIFICATION: PEMIB/ML Do Normal Circumstances exist on the s Is the site significantly disturbed (A Is the area a potential Problem Area? Remarks: wetland in an old reclamation	tte? yes typical Situation)? no no
VEGETATION: Percent Dominant Species t Code Scientific Name	Stratum Status % Areal Cover
 Polytrichum sp. Sphagnum sp. 166 Eleocharis tenuis 195 Juncus effusus 237 Rubus hispidus 251 Solidago uliginosa 252 Sparganium americanum 268 Typha latifolia 305 Carex scoparia 311 Eleocharis smallii 453 Hypericum prolificum 541 Vaccinium myrtilloides 543 Viburnum cassinoides 	Bryo NI 40.00 Bryo NI 80.00 Herb FACW 20.00 Herb FACW+ 15.00 Herb FACW 20.00 Herb FACW 20.00 Herb OBL 15.00 Herb OBL 20.00 Herb OBL 20.00 Herb OBL 10.00 Herb FACW 5.00 Herb OBL 20.00 Shrub FACU 25.00 Shrub FACW 10.00
SOIL PROFILE: (Minimum 18 inches) Ser Depth Texture Matrix Colo	ies Name: Sm mined land Hydric Soil? no r Mottle Color(%) Comments
1-5 silt clay 10 YR 5/2 5-12 clay 10 YR 5/1	10 YR 6/8 (30%) 10 YR 5/8 (40%)Mn conc.
[] Histosol []] [] Sulfidic Material [X] [] Gleyed [X] [X] mottles []]	Histic Epipedon Aquic Moisture Regime Low Chroma Entisol (organic context, vertical streaking, chroma 3, wet spodosol)
HYDROLOGY:	
Field Observations: Depth of Surface Water: 3.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization:	Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12
Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [X] Depressional	<pre>[] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data</pre>
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other	<pre>[] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: scattered showers Recent Rainfall: June 2.24" aver.4.4"</pre>
	resent? yes Hydrophytic Vegetation? yes gy? yes Wetland? yes
Wetland Hydrold	ogy? yes Wetland? yes

Remarks: all 3 criteria met - hydric soil indicators present

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SITE/PLOT#: 1234A DATE: 07/01/1993 INVESTIGATOR: CMH, DAE COUNTY: Tucker STATE: WV STREAM: near Beaver CrWATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1B Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: wetland between 2 abandoned RR grades VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 60.00 Code Scientific Name Stratum Status % Areal Cover ------
 Bryo
 NI
 40.00

 Bryo
 NI
 40.00

 Herb
 NI
 10.00

 n
 Herb
 FAC+
 20.00

 Herb
 NI
 10.00

 Herb
 FAC+
 20.00

 Herb
 OBL
 20.00

 Shrub
 FACW+
 25.00
 1 Polytrichum sp. 2 Sphagnum sp. 124 Carex folliculata 153 Dichanthelium clandestinum
165 Eleocharis sp.
237 Rubus hispidus 312 Glyceria canadensis 453 Hypericum prolificum 559 Viburnum recognitum SOIL PROFILE: (Minimum 18 inches) Series Name: LdA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-2 organic 10 YR 2/1 2-4 silty clay 5 Y 4/1 none Fe Conc. 4-12 clay 2.5 Y 5/4 10 YR 6/8 (40%) Fe Conc. Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY :

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 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Water Marks

 [] Seasonal High Water Table
 [] Sediment Deposit

 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req'

 [] Floodplain [X] Backwater Secondary Indicators (2 or more req'd) [X] Backwater[] Oxidized Root Channels/Upper 12[X] Depressional[] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Local Soil Survey Data[] Aerial Photographs[] Other[] Other[] Other [] Other Recent Rainfall: June 2.24" Aver.4.4" -----

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met - hydric soil indicaters present

SITE/PLOT#: 1234B DATE: 07/01/1993 INVESTIGATOR: CMH COUNTY: Tucker STATE: WV STREAM: near Beaver CrWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIB Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: drainage swale between 2 abandoned RR grades VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover 1Polytrichum sp.BryoNI2Sphagnum sp.BryoNI166Eleocharis tenuisHerbFACW195Juncus effususHerbFACW+237Rubus hispidusHerbFACW+251Solidago uliginosaHerbOBL305Carex scopariaHerbFACW453Hypericum prolificumShrubFACU 20.00 80.00 70.00 30.00 20.00 20.00 30.00 Hydric Soil? yes SOIL PROFILE: (Minimum 18 inches) Series Name: LdA Depth Texture Matrix Color Mottle Color(%) Comments
 0-2
 organic
 10 YR 2/1

 2-4
 silty clay
 5 Y 4/1
 none Fe conc.

 4-12
 clay
 2.5 Y 5/4
 10 YR 6/8 (40%) Fe conc.
 Hydric Soil Indicators: [] Histic Epipedon
[X] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGI.

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 2.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 [] Water Marks
 [] Water Marks

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [] Sediment Deposit

 [X] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req'

 _____ [] Spring/Seep [] Floodplain [X] Backwater [] Spring/Seep [X] Drainage Patterns in Wetlands
[] Floodplain [X] Backwater [X] Depressional [X] Depressional [X] Depressional [X] Depressional [X] Oxidized Root Channels/Upper 12
[X] Depressional [X] Oxidized Root Channels/Upper 12
[X] Depressional [X] Oxidized Root Channels/Upper 12
[] I Cocal Soil Survey Data
[] Aerial Photographs [] Other (Explain in Remarks)
[] Aerial Photographs Recent Weather: 2" deficit for June
[] Other Recent Rainfall: rains/thu. w/in 3day _____ WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met - hydric soil indicators present

SITE/PLOT#: 1235A DATE: 07/02/1993 COUNTY: Tucker STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEMIE INVESTIGATOR: DAE WATERSHED: Cheat River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no ves Is the area a potential Problem Area? no Remarks: fringe wetland at edge of Beaver Pond VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 88.00 Code Scientific Name Stratum Status & Areal Cover 2 Sphagnum sp.
129 Carex lurida
184 Glyceria striata
195 Juncus effusus
237 Rubus hispidus
252 Sparganium americanum
305 Carex scoparia
567 Vaccipium sp. Bryo NI Herb OBL Herb OBL Herb FACW+ Herb FACW Herb OBL Herb FACW Shrub NI 70.00 20.00 70.00 90.00 30.00 15.00 20.00 40.00 567 Vaccinium sp. SOIL PROFILE: (Minimum 18 inches) Series Name: LdA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-8 10 YR 6/1 none 8-12 silty clay 10 YR 6/1 10 YR 6/8 (50%) mang. conc. Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [X] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 6.0 (in.) Primary Indicators: Depth to Free Water in Pit: 1.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Water Marks -----Wetland Hydrology Indicators: [X] Water Marks
[X] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
[] Drainage Patterns (2 or more reg()] Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [X] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: scattered showers[] OtherRecent Rainfall: June 2.24" Aver4.4"m [] Local Soil Survey Data WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

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SITE/PLOT#: 1235C DATE: US/UZ/1555 COUNTY: Tucker STATE: WV STREAM: unnamed DATE: 09/02/1993 INVESTIGATOR: MZ WATERSHED: Cheat River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? ño Is the area a potential Problem Area? Remarks: pine forest on beaver pond no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp. 645 Pinus strobus
 Bryo
 NI
 50.00

 Tree
 FACU
 100.00
 ----------SOIL PROFILE: (Minimum 18 inches) Series Name: LdA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----_____ -----0-8 silty clay 10 YR 6/1 none 8-12 silty clay 10 Yr 6/1 10 YR 6/8 (50%) mong.concr. Hvdric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Histosol [] Sulfidic Material] Gleyed [] Entisol (organic context, vertical [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 1.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: [] Inundated
[X] Saturated in Upper 12
[X] Water Marks
[] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
[X] Drainage Patterns (2 or more reg()) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs Recent Weather: [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

ROUTINE WETLAND DETERMINATION FORM SITE/PLOT#: 1236 DATE: 07/12/1993 INVESTIGATOR: CMH, JMG, COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River INVESTIGATOR: CMH, JMG, ABC COWARDIN CLASSIFICATION: PSS1B Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 89.00 Code Scientific Name Stratum Status & Areal Cover -----2 Sphagnum sp. 117 Carex atlantica 129 Carex lurida BryoNIHerbFACWHerbOBLHerbOBLHerbFACWHerbOBLHerbNIHerbOBLShrubOBL 100.00 80.00 227 Polygonum sagittatum 237 Rubus hispidus 20.00 15.00 251 Solidago uliginosa 15.00 297 Carex gynandra 309 Scirpus rubrotinctus 523 Salix sericea 297 15.00 30.00 30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Brb Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? yes -----
 0-1
 organic

 1-4
 organic loam
 10 YR 2/1
 none

 4-6
 sandy loam
 10 YR 4/1
 none

 6-12
 sandy loam
 10 YR 5/1
 2.5 Y 5/6 (30%)
 -----Hydric Soil Indicators:

 C SOIL Indicators:
 [] Histic Epipedon

 [] Histosol
 [] Histic Epipedon

 [X] Sulfidic Material
 [X] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 1.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit -----[] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Sediment Deposit [X] Drainage Patterns in Wetlands

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[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Oxidized Root Channels/Upper 12Recorded Data (Describe in Remarks):[] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial PhotographsRecent Weather: clear[] OtherRecent Rainfall:WETLAND DETERMINATION: Hydric soils present? yesWetland Hydrology? yesWetland? yes

SITE/PLOT#: 1240DATE: 08/31/1993INVESTIGATOR: MZ, JMDCOUNTY: TuckerSTATE: WV STREAM: unnamedWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIF Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: rehabilitated surface mine area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status & Areal Cover Bryo NI Herb OBL Herb OBL Herb FAC-Herb OBL Shrub FAC 2 Sphagnum sp. 40.00 174 Eriophorum virginicum 182 Gentiana linearis 20.00 20.00 200 Juncus tenuis 80.00 243 Scirpus atrovirens 488 Prunus virginiana 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ------------------------0-8 sandy silt 10 YR 3/1 none saturated 8-12 sandy silt 10 YR 3/1 none saturated 12-18 silty gravel 10 YR 4/1 none saturated Hydric Soil Indicators:

 C Soli Indicators:
 [] Histic Epipedon

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : ------Field Observations: Wetland Hydrology Indic Depth of Surface Water: 1.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [] Saturated in U Wetland Hydrology Indicators: [X] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Seasonal High Water Table []] Spring/Seep [] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test [X] Floodplain
[] Backwater
[] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: [] Other Recent Rainfall: -----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1241 DATE: 08/31/1993 INVESTIGATOR: MZ, JMD COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE/PSS Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves no Is the area a potential Problem Area? no Remarks: largely emergent area between Route 93 and rail bed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 89.00 Code Scientific Name Stratum Status % Areal Cover 2Sphagnum sp.BryoNI174Eriophorum virginicumHerbOBL195Juncus effususHerbFACW+237Rubus hispidusHerbFACW243Scirpus atrovirensHerbOBL251Solidago uliginosaHerbOBL268Typha latifoliaHerbOBL452Hypericum densiflorumShrubFAC+541Vaccinium myrtilloidesShrubFAC 60.00 20.00 30.00 20.00 20.00 20.00 40.00 40.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----0-8organicsaturated8-12clay loam10 YR 3/1saturated12-18clay loam10 YR 5/1ox.roots Hydric Soil Indicators: [] Histosol [] Sulfidic Material [X] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGI:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [] Drainage Patterns in Wetlands

 [] Spring/Seep
 [] Drainage Patterns in Wetlands

 [X] Floodplain
 Secondary Indicators (2 or more req'd)

 [X] Oxidized Root Channels/Upper 12
 [] Water-Stained Leaves

 [X] Depressional
[X] Depressional
[X] Oxidized Root Channels/Uppe
[] Water-Stained Leaves
[] Local Soil Survey Data
[] Local Soil Survey Data
[] Construction of the Gauge
[] Aerial Photographs
[] Other
[] Other
[] Other
[] Proceeding of the Gauge
[] Proceeding of the Gauge
[] Proceeding of the Gauge
[] Other
[] Other
[] Proceeding of the Gauge
[] Proceeding of the Recorded Data (Describe in Remarks): [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1242A DATE: 08/31/1993 COUNTY: Tucker STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PSS1E/ML DATE: 08/31/1993 INVESTIGATOR: MZ, JMD WATERSHED: Cheat River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 129 Carex lurida 131 Carex scabrata 195 Juncus effusus OBL Herb 20.00
 Herb
 OBL
 40.00

 Herb
 FACW+
 20.00

 Herb
 FACW+
 20.00

 Herb
 OBL
 20.00

 Herb
 OBL
 20.00

 Shrub
 FACU
 30.00

 Shrub
 OBL
 20.00

 Shrub
 FACW+
 50.00

 Shrub
 FACW+
 50.00
 244 Scirpus cyperinus
268 Typha latifolia
453 Hypericum prolificum 518 Salix exigua (S. interior) 526 Spiraea alba 559 Viburnum recognitum ····· SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----------. 0-8 organic 7.5 YR 2/0 8-12 peat 7.5 YR 2/0 12-18 loam 2.5 Y 3/0 saturated sulfidic sulfidic Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Histosol [X] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Drift Lines [X] Seasonal High Water Table [X] Sediment Deposit [X] Serving/Seep [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg' Secondary Indicators (2 or more reg'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Backwater [] Depressional [] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs Recent Weather: Recent Rainfall: [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1242B DATE: 08/31/1993 COUNTY: Tucker STATE: WV STREAM: unnamed DATE: 08/31/1993 INVESTIGATOR: MZ, JMD WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover Stratum Status % Areal Cover HerbOBLHerbOBLHerbFACW+HerbFACW+HerbOBLShrubFACUShrubOBLShrubFACW+ShrubFACW+ShrubFACW+ 129 Carex lurida 20.00 131 Carex scabrata 195 Juncus effusus 40.00 20.00 244 Scirpus cyperinus
268 Typha latifolia
453 Hypericum prolificum
518 Salix exigua (S. interior) 20.00 20.00 30.00 30.00 20.00 526 Spiraea alba 559 Viburnum recognitum 50.00 50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LsA-Lickdale Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----
 0-8
 organic
 7.5 YR 2/0

 8-12
 peat
 7.5 YR 2/0

 12-18
 loam
 2.5 Y 3/0
 sat. sulfidic sulfidic _____ Hydric Soil Indicators: [] Histosol[] Histic Epipedon[X] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY :

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 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Drift Lines

 [X] Seasonal High Water Table
 [X] Sediment Deposit

 [X] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req'

 Secondary Indicators (2 or more req'd) [] Backwater [] Depressional [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

SITE/PLOT#: 1243A DATE: 08/31/ COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PSS1E/EM Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	(1993 INVESTIGATOR: MZ, JMD WATERSHED: Cheat River ?? yes pical Situation)? no no
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 78.00 Stratum Status % Areal Cover
 Polytrichum sp. Sphagnum sp. 129 Carex lurida 195 Juncus effusus 237 Rubus hispidus 244 Scirpus cyperinus 251 Solidago uliginosa 452 Hypericum densiflorum 541 Vaccinium myrtilloides 	Bryo NI 40.00 Bryo NI 80.00 Herb OBL 30.00 Herb FACW+ 40.00 Herb FACW+ 20.00 Herb FACW+ 20.00 Herb FACW+ 20.00 Herb FACW+ 40.00 Shrub FAC+ 40.00 Shrub FAC 30.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: LSA Hydric Soil? yes Mottle Color(%) Comments
0-4 organic moss 4-8 clay loam 10 YR 5/1 8-12 clay loam 10 YR 5/1 12-18 silty loam 10 YR 3/1	none saturated none saturated none ox.roots none
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [] mottles [] Ent strees	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)
HYDROLOGY:	
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep	<pre>tland Hydrology Indicators: Primary Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks</pre>
Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional	<pre>[] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data</pre>
	[] FAC-Neutral Test [] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: cent Rainfall:
WETLAND DETERMINATION: Hydric soils press	
Wetland Hydrology' Remarks: all 3 criteria met	? yes Wetland? yes

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DATE: 08/31/1993 INVESTIGATOR: M2, 012 WATERSHED: Cheat River SITE/PLOT#: 1243BDATE: 08/31/1993COUNTY: TuckerSTATE: WV STREAM: COWARDIN CLASSIFICATION: PSS1EM/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: shrubby area with acid mine drainage VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 78.00 Code Scientific Name Stratum Status % Areal Cover 1Polytrichum sp.BryoNI2Sphagnum sp.BryoNI129Carex luridaHerbOBL195Juncus effususHerbFACW+237Rubus hispidusHerbFACW+244Scirpus cyperinusHerbFACW+251Solidago uliginosaHerbOBL452Hypericum densiflorumShrubFAC+541Vaccinium myrtilloidesShrubFAC 40.00 80.00 30.00 40.00 40.00 60.00 20.00 30.00 40.00 30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LsA-Lickdale Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-4 organic-moss 4-8 clay loam 10 YR 5/1 8-12 clay loam 10 YR 5/1 12-18 silty loam 10 YR 3/1 none sat. sat. ox.roots -----_ _ _ _ _ _ _ _ _ _ _ _ _ Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Drift Lines [] Seasonal High Water Table [] Sediment Deposit [] Spring/Seep [] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg' [] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data [X] Depressional Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other[] OtherRecent Weather:[] OtherRecent Rainfall: -----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1244 DATE: 08/31/ COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1A Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: former surface mined land with p	? ical Situation)?	ves
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or F Stratum Statu	AC 67.00 as % Areal Cover
1 Polytrichum sp. 2 Sphagnum sp. 174 Eriophorum virginicum 195 Juncus effusus 200 Juncus tenuis 237 Rubus hispidus 251 Solidago uliginosa 338 Bromus purgans 371 Dulichium arundinaceum	Bryo NI Bryo NI Herb OBL Herb FACW Herb FAC- Herb FACW Herb OBL Herb OBL Herb OBL	40.00 80.00 20.00 4+ 20.00 30.00 4 30.00 4 20.00 40.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Sm Mottle Color(%)	Hydric Soil? no Comments
0-4 organic moss 4-8 clay loam 10 YR 5/1 8-18 clay loam 10 YR 3/1	none ox.	roots sat.
Hydric Soil Indicators: [] Histosol [] Histosol [] Sulfidic Material [] Aqu: [] Gleyed [X] Low [] mottles [] Ent:	tic Epipedon ic Moisture Regime Chroma isol (organic conte eaking, chroma 3, w	xt, vertical et spodosol)
HYDROLOGY:		
Field Observations: Wet Depth of Surface Water: (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep	tland Hydrology Ind Primary Indicators [] Inundated [X] Saturated in [] Water Marks	icators: : Upper 12
Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [] Depressional	[X] Oxidized Roo [X] Water-Staine	rs (2 or more req'd) t Channels/Upper 12 d Leaves
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Red [] Other Red	[] Local Soil S [] FAC-Neutral [] Other (Expl. cent Weather: sunny cent Rainfall: 0.5	Test ain in Remarks)
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met	ent? yes Hydrop ? yes Wetlan	hytic Vegetation? yes d? yes

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SITE/PLOT#: 1245A DATE: 08/31/2 COUNTY: Tucker STATE: WV STREAM: unnar COWARDIN CLASSIFICATION: PEMIF Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks: former surface mined area with pe	yes (cal Situation)? no no
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover
195 Juncus effusus 200 Juncus tenuis 244 Scirpus cyperinus 251 Solidago uliginosa 268 Typha latifolia	Herb FACW+ 30.00 Herb FAC- 30.00 Herb FACW+ 30.00 Herb OBL 20.00 Herb OBL 80.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Mottle Color(%) Comments
0-6 organic 6-12 clay loam 10 YR 5/1 12-18 clay loam 10 YR 7/1	10 YR 5/8 (15%) none ox.roots
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [X] mottles [] Enti	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical aking, chroma 3, wet spodosol)
HYDROLOGY :	
Field Observations: Wet Depth of Surface Water: 1.0 (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater	<pre>land Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines</pre>
[X] Depressional	[] Water-Stained Leaves [] Local Soil Survey Data
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec [] Other Rec	[] FAC-Neutral Test [] Other (Explain in Remarks) ent Weather: sunny ent Rainfall: 0.5"
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met	nt? yes Hydrophytic Vegetation? yes yes Wetland? yes

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SITE/PLOT#: 1245B DATE: 08/31/1993 COUNTY: Tucker STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEM1B DATE: 08/31/1993 INVESTIGATOR: MX, JMD WATERSHED: Cheat River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: former surface mined area with ponds VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover -----FACW+ Herb FAC-Herb FACW+ Herb ORT 195 Juncus effusus 200 Juncus tenuis 30.00 20.00 244 Scirpus cyperinus 251 Solidago uliginosa 20.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ____
 0-6
 organic

 6-12
 clay loam
 10 YR 5/1
 10 YR 5/8 (15%)

 12-18
 clay loam
 10 YR 7/1
 none ox.roots
 ------Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY:

 HYDROLOGI.

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 [] Water Marks
 [] Water Marks

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [] Sediment Deposit

 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more reg'

 [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves] Backwater [X] Depressional [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks)
Recent Weather: sunny Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs [] Other Recent Rainfall: .5" WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1246ADATE: 08/31/1993INVESTIGATOR: MZ, JMDCOUNTY: TuckerSTATE: WVSTREAM: unnamedWATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no ves Is the area a potential Problem Area? Remarks: shrubby intermittent drainage no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status % Areal Cover 195Juncus effususHerbFACW+20.00237Rubus hispidusHerbFACW50.00251Solidago uliginosaHerbOBL50.00267Typha angustifoliaHerbOBL20.00452Hypericum densiflorumShrubFAC+30.00541Vaccinium myrtilloidesShrubFAC30.00559Viburnum recognitumShrubFACW+30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no 0-6 organic 6-12 sandy silt 10 YR 6/1 none ox.roots 12-18 clayey silt 10 YR 6/2 none ox.roots Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 18.0 (in.) [] Inundated Depth to Saturated Soil: 18.0 (in.) [] Saturated in U Wetland Hydrology Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks [X] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table] Spring/Seep [X] Floodplain [] Backwater Secondary Indicators (2 or more reg'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Backwater [] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny, hot[] OtherRecent Rainfall: 0.5 in yesterday -----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

SITE/PLOT#: 1246B DATE: 08/31/ COUNTY: Tucker STATE: WV STREAM: unnar COWARDIN CLASSIFICATION: PSSIE Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks: shrubby intermittent drainage	? ves
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 86.00 Stratum Status % Areal Cover
195 Juncus effusus 251 Solidago uliginosa 267 Typha angustifolia 452 Hypericum densiflorum 541 Vaccinium myrtilloides 559 Viburnum recognitum	Herb FACW+ 20.00 Herb OBL 50.00 Herb OBL 20.00 Shrub FAC+ 30.00 Shrub FAC 30.00 Shrub FACW+ 30.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Sm Hydric Soil? no Mottle Color(%) Comments
0-6 organic 6-12 sandy silt 10 YR 6/1 12-18 clayey silt 10 YR 6/2 Hydric Soil Indicators:	none ox.roots none ox.roots
[] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [] mottles [] Enti	cic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)
HYDROLOGY:	
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 18.0 (in.) Depth to Saturated Soil: 18.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep	<pre>:land Hydrology Indicators: Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks [X] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands</pre>
[X] Floodplain [] Backwater [] Depressional	[] Water-Stained Leaves
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec [] Other Rec	<pre>[] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) eent Weather: sunny/hot eent Rainfall:</pre>
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 parameters met	nt? yes Hydrophytic Vegetation? yes yes Wetland? yes

SITE/PLOT#: 1247 COUNTY: Tucker STATE: WV COWARDIN CLASSIFICATION: PEMI Do Normal Circumstances exist Is the site significantly dis Is the area a potential Probl Remarks: AMD causes soils to	1E t on the site sturbed (Atyp: lem Area?	?	no	MZ, JMD at River
VEGETATION: Percent Dominant Code Scientific Name				
2 Sphagnum sp. 132 Carex sp. 174 Eriophorum virginicu 195 Juncus effusus 200 Juncus tenuis 244 Scirpus cyperinus 251 Solidago uliginosa 297 Carex gynandra 371 Dulichium arundinace 539 Vaccinium corymbosum	1m 911m 10	Bryo Herb Herb Herb Herb Herb Herb Herb Shrub	NI FACW OBL FACW+ FAC- FACW+ OBL NI OBL FACW	80.00 30.00 10.00 20.00 30.00 30.00 30.00 30.00 40.00 20.00
SOIL PROFILE: (Minimum 18 inc Depth Texture Ma	ches) Series atrix Color	Name: Bs Mottle	C H Color(%) Comm	Nydric Soil? yes Ments
0-6 silty loam 7. 6-12 silty loam 7. 12-18 7.	5 YR 7/8 5 YR 2/0 5 YR 4/4		saturat 7.5YR 7/2 (30 7.5YR 2/0 (30	ed %)saturated %)saturated
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)				
HYDROLOGY :				
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Water MarksSource/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg'd)				
[] Spring/Seep [] Floodplain [] Backwater [] Depressional		[] Ox: [] Wat	ainage Pattern y Indicators (idized Root Ch ter-Stained Le cal Soil Surve	annels/Upper 12 aves
Recorded Data (Describe in Re [] Stream, Lake, or Tide Gau [] Aerial Photographs [] Other	ge Rec	[] F2	AC-Neutral Tes ther (Explain her:	ŧ
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes				
Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met				

SITE/PLOT#: 1248A DATE: 06/04/1993 INVESTIGATOR: CMH, DAE COUNTY: Tucker STATE: WV STREAM: near Beaver CrWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? ño no Remarks: several seeps in lg. meadow, no inlet/outlet channels delineated VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover 1 Polytrichum sp. Bryo NI 2 Sphagnum sp. Bryo NI 174 Eriophorum virginicum Herb OBL 195 Juncus effusus Herb FACW+ Rubus hispidus 237 Herb FACW 251 Solidago uliginosa
285 Carex tribuloides
297 Carex gynandra
312 Glyceria canadensis Herb OBL Herb FACW NI Herb Herb OBL FACU 314 Danthonia compressa Herb ------SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-1 organic muck 1-5 fine sandy clay 10 YR 5/1 5-10 clayey sand 10 YR 5/1 <10 rock none conc.(Fe) 10 YR 5/8 (80%) ----_____ Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [X] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators:) Primary Indicators:) [] Inundated) [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: heavy rain last nite Recent Rainfall: Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [X] Aerial Photographs [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Wetland Hydrology? yes Wetland? yes Hydrophytic Vegetation? yes Remarks: all 3 criteria met

SITE/PLOT#: 1248B DATE: 06/04/1993 INVESTIGATOR: CMH, DAE COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1B/PEM Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: 20-507 wide along small stream VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status & Areal Cover 121 Carex canescens Herb OBL 124 Carex folliculata Herb NI 132 Carex sp. 153 Dichanthelium clandestinum Herb Herb FACW FAC+ FACT FACW Herb FAC Herb FAC Herb FAC Shrub FAC Shrub FAC 237 Rubus hispidus 262 Thelypteris noveboracensis
277 Viola spp.
406 Amelanchier arborea FAC FAC FAC-544 Viburnum dentatum SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-4 org. muck 4-16 sandy silt bam 10 YR 3/1 none conc. (Fe) Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [X] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY :

 Hibkohosi.

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 6.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Water Marks

 [] Seasonal High Water Table
 [] Sediment Deposit

 [] Secondarv Indicators (2 or more req'

 Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Backwater [] Depressional [] Local Soil Survey Data

 Recorded Data (Describe in Remarks):
 [] FAC-Neutral Test

 [] Stream, Lake, or Tide Gauge
 [] Other

 [] Aerial Photographs
 [] Other

 [] Other
 Recent Weather: heavy rain last nite

 [] Other
 Recent Rainfall:

 Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1249A DATE: 06/03/ COUNTY: Tucker STATE: WV STREAM: trib COWARDIN CLASSIFICATION: PEM1E/ML Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks: 100-YR floodplain of Beaver Creek	? yes ical Situation)? no no	
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum Status & Areal Cover	
1 Polytrichum sp. 2 Sphagnum sp. 132 Carex sp. 131 Gaultheria procumbens 184 Glyceria striata 195 Juncus effusus 230 Pteridium aquilinum 237 Rubus hispidus 251 Solidago uliginosa 315 Vaccinium myrtilloides 406 Amelanchier arborea 453 Hypericum prolificum 	Bryo NI 50.00 Bryo NI 50.00 Herb FACW 5.00 Herb FACU 10.00 Herb OBL 20.00 Herb FACW+ 10.00 Herb FACW+ 10.00 Herb FACW 2.00 Herb FACW 20.00 Herb FACW 20.00 Herb FACW 5.00 Shrub FACU 5.00	
Depth Texture Matrix Color	Mottle Color(%) Comments	
0-1 organic 5 YR 2.5/1 1-4 organic loam 5 YR 3/1 4-8 fine sandy loam 10 YR 5/1 8- rock	saturated saturated 10 YR 6/8saturated	
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [X] Aqui [] Gleyed [X] Low [X] mottles [] Enti stree	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical aking, chroma 3, wet spodosol)	
HYDROLOGY:		
[] Other Rec	<pre>iland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) ent Weather: ent Rainfall:</pre>	
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met		

SITE/PLOT#: 1249BDATE: 06/04/1993INVESTIGATOR: CMH, DAECOUNTY: TuckerSTATE: WVSTREAM: unnamedWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: extension from PEM/ML bay area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover Code Scientific Name Stratum ----------195Juncus effususHerbFACW+80.00453Hypericum prolificumShrubFACU10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm-strip mine Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0-2 organic 2-7 sandy clay 10 YR 5/2 7 bedrock 10 YR 5/8 (20%)Fe. Conc. Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:4.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Drift Lines[] Sediment Deposit [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional [] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: heavy rain last nite Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs [] Other Recent Rainfall:

1

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met - hydric soil indicators present

SITE/PLOT#: 1250 DATE: 06/03/1993 INVESTIGATOR: JMG, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: tributaries flow through the wetland area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status % Areal Cover -----110Aster umbellatusHerbFACW188Hypericum punctatumHerbFAC237Rubus hispidusHerbFACW248Euthamia graminifoliaHerbFAC251Solidago uliginosaHerbOBL315Vaccinium myrtilloidesHerbFAC519Salix fragilisShrubFAC+ 10.00 20.00 10.00 5.00 40.00 15.00 100.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: Bra, BrB, LdA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----

 0-3
 fiberous org.
 10 YR 4/1
 saturated

 3-8
 silt
 2.5 Y 2/0
 10 YR 4/6 (5%)

 8-16
 fine sandy loam 10 YR 3/1
 7.5 YR 5/6 (5%)

 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indic Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny[] OtherRecent Rainfall: 5/31 Recorded Data (Describe in Remarks): ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1250C DATE: 09/01/2 COUNTY: Tucker STATE: WV STREAM: unnar COWARDIN CLASSIFICATION: PSS/ML1A Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks: somewhat drier shrubby area	? ves
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 63.00 Stratum Status & Areal Cover
1 Polytrichum sp. 2 Sphagnum sp. 132 Carex sp. 237 Rubus hispidus 338 Bromus purgans 452 Hypericum densiflorum 539 Vaccinium corymbosum 541 Vaccinium myrtilloides	Bryo NI 30.00 Bryo NI 30.00 Herb FACW 30.00 Herb FACW 50.00 Herb FACU 20.00 Shrub FAC+ 30.00 Shrub FACW 40.00 Shrub FAC 40.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BsB Hydric Soil? yes Mottle Color(%) Comments
0-4 organic 4-12 loamy clay 10 YR 3/1 12-18 clay loam 10 YR 3/2	none none saturated at 16
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [] mottles [] Enti	
HYDROLOGY:	
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 18.0 (in.) Depth to Saturated Soil: 16.0 (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep	<pre>land Hydrology Indicators: Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks</pre>
Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [] Depressional	 Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data
	[] Local Soll Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) ent Weather: ent Rainfall:
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met	

Remarks: all 3 criteria met

SITE/PLOT#: 1251A DATE: 08/31/ COUNTY: Tucker STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	D
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 88.00 Stratum Status % Areal Cover
2 Sphagnum sp. 195 Juncus effusus 200 Juncus tenuis 219 Osmunda cinnamomea 237 Rubus hispidus 244 Scirpus cyperinus 251 Solidago uliginosa 541 Vaccinium myrtilloides	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BsC Hydric Soil? yes Mottle Color(%) Comments
0-3 organic 3-6 sandy silt 10 YR 3/2 6-12 sandy silt 10 YR 4/2 12-18 silty clay 10 YR 7/2	10 YR 6/8 (40%)
[] Histosol [] His [] Sulfidic Material [] Aqu [] Gleyed [X] Low [X] mottles [] Ent	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)
HYDROLOGY:	
Field Observations: We Depth of Surface Water: (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Records	<pre>tland Hydrology Indicators: Primary Indicators: [] Inundated [X] Saturated in Upper 12 [X] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: partly cloudy Cent Rainfall: 0.5 in yesterday</pre>
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met	ent? yes Hydrophytic Vegetation? yes ? yes Wetland? yes

Remarks: all 3 criteria met

.

DATE: 09/02/1993 INVESTIGATOR: M4, 01-WATERSHED: Cheat River SITE/PLOT#: 1251B DATE: 09/02/1993 COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEMIF Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status & Areal Cover 2Sphagnum sp.BryoNI30.00195Juncus effususHerbFACW+50.00200Juncus tenuisHerbFAC-50.00251Solidago uliginosaHerbOBL30.00268Typha latifoliaHerbOBL30.00452Hypericum densiflorumShrubFAC+20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric : Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? yes DepthTextureMatrix ColorMatrix ColorMatrix Color (%)Comments0-6clay loam10 YR 6/1sat./ ox.roots6-12clay loam10 YR 6/110 YR 8/6 (10%) sat./ ox.roots12-18clay10 YR 7/110 YR 6/8 (40%) sat./ ox.roots Hydric Soil Indicators: c Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)

 HYDROLOGY:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.5 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [] Saturated in Upper 12

 [] Water Marks

 Source/Site Characterization:
 [] Drift Lines

 [X] Seasonal High Water Table
 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req'

 Composite /Upper 1

 HYDROLOGY : [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1252A DATE: 09/01/1993 INVESTIGATOR: MZ, JMD COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: cottongrass meadow with intermittent drainage VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 60.00 Code Scientific Name Stratum Status % Areal Cover 1Polytrichum sp.BryoNI2Sphagnum sp.BryoNI132Carex sp.HerbFACW174Eriophorum virginicumHerbOBL251Solidago uliginosaHerbOBL541Vaccinium myrtilloidesShrubFAC 70.00 30.00 50.00 20.00 20.00 -SOIL PROFILE: (Minimum 18 inches) Series Name: BrA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments _ _ _ _ _ _ _ _ _ _ _ ---------0-10 peat none saturated 10-16 silt loam 10 YR 2/1 none saturated 16-18 sandy silt 10 YR 4/1 none sulfidic _____ Hydric Soil Indicators: [] Histosol[] Histic Epipedon[X] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table
[] Spring/Seep
[X] Floodplain
[] Backwater [] Spring/Seep [X] Drainage Patterns in Wetlands
[X] Floodplain [] Backwater [] Depressional [] Oxidized Root Channels/Upper 12
[] Depressional [] Water-Stained Leaves [] Local Soil Survey Data
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks)
[] Aerial Photographs Recent Weather: cloudy
[] Other Recent Rainfall: 0.5 2 days ago _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

SITE/PLOT#: 1252B DATE: 09/01/1993 INVESTIGATOR: MZ, JMD COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: drier terrace above cottongrass meadow VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 FACW
 30.00

 Herb
 OBL
 30.00

 Herb
 OBL
 20.00

 Herb
 NI
 20.00

 Herb
 FACW
 30.00

 Herb
 FACW
 20.00
 110 Aster umbellatus 139 Carex vulpinoidea 251 Solidago uliginosa 269 Unidentifiable grass 305 Carex scoparia 376 Phleum pratense ______ SOIL PROFILE: (Minimum 18 inches) Series Name: BsB Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-6 organic 6-12 clay loam 10 YR 3/1 12-18 clay loam 10 YR 7/1 10 YR 7/8 (30%)ox.roots Hydric Soil Indicators:

 [] Histosol
 [] -Histic-Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol)

 HYDROLOGY:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 18.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 18.0 (in.)
 [] Saturated in Upper 12

 Source/Site Characterization:
 [] Water Marks

 [X] Seasonal High Water Table
 [] Sediment Deposit

 [X] Drainage Patterns in Wetlands

 Generate / Upper 1

 HYDROLOGY : [] Spring/Seep
[] Floodplain
[] Backwater [X] Diaimage Facterins in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other [] O WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

t

SITE/PLOT#: 1252C DATE: 09/01/1993 INVESTIGATOR: MZ, JMD COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: shrub wetland along stream VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 237Rubus hispidusHerbFACW251Solidago uliginosaHerbOBL371Dulichium arundinaceumHerbOBL404Alnus rugosaShrubFACW+559Viburnum recognitumShrubFACW+ 60.00 60.00 40.00 40.00 40.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments _ _ _ _ _ _ _ _ _ _ _ _ . _ _ _ _ _ _ _ _ _ 0-4 organic 4-12 loamy clay 10 YR 3/1 none 12-18 clay loam 10 YR 3/2 none saturated Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indica Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 12.0 (in.) [] Inundated Depth to Saturated Soil: 12.0 (in.) [] Water Marks Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [X] Drift Lines Source/Site Characterization: [A] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1252D DATE: 09/01/1993 INVESTIGATOR: MZ, JMD COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: shrubby areas adjacent to cottongrass meadows VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status % Areal Cover Bryo NI Bryo NI Herb FACW Herb OBL Herb OBL Shrub FAC+ Shrub FACW Shrub FAC 1 Polytrichum sp. 70.00 2 Sphagnum sp. 30.00 132 Carex sp.
174 Eriophorum virginicum
251 Solidago uliginosa 20.00 20.00 20.00 30.00 40.00 452 Hypericum densiflorum 539 Vaccinium corymbosum 541 Vaccinium myrtilloides 30.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: BsB Hydric Soi Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? yes 0-10 peat 10-16 silt loam 10 YR 2/1 16-18 sandy silt 10 YR 4/1 saturated saturated sulfidic saturated sulfidic -----Hydric Soil Indicators: [] HISTOSOL [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chrome [] Gleyed [] mottles [X] Low Chroma
[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg/ ------[] Seasonal High Water Table
[] Spring/Seep
[] Floodplain
[] Backwater
[X] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Water-Stalley Logination [] Local Soil Survey Data [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: cloudy[] OtherRecent Rainfall: 0.5 2 days ago Recorded Data (Describe in Remarks): _____ WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes Remarks: all 3 criteria met

SITE/PLOT#: 1252E DATE: 09/01/2 COUNTY: Tucker STATE: WV STREAM: unnar COWARDIN CLASSIFICATION: PSS1A/ML Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks: somewhat drier shrubby area	? ves
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 63.00 Stratum Status % Areal Cover
 Polytrichum sp. Sphagnum sp. Carex sp. Carex sp. Rubus hispidus Solidago uliginosa Bromus purgans Hypericum densiflorum Vaccinium corymbosum Vaccinium myrtilloides 	Bryo NI 30.00 Bryo NI 30.00 Herb FACW 30.00 Herb FACW 50.00 Herb OBL 10.00 Herb FACU 20.00 Shrub FAC+ 30.00 Shrub FAC+ 40.00 Shrub FAC 40.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BsB Hydric Soil? yes Mottle Color(%) Comments
0-4 organic 4-12 loamy clay 10 YR 3/1 12-18 clay loam 10 YR 3/2	none none saturated at 16
[] Sulfidic Material [] Aqui [] Gleyed [X] Low [] mottles [] Enti	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical aking, chroma 3, wet spodosol)
HYDROLOGY:	
Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 18.0 (in.) Depth to Saturated Soil: 16.0 (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec	<pre>land Hydrology Indicators: Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) ent Weather: ent Rainfall:</pre>
WETLAND DETERMINATION: Hydric soils prese: Wetland Hydrology? Remarks: all 3 criteria met	nt? yes Hydrophytic Vegetation? yes yes Wetland? yes

Remarks: all 3 criteria met

.

SITE/PLOT#: 1252FDATE: 09/01/1993INVESTIGATOR: MZ, JMDCOUNTY: TuckerSTATE: WV STREAM: unnamedWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: cottongrass meadow with intermittent stream VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 60.00 Code Scientific Name Stratum Status % Areal Cover 1Polytrichum sp.BryoNI70.002Sphagnum sp.BryoNI30.00132Carex sp.HerbFACW50.00174Eriophorum virginicumHerbOBL50.00251Solidago uliginosaHerbOBL20.00541Vaccinium myrtilloidesShrubFAC30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BrA Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? yes -----_____ _ _ _ _ _ _ _ _ _ _ 0-10 peat none saturated 10-16 silt loam 10 YR 2/1 none saturated 16-18 sandy silt 10 YR 4/1 none sulfidic Hydric Soil Indicators: [] Histosol [X] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [A] Saturated in opper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
[X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep
[X] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more reg'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional[] Water-Stained Leaves[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: cloudy[] OtherRecent Rainfall: 0.5 2 days ago Recorded Data (Describe in Remarks): ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1252G DATE: 09/01/1 COUNTY: Tucker STATE: WV STREAM: unnam COWARDIN CLASSIFICATION: PSS1A/ML Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypic Is the area a potential Problem Area? Remarks: somewhat drier shrubby area	yes		
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 63.00 Stratum Status % Areal Cover		
1 Polytrichum sp. 2 Sphagnum sp. 132 Carex sp. 237 Rubus hispidus 251 Solidago uliginosa 338 Bromus purgans 452 Hypericum densiflorum 539 Vaccinium corymbosum 541 Vaccinium myrtilloides	Bryo NI 30.00 Bryo NI 30.00 Herb FACW 30.00 Herb FACW 50.00 Herb OBL 10.00 Herb FACU 20.00 Shrub FAC+ 30.00 Shrub FAC 40.00 Shrub FAC 40.00		
SOIL PROFILE: (Minimum 18 inches) Series Metrix Color	Name: BsB Hydric Soil? yes Mottle Color(%) Comments		
0-4 organic 4-12 loamy clay 10 YR 3/1 12-18 clay loam 10 YR 3/2	none none saturated at 16		
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY:			
Depth of Surface Water: 0.0 (in.) H Depth to Free Water in Pit: 18.0 (in.) Depth to Saturated Soil: 16.0 (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [] Floodplain S [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rece	<pre>land Hydrology Indicators: Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) ent Weather: ent Rainfall:</pre>		
WETLAND DETERMINATION: Hydric soils preser Wetland Hydrology? Remarks: all 3 criteria met			

Remarks: all 3 criteria met

SITE/PLOT#: 1252H DATE: 09/01/ COUNTY: Tucker STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PSS1A/ML Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: somewhat drier shrubby area	? ves		
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum Status % Areal Cover		
1 Polytrichum sp. 2 Sphagnum sp. 132 Carex sp. 237 Rubus hispidus 251 Solidago uliginosa 338 Bromus purgans 452 Hypericum densiflorum 539 Vaccinium corymbosum 541 Vaccinium myrtilloides	Bryo NI 30.00 Bryo NI 30.00 Herb FACW 30.00 Herb FACW 50.00 Herb OBL 10.00 Herb FACU 20.00 Shrub FAC+ 30.00 Shrub FACW 40.00 Shrub FAC 40.00		
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BsB Hydric Soil? yes Mottle Color(%) Comments		
4-12 loamy clay 10 YR 3/1 12-18 clay loam 10 YR 3/2	none saturated at 16		
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY:			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:18.0 (in.)[] InundatedDepth to Saturated Soil:16.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)			
Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [] Depressional	[] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves		
	<pre>[] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: cent Rainfall:</pre>		
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met			
ACHIGIND. AII D CIICIIA HEC			

SITE/PLOT#: 1253A DATE: 09/02/1993 INVESTIGATOR: MZ, JMD COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1A/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: shrubby area surrounding former pond
 VEGETATION: Percent Dominant Species that are OBL, FACW or FAC
 80.00

 Code
 Scientific Name
 Stratum
 Status
 % Areal Cover
 Polytrichum sp. 1 Bryo NI 20.00
 Bryo
 NI
 20.00

 Herb
 OBL
 20.00

 Herb
 FACW+
 20.00

 Herb
 FAC 20.00

 Herb
 OBL
 40.00

 Herb
 OBL
 40.00

 Herb
 FACW
 20.00

 Shrub
 FAC+
 80.00

 Shrub
 FAC
 30.00
 Sphagnum sp. 2 Bryo NI 20.00 174 Eriophorum virginicum 195 Juncus effusus Juncus tenuis 200 Sagittaria latifolia 239 251 Solidago uliginosa
305 Carex scoparia
452 Hypericum densiflorum 541 Vaccinium myrtilloides SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----.
 0-2
 organic

 2-6
 clay loam
 10 YR 4/1

 6-12
 clay loam
 10 YR 5/1
 10 YR 6/8 (20%) ox.roots

 12-18
 clay loam
 10 YR 6/1
 10 YR 7/8 (20%)
 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY:

 HiDROLOGI.

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 (in.)
 [] Inundated

 Depth to Saturated Soil:
 18.0 (in.)
 [] Saturated in Upper 12

 [] Water Marks

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [] Sediment Deposit

 [] Spring/Seep
 [X] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req'd)
 [X] Oxidized Root Channels/Upper 12

 [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Backwater [X] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: partly cloudy Recent Rainfall: 0.2 yesterday Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

SITE/PLOT#: 1253B DATE: 09/02/1993 INVESTIGATOR: MZ, JMD COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: former pond area grown up with herbs VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover -----
 Bryo
 NI
 30.00

 Bryo
 NI
 20.00

 Herb
 FACW+
 30.00

 Herb
 FAC 80.00
 1 Polytrichum sp. 2 Sphagnum sp. 195 Juncus effusus 200 Juncus tenuis SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-4 organic 4-6 clay loam 10 YR 2/1 6-12 clay loam 10 YR 3/1 12-18 silty loam 10 YR 6/1 sat./ ox.roots Hydric Soil Indicators: c Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:(in.)[] Mater MarksSource/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Spring/Seep[] Ploodplain[X] Drainage Patterns in WetlandsSecondary Indicators (2 or more reg() [] Spring/Seep [] Floodplain [] Backwater [] Depressional [] Johndy Jeep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves[] Corded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsPecent Weather: Recorded Data (Describe in Kemaine). [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 1254 DATE: 09/02/1993 INVESTIGATOR: MZ, JMD COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PSSIA/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: Shrubby area adjacent to Beaver Creek лo no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status % Areal Cover 1Polytrichum sp.BryoNI80.2Sphagnum sp.BryoNI30.195Juncus effususHerbFACW+30.237Rubus hispidusHerbFACW80.251Solidago uliginosaHerbOBL60.452Hypericum densiflorumShrubFAC+50.541Vaccinium myrtilloidesShrubFAC30. 80.00 30.00 30.00 80.00 60.00 50.00 30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-18 peat * -----Hydric Soil Indicators:

 [] Histosol
 [X] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 [] Histosol streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:18.0 (in.)[]Depth to Saturated Soil:18.0 (in.)[] Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] Local Soll Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] Other[] Other[] OtherRecent Weather: partly cloudy
Recent Rainfall: 0.2 yesterday WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 1255 DATE: 09/02/1993 COUNTY: Tucker STATE: WV STREAM: DATE: 09/02/1993 INVESTIGATOR: MZ WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1A/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: shrubby area next to road VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status & Areal Cover 1Polytrichum sp.BryoNI2Sphagnum sp.BryoNI195Juncus effususHerbFACW+237Rubus hispidusHerbFACW251Solidago uliginosaHerbOBL305Carex scopariaHerbFACW452Hypericum densiflorumShrubFAC+541Vaccinium myrtilloidesShrubFAC 70.00 30 00 20.00 30.00 50.00 20.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----
 0-5
 organic

 5-12
 clay loam
 10 YR 4/2
 none

 12-18
 clay loam
 10 YR 7/2
 10 YR 7/8 (30%)ox.roots
 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:18.0 (in.)[] InundatedDepth to Saturated Soil:18.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Drift Lines[] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[X] Depressional[X] Oxidized Root Channels/Upper 12 [] Backwater [X] Depressional [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) Recorded Data (Describe III Remains). [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

DATE: 09/02/1993 SITE/PLOT#: 1257 INVESTIGATOR: MZ, JMD STATE: WV STREAM: WATERSHED: Cheat River COUNTY: Tucker COWARDIN CLASSIFICATION: PSS1A/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? ves Is the area a potential Problem Area? no Remarks: apparently reclaimed surface mine area - soils mixed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status & Areal Cover 2Sphagnum sp.BryoNI165Eleocharis sp.HerbNI195Juncus effususHerbFACW+237Rubus hispidusHerbFACW+244Scirpus cyperinusHerbFACW+251Solidago uliginosaHerbOBL269Unidentifiable grassHerbNI452Hypericum densiflorumShrubFAC+541Vaccinium myrtilloidesShrubFAC 70.00 50.00 40.00 70.00 30.00 30.00 20.00 30.00 20.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Depth Texture Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-4 organic 4-12 clay loam 10 YR 4/1 none ox.roots 12-16 clay loam 10 YR 3/1 10 YR 8/6 (15%) Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 18.0 (in.) [] Inundated Depth to Saturated Soil: 18.0 (in.) [] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Drift Lines [] Seasonal High Water Table [] Sediment Deposit [] Secondary Indicators (2 or more req' Secondary Indicators (2 or more req' _____ Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Floodplain [] Backwater [X] Depressional []] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks)

 Recorded Data (Describe in Remaining)
 [] Otner (Explain in Remaining)

 [] Stream, Lake, or Tide Gauge
 [] Otner (Explain in Remaining)

 [] Aerial Photographs
 [] Recent Weather: partly cloudy

 Recent Rainfall: 0.2 in yesterday

 Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 1258A DATE: 09/02/1993 INVESTIGATOR: MZ, JMD COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN_CLASSIFICATION: PSS1E/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no ves Is the area a potential Problem Area? no Remarks: cattail area bounded by road fill and hillside VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 60.00 Code Scientific Name Stratum Status & Areal Cover -----
 Bryo
 NI
 20.00

 Bryo
 NI
 80.00

 Herb
 NI
 40.00

 Herb
 FACW+
 80.00

 Herb
 OBL
 20.00

 Herb
 OBL
 20.00
 1 Polytrichum sp. 2 Sphagnum sp. 2 Sphagnum sp. 165 Eleocharis sp. 195 Juncus effusus 243 Scirpus atrovirens 268 Typha latifolia SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments _ _ _ _ _ _ _ _ --------------------------0-6 organic peat 6-12 sandy silt 10 YR 5/1 ox.roots/ s 12-18 silty clay 10 YR 5/1 10 YR 7/8 (20%) ox.roots/ sat. Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context, vertical) [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : ····· Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:6.0 (in.)[] InundatedDepth to Saturated Soil:6.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more reg/ [X] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other[] Aerial Photographs[] Other[] Other[] Other Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1258B DATE: 09/02/1993 INVESTIGATOR: MZ, JMD COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIF Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: vegetated floodplain in surface mined area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover Herb OBL Herb FAC-Herb OBL Herb NI Herb FACW 118 Carex baileyi 200 Juncus tenuis 243 Scirpus atrovirens 297 Carex gynandra 305 Carex scoparia 20.00 40.00 20.00 20.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no 0-14 muck 14-18 sandy silt 10 YR 5/1 ------Hydric Soil Indicators: [X] Histic Epipedon [] Histosol [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical [X] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGI:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 3.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 (in.)
 [] Saturated in Upper 12

 [] Water Marks
 [] Drift Lines

 [] Seasonal High Water Table
 [] Sediment Deposit

 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req')

 Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Water-Staffed Deaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: Recent Rainfall: [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 1259A DATE: 09/02/1993 INVESTIGATOR: MZ, JMD COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: wet meadow in surface mine reclamation area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp. 165 Eleocharis sp. 200 Juncus tenuis 371 Dulichium arundinaceum Bryo NI Herb NI Herb FAC-Herb OBL 100.00 40.00 40.00 30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ---------------0-14 organic silt 14-18 silty loam 10 YR 3/1 saturated saturated Hydric Soil Indicators:

 [] Histosol
 [X] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 [] Histosol streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Drift Lines[] Spring/Seep[] Drainage Patterns in Wetlands[V] FloodplainSecondary Indicators (2 or more reg/ [] Spring/Seep
[X] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge[] Other[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall:

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Wetland Hydrology? yes

SITE/PLOT#: 1259B DATE: 09/02/ COUNTY: Tucker STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PSS1A/ML Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	? ves		
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 80.00 Stratum Status % Areal Cover		
2 Sphagnum sp. 219 Osmunda cinnamomea 237 Rubus hispidus 269 Unidentifiable grass 452 Hypericum densiflorum 541 Vaccinium myrtilloides	Bryo NI 60.00 Herb FACW 20.00 Herb FACW 20.00 Herb NI 20.00 Shrub FAC+ 60.00 Shrub FAC 20.00		
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Sm Hydric Soil? no Mottle Color(%) Comments		
0-6 organic 6-12 clay loam 10 YR 4/1 12-18 silty clay 10 YR 6/2 Hydric Soil Indicators:	none ox.roots 10 YR 7/8 (20%)		
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY:			
Field Observations: Wet Depth of Surface Water: (in.) Depth to Free Water in Pit: 18.0 (in.) Depth to Saturated Soil: 18.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floedplain	<pre>tland Hydrology Indicators: Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands</pre>		
[] Backwater [X] Depressional	Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data		
	[] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: cent Rainfall:		
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met	ent? yes Hydrophytic Vegetation? yes ? yes Wetland? yes		

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SITE/PLOT#: 1260 DATE: 06/28/1993 INVESTIGATOR: CMH, DAE COUNTY: Tucker STATE: WV STREAM: Pendleton CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? ño Remarks: wetlands straddling drainage ditch & backed up behing culvert VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover HerbOBLHerbFACWHerbFACW+HerbFACWHerbFACHerbFACWHerbFACWHerbFACWHerbFACUShrubFACW 129 Carex lurida 166 Eleocharis tenuis 129 Carex lurida 5.00 20.00 195 Juncus effusus
 237 Rubus hispidus
 270 Unidentifiable herb 30.00 25.00 5.00 277 Viola spp. 10.00 Carex scoparia Solidago altissima 15.00 25.00 15.00 305 317 412 Aronia arbutifolia SOIL PROFILE: (Minimum 18 inches) Series Name: DkB Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-5silt loam10 YR 3/1Fe Conc.5too disturbedfor IDox.roots ox.roots, un Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleved [] Low Chroma [] Gleyed [] mottles [] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:(in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodploinSecondary Indicators (2 or more reg/ [] Spring/Seep [] Floodplain [X] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] Depressional

 Recorded Data (Describe in Actuality)

 [] Stream, Lake, or Tide Gauge
 [] Other (Expine 1)

 [] Aerial Photographs
 Recent Weather:

 Recent Rainfall: zero

 [] FAC-Neutral Test
[] Other (Explain in Remarks) WETLAND DETERMINATION: Hydric soils present? Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: best professional judgement that soils developing hydric conditions

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SITE/PLOT#: 1261 DATE: 06/28/ COUNTY: Tucker STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PEMIE/PSS Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: wetland along drainageway	? ves		
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover		
2 Sphagnum sp. 117 Carex atlantica 133 Carex stipata 184 Glyceria striata 237 Rubus hispidus 251 Solidago uliginosa 522 Salix nigra 523 Salix sericea 543 Viburnum cassinoides 559 Viburnum recognitum	Bryo NI 30.00 Herb FACW 40.00 Herb OBL 20.00 Shrub FACW 40.00 Shrub OBL 50.00 Shrub FACW+ 10.00 Shrub FACW 10.00 Shrub FACW+ 10.00		
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BsC Hydric Soil? yes Mottle Color(%) Comments		
0-1 organic 1-5 organic loam 10 YR 3/1 5-12 clay N 61	none undecomposed veg none Mn Conc.,moist		
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [X] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Depth to Free Water in Pit:(in.)Depth to Saturated Soil:12.0 (in.)ImundatedDepth to Saturated Soil:12.0 (in.)Imundated<			
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology Remarks: all 3 criteria met			

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SITE/PLOT#: 1262 DATE: 06/29 COUNTY: Tucker STATE: VA STREAM: unit COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site Is the site significantly disturbed (Aty) Is the area a potential Problem Area? Remarks:	- 2		
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum Status % Areal Cover		
2 Sphagnum sp. 124 Carex folliculata 129 Carex lurida 133 Carex stipata 166 Eleocharis tenuis 184 Glyceria striata 237 Rubus hispidus 251 Solidago uliginosa 268 Typha latifolia 305 Carex scoparia 313 Agrostis perennans 453 Hypericum prolificum 523 Salix sericea	Bryo NI 90.00 Herb NI 5.00 Herb OBL 20.00 Herb OBL 10.00 Herb FACW 20.00 Herb FACW 20.00 Herb OBL 15.00 Herb OBL 20.00 Herb OBL 20.00 Herb OBL 20.00 Herb FACW 20.00 Herb FACW 20.00 Herb FACU 20.00 Shrub FACU 20.00		
SOIL PROFILE: (Minimum 18 inches) Series Name: DkB Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments			
0-1 organic 10 YR 2/1 1-6 clay 10 YR 5/1 6-12 clay 5 Y 7/1	none fem,conc. 10 YR 7/8 (5%)fem,conc.		
Hydric Soil Indicators:[] Histosol[] Histosol[] Sulfidic Material[X] Aque[X] Gleyed[] Low[X] mottles[] Ent	stic Epipedon nic Moisture Regime 7 Chroma sisol (organic context, vertical reaking, chroma 3, wet spodosol)		
HYDROLOGY :			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:2.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Sediment Deposit[] FloodplainSecondary Indicators (2 or more req'd)[X] Depressional[] Water-Stained Leaves[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: June2.24",			
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met - hydric soil indicators present			

SITE/PLOT#: 1263 DATE: 06/30/1993 INVESTIGATOR: CMH, DAE COUNTY: Tucker STATE: WV STREAM: trib. PendletonWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: wetland along man-made drainage VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status % Areal Cover Bryo NI Herb FACW Herb OBL Herb FACU Herb FACW Herb FACW Herb NI Sphagnum sp. Carex atlantica 90.00 2 117 60.00 50.00 15.00 70.00 184 Glyceria striata 185 Holcus lanatus
189 Impatiens capensis
237 Rubus hispidus
297 Carex gynandra Impatiens capensis 60.00 20 00 _____ -----SOIL PROFILE: (Minimum 18 inches) Series Name: BrB Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments _____ 0-4 organic muck 10 YR 2/1 saturated 4-10 organic loam 10 YR 3/1 saturated 10-14 5 Y 6/2 saturated Hydric Soil Indicators: [] Histosol[X] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[X] Gleyed[] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Depth of Surface Water: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [X] Seasonal High Water Table [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req' _____ Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Floodplain
[] Backwater
[] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other[] OtherRecent Weather: below aver.for June[] OtherRecent Rainfall: heavy rain last day WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 1264 DATE: 06/30/1993 INVESTIGATOR: CMH, DAE COUNTY: Tucker STATE: WV STREAM: trib. PendletonWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: man-made ditches in mine reclamation area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status & Areal Cover 50.00 BryoNIHerbFACWHerbOBLHerbFACWHerbOBLHerbOBLHerbOBLHerbOBLHerbNI Sphagnum sp. 50.00 117 Carex atlantica 30.00 180 Galium tinctorium 184 25.00 70.00 20.00 30.00 Glyceria striata Impatiens capensis 189 235 Rhynchospora capitellata 237 Rubus hispidus
251 Solidago uliginosa
297 Carex gynandra 10.00 50.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: BrB Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-3 organic none saturated 3-10 org. sandy loam 10 YR 2/2 none saturated 10-below sandy clay 5 GY 6/1 none saturated Hydric Soil Indicators:

 C Soll Indicators:
 [] Histic Epipedon

 [] Histosol
 [] Histic Epipedon

 [X] Sulfidic Material
 [X] Aquic Moisture Regime

 [X] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[VI FloodplainSecondary Indicators (2 or more reg/ ------[] Spring/Seep [X] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge[] Other[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1265A DATE: 07/01/1 COUNTY: Tucker STATE: WV STREAM: unnam COWARDIN CLASSIFICATION: PEMIE/ML Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypi Is the area a potential Problem Area? Remarks: area appears to be old strip mine	cal Situation)? no	yes no
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 86.00 Stratum Status % Areal Cove	FAC 86.00 us % Areal Cover
2 Sphagnum sp. 117 Carex atlantica 184 Glyceria striata 237 Rubus hispidus 251 Solidago uliginosa 297 Carex gynandra 523 Salix sericea		100.00 W 75.00 15.00 W 25.00 20.00 30.00 15.00
SOIL PROFILE: (Minimum 18 inches) Series) Depth Texture Matrix Color	Name: ErC Hydric Soil? no Mottle Color(%) Comments	Hydric Soil? no Comments
0-3 org.muck/mat. 10 YR 2/2 3-5 sandy clay 10 YR 5/ 5-12 sandy 2.5 YR 5/2	none Mn,Fe Conc. 10 YR 5/8	,Fe Conc. 8
Hydric Soil Indicators: [] Histosol [] Hist: [] Sulfidic Material [X] Aquic [] Gleyed [X] Low ([X] mottles [] Entis strea		
HYDROLOGY:		
Field Observations: Wet Depth of Surface Water: 1.0 (in.) H Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain S	land Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12	licators: 3: 1 Upper 12
Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [] Depressional	<pre>[] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data</pre>	ed Leaves
[] Other Rece	[] FAC-Neutral Test [] FAC-Neutral Test [] Other (Explain in Remarks) ent Weather: below aver. for June ent Rainfall: rain in last 2 days	l Test Lain in Remarks) v aver. for June 1 in last 2 days
WETLAND DETERMINATION: Hydric soils preser Wetland Hydrology? Remarks: all 3 criteria met - hydric soil i	yes Wetland? yes	nd? yes

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SITE/PLOT#: 1265B DATE: 07/01/1993 INVESTIGATOR: CMH, DAE COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN_CLASSIFICATION: PEM/M1 Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: area appears to be old strip mine area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status & Areal Cover 100.00 75.00 15.00 25.00 27 Bryo NI Herb FACW Herb OBL Herb FACW Herb OBL Herb NI Shrub OBL 2 Sphagnum sp. 117 Carex atlantica 184 Glyceria striata 237 Rubus hispidus 251 Solidago uliginosa 297 Carex gynandra 523 Salix sericea 30.00 15.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Erc-Ernest Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no _____
 0-3
 org.muck/matter
 10 YR 3/2

 3-5
 sandy clay
 10 YR 5/
 none Mn,Fe Conc.

 5-12
 sandy
 2.5 YR 5/2
 10 YR 5/8
 _____ Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [X] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Source/Site Characterization: [] Seasonal High Water Table Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg' [X] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[]FAC-Neutral Test[] Stream, Lake, or Tide Gauge[]Other (Explain in Remarks)[] Aerial Photographs[]Other:[] Other[]Recent Weather: below monthly ave.[] OtherRecent Rainfall: rains w/in last 4day

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met, hydric soil indicators present

SITE/PLOT#: 1266 DATE: 07/13/1993 INVESTIGATOR: JMG, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: wetland area surrounded by reclaimed and existing strip mined VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 50.00 Carex folliculata HerbNIHerbFACWHerbFACW+HerbOBLHerbFACHerbOBLHerbOBLHerbOBLHerbFACWHerbFACWShrubFAC+ 124 Herb NI 124 Carex follocitada 189 Impatiens capensis 195 Juncus effusus Impatiens capensis 5.00 20.00 227 Polygonum sagittatum 249 Solidago rugosa 251 Solidago uliginosa 305 Carex scoparia 10.00 10.00 5.00 312 Glyceria canadensis
316 Calamagrostis canadensis
519 Salix fragilis 10.00 40.0 50.00

 SOIL PROFILE: (Minimum 18 inches) Series Name: At, LsA, LdA Hydric Soil? yes

 Depth
 Texture

 Matrix Color
 Mottle Color(%) Comments

 0-2
 organic
 7.5 YR 2/0
 fiberous materia

 2-10
 silt
 10 YR 4/1
 ox.roots

 10-14
 sandy silt
 10 YR 4/1
 ox.roots

 14-18
 sandy silt
 10 YR 5/2
 10 YR 5/6 (30%)pieces of coal
 Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [X] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY: _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:4.0 (in.)Primary Indicators:Depth to Free Water in Pit:4.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit Source/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny 80 degrees[] OtherRecent Rainfall: unknown [X] Seasonal High Water Table [X] Spring/Seep [X] Floodplain WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met; tributary flows through the wetland

SITE/PLOT#: 1267B DATE: 07/13/1993 INVESTIGATOR: CMH, JMG, ABC, DK COUNTY: Tucker STATE: WV STREAM: Pendleton CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? ves Is the area a potential Problem Area? no Remarks: Mining wetland mitigation. VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 195Juncus effususHerbFACW+221Phalaris arundinaceaHerbFACW+285Carex tribuloidesHerbFACW 90.00 20.00 10.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: mined land Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [X] Aquic Moisture Regime

 [] Gleyed
 [] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:6.0 (in.)Depth to Free Water in Pit:6.0 (in.)Depth to Saturated Soil:(in.)[X] Saturated in U Wetland Hydrology Indicators: imary Indicators:
[X] Inundated
[X] Saturated in Upper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
"condary Indicators (2 or more reg') Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Backwater [X] Water-Stained Leaves [X] Water-Stained Leaves [] Local Soil Survey Data : [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: clear hot Recent Rainfall: none [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [X] Aerial Photographs [] Other

WETLAND DETERMINATION: Hydric soils present? no Wetland Hydrology? yes Wetland? yes Remarks: hydric soils presumably developing

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SITE/PLOT#: 1268 DATE: 07/14/1993 INVESTIGATOR: CMH, JMG, AB COUNTY: Tucker STATE: WV STREAM: Pendleton CreekWATERSHED: Cheat River SITE/PLOT#: 1268 DATE: 07/14/1993 INVESTIGATOR: CMH, JMG, ABC, DK COWARDIN CLASSIFICATION: PEM1B/PSS Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: wetland along Pendleton Creek floodplain VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status % Areal Cover -----------------------------Polytrichum sp. 1 BryoNIBryoNIBryoNIHerbFACW+HerbFACWHerbOBLHerbFACWHerbOBLShrubFACUShrubFACUShrubFACW+ShrubFACW+ShrubFACW+ Bryo NI 40.00 2 Sphagnum sp. 60.00 2 Sphaghum Sp.
124 Carex folliculata
195 Juncus effusus
237 Rubus hispidus
251 Solidago uliginosa 10.00 30.00 20.00 15.00 305 Carex scoparia 312 Glyceria canadensis 314 Danthonia compressa 319 Carex emoryi 5.00 30.00 20.00 30.00 25.00 20.00 15.00 20.00 Herb Herb Herb 453 Hypericum prolificum 526 Spiraea alba 543 Viburnum cassinoides 559 Viburnum recognitum SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 1-4organicundecomposed org4-6org.silt loam 10 YR 3/110 YR 6/8 (40%) ox.roots6/8silty clay loam 10 YR 3/1none8-12clay10 YR 6/1none Fe.conc. Hydric Soil Indicators: [] Histosol[] Histic Epipedon[X] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:1.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit Source/Site Characterization: [X] Seasonal High Water Table [] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FLC-Neutral Test [] Spring/Seep . [X] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks):
[] Stream, Lake, or Tide Gauge
[] Aerial Photographs
[] Other
[] Other
[] Other
[] Other
[] Stream, Lake, or Tide Gauge
[] Other
[] Stream, Lake, or Tide Gauge
[] Stream, Lake, or Tide Gauge
[] Stream, Lake, or Tide Gauge
[] Other
[] Stream, Lake, or Tide Gauge
[] Stream, WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1270 DATE: 09/02/1993 INVESTIGATOR: EFA, DAK COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River DATE: 09/02/1993 INVESTIGATOR: EFA, DAK COWARDIN CLASSIFICATION: PEM1F Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status & Areal Cover Herb FACW Herb OBL Herb OBL Herb NI Herb FACU Aster umbellatus 110 10.00 174 Eriophorum virginicum
268 Typha latifolia
297 Carex gynandra
378 Tussilago farfara 5.00 25.00 25.00 10.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: DmE Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-1organic loam2.5 Y 3/2ox.root channels1-10silty clay5 Y 5/3ox.root channels10-12sandy clay5 Y 5/3 (60%)7.5YR 6/8 (40%) ox.root channels ------Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical Chrosobing chrome 3 wet spedosol) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 Primary Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test Source/Site Characterization: [] Seasonal High Water Table] Spring/Seep] Floodplain [] Floodpian [] Backwater [X] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: int.shws/heavy rain[] OtherRecent Rainfall: [] FAC-Neutral Test
[] Other (Explain in Remarks) WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

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SITE/PLOT#: 1271 DATE: 09/02/1993 INVESTIGATOR: EFA, DAK COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIF Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 90.00 Code Scientific Name Stratum Status % Areal Cover -----------------------
 Bryo
 NI
 100.00

 Herb
 OBL
 5.00

 Herb
 OBL
 5.00

 Herb
 FACW
 5.00

 Herb
 FACW
 5.00

 Herb
 FACW
 5.00

 Herb
 FACW
 5.00

 Herb
 OBL
 50.00

 Herb
 OBL
 50.00

 Herb
 OBL
 40.00

 Herb
 NI
 10.00

 Herb
 NI
 50.00

 Shrub
 FAC
 5.00

 Shrub
 FACW+
 5.00

 Shrub
 FACW+
 5.00

 Shrub
 FACW+
 5.00
 2 Sphagnum sp. Eriophorum virginicum Sphagnum sp. 174 182 Gentiana linearis 189 Impatiens capensis 195 Juncus effusus 219 Osmunda cinnamomea 243 Scirpus atrovirens
251 Solidago uliginosa
270 Unidentifiable herb 270 Unidentifiable herb
297 Carex gynandra
401 Acer rubrum
404 Alnus rugosa
452 Hypericum densiflorum
522 Salix nigra SOIL PROFILE: (Minimum 18 inches) Series Name: ErC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-8 peat muck 8-10 depositional m. 10 YR 3/2 refusal ---------Hydric Soil Indicators: [X] Histosol
[] Sulfidic Material
[] Gleyed
[] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:10.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Water MarksSource/Site Characterization:[] Drift Lines[] Seggenal With Water Table[] Sediment Deposit [] Seasonal High Water Table [] Sediment Deposit [] Drainage Patterns in Wetlands] Spring/Seep [] Floodplain Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Backwater [X] Depressional[] Water-Stained Leaves[] Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: intermittant rain _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

DATE: 09/02/1993 INVESTIGATOR: EFA, DAK SITE/PLOT#: 1272 2 DATE: 09/02/1993 INVESTIGATION: _____ STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COUNTY: Tucker COWARDIN CLASSIFICATION: PEMIB/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover Bryo NI Herb OBL Herb FACW+ Herb OBL Herb OBL 2 Sphagnum sp. 174 Eriophorum virginicum 20.00 5.00 15.00 195 Juncus effusus 243 Scirpus atrovirens 268 Typha latifolia 20.00 75.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hvdric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-1
 peat sphagnum
 10 YR 5/1
 10 YR 7/8 (20%) ox.root channel

 1-5
 sandy clay
 10 YR 5/1
 10 YR 7/8 (80%) ox.root channel

 5-10
 sandy clay
 10 YR 5/1
 10 YR 7/8 (80%) ox.root channel
 Hydric Soil Indicators: [] Histosol [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 Primary Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks)

 Recorded Data (Describe in Administry)
 [] Other (Explain in Remainer)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remainer)

 [] Aerial Photographs
 [] Recent Weather: intermittent showers

 [] Other
 [] Recent Rainfall:

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

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SITE/PLOT#: 1273 DATE: 09/02/ COUNTY: Tucker STATE: WV STREAM: Beav COWARDIN CLASSIFICATION: PEM/ML1B Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	?	, DAK River	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 7 Stratum Status	5.00 % Areal Cover	
2 Sphagnum sp. 129 Carex lurida 195 Juncus effusus 199 Juncus subcaudatus 219 Osmunda cinnamomea 230 Pteridium aquilinum 237 Rubus hispidus 251 Solidago uliginosa 297 Carex gynandra 452 Hypericum densiflorum	BryoNIHerbOBLHerbFACW+HerbOBLHerbFACWHerbFACUHerbFACWHerbOBLHerbNIShrubFAC+	$\begin{array}{c} 60.00\\ 10.00\\ 50.00\\ 5.00\\ 5.00\\ 5.00\\ 80.00\\ 20.00\\ 20.00\\ 25.00\\ 60.00\end{array}$	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Sm Hydr Mottle Color(%) Comment	ric Soil? no s	
0-1 organic peat 10 YR 3/3 1-7 clay 5 Y 5/1 7-10 loam 7.5 YR 6/8 refusal	ox.root ch ox.root ch	annel annel	
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [] mottles [] Enti	cic Epipedon ic Moisture Regime Chroma isol (organic context, ver eaking, chroma 3, wet spod	tical losol)	
HYDROLOGY:			
[X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec	<pre>land Hydrology Indicators Primary Indicators: [] Inundated [] Saturated in Upper [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns i Secondary Indicators (2 o [X] Oxidized Root Chann [] Water-Stained Leave [] Local Soil Survey D [] FAC-Neutral Test [] Other (Explain in 1) ent Weather: intermittent ent Rainfall: heavy rain</pre>	r more req'd) els/Upper 12 s ata Remarks) showers	
WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 parameters met Wetland Hydrology? yes			

SITE/PLOT#: 1274 DATE: 09/02/1993 INVESTIGATOR: EFA, DAK COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover Bryo BryoNIHerbFAC+HerbFACW+HerbFACUHerbOBLHerbOBL 2 Sphagnum sp. 153 Dichanthelium c 195 Juncus effusus 90.00 Dichanthelium clandestinum 10.00 10.00 230 Pteridium aquilinum
237 Rubus hispidus
243 Scirpus atrovirens 5.00 95.00 10.00 251 Solidago uliginosa SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments --------------0-3 peat 3-5 loam 7.5 YR 3/2 5-12 dry clay 2.5 Y 5/2 refusal 7.5YR 5/6 (10%) 7.5YR 6/6 (50%) Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained Leaves [] Backwater [X] Depressional [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks)

 Recorded Data (Describe in Remaine);
 [] Other (Explain in Remaine);

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remaine);

 [] Aerial Photographs
 [] Other (Explain in Remaine);

 [] Aerial Photographs
 [] Recent Weather: intermittent showers

 [] Other
 [] Recent Rainfall: heavy rain at times

 WETLAND DETERMINATION: Hydric soils present? yes Remarks: seasonally saturated, all 3 parameters met Hydrophytic Vegetation? yes

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SITE/PLOT#: 1275 DATE: 09/02/1993 INVESTIGATOR: EFA, DAK COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN_CLASSIFICATION: PEMIBX Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves yes Is the area a potential Problem Area? no Remarks: surrounded by waste piles & slag, acidmine drainage present VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover ----------------_____ 2 Sphagnum sp. 110 Aster umbellatus 174 Eriophorum virginicum 195 Juncus effusus 199 Juncus subcaudatus 237 Rubus hispidus 251 Solidago uliginosa 297 Carex gynandra
 Bryo
 NI
 95.00

 Herb
 FACW
 50.00

 Herb
 OBL
 50.00

 Herb
 FACW+
 5.00

 Herb
 FACW+
 5.00

 Herb
 FACW+
 5.00

 Herb
 OBL
 90.00

 Herb
 FACW
 30.00

 Herb
 OBL
 10.00

 Herb
 NI
 90.00
 SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-1peat sphagnum7.5 YR 3/2ox.root channel1-8silt loam slag10 YR 5/110 YR 5/80x.root channel8-12silt slag5 Y 2.5/1sulfidic, ox.rt. Hydric Soil Indicators: [] Histosol

 C Soll Indicators:
 [] Histic Epipedon

 [] Histosol
 [] Histic Epipedon

 [X] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY: -----Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Inundated [X] Saturated in Upper 12 [X] Water Marks [X] Water Marks
[X] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other[] Aerial Photographs[] Other[] OtherRecent Weather: intermittent showers Recorded Data (Describe in Remarks): Recent Rainfall: heavy at times ----------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: 3 parameters met, soils mapped as hydric by SCS, field visit indicates Sm soils

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SITE/PLOT#: 1276 DATE: 09/02/1993 INVESTIGATOR: EFA, DAK STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COUNTY: Tucker STATE: WV STR COWARDIN CLASSIFICATION: PEM1Bx Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: site is a swale surrounded by slag/gob piles VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover BryoNIHerbFACWHerbOBLHerbOBLHerbFACW+HerbOBLHerbFACWHerbOBLHerbNI 2 Sphagnum sp. 110 Aster umbellatus 90.00 60.00 129 Carex lurida 174 Eriophorum virginicum 195 Juncus effusus 25.00 70.00 5.00 Juncus subcaudatus
Juncus subcaudatus
Rubus hispidus
Solidago uliginosa
Carex gynandra 15.00 70.00 80.00 60.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-3 peat sphagnum 3-12 coal slag N-2 Hydric Soil Indicators: Histic Epipedon
 Aquic Moisture Regime
 Low Chroma
 Entisol (organic context, vertical streaking, chroma 3, wet spodosol) [] Histosol [] Sulfidic Material [] Gleyed [] mottles

 HYDROLOGY:

 Field Observations:
 Wetland Hydrology Indicators.

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [X] Drift Lines

 [X] Sediment Deposit
 [X] Drainage Patterns in Water 42 or 1

 HYDROLOGY : Wetland Hydrology Indicators: [X] Drainage Patterns in Wetlands [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] Local Soll Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: periods of rain[] OtherRecent Rainfall: Recorded Data (Describe in Remarks): ------WETLAND DETERMINATION:Hydric soils present? yesHydrophytic Vegetation? yesWetland Hydrology? yesWetland? yesRemarks: 3 parameters met, Soils mapped as Lickdale, field visit indicates SM soils.

SITE/PLOT#: 1277 DATE: 09/02/1993 INVESTIGATOR: BFA, DAR COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River SITE/PLOT#: 1277 COWARDIN CLASSIFICATION: PEMIE/ML Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? yes no Remarks: soils apparently disturbed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 90.00 Code Scientific Name Stratum Status & Areal Cover -----_____ -----Sphagnum sp. Aster umbellatus 2 Bryo NI BryoNIHerbFACWHerbOBLHerbFACW+HerbFACWHerbFACWHerbFACWHerbOBLHerbOBLHerbOBLHerbFACW 80.00 110 5.00 Eriophorum virginicum 174 5.00 195 Juncus effusus 10.00 199 Juncus subcaudatus 10.00 219 Osmunda cinnamomea 10.00 230 Pteridium aquilinum 5.00 237 Rubus hispidus
251 Solidago uliginosa
268 Typha latifolia
306 Viburnum recognitum 80.00 90.00 10.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments
 0-3
 peat

 3-5
 silty clay
 10 YR 4/1
 5 YR 5/8 (10%) ox.root channel

 5-10
 silty clay
 10 YR 6/1
 7.5YR 5/8 (30%) ox.root channel
 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Indicators: Primary Indicators: Depth to Free Water in Pit: Mater Marks [] Drift Lines [X] Sediment Deposit [X] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Recent Weather: periodic rain
Recent Rainfall: [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

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SITE/PLOT#: 1278 DATE: 09/02/1993 INVESTIGATOR: EFA, DAK COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PSSIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: bisected by old rail road bed			
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, Stratum	FACW or FAC Status	91.00 % Areal Cover
2 Sphagnum sp. 129 Carex lurida 174 Eriophorum virginicum 195 Juncus effusus 199 Juncus subcaudatus 237 Rubus hispidus 243 Scirpus atrovirens 249 Solidago rugosa 251 Solidago uliginosa 297 Carex gynandra 304 Hypericum prolificum 306 Viburnum recognitum 433 Cornus stolonifera			
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: LsA Mottle C	H olor(%) Commo	ydric Soil? yes ents
0-1 peat silt 7.5 YR 3/2 1-3 silt 10 YR 3/3 3-8 silty clay 5 Y 4/1 8-10 silty clay 7.5 YR 3/0		none none ox.root none ox.root 7.5YR 6/8 (209	ch/org. ch/org. %)ox.root channel
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY:			
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.)	tland Hydro Primary In [] Inu [X] Satu [] Wato	ology Indicato ndicators: ndated urated in Uppe er Marks	ors: er 12
Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional	[] Dri: [] Sed: [X] Dra: Secondary [X] Oxic [] Wate	ft Lines iment Deposit inage Patterns Indicators (2	s in Wetlands 2 or more req'd) annels/Upper 12 aves
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec [] Other Rec	[] FA [] Ot]	C-Neutral Test her (Explain : er: periodic ;	: in Remarks)
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met			

Remarks: all 3 parameters met

SITE/PLOT#: 1279 DATE: 09/02/2 COUNTY: Tucker STATE: WV STREAM: Beave COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks:	v	es o	
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum Status	* Areal Cover	
 2 Sphagnum sp. 129 Carex lurida 174 Eriophorum virginicum 182 Gentiana linearis 195 Juncus effusus 199 Juncus subcaudatus 237 Rubus hispidus 251 Solidago uliginosa 268 Typha latifolia 297 Carex gynandra 433 Cornus stolonifera 453 Hypericum prolificum 522 Salix nigra 538 Vaccinium angustifolium 	BryoNIHerbOBLHerbOBLHerbFACW+HerbFACWHerbOBLHerbOBLHerbOBLHerbNIShrubFACW+ShrubFACWShrubFACW+ShrubFACW+ShrubFACU	$ \begin{array}{r} 100.00 \\ 5.00 \\ 80.00 \\ 5.00 \\ 30.00 \\ 75.00 \\ 75.00 \\ 90.00 \\ 20.00 \\ 95.00 \\ 10.00 \\ 5.00 \\ 5.00 \\ 30.00 \\ \end{array} $	
SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-8 sphagnum peat 8-10 rock rubble refusal			
Hydric Soil Indicators: [] Histosol [X] Hist [] Sulfidic Material [] Aqui [] Gleyed [] Low [] mottles [] Enti	c Epipedon Moisture Regime Throma ol (organic context king, chroma 3, wet	, vertical	
HYDROLOGY :		-	
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.)	and Hydrology Indic rimary Indicators: [] Inundated [X] Saturated in U	ators: Jpper 12	
Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep	[] Drift Lines [] Sediment Depos [] Drainage Patte econdary Indicators [] Oxidized Root [] Water-Stained	it rns in Wetlands (2 or more req'd) Channels/Upper 12 Leaves	
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Reco [] Other Reco	[] Local Soil Sur [] FAC-Neutral T [] Other (Explai nt Weather: periodi nt Rainfall:	'est n in Remarks)	
WETLAND DETERMINATION: Hydric soils preser Wetland Hydrology?	t? yes Hydrophy yes Wetland?	tic Vegetation? yes	
Remarks: organic/peat, all 3 parameters met		1	

Remarks: organic/peat, all 3 parameters met

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SITE/PLOT#: 1280 DATE: 09/02/ COUNTY: Tucker STATE: WV STREAM: Beav COWARDIN CLASSIFICATION: PF04E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:		·	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW Stratum S	or FAC 63.00 tatus % Areal Cover	
 153 Dichanthelium clandestinum 219 Osmunda cinnamomea 237 Rubus hispidus 251 Solidago uliginosa 377 Potentilla palustris 453 Hypericum prolificum 538 Vaccinium angustifolium 645 Pinus strobus 	Herb Herb Herb Herb Shrub Shrub Tree	FAC+ 30.00 FACW 5.00 FACW 95.00 OBL 50.00 OBL 95.00 FACU 5.00 FACU 5.00 FACU 90.00	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: DkB Mottle Color(Hydric Soil? no %) Comments	
0-2 sphagnum 2-10 silt loam 10 3/1 10-12 silty clay 10 YR 6/2 12-18 silty clay 10 YR 6/2	none none 10 YR	ox.root channel 7/8 (50%)	
Hydric Soil Indicators: [] Histic Epipedon [] Sulfidic Material [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY :			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg'd)			
Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional	[X] Oxidized [] Water-Sta	Root Channels/Upper 12 ained Leaves	
Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: intermittent rain[] OtherRecent Rainfall:			
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met			

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SITE/PLOT#: 1281ADATE: 10/13/1993INVESTIGATOR: TJS, DMBCOUNTY: TuckerSTATE: WV STREAM: Lost RunWATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: located near strip mine area/between Rt. 93 and field road VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 237Rubus hispidusHerbFACW452Hypericum densiflorumShrubFAC+539Vaccinium corymbosumShrubFACW541Vaccinium myrtilloidesShrubFAC 40.00 70.00 30.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LdA-Lickdale Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-6org.& siltyclay 10 YR 2/1oxidized roots6-10silty clay10 YR 5/210 YR 48 (10%) oxidized roots ------Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[] FloodploinSecondary Indicators (2 or more reg/ _____ [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): Recorded Data (Describe in Actual) [] Stream, Lake, or Tide Gauge [] Otner [] Aerial Photographs Recent Weather: Recent Rainfall: [] FAC-Neutral Test
[] Other (Explain in Remarks) WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 1281B DATE: 10/13/1993 INVESTIGATOR: TJS, DMB COUNTY: Tucker STATE: WV STREAM: Lost Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: located near strip mine area/adjacent to Rt.93 and fieldroad VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 2Sphagnum sp.BryoNI174Eriophorum virginicumHerbOBL195Juncus effususHerbFACW+237Rubus hispidusHerbFACW268Typha latifoliaHerbOBL312Glyceria canadensisHerbOBL452Hypericum densiflorumShrubFAC+ 10.00 10.00 15.00 30.00 25.00 10.00 25.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LdA-Lickdale Hydric Soil? Depth Texture Matrix Color Mottle Color(%) Comments ---------------------0-1 organics 1-2 silty clay 10 YR 2/1 2-5 clay 10 YR 6/2 10 YR 7/8 (25%) Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Drift Lines [] Sediment Deposit [] Sediment Deposit [] Drainage Patterns in W -----[] Spring/Seep [] Floodplain [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Backwater [X] Depressional [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: Recent Rainfall: [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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DATE: 10/14/1993 STATE: WV STREAM: SITE/PLOT#: 1282 INVESTIGATOR: TJS, DMB WATERSHED: Cheat River COUNTY: Tucker COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? ves ves Remarks: reclaimed strip mine area/dominated by pasture grasses VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover Herb FACW+ Herb OBL 195 Juncus effusus 268 Typha latifolia 5.00 95.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0-1 organics 1-6 silty clay 10 YR 6/2 6 auger refusal _____ _____ Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Sulfidic Material [] Gleyed [] mottles [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seggenal Wigh Water Table[] Sedgenal Deposit [] Difit Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] Did Northerly Poet [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 1283 DATE: 10/2 COUNTY: Tucker STATE: WV STREAM: DATE: 10/14/1993 INVESTIGATOR: TJS, DMB WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? Is the area a potential Problem Area? yes Remarks: reclaimed strip mine area-dominated by pasture grasses no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 195 Herb FACW+ Herb FACW+ Herb OBL Juncus effusus 50.00 244 Scirpus cyperinus 268 Typha latifolia 30.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0-1 organics 1-6 silty clay 10 YR 6/2 5.5YR 5/8 (10%) 6"ref. --------_____ Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12 [Mary indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Coordary Indicators (2 or more reg() Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional Recorded Data (Describe III Remetic) [] Other [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: Recent Rainfall: Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks)

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes Remarks: all 3 criteria met

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SITE/PLOT#: 1285 Tucker STATE: WV STREAM: DATE: 10/20/1993 INVESTIGATOR: 100, ____ CTDEAM. WATERSHED: Cheat River Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: ACID MINE DRAINAGE APPARENT FLOWING FROM PEM. ACROSS ACCESS ROAD. VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover
 Bryo
 NI
 20.00

 Bryo
 NI
 30.00

 Herb
 OBL
 35.00

 Herb
 FACW+
 10.00

 Herb
 NI
 30.00

 Herb
 OBL
 25.00

 Herb
 FACW
 10.00

 Shrub
 FACW+
 10.00
 1 Polytrichum sp. Sphagnum sp. 2 2 Sphaghum Sp.
174 Eriophorum virginicum
195 Juncus effusus
297 Carex gynandra
312 Glyceria canadensis
346 Juncus articulatus
404 Alnus rugosa SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-12"REF SANDY SILT MUCK 10 YR 2/1 Hydric Soil Indicators: ic Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: RAIN [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: ALL 3 CRITERIA MET

SITE/PLOT#: 1286 DATE: 10/20/ COUNTY: Tucker STATE: WV STREAM: unnar COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp. Is the area a potential Problem Area? Remarks:	? по
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover
2 Sphagnum sp. 174 Eriophorum virginicum 195 Juncus effusus 297 Carex gynandra 312 Glyceria canadensis 346 Juncus articulatus 452 Hypericum densiflorum	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	
0-3" ORGANIC 3-4" CLAY 10 YR 3/2 4-12" CLAY 10 YR 7/1	10 yr 7/8 (10%)
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [X] mottles [] Enti	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical eaking, chroma 3, wet spodosol)
HYDROLOGY :	
Field Observations: Wet Depth of Surface Water: (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater	<pre>land Hydrology Indicators: Primary Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit</pre>
[] Spring/Seep [] Floodplain [] Backwater [X] Depressional	[] Water-Stained Leaves
	<pre>[] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) ent Weather: RAIN ent Rainfall:</pre>
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: ALL 3 CRITERIA MET	nt? yes Hydrophytic Vegetation? yes yes Wetland? yes

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SITE/PLOT#: 1287A DATE: 10/20/1993 INVESTIGATOR: TJS, DMB COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: STRIP MINED AREA yes no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover -----1Polytrichum sp.BryoNI2Sphagnum sp.BryoNI195Juncus effususHerbFACW+237Rubus hispidusHerbFACW+244Scirpus cyperinusHerbFACW+268Typha latifoliaHerbOBL312Glyceria canadensisHerbOBL452Hypericum densiflorumShrubFAC+ 30.00 20.00 25.00 10.00 10.00 10.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LsA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments ------------0-1" ORGANIC 1-6" SILTY CLAY 10 YR 6/1 6-12" ROCK, COAL FRAG 10 YR 6/8 (5%) _____ Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Drift Lines[X] Seasonal High Water Table[] Drainage Patterns in Wetlands[] Floodplain[] Drainage Patterns in Wetlands[] Backwater[] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained Leaves[] Local Soil Survey Data[] FAC-Neutral Test Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other[] Aerial Photographs[] Other[] OtherRecent Weather: RAIN Recorded Data (Describe in Remarks): [] Other Recent Rainfall: ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: ALL 3 CRITERIA ARE MET

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SITE/PLOT#: 1287B DATE: 10/20/1993 INVESTIGATOR: TJS, DMB COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: STRIP MINED AREA			
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum Status % Areal Cover		
1 Polytrichum sp. 2 Sphagnum sp. 195 Juncus effusus 237 Rubus hispidus 244 Scirpus cyperinus 268 Typha latifolia 312 Glyceria canadensis 452 Hypericum densiflorum	Bryo NI 30.00 Bryo NI 20.00 Herb FACW+ 25.00 Herb FACW+ 10.00 Herb FACW+ 10.00 Herb OBL 10.00 Herb OBL 10.00 Herb OBL 20.00		
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color			
0-1" ORGANIC 1-6" SILTY CLAY 10 YR 6/1 6-12" ROCK, COAL FRAG			
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [] mottles [] Enti			
HYDROLOGY:			
Field Observations: Wet Depth of Surface Water: (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep	<pre>:land Hydrology Indicators: Primary Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks</pre>		
Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional	Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves		
	<pre>[] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: RAIN cent Rainfall:</pre>		
	ent? yes Hydrophytic Vegetation? yes ? yes Wetland? yes		

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SITE/PLOT#: 1288 SITE/PLOT#: 1288 DATE: 10/20/1993 INVESTIGATOR: TJS, DMB COUNTY: Tucker STATE: WV STREAM: Beaver CreekWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE DATE: 10/20/1993 INVESTIGATOR: TJS, DMB Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: STRIP MINED AREA ves 'nο VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp. 174 Eriophorum virginicum NI Bryo 5.00 Herb OBL Herb FACW+ Herb FACW+ Shrub FAC+ Shrub FACW+ 10.00 10.00 25.00 10.00 25.00 20.00 195 Juncus effusus 244 Scirpus cyperinus 452 Hypericum densiflorum 559 Viburnum recognitum SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-1" ORGANIC 1-12" SILTY CLAY 10 YR 5/2 10 YR 6/8 (5%) ____ Hydric Soil Indicators: c Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:2.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[] PloodplainSecondary Indicators (2 or more reg/ [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge[] Other[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: ALL 3 CRITERIA MET

SITE/PLOT#: 1289A DATE: 10 COUNTY: Tucker STATE: WV STREAM: DATE: 10/12/1993 INVESTIGATOR: WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: depressional area bordered on all sides by large rocks VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 1Polytrichum sp.BryoNI10.002Sphagnum sp.BryoNI85.00174Eriophorum virginicumHerbOBL60.00195Juncus effususHerbFACW+5.00237Rubus hispidusHerbFACW25.00312Glyceria canadensisHerbOBL10.00539Vaccinium corymbosumShrubFACW20.00540Vaccinium macrocarponShrubOBL25.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LdA-Lickdale Hydric Soil? ves Depth Texture Matrix Color Mottle Color(%) Comments -----_ 0-2 organic 2-5 clayey silt 10 YR 2/1 5-8 silt 10 YR 4/2 5-8 8"ref. _____ Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical [] Histosol [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water MarksSource/Site Characterization:[] Seasonal Wigh Water Table [] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Pagent Weather. [] Seasonal High Water Table
[] Spring/Seep
[] Floodplain] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 1289B DATE: 10/13/1 COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypi Is the area a potential Problem Area? Remarks: strip mined area	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover
1 Polytrichum sp. 237 Rubus hispidus 452 Hypericum densiflorum 541 Vaccinium myrtilloides	15.00 Bryo NI 40.00 Herb FACW 25.00 Shrub FAC+ 40.00 Shrub FAC 40.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: LdA-Lickdale Hydric Soil? yes Mottle Color(%) Comments
0-6 ref. silty clay 10 YR 3/2	
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [] mottles [] Enti	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical aking, chroma 3, wet spodosol)
HYDROLOGY :	
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: 2.0 (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec	Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data
[] Aerial Photographs Rec [] Other Rec	ent Weather: ent Rainfall:
WETLAND DETERMINATION: Hydric soils prese	nt? yes Hydrophytic Vegetation? yes

Remarks: all 3 criteria met

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Nydrophytic Vegetation? yes Netland? yes

SITE/PLOT#: 1290DATE: 10/20/1993COUNTY: TuckerSTATE: WV STREAM: unnamed DATE: 10/20/1993 INVESTIGATOR: TJS, DMB WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSSIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? Remarks: STRIP MINED AREA no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 1Polytrichum sp.BryoNI30.00195Juncus effususHerbFACW+10.00237Rubus hispidusHerbFACW20.00452Hypericum densiflorumShrubFAC+70.00541Vaccinium myrtilloidesShrubFAC15.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments ------------**--**------0-6" SILTY CLAY 10 YR 3/1 _ _ _ _ _ _ _ _ _ ------Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:6.0 (in.)[X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Sediment Deposit [] Drainage Patterns in Wetlands [] Seasonal High Water Table [] Spring/Seep [X] Floodplain Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Backwater [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge[] Other (Explain in[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: HEAVY RAIN

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: ALL 3 CRITERIA MET Hydrophytic Vegetation? yes Wetland? yes

INVESTIGATOR: MZ, DAK SITE/PLOT#: 1291 DATE: 10/14/1993 COUNTY: Tucker STATE: WV STREAM: pond DATE: 10/14/1993 WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIB/ML Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: reclaimed surface mined area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover -------------_ _ _ _ _ _ Bryo NI Bryo NI Herb OBL Herb FACW+ Herb FACW Herb FACW+ Herb NI Herb OBL 30.00 Polytrichum sp. 2 Sphagnum sp. 2 Sphagnum sp. 174 Eriophorum virginicum 195 Juncus effusus 237 Rubus hispidus 70.00 20.00 30.00 40.00 30.00 244 Scirpus cyperinus 250 Solidago sp. 251 Solidago uliginosa 20.00 20.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: LsA-Lickdale Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -------0–12 sandy loam 10 YR 5/1 12+ auger refusal none sat./disturbed ______ Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Histosol] Sulfidic Material [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit [] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Pacent Weather: overcast [X] Seasonal High Water Table [] Spring/Seep] Floodplain] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge[] Other (Explain in[] Aerial Photographs[] Other[] OtherRecent Weather: overcast[] OtherRecent Rainfall: 2 days ago ------WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes

SITE/PLOT#: 1292 STATE : DATE: 03/24/1994 INVESTIGATOR: TJS, LDG COUNTY : STREAM: WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1 Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? Remarks: reclaimed strip mine VEGETATION: Percent Dominant Species that are OBL, FACW or FAC Code Scientific Name Stratum Status & Areal Cover 195Juncus effususHerbFACW+268Typha latifoliaHerbOBL452Hypericum densiflorumShrubFAC+ 15.00 80.00 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Hydric Soil? Depth Texture Matrix Color Mottle Color(%) Comments 0-10" silt clay 10 YR 6/2 7.5 YR 6/6 Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 3.0 (in.) Primary Indicators: Depth to Free Water in Pit: (in.) [X] Inundated Depth to Saturated Soil: (in.) [] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Drift Lines
[] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oridized Poot Channels/Upper 12 [X] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional Recorded Data (Describe in Remaine, [] Stream, Lake, or Tide Gauge [] Journer [] Aerial Photographs Recent Weather: Recent Rainfall: [] FAC-Neutral Test
[] Other (Explain in Remarks) WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1299DATE: 09/02/1993INVESTIGATOR: MZ, JMDCOUNTY: TuckerSTATE: WV STREAM: unnamedWATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: shrubby zone in s.m.rec. area ves VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover 2Sphagnum sp.BryoNI227Polygonum sagittatumHerbOBL237Rubus hispidusHerbFACW269Unidentifiable grassHerbNI452Hypericum densiflorumShrubFAC+ 50.00 40.00 20.00 60.00 ----SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-6organicsaturated6-12clay loam10 YR 3/1nonesat./ ox.roots12-18clay loam10 YR 6/1none Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit [] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Recent Weather. [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe III Remarks), [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

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SITE/PLOT#: 1301A DATE: 06/08/1993 COUNTY: Tucker STATE: WV STREAM: unnamed INVESTIGATOR: MZ, ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: reclaimed mineland - soils disturbed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 57.00 Code Scientific Name Stratum Status % Areal Cover HerbFACUHerbFACWHerbFACW+HerbOBLHerbNIHerbOBLHerbOBLHerbOBLHerbOBL 105 Anthoxanthum odoratum 119 Carex bromoides 20.00 20.00 195 Juncus effusus 30.00 222 Poa palustris 268 Typha latifolia 347 Lespedeza sp. 20.00 50.00 20.00 349 Lycopus americanus 358 Veronica scutellata 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm StripMine Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 2-6gravelly silt2.5 Y 6/210 YR 5/8 (10%) ox.roots6-12gravel clay loa 10 YR 5/17.5YR 4/4 (15%) ox.roots Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.5 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [X] Saturated in Upper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [X] Drainage Patterns in Wetlands [X] Drainage Patterns in wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Pecent Weather: Overcast [] Backwater
[] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: overcast Recent Rainfall: 1" last night [] Other ----

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met - even with disturbed soils

SITE/PLOT#: 1301B DATE: 06/08/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? yes no Remarks: reclaimed mineland - soils disturbed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 57.00 Code Scientific Name Stratum Status % Areal Cover 195 Juncus effusus 268 Typha latifolia
 Herb
 FACW+
 30.00

 Herb
 OBL
 50.00
 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm StripMine Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments _ _ _ _ 2-6 gravelly silt 2.5 Y 6/2 6-12 gravel clay loa 10 YR 5/1 12+ refusal 10 YR 5/8 (10%)ox.roots 7.5YR 4/4 (15%)ox.roots _____ ------Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.5 (in.)Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)[X] Saturated in UWater Markin Wetland Hydrology Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Backwater [] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: overcast Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Rainfall: 1" last night _____

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 parameters met - even with disturbed soils

SITE/PLOT#: 1301C DATE: 06/08/1993 COUNTY: Tucker STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEMIE DATE: 06/08/1993 INVESTIGATOR: MZ, ABC WATERSHED: Cheat River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: reclaimed mineland - soils disturbed ves πo VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 57.00 Code Scientific Name Stratum Status % Areal Cover 195 Juncus effusus
 Herb
 FACW+
 30.00

 Herb
 OBL
 50.00
 268 Typha latifolia 50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm StripMine Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments

 2-6
 gravelly silt
 2.5 Y 6/2
 10 YR 5/8 (10%) ox.roots

 6-12
 gravel clayloam 10 YR 5/1
 7.YR 4/4 (15%) ox.roots

 12+
 refusal
 7.YR 4/4 (15%) ox.roots

 Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Histosol] Sulfidic Material Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.5 (in.)Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [X] Inundated
[X] Saturated in Upper 12 [] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Weather: overcast Recent Rainfall: 1" last night

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met - even with disturbed soils

SITE/PLOT#: 1302A DATE: 06/08/ COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: depression between old mining ro	e? yes vical Situation)? yes
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 88.00 Stratum Status % Areal Cover
	HerbFAC+20.00HerbOBL20.00HerbFACW30.00HerbFACW40.00HerbOBL20.00HerbFACW20.00HerbNI50.00HerbNI20.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Sm StripMine Hydric Soil? no Mottle Color(%) Comments
0-2 organic 2-8 gravel sandloam 2.5 Y 4/2 8-12 sandy loam 10 YR 4/3	10 YR 5/8 (10%) pieces of coal 10 YR 5/8 (10%) pieces of coal $10 \text{ YR } 5/8 (10\%)$ coal
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [X] mottles [] Enti stree	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)
HYDROLOGY:	
Field Observations: Wet Depth of Surface Water: 0.5 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain	<pre>:land Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marka</pre>
Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional	[] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves
	<pre>[] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: overcast cent Rainfall: 1"</pre>
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met	ent? yes Hydrophytic Vegetation? yes Yes Wetland? yes

SITE/PLOT#: 1302B DATE: 06 COUNTY: Tucker STATE: WV STREAM: COWARDIN_CLASSIFICATION: PEM1E DATE: 06/08/1993 INVESTIGATOR: MZ, ABC WATERSHED: Cheat River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? ves no Remarks: depression between old mining road and hill side VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 268 Typha latifolia Herb OBL 80.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm StripMine Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ------ - - - - - - -0-2 organic 2-8 gravel
 2-8
 gravel sandloam 2.5 Y 4/2
 10 YR 5/8 (10%)peices of coal

 8-12
 sandy loam
 10 YR 4/3
 10 YR 5/8 (10%)coal
 Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Aquic Moisture Regime [] Sulfidic Material [] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 0.5 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks [] Drift Lines -----[] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
[] Drainage Patterns in Wetlands Source/Site Characterization: []] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: overcast Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Rainfall: 1" -----------WETLAND DETERMINATION: Hydric soils present? Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 1302C DATE: 06/08/1 COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypi Is the area a potential Problem Area? Remarks: depression between old mining roa	? yes ical Situation)? yes	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 88.00 Stratum Status % Area	al Cover
<pre>153 Dichanthelium clandestinum 180 Galium tinctorium 189 Impatiens capensis 222 Poa palustris 227 Polygonum sagittatum 237 Rubus hispidus 250 Solidago sp. 297 Carex gynandra</pre>		
SOIL PROFILE: (Minimum 18 inches) Series : Depth Texture Matrix Color	Name: Sm StripMine Hydric Soi Mottle Color(%) Comments	l? no
0-2 organic 2-8 gravel sandloam 2.5 Y 4/2 8-12 sandy loam 10 YR 4/3	10 YR 5/8 (10%)pieces 10 YR 5/8 (10%)coal	of coal
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aquia [] Gleyed [X] Low a [X] mottles [] Entis streat	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical aking, chroma 3, wet spodosol)	
HYDROLOGY:		
Field Observations: Wet Depth of Surface Water: 0.5 (in.) J Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain	<pre>land Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marker</pre>	
Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional	[] Oxidized Root Channels/Upp [X] Water-Stained Leaves	req'd) per 12
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rece [] Other Rece	<pre>[] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks ent Weather: overcast ent Rainfall: 1"</pre>	3)
	nt? yes Hydrophytic Vegetati yes Wetland? yes	ion? yes

DATE: 06/08/1993 INVESTIGATOR: PL, MATERSHED: Cheat River SITE/PLOT#: 1303 SITE/PLOT#: 1303 DATE: 06 COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: adjacent to minor access road - minimal disturbances VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover 1Polytrichum sp.BryoNI124Carex folliculataHerbNI166Eleocharis tenuisHerbFACW237Rubus hispidusHerbFACW250Solidago sp.HerbNI269Unidentifiable grassHerbNI 30.00 60.00 30.00 40.00 20.00 50.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: NoB Hydric Soil? ves Depth Texture Matrix Color Mottle Color(%) Comments ----------------------0-6 sandy silt N5/ 5 YR 5/8 (15%)ox.roots 6-12 silty clay 10 YR 5/1 7.5YR 5/8 (10%) Hvdric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic conte [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Water MarksSource/Site Characterization:[] Drift Lines[] Seasonal Wigh Water Table[] Sediment Deposit Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test [] Floodplain [] Backwater [X] Depressional

 Recorded Data (Describe in Remaine);
 [] Other (Explain in Remaine);

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remaine);

 [] Aerial Photographs
 [] Recent Weather: partly cloudy

 [] Abor
 [] Recent Rainfall: 1" last night

 Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Other (Explain in Remarks) WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

SITE/PLOT#: 1304 DATE: WV STREAM: DATE: 06/08/1993 INVESTIGATOR: M4, AND WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: wet area along minor access road - minimal disturbance VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover bidesHerbFACW40.00tenuisHerbFACW50.00p.HerbNI40.00 119 Carex bromoides 166 Eleocharis tenuis 250 Solidago sp. SOIL PROFILE: (Minimum 18 inches) Series Name: BoB Nolo Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments
 0-6
 silty clay
 10 YR 4/1
 7.5YR 4/6 (15%) ox.roots

 6-12
 clay
 7.5 YR 5/2
 7.5YR 5/8 (25%) ox.roots

 12+
 refusal
 7.5 YR 5/2
 7.5YR 5/8 (25%) ox.roots
 _____ Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [] Sufficie Material [] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.) Primary Indicators:Depth to Free Water in Pit:0.0 (in.) [X] InundatedDepth to Saturated Soil:0.0 (in.) [X] Saturated in Upper 12 [X] Inundated [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands [] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Backwater [X] Depressional

 Recorded Data (Describe in Remainer)
 [] Other (Explain in Remainer)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remainer)

 [] Aerial Photographs
 Recent Weather: partly cloudy

 Recent Rainfall: 1" last night

 [] FAC-Neutral Test
[] Other (Explain in Remarks) -----

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: all 3 parameters met

DATE: 06/08/1993 INVESTIGATOR: M4, ALC CORRAM. WATERSHED: Cheat River SITE/PLOT#: 1305 STATE: WV STREAM: COUNTY: Tucker COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves yes Is the area a potential Problem Area? no Remarks: soils disturbed by heavy traffic VEGETATION: Percent Dominant Species that are OBL, FACW or FAC Code Scientific Name Stratum Status % Areal Cover HerbFACWHerbFACWHerbOBLHerbFACWHerbOBLHerbNI Carex bromoides 119 80.00 166 Eleocharis tenuis 40.00 Polygonum sagittatum 60.00 40.00 10.00 227 237 Rubus hispidus 243 Scirpus atrovirens 250 Solidago sp. 30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: DaE dekalb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----------------2-4sandy loam10 YR 4/15 YR 5/8 (10%) ox.roots4-8gravel sandsilt 7.5 YR 4/1none ox.roots8+refusal Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGI.

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 4.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Water Marks

 [] Seasonal High Water Table
 [] Sediment Deposit

 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req')

 [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional

 I J Local Soil Survey Data

 [] Stream, Lake, or Tide Gauge
 [] FAC-Neutral Test

 [] Aerial Photographs
 [] Other

 [] Other
 Recent Weather: sunny

 [] Other
 Recent Rainfall: 1" last night

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

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SITE/PLOT#: 1306 DATE: 06/09/1993 COUNTY: Tucker STATE: WV STREAM: INVESTIGATOR: MZ, ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E/PSS Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? ves Is the area a potential Problem Area? 'nο Remarks: soils significantly disturbed by surface mining VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover - - - - - - - -1 Polytrichum sp. Bryo NT Bryo NI Herb NI Herb FACW Herb FACW Herb FACU Herb NI Herb FACW Shrub FACW+ 30 00 165 Eleocharis sp. 6.00 189 Impatiens capensis 222 Poa palustris 229 Potentilla simplex Herb 30.00 30.00 30.00 250 Solidago sp. 274 Viola cuculla 30.00 Viola cucullata 274 Viola cucultata 522 Salix nigra 40.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm StripMined Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 2-6silty clay7.5 YR 7/17.5YR 5/8 (15%) ox.roots6-12clay5 GY 5/17.5YR 5/8 (10%) ox.roots Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Indicators: Metland Hydrology Indic [X] Inundated [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Seasonal High Water Table [] Drift Lines [] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd) [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Water-Stalley Low [] Local Soil Survey Data Recorded Data (Describe III Remaine). [] Stream, Lake, or Tide Gauge [] Otner (Expression) [] Aerial Photographs Recent Weather: sunny Recent Rainfall: 1" 2 days ago [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Wetland Hydrology? yes Remarks: all 3 parameters met

SITE/PLOT#: 1307A DATE: 06/09/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: Blackwater R.WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS/PEM Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: new road to coal remediation site being built-changing hydrology VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover Bryo NI Herb FACW Herb NI Shrub FAC+ Shrub OBL 1 Polytrichum sp. 119 Carex bromoides 250 Solidago sp. 100.00 40.00 30.00 452 Hypericum densiflorum 523 Salix sericea 30.00 20.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: Ma Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments --------0-3 organic 3-12 gravelly loam N2.5/ 12+ refusal ox.roots Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[X] Gleyed[X] Low Chroma [X] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.5 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Drift Lines [] Seasonal High Water Table [] Sediment Deposit [X] Spring/Seep [] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg) [X] Floodplain
[X] Backwater
[] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks)

 Recorded Data (Descripe in Remarks);
 [] Other (Explain in Remarks);

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks);

 [] Aerial Photographs
 Recent Weather: overcast

 Recent Rainfall: 1" 2 days ago

 _____ WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

SITE/PLOT#: 1307B DATE: 06/09/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: Blackwater RWATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS/PEM Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? yes πo Remarks: new road to coal remediation site being built-changing hydrology VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover _ _ _ _ _ _ _ _ Bryo NI Herb FACW Herb NI Shrub FAC+ Shrub OBL 1 Polytrichum sp. 119 Carex bromoides 250 Solidago sp. 100.00 40.00 30.00 30.00 20.00 452 Hypericum densiflorum523 Salix sericea _____ -----SOIL PROFILE: (Minimum 18 inches) Series Name: Ma Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0-3 organic 3-12 gravelly loam N 2.5/ 12+ refusal ox.roots -----------Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [X] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [X] Inundated [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands [X] Floodplain
[X] Backwater
[] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: overcast[] OtherRecent Rainfall: 1" 2 days ago Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

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SITE/PLOT#: 1308 DATE: 06/09/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: Blackwater RWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM/PSS Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? yes no Remarks: soils disturbed by deposition of coal mining spoil VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover 192Juncus brevicaudatusHerbOBL195Juncus effususHerbFACW+200Juncus tenuisHerbFAC-268Typha latifoliaHerbOBL297Carex gynandraHerbNI453Hypericum prolificumShrubFACU 50.00 20.00 30.00 20.00 20.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Ma Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments _____ 0-6 gravel coarse s N 2.5/ 6+ refusal none _____ Hydric Soil Indicators: [] Histic Epipedon
 [] Aquic Moisture Regime
 [X] Low Chroma
 [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) [] Histosol [] Sulfidic Material [] Gleyed [] mottles HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12Depth to Saturated Soil:(in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[] Drainage Patterns in WetlandsSecondary Indicators(2 or more reg/s Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Floodplain [] Backwater [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream. Lake, or Tide Gauge [] Other (Explain in Remarks)

 Recorded Data (Describe in Remarkation)
 [] Other (Explain in Remarkation)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarkation)

 [] Aerial Photographs
 Recent Weather: sunny hot

 [] Other
 Recent Rainfall: 1" 2 days ago

 WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes

Remarks: all 3 parameters met

DATE: 06/10/1993 INVESTIGATOR: MZ, ABC SITE/PLOT#: 1309 STATE: WV STREAM: unnamed WATERSHED: Cheat River COUNTY: Tucker COWARDIN CLASSIFICATION: PEM Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? ño Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover _ -------------20.00 OBL FACW+ Carex lurida Juncus effusus 129 Herb 50.00 30.00 20.00 20.00 Herb FACW+ Herb FACW Herb FACW 195 FACW 247 Senecio aureus 274 Viola cucullata _____ SOIL PROFILE: (Minimum 18 inches) Series Name: DaE Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ----------
 0-8
 sandy silt
 10 YR 4/1
 5 YR 4/6 (15%) ox.root

 8-11
 loam
 2.5 Y 7/2
 10 YR 6/8 (30%) ox.root

 11-13
 silt
 N 6/
 7.5YR 6/8 (10%) ox.root
 _____ Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations:Wetland Hydrology IndiaDepth of Surface Water:0.5 (in.)Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Sacordary Indicators (2 or more reg) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Floodplain [] Backwater [X] Depressional

 Recorded Data (Describe in Remarks):
 [] FAC-Neutral Test

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks):

 [] Aerial Photographs
 Recent Weather: partly cloudy

 [] Other
 Pecent Painfall:

 [] FAC-Neutral Test
[] Other (Explain in Remarks) Recent Rainfall: .5" [] Other -----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Remarks: all 3 parameters met

DATE: 06/10/1993 STATE: WV STREAM: unnamed INVESTIGATOR: MZ, ABC WATERSHED: Cheat River SITE/PLOT#: 1310 COUNTY: Tucker COWARDIN CLASSIFICATION: PEM/PSS Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: location between 45 degree slope and old rail line VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Stratum Status % Areal Cover -----_ _ _ _ _ _ _ _ Herb FACW+ Herb FACW Herb FACW Herb NI Herb NI Shrub OBL 195 Juncus effusus 20.00 222 Poa palustris 20.00 247 Senecio aureus
250 Solidago sp.
297 Carex gynandra
523 Salix sericea $\begin{array}{r}
 20.00 \\
 40.00 \\
 20.00 \\
 30.00
 \end{array}$ SOIL PROFILE: (Minimum 18 inches) Series Name: DaE Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments --------------0-3 organic 3-10 gravel siltloam 10 YR 3/1 10-12 gravelly silt 2.5 Y 7/2 10 YR 6/8 (30%) Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology India Depth of Surface Water: 1.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Sediment Deposit [] Drainage Patterns in Wetlands [] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks)

 Recorded Data (Describe in Remainer, 1)
 [] Other (Explain in Remainer, 1)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remainer, 1)

 [] Aerial Photographs
 Recent Weather: partly cloudy Recent Rainfall: .5"

 WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

SITE/PLOT#: 1311 DATE: 06/10/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: Blackwater RWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? ño Remarks: numerous spoil piles from mining plus upper areas have been cut VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Stratum Status % Areal Cover Code Scientific Name Bryo NI Herb NI Herb FACW Herb FACW Herb NI Herb NI 1 Polytrichum sp. 30.00 165 Eleocharis sp. 237 Rubus hispidus 247 Senecio aureus 50.00 50.00 20.00 250 Solidago sp. 297 Carex gynandra 20.00 80.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: DaE Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments _ _ _ _ _ _ _ _ _ 0-2organic2-6loamy silt10 R 3/15 YR 5/8 (25%) ox6-12loamy silt10 YR 4/1none ox.roots]12-16fine sandy loam 2.5 Y 5/2none saturated 5 YR 5/8 (25%) ox.roots _____ Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.) Primary Indicators:Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [X] Saturated in Upper 12
[] Water Marks
[] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Pecent Weather, partly cloudy [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks):

 Recorded Data (Describe in Remainer, in _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

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SITE/PLOT#: 1312A DATE: 06/10/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM/PSS Do Normal Circumstances exist on the site? no Is the area a potential Problem Area? Remarks: many areas of dumped mine spoil - roadway retains water VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status & Areal Cover 1Polytrichum sp.BryoNI100.00105Anthoxanthum odoratumHerbFACU40.00195Juncus effususHerbFACW+20.00297Carex gynandraHerbNI20.00404Alnus rugosaShrubFACW+20.00453Hypericum prolificumShrubFACU60.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Ma Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments --------------------0-2 organic 2-7 sandy loam 5 G4 4/1 ox.roots 7-12 gravel sandloam N4/ Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY: _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.5 (in.)[] InundatedDepth to Saturated Soil:0.5 (in.)[X] Saturated in Upper 12[X] Source/Site Characterization:[X] Drift Lines[X] Seasonal High Water Table[X] Sediment Deposit Source/Site Characterization: [X] Seasonal High Water Table Source/Site Characterization:[X] Drift Lines[X] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves[] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: partly cloudy[] OtherRecent Rainfall: .5" last night WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

SITE/PLOT#: 1312B DATE: 06/10/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM/PSS Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: many areas of dumped mine spoil - roadway retains water VEGETATION: Percent Dominant Species that are OBL, FACW or FAC67.00CodeScientific NameStratumStatus* Areal Cover Bryo NI Herb FACU Herb FACW+ Herb NI Shrub FACW+ Shrub FACU Polytrichum sp. Anthoxanthum odoratum 1 100.00 40.00 20.00 105 105 Anchorantenam Caeracam
195 Juncus effusus
297 Carex gynandra
404 Alnus rugosa
453 Hypericum prolificum 20.00 60.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Ma Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-2 organic 2-7 sandy loam 5 G4 4/1 7-12 gravel sandloam N4/ ox.roots Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Depth to Free Water in Pit:0.5 (in.)[] Inundated [] Inundated
[X] Saturated in Upper 12
[X] Water Marks
[X] Drift Lines
[X] Sediment Deposit Depth to Free Water in Pit: 0.5 (in.) Depth to Saturated Soil: 0.5 (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep
[X] Floodplain
[] Backwater
[] Depressional [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Photographs Recent Weather: partly cloudy Recent Rainfall: .5" last night WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

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SITE/PLOT#: 1313 DATE: 06/10/1993 INVESTIGATOR: MZ, ABC STATE: WV STREAM: N.F.BlackwaterWATERSHED: Cheat River COUNTY: Tucker COWARDIN CLASSIFICATION: PEM Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: floodplain fringe wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 119Carex bromoidesHerbFACW153Dichanthelium clandestinumHerbFAC+297Carex gynandraHerbNI 20.00 60.00 SOIL PROFILE: (Minimum 18 inches) Series Name: DaE Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-6
 sand
 10 YR 3/3
 none

 6-12
 sand
 10 YR 3/2
 none
 Hydric Soil Indicators: [] Histosol [] Histic Epipedon
[] Sulfidic Material [] Aquic Moisture Regime
[] Gleyed [] Low Chroma
[] mottles [X] Entisol (organic context, vertical [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:4.0 (in.)[] InundatedDepth to Saturated Soil:2.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Water Marks[] Sediment Deposit[] Sediment Deposit [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Sediment Deposit
[X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Backwater
[] Depressional [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs Recent Reinfall: .5" last night] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

Do Norma Is the a Is the a	DT#: 1320 Tucker STATE: N N CLASSIFICATION: P al Circumstances ex: site significantly (area a potential Pro ; area has been str:	ist on the s disturbed (A oblem Area?			EFA, DAE at River
VEGETAT: Code	ION: Percent Dominan Scientific Nam	nt Species t ne	hat are OBL, Stratum	FACW or FAC Status	89.00 % Areal Cover
	Anthyrium felix-fe Carex stipata Impatiens capensis Osmunda cinnamomea Solidago rugosa Solidago sp. Viola cucullata Acer rubrum Hamamelis virginia				
SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-3 silty sand clay 7.5 YR 5/0 N-S none limited to swale Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)					
HYDROLOG					
Source/S [] Seas [X] Spri [] Floc [] Back	oservations: Surface Water: Free Water in Pit: Saturated Soil: Site Characterizatic Sonal High Water Tak ing/Seep odplain twater ressional	0.0 (in.) 0.0 (in.) 0.0 (in.)	Wetland Hyd: Primary [X] In: [X] Sa [X] Wa [X] Dr: [X] Dr: [X] Dr: Secondar [] Ox:	rology Indicat Indicators: undated turated in Upp	ors: per 12 is in Wetlands 2 or more req'd) annels/Upper 12
Recorded	l Data (Describe in eam, Lake, or Tide (al Photographs		[] Loo [] Fi [X] Of Recent Weat]	cal Soil Surve AC-Neutral Tes ther (Explain her: major thu fall: heavy la	ey Data st in Remarks) understorm
	DETERMINATION: Hyd Wet all 3 criteria met	land Hydrold	ogy? yes	Hydrophyti Wetland?	c Vegetation? ye

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SITE/PLOT#: 1321A DATE: 03/09/1993 INVESTIGATOR: EFA, DAE COUNTY: Tucker STATE: WV STREAM: Blackwater R.WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM/PSS1 Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no ves Is the area a potential Problem Area? Remarks: area has been strip mined ves VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover -----
 Herb
 OBL
 80.00

 Herb
 FACW+
 20.00

 Herb
 FAC
 50.00

 Herb
 OBL
 50.00

 Shrub
 OBL
 90.00

 Shrub
 FACW
 30.00
 164 Eleocharis rostellata 195Juncus effusus249Solidago rugosa268Typha latifolia523Salix sericea528Spiraea tomentosa SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Sc Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no ---------------------------0"-4" muck 10 YR 3/2 4"-6" n-3 muck minetailing rubble/mine ref. 6" auger refusal ____ Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicat Depth of Surface Water: 10.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upp Wetland Hydrology Indicators: [X] Inundated [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg(Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [X] Other (Explain in Remarks) [] Floodplain [X] Backwater [X] Depressional

 [A] Depression

 Recorded Data (Describe in Remarks):
 [] FAC-Net

 [] Stream, Lake, or Tide Gauge
 [X] Other

 [] Photographs
 Recent Weather:

 Percent Rainfall

 Recent Rainfall: _____ WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes Remarks: all 3 criteria met

SITE/PLOT#: 1321B DATE: 03/09/1993 INVESTIGATOR: EFA, DAE COUNTY: Tucker STATE: WV STREAM: Blackwater R.WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSSIGX/PEMGX Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? Remarks: area has been strip mined ves VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover _ _ _ _ _ _ _ 2 Sphagnum sp. 169 Equisetum fluviatile 195 Juncus effusus 241 Saxifraga pennsylvanica 268 Typha latifolia Bryo NI Bryo NI Herb OBL Herb FACW+ Herb OBL Herb OBL Shrub OBL 50.00 80.00 20.00 70.00 268 Typha latifolia 523 Salix sericea 50.00 90.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0"-4" muck 10 YR 3/2 4"-6" n-3 muck/minetailing rubble&mine ref. 6" auger refusal muju- -uluvul Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma] Histosol] Sulfidic Material [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indic Depth of Surface Water: 10.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U [X] Water Marks Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [X] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [X] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge
[] Aerial Photographs Recent Weather: [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1321C DATE: 03/09/ COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1Zx Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: area has been strip mined	? no		
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover		
2 Sphagnum sp. 164 Eleocharis rostellata 169 Equisetum fluviatile 195 Juncus effusus 241 Saxifraga pennsylvanica 249 Solidago rugosa 268 Typha latifolia 523 Salix sericea 528 Spiraea tomentosa	Bryo NI 50.00 Herb OBL 80.00 Herb OBL 80.00 Herb FACW+ 20.00 Herb FACW+ 20.00 Herb OBL 70.00 Herb FAC 50.00 Herb OBL 50.00 Shrub OBL 90.00 Shrub FACW 30.00		
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Sm Hydric Soil? no Mottle Color(%) Comments		
0-4 muck 10 YR 3/2 4-6 N-3 6	muck mine tailin rubble mine ref		
Hydric Soil Indicators: [] Histosol [] Histosol [] Histosol [] Aqu: [] Sulfidic Material [] Aqu: [] Gleyed [X] Low [] mottles [] Ent:	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)		
HYDROLOGY:			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:10.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg'd)			
[X] Backwater [X] Depressional	[] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves		
	<pre>[] Local Soil Survey Data [] FAC-Neutral Test [X] Other (Explain in Remarks) cent Weather: cent Rainfall:</pre>		
WETLAND DETERMINATION: Hydric soils present? Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes			
Wetland Hydrology? yes Wetland? yes Remarks: beaver lodges present in second open water area			

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SITE/PLOT#: 1321D DATE: 03/09/1993 INVESTIGATOR: EFA, DAE COUNTY: Tucker STATE: WV STREAM: Blackwater R.WATERSHED: Cheat River COUNTY: TUCKER STATE: WV STREAM: Blackwater R.WATERSHE COWARDIN CLASSIFICATION: PSSIG/PEMIGx Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: area has been strip mined no yes ves VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover -----_ _ _ _ _ _ _ _ ------------
 Bryo
 NI
 50.00

 Herb
 OBL
 80.00

 Herb
 FACW+
 20.00

 Herb
 OBL
 70.00

 Herb
 OBL
 50.00

 Shrub
 OBL
 90.00
 2 Sphagnum sp. 169 Equisetum fluviatile 195 Juncus effusus 241 Saxifraga pennsylvanica 268 Typha latifolia 523 Salix sericea -----SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0"-4" muck 10 YR 3/2 4"-6" n-3 muck/minetailing rubble&mine ref. 6" auger refusal Hydric Soil Indicators: [] Histosol [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Indic (in.) Primary Indicators: Depth to Saturated Soil: Contemportation (in.) Saturated in U Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [X] Other (Explain in Remarks) cent Weather: Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep
[] Floodplain
[X] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Weather: Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1322 DATE: 06/09/1993 INVESTIGATOR: EFA, DAE STATE: WV STREAM: Blackwater R.WATERSHED: Cheat River COUNTY: Tucker COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? ves Is the area a potential Problem Area? ves Remarks: area has been disturbed due to strip mining activity-not recent VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 89.00 Code Scientific Name Stratum Status % Areal Cover BryoNIHerbOBLHerbOBLHerbFACW+HerbOBLHerbNIShrubOBLShrubFAC+ 2 Sphagnum sp.
164 Eleocharis rostellata
169 Equisetum fluviatile
195 Juncus effusus
195 Juncus effusus 90.00 90.00 25.00 20.00 80.00 251 Solidago uliginosa 355 Solidago odora 523 Salix sericea 40.00 70.00 20.00 30.00 527 Spiraea latifolia SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-7/8" clay 10 YR 6/1 verticle streaks ------Hydric Soil Indicators:

 c Soil Indicators:
 [] Histic Epipedon

 [] Histic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg(4) Source/Site Characterization: [] Seasonal High Water Table] Spring/Seep [] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other[] OtherRecent Weather: partly sunny, humid[] OtherRecent Rainfall: heavy rain 2 day ago WETLAND DETERMINATION:Hydric soils present? yesHydrophytic Vegetation? yesWetland Hydrology? yesWetland? yesRemarks: area is located in depressional area among stripmine spoil piles 3 parameters m

SITE/PLOT#: 1323 DATE: 06/09/1993 COUNTY: Tucker STATE: WV STREAM: DATE: 06/09/1993 INVESTIGATOR: EFA, DAE WATERSHED: Cheat River COWARDIN CLASSIFICATION: PFOlEx Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? yes Remarks: area has been disturbed due to strip mining activity VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover 250Solidago sp.HerbNI90.00337Aster prenanthoidesHerbFAC60.00361Glyceria sp.HerbNI50.00602Acer rubrumTreeFAC20.00649Populus grandidentataTreeFACU30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments _____ -----_ 0-12 clay 2.5 Y 6/2 N/6 (30%)ox.root channel 12 auger refusal Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Sedgenal Wigh Water Table[Y] Sedgenat Deposit [] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Tent Weather: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge Recent Weather:] Aerial Photographs [] Other Recent Rainfall: _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Remarks: all 3 criteria met; strip mine area

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SITE/PLOT#: 1324 DATE: 06/ COUNTY: Tucker STATE: WV STREAM: DATE: 06/09/1993 INVESTIGATOR: EFA. DAE WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIEx Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? ye Is the area a potential Problem Area? ye Remarks: area has been disturbed due to strip mining activity ves ves VEGETATION: Percent Dominant Species that are OBL, FACW or FAC Code Scientific Name Stratum Status & Areal Cover NI 269 Unidentifiable grass Herb 100.00 ______ SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-12 clay 10 YR 6/1 10 YR 6/8 (50%) 12 auger refusal 12 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines Source/Site Characterization: [X] Sediment Deposit
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
[] EAC-Neutral Test [] Seasonal High Water Table
[] Spring/Seep [] Floodplain [] Backwater [X] Depressional [] FAC-Neutral Test [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: partly sunny humid Recent Rainfall: heavy 2 nights ago Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs [] Other

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met; area is disturbed from mining 1

DATE: 06/09/1993 INVESTIGATOR: ETA, THE WATERSHED: Cheat River SITE/PLOT#: 1325A DATE: 06/09/1993 COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PSS1F Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? yes Remarks: area has been disturbed due to strip mining activity - not recent VEGETATION: Percent Dominant Species that are OBL, FACW or FAC67.00CodeScientific NameStratumStatus% Areal Cover OBL Equisetum fluviatile Herb 169 50.00 HerbOBLHerbFACWHerbFACHerbFACWHerbFACWHerbFACHerbOBLHerbFACWShrubOBL 247 Senecio aureus 60.00 Solidago rugosa 249 10.00 Solidago sp. Solidago sp. Viola incognita Aster prenanthoides Carex prasina 20.00 250 326 30.00 30.00 337 342 346 Juncus articulatus 523 Salix sericea 50.00 90.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? Depth Texture Matrix Color Mottle Color(%) Comments ---------0-3 muck N-3 3 auger refusal coal rubble Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 4.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) [X] Inundated [X] Saturated in Upper 12 [X] Water Marks Source/Site Characterization: [X] Drift Lines [X] Difit Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: partly sunny th.stms Recent Rainfall: heavy 2 nights ago Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other ····· 1 = ····j···· WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: BPJ-soil has been disturbed but sufficient to support hydrophytic vegetation

SITE/PLOT#: 1325B DATE: 06/09/1993 INVESTIGATOR: EFA, DAE COUNTY: Tucker STATE: WV STREAM: Blackwater R.WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIF Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? yes Remarks: area has been disturbed due to strip mining activity, not recent VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover HerbOBLHerbFACWHerbFACHerbNIHerbFACWHerbFACHerbNIHerbNI 169 Equisetum fluviatile 50.00 247 Senecio aureus 60.00 249 Solidago rugosa
250 Solidago sp.
326 Viola incognita
337 Aster prenanthoides
341 Carex jamesii
344 Fragaria vesca 10.00 20.00 30.00 30.00 70.00 50.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0"-3" muck n-3 coal rubble 3" auger refusal Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: 4.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Water Marks Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Spring/Seep [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg' [] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: partly sunny/tshwsPM Recent Rainfall: heavy rain 2 day ago Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other ______

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: BPJ-soil has been disturbed but sufficient to support hydropytic veg. 3 paramet

SITE/PLOT#: 1325C DATE: 06/09/1993 INVESTIGATOR: EFA, DAE COUNTY: Tucker STATE: WV STREAM: Blackwater R.WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1F Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? yes Remarks: area has been disturbed due to strip mining activity, not recent VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover Equisetum fluviatile OBL Herb 169 50.00 FACW 247 Senecio aureus HerbFACWHerbFACHerbNIHerbFACWHerbFACHerbNIHerbNIShrubOBL Herb 60.00 Solidago rugosa 10.00 249 250 Solidago sp.
326 Viola incognita
337 Aster prenanthoides
341 Carex jamesii
344 Fragaria vesca
523 Salix sericea 250 Solidago sp. 20.00 30.00 30.00 30.00 70.00 50.00 90.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0"-3" muck n-3 coal rubble 3" auger refusal Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:4.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[X] Water Marks[X] Water Marks [X] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd) [] Floodplain [] Backwater [] Depressional [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: partly sunny/thshwPM Recent Rainfall: heavy rain 2 day ago Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION:Hydroic soils present? yesHydrophytic Vegetation? yesWetland Hydrology? yesWetland? yesRemarks:BPJ-soil has been disturbed but sufficient to support hydrophytic veg. 3 parame

SITE/PLOT#: 1326A DATE: 06/10/1993 COUNTY: Tucker STATE: WV STREAM: INVESTIGATOR: EFA, DAE WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E/PSS Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? yes Remarks: area has been disturbed due to strip mining activity - not recent VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 92.00 Code Scientific Name Stratum Status & Areal Cover
 Herb
 FACU
 80.00

 Herb
 FACW
 90.00

 Herb
 FAC+
 20.00

 Herb
 FACW
 30.00

 Herb
 FACW+
 20.00

 Herb
 FACW
 70.00

 Herb
 FAC
 40.00

 Herb
 NI
 90.00

 Herb
 NI
 90.00

 Herb
 NI
 90.00

 Herb
 NI
 90.00

 Herb
 NI
 60.00

 Herb
 NI
 60.00

 Herb
 FACW
 30.00

 Herb
 FACW
 40.00

 Shrub
 OBL
 40.00
 105 Anthoxanthum odoratum
132 Carex sp.
153 Dichanthelium clandestinum
166 Eleocharis tenuis
178 Eupatorium perfoliatum
189 Impatiens capensis
195 Juncus effusus 195 Juncus effusus
247 Senecio aureus
249 Solidago rugosa 250 Solidago sp.
268 Typha latifolia
269 Unidentifiable grass . I 326 Viola incognita 523 Salix sericea 528 Spiraea tomentosa SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----. -----0-12 N2 12 auger refusal mine tailings Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:5.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[J. FloodplainSecondary Indicators (2 or more reg/ [] Floodplain [X] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [X] Depressional Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other:[] Other[] Other [] Local Soil Survey Data ------WETLAND DETERMINATION: Hydric soils present? Wetland Hydrology? yes Remarks: wetland soils of coal debris & tailings - saturated to support hydrophytic vege

SITE/PLOT#: 1326C DATE: 06/10/ COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: area has been disturbed due to s	? no ical Situation)? yes		
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 65.00 Stratum Status % Areal Cover		
<pre>105 Anthoxanthum odoratum 132 Carex sp. 132 Carex sp. 153 Dichanthelium clandestinum 166 Eleocharis tenuis 178 Eupatorium perfoliatum 189 Impatiens capensis 195 Juncus effusus 247 Senecio aureus 249 Solidago rugosa 250 Solidago sp. 268 Typha latifolia 269 Unidentifiable grass 357 Urtica dioica 520 Salix humilis</pre>	HerbFACU90.00HerbFACW20.00HerbFACW90.00HerbFACW90.00HerbFACH20.00HerbFACW30.00HerbFACW+20.00HerbFACW+20.00HerbFACW+20.00HerbFACW+20.00HerbFACW+20.00HerbFACW70.00HerbFACW70.00HerbNI30.00HerbNI30.00HerbNI60.00HerbFACU40.00ShrubFACU40.00		
SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-12 N2 mine tailings 12 auger refusal			
[] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [] Low [] mottles [] Enti	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical aking, chroma 3, wet spodosol)		
HYDROLOGY :			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:5.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Sediment Deposit[] Seasonal High Water Table[X] Sediment Deposit[] Seasonal High Water Table[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[X] Depressional[] Oxidized Root Channels/Upper 12[X] Depressional[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: partly sunny humid[] OtherRecent Rainfall: th.stm 3 days ago			
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: wetland soils consist of coal deb	yes Wetland? yes		

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SITE/PLOT#: 1326E DATE: 06/10/ COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: area has been disturbed due to s	? Dical Situation Strip mining a	no on)? yes yes activity, no	ot recent
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum	Status	<pre>% Areal Cover</pre>
<pre>105 Anthoxanthum odoratum 132 Carex sp. 153 Dichanthelium clandestinum 166 Eleocharis tenuis 178 Eupatorium perfoliatum 189 Impatiens capensis 195 Juncus effusus 247 Senecio aureus 250 Solidago sp. 268 Typha latifolia 269 Unidentifiable grass 326 Viola incognita 349 Lycopus americanus 353 Solanum dulcamara 528 Spiraea tomentosa</pre>	Herb Herb Herb Herb Herb Herb Herb Herb	FACU FACW FACW FACW+ FACW FACW+ FACW NI OBL NI FACW OBL FAC FACW	$\begin{array}{c} 80.00\\ 90.00\\ 20.00\\ 30.00\\ 20.00\\ 40.00\\ 20.00\\ 70.00\\ 90.00\\ 20.00\\ 60.00\\ 30.00\\ 40.00\\ 40.00\\ 40.00\\ 40.00\\ \end{array}$
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color 0"-12" n-2 12" auger refusal	Name: Sm Mottle Cold	Hy or(%) Comme	dric Soil? no nts
Hydric Soil Indicators: [] Histosol [] His [] Sulfidic Material [] Aqu [] Gleyed [] Low [] mottles [] Ent	tic Epipedon ic Moisture F Chroma	Regime	
[] mottles [] Ent. stro	isol (organic eaking, chrom	c context, v ma 3, wet sp	ertical odosol)
5010	isol (organic eaking, chrom	c context, v na 3, wet sp	ertical odosol)
HYDROLOGY: Field Observations: Wei Depth of Surface Water: 5.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [X] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Record	tland Hydrold Primary Indi [X] Inunda [X] Satura [X] Water [X] Drift [X] Sedime [X] Draina Secondary In [] Oxidiz [X] Water- [] Local [] FAC-N [] Other cent Weather:	ogy Indicato cators: ited ited in Uppe Marks Lines ent Deposit idicators (2 sed Root Char Stained Lea Soil Survey Sutral Test (Explain in partly sum	r 12 in Wetlands or more req'd) nnels/Upper 12 ves Data n Remarks) ny/humid

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SITE/PLOT#: 1330A DATE: 06/23/1993 INVESTIGATOR: EFA, DMB COUNTY: Tucker STATE: WV STREAM: Middle Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE/PSS Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: 2 swales associated with large system 1330 VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover 153Dichanthelium clandestinumHerbFAC+25.00219Osmunda cinnamomeaHerbFACW5.00249Solidago rugosaHerbFAC5.00250Solidago sp.HerbNI5.00305Carex scopariaHerbFACW60.00453Hypericum prolificumShrubFACU50.00 _ _ _ _ _ _ _ _ SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hvdric Soil? no _____ -----0-12 muck 10 YR 3/2 none ·--Hydric Soil Indicators:

 Bistosol
 [] Histic Epipedon

] Sulfidic Material
 [X] Aquic Moisture Regime

] Gleyed
 [X] Low Chroma

] mottles
 [] Entisol (organic context, vertical

 [] Histosol [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:-2.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[X] Water Marks[X] Water MarksSource/Site Characterization:[X] Drift Lines Source/Site Characterization:[X] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[] Drainage Patterns in Wetlands[] Floodplain[] Drainage Patterns in Wetlands[] Backwater[] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained LeavesRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Aerial Photographs[] Other[] Other[] Other (Explain in Remarks)[] OtherRecent Rainfall: monday 80 degrees _____

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met; swales feed large wetland system 1330

SITE/PLOT#: 1330B DATE: 06/23/1993 INVESTIGATOR: EFA, DMB COUNTY: Tucker STATE: WV STREAM: Middle Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: 2 swales associated with large system 1330 VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover HerbFAC+25.00HerbFACHerbFACW5.00HerbFAC5.00HerbNI5.00ShrubFACU50.00 153 Dichanthelium clandestinum Dichanthellum clandestinum
Lycopodium clavatum
Osmunda cinnamomea
Solidago rugosa
Solidago sp.
Hypericum prolificum SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0"-12" muck 10 YR 3/2 none ____ Hydric Soil Indicators: [] Histic Epipedon
 [X] Aquic Moisture Regime
 [X] Low Chroma
 [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) [] Histosol [] Sulfidic Material [] Gleyed [] mottles HYDROLOGY :

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 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 -2.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [X] Water Marks

 [] Seasonal High Water Table
 [] Sediment Deposit

 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req')

 [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: heavy rain[] OtherRecent Rainfall: monday Recorded Data (Describe in Remarks):

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met, swales feed large wetland system 1330

SITE/PLOT#: 1331 DATE: 06/23/1993 INVESTIGATOR: EFA, DMB COUNTY: Tucker STATE: WV STREAM: Middle Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM2E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: vernal pond with floating mat of leaf litter ves ño no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 60.00 Code Scientific Name Stratum Status % Areal Cover Herb FAC+ Herb NI Herb OBL Herb FACU Herb FACW 153 Dichanthelium clandestinum 5.00 269 Unidentifiable grass
275 Viola pallens
318 Anemone quinquefolia
365 Juncus biflorus 100.00 5.00 25.00 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0-10 muck 0-10 silty-clay leaf mat 10 YR 6/8 10 YR 6/2 Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] [] Histosol] Sulfidic Material] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Seasonal High Water Table [] Secondarv Indicators (2 or more required) Secondary Indicators (2 or more required) [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Depressional [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Weather: Recent Rainfall: rain 6/24 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: 3 criteria met

SITE/PLOT#: 1332A DATE: 06/23/1993 INVESTIGATOR: EFA, DMB COUNTY: Tucker STATE: WV STREAM: Middle Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E/ML Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? yes Remarks: wetland fringe around strip mine pond VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp.
237 Rubus hispidus
453 Hypericum prolificum
528 Spiraea tomentosa
 Bryo
 NI
 100.00

 Herb
 FACW
 10.00

 Shrub
 FACU
 100.00

 Shrub
 FACW
 100.00
 100.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----. -----------0-3sphagnumsaturated3-6silty clay2.5 Y 6/2 (70%)2.5 Y 6/8 (30%) shale/coal mix6auger refusal _____ Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture F [] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGY:

 Field Observations:
 Wetland Hydrology Indicators.

 Depth of Surface Water:
 6.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 6.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 [] Water Marks
 [] Drift Lines

 [] Sediment Deposit

 [] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Recent Weather: 90s supry [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge] Aerial Photographs Recent Weather: 90s sunny [] Other Recent Rainfall: none

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met; appears hydrology seasonally present

SITE/PLOT#: 1332B DATE: 06/23/1993 INVESTIGATOR: EFA, DMB COUNTY: Tucker STATE: WV STREAM: Middle Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1F Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? yes Remarks: shoreline of stripmine pond - previously submerged VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00CodeScientific NameStratumStatus% Areal Cover 132 Carex sp. 195 Juncus effusus Herb FACW 100.00 Herb FACW+ 5.00 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ____ 0-6 N4 (90%) 2.5 Y 2/4 (10%) degraded shale 6 ox.root channel Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical [X] mottles streaking, chroma 3, wet spodosol)

 HYDROLOGY:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 6.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 6.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [] Saturated in Upper 12

 [] Water Marks
 [] Water Marks

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req')

 HYDROLOGY : Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Floodplain [X] Backwater [] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: 90s sunny[] OtherRecent Rainfall: none Recorded Data (Describe in Remarks):

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: appears hydrology seasonally present-best professional judgement 3 criteria met

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SITE/PLOT#: 1332C DATE: 06/23/1993 INVESTIGATO COUNTY: Tucker STATE: WV STREAM: Middle Run WATERSHED: INVESTIGATOR: EFA, DMB COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? ves Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 60.00 Code Scientific Name Stratum Status & Areal Cover 193Juncus canadensisHerbOBL269Unidentifiable grassHerbNI352Scirpus atrocinctusHerbFACW 10.00 50.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soi Depth Texture Matrix Color Mottle Color(%) Comments Hvdric Soil? no 0-6 silty clay 10 YR 3/3 rock/shale debri 6 auger refusal Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [] Gleyed [] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 6.0 (in.) Primary Indicators: Depth to Free Water in Pit: 6.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Drift Lines [] Seasonal High Water Table [] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req' _____ Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [X] Backwater [] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: 90s sunny Recorded Data (Describe in Remarks): [] Other Recent Rainfall: none

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: appears hydrology is seasonally present - best professional judgement 3 criteri

SITE/PLOT#: 1333A DATE: 06/24/1993 INVESTIGATOR: EFA, DMB COUNTY: Tucker STATE: WV STREAM: Middle Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E/PSS Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? yes Remarks: portions of wetland impacted by strip mine activity VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status & Areal Cover -----40.00 BryoNIHerbFAC+HerbFACW+HerbNIHerbFACWShrubFACW+ShrubFACW+ Sphagnum sp. 2 90.00 153 Dichanthelium clandestinum 25.00 195 Juncus effusus 250 Solidago sp. 10.00 10.00 250 Solidago sp. 297 Carex gynandra 305 Carex scoparia 404 Alnus rugosa 522 Salix nigra 5.00 5.00 5.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments _____ 0-1 sphagnum 1-9 clay 10 YR 4/1 (50%) 10 YR 6/8 (50%) Hydric Soil Indicators: [] Histosol
[] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : HYDROLOGI:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)Depth to Saturated Soil:0.0 (in.)Source/Site Characterization:[X] Water Marks[X] Seasonal High Water Table[X] Sediment Deposit[X] Drift Lines[X] Drainage Patterns in WetlandsSecondary Indicators (2 or more req' [X] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more reg'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Water-Stained Low [] Local Soil Survey Data [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: [] Aerial Photographs [] Other Recent Rainfall: _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? Remarks: all 3 criteria met; drainage channels - beaver dammed drainage - along access r

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SITE/PLOT#: 1333B DATE: 06/24/1993 INVESTIGATOR: EFA, DMB COUNTY: Tucker STATE: WV STREAM: Middle Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE/PSS Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? Remarks: stream channel disturbed by mining activities ves VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp. 153 Dichanthelium clandestinum 195 Juncus effusus 2Sphagnum sp.BryoNI10.00153Dichanthelium clandestinumHerbFAC+25.00195Juncus effususHerbFACW+10.00250Solidago sp.HerbNI10.00297Carex gynandraHerbNI25.00305Carex scopariaHerbFACW5.00453Hypericum prolificumShrubFACU40.00522Salix nigraShrubFACW+75.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-24 muck N4 Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [X] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Water Marks [V] Drift Lines [X] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: Recorded Data (Describe in Remarks): [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met; drainage channels & strip mine ponds

SITE/PLOT#: 1333C DATE: 06/23/1993 INVESTIGATOR: EFA, DMB COUNTY: Tucker STATE: WV STREAM: Middle Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E/ML Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: area hydrologically assoc. with 1333 AB yes yes VEGETATION: Percent Dominant Species that are OBL, FACW or FAC83.00CodeScientific NameStratumStatus% Areal Cover -----2Sphagnum sp.BryoNI120.00164Eleocharis rostellataHerbOBL30.00195Juncus effususHerbFACW+30.00250Solidago sp.HerbNI20.00260Thalictrum dioicumHerbFAC10.00305Carex scopariaHerbFACW10.00453Hypericum prolificumShrubFACU10.00542Vaccinium oxycoccosShrubOBL90.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Depth Texture Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ---------------------0-12 sphagnym/peat 12 auger refusal saturated _____ Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [] Low Chroma [] mottles [] Entisol (organic conte [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? no Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met; soils - peat/sphagnum

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DATE: 06/23/1993 INVESTIGATOR: EFA, DMB STATE: WV STREAM: Middle Run WATERSHED: Cheat River SITE/PLOT#: 1334 COUNTY: Tucker COWARDIN CLASSIFICATION: PEMIE/ML Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? ves Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover Sphagnum sp.
 Solidago sp.
 Solidago uliginosa
 Typha latifolia
 Carex scoparia
 Bryo
 NI
 100.00

 Herb
 NI
 10.00

 Herb
 OBL
 5.00

 Herb
 OBL
 10.00

 Herb
 FACW
 10.00

 Tree
 FAC
 5.00
 602 Acer rubrum SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color (%) Comments ------------0-12 Sphagnum Hydric Soil Indicators: [] Histosol [X] Histic Epipedon [X] Histic Bypedon
[] Aquic Moisture Regime
[] Low Chroma
[] Entisol (organic context, vertical
[] Entisol (organic context, vertical) [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [X] Inundated
[X] Saturated in Upper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep
[] Floodplain
[] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data
[] FAC-Neutral Test
[X] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [X] Other (Exp [] Aerial Photographs Recent Weather: hot [] Other Recent Rainfall: none

WETLAND DETERMINATION:Hydric soils present? no
Wetland Hydrology? yesHydrophytic Vegetation? yesRemarks:all 3 criteriamet; sphagnum/peat matWetland? yes

SITE/PLOT#: 1335A DATE: 07/07/1993 INVESTIGATOR: EFA, DMB, COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PFO1E/ML INVESTIGATOR: EFA, DMB, MZ, ABC Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover ----------------2 Sphagnum sp. Bryo NI 80.00 Bryo NI Herb OBL Herb FAC+ Herb NI Herb FACW Herb FAC Tree FAC 118 Carex baileyi 20.00 Dryopteris spinulosa 40.00 161 Milium effusum 213 20.00 219 Osmunda cinnamomea 277 Viola spp.608 Betula alleghaniensis 30.00 80.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? ves DepthTextureMatrix ColorMottle Color(%)Comments0-6muck2.5 Y 3/2none6auger refusal -----Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime] Histosol [X] Sulfidic Material [] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations:Wetland Hydrology IndiaDepth of Surface Water:0.0 (in.)Primary Indicators: Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [X] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Depth to Free Water in Pit: -2.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain Secondary Indicators (2 or more reg'd) [] Backwater [] Depressional [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: hot dry Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Rainfall: several days last wk WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: 3 criteria met

SITE/PLOT#: 1335B DATE: 07/07/1993 INVESTIGATOR: EFA, DMB, MZ, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN_CLASSIFICATION: PF01E/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover
 Bryo
 NI
 80.00

 Herb
 OBL
 10.00

 Herb
 FAC+
 60.00

 Herb
 NI
 10.00

 Herb
 FACW
 20.00

 Herb
 FAC
 30.00

 Herb
 FAC
 40.00
 2 Sphagnum sp. 118 Carex baileyi 118 Cafex Darreys 161 Dryopteris spinulosa 213 Milium effusum 219 Osmunda cinnamomea 277 Viola spp. 277 Viola spp. ------_____ SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments ------0-6 muck 2.5 Y 3/2 none 6 auger refusal _____ Hydric Soil Indicators: [] Histosol[] Histic Epipedon[X] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)

 HYDROLOGY:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 -2.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [X] Drift Lines

 [] Seasonal High Water Table
 [X] Sediment Deposit

 [] Spring/Seep
 [X] Drainage Patterns in Wetlands

 [] Floodplain
 Secondary Indicators (2 or more req'd)

 [] Backwater
 [] Oxidized Root Channels/Upper 12

 [] Depressional
 [] Local Soil Survey Data

 Recorded Data (Describe in Remarks):
 [] FAC-Neutral Test

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Other (Explain in Remarks)
 [] Other (Explain in Remarks)

 HYDROLOGY Recorded Data (Describe in Remaine). [] Stream, Lake, or Tide Gauge [] Uther 'l Perial Photographs Recent Weather: Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 1335C DATE: 0//0//1000 COUNTY . Tucker STATE: WV STREAM: unnamed DATE: 07/07/1993 INVESTIGATOR: EFA, DMB, MZ, ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PF03/4E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover 501Rhododendron maximumShrubFAC75.00669Tsuga canadensisTreeFACU100.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments ______ _ _ _ _ _ _ _ _ _ _ _ _ 0-6 muck 2.5 Y 5/2 6 auger refusal ----none Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Histosol [X] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: -2.0 (in.) [] Inundated Depth to Free Water in Pit: 0.0 (in.) [X] Saturated in Upper 12 _____ [X] Saturated in opper in [] Water Marks [X] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other[] OtherRecent Weather: hot dry[] OtherRecent Rainfall: several days last wk _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 1336DATE: 07/08/1993INVESTIGATOR: EFA, MZ, ABC, DMBCOUNTY: TuckerSTATE: WV STREAM: Long RunWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? yes Remarks: strip mine bench-hyderosons-disturbed soils-w/vert. streaks & mot VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 1Polytrichum sp.BryoNI50.002Sphagnum sp.BryoNI5.00153Dichanthelium clandestinumHerbFAC+10.00195Juncus effususHerbFACW+5.00237Rubus hispidusHerbFACW50.00243Scirpus atrovirensHerbOBL30.00250Solidago sp.HerbNI5.00269Unidentifiable grassHerbNI20.00305Carex scopariaHerbFACW5.00356Sphenopholis obtusataHerbFAC20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-1leaf litter1-4sandy silt2.5 Y 5/27.5YR 5/6 (30%) ox.root channel4-8gravel sandloam 2.5 Y 4/25 YR 4/6 (25%) ox.root channel8auger refusal Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:-1.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Drift LinesSource/Site Characterization:[] Drift Lines[] Water Marks[] Sediment Deposit _____ [] Sediment Deposit [] Drainage Patterns in Wetlands [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Depressional[A] Oxidized Root Chammers/Oppe[X] Depressional[] Water-Stained Leaves[] Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: 3 criteria met

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SITE/PLOT#: 1337 DATE: 07/08/1993 INVESTIGATOR: EFA, DMB STATE: WV STREAM: Long Run WATERSHED: Cheat River COUNTY: Tucker COWARDIN CLASSIFICATION: PEMIE/ML Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? yes ves Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status & Areal Cover _____ ----_ _ _ _ _ _ _ _ _ --------------Sphagnum sp. Equisetum fluviatile 2 Bryo NI 75.00 BryoNIHerbOBLHerbFACW+HerbOBLHerbNIHerbNIHerbNIHerbFACWHerbFACWHorbFACWHorbFACW 169 90.00 195 Juncus effusus 10.00 Scirpus atrovirens 243 5.00 Solidago sp. 250 40.00 Solidago sp. 250 60.00 297 Carex gynandra
305 Carex scoparia
352 Scirpus atrocinctus
453 Hypericum prolificum 50.00 5.00 10.00 5.00 ____ SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no 0-6 sandy silt 10 YR 5/2 6-12 sandy silt 10 YR 3/2 2.5 YR 4/8 Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[X] Entisol (organic context, vertical)] Histosol [] Sulfidic Material [] Gleyed [X] mottles [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 3.0 (in.) Primary Indicators: Depth to Free Water in Pit: 3.0 (in.) [] Inundated Depth to Saturated Soil: 3.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: Primary Indicators:
 [] Inundated
 [X] Saturated in Upper 12
 [] Water Marks
 [] Drift Lines
 [] Sediment Deposit
 [X] Drainage Patterns in Wetlands
 Secondary Indicators (2 or more reg') Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain
[] Backwater
[X] Depressional Secondary Indicators (2 or more reg'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Net [] Stream, Lake, or Tide Gauge [X] Other [] Aerial Photographs Recent Weather: Recent Rainfall: [] FAC-Neutral Test
[X] Other (Explain in Remarks) WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes Remarks: all 3 parameters present - aarea appears disturbed from mining activities

SITE/PLOT#: 1338 DATE: 07/08/1993 INVESTIGATOR: EFA, DMB COUNTY: Tucker STATE: WV STREAM: Long Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1F/PEM Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? yes Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Stratum Status & Areal Cover -----------195Juncus effususHerbFACW+5.00196Juncus marginatusHerbFACW5.00199Juncus subcaudatusHerbOBL5.00250Solidago sp.HerbNI5.00297Carex gynandraHerbNI90.00305Carex scopariaHerbFACW5.00453Hypericum prolificumShrubFACU15.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-6 muck/organic N4 ----orange acid mine Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:3.0 (in.)[] InundatedDepth to Saturated Soil:3.0 (in.)[X] Saturated in Upper 12 Primary Indicators:
 [] Inundated
 [X] Saturated in Upper 12
 [] Water Marks
 [] Drift Lines
 [] Sediment Deposit
 [] Drainage Patterns in Wetlands
 Secondary Indicators (2 or more req'd)
 [] Oxidized Root Channels/Upper 12
 [] Water-Stained Leaves
 [] Local Soil Survey Data Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge[] Other[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 1339A DATE: 07/08/ COUNTY: Tucker STATE: WV STREAM: Long COWARDIN CLASSIFICATION: PEMIEb Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: depressionally back water area t	e? yes pical Situation)? no
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum Status % Areal Cover
 153 Dichanthelium clandestinum 199 Juncus subcaudatus 243 Scirpus atrovirens 253 Sparganium chlorocarpum 297 Carex gynandra 305 Carex scoparia 351 Potamogeton nodosus 352 Scirpus atrocinctus 355 Solidago odora 453 Hypericum prolificum 	Herb FAC+ 10.00 Herb OBL 65.00 Herb OBL 30.00 Herb OBL 10.00 Herb NI 20.00 Herb FACW 10.00 Herb FACW 5.00 Herb FACW 5.00 Herb NI 20.00 Herb FACW 5.00 Herb NI 20.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Sm SurfaceMine Hydric Soil? no Mottle Color(%) Comments
0-4 organic muck 4-9 silt N6/ 9-16 silty clay N3/	ox.roots ox.roots
[] Histosol [] Hist [] Sulfidic Material [] Aqu: [X] Gleyed [X] Low [] mottles [] Ent:	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)
HYDROLOGY:	
Field Observations: Wet Depth of Surface Water: 2.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [X] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge	<pre>tland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks)</pre>
[] Aerial Photographs Rec	cent Weather: sunny hot 90's cent Rainfall: 6 days ago
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met	ent? yes Hydrophytic Vegetation? yes ? yes Wetland? yes

SITE/PLOT#: 1339B DATE: 07/08/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: Long Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PF02Eb Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC57.00CodeScientific NameStratumStatus% Areal Cover Bryo NI Herb FACW Herb FACW Herb NI Herb OBL Herb NI Tree FACU 1 Polytrichum sp. 30.00 130 Carex projecta 222 Poa palustris 269 Unidentifiable g 25.00 10.00 Unidentifiable grass 10.00 269 275 Viola pallens
297 Carex gynandra
669 Tsuga canadensis 10.00 80.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Surface MineHydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-3silty sand10 YR 7/1ox.roots3-8silty sand10 YR 6/110 YR 5/6 (20%) ox.roots8-12silty sand10 YR 3/1 Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [X] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 0.5 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [] Saturated in U Wetland Hydrology Indicators: [] Inundated
[] Saturated in Upper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table] Spring/Seep [X] Floodplain Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] Backwater [] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather:[] Other[] Other Recent Rainfall: [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 1339C DATE: 07/08/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: Long Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PF05Eb Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 ZEGETATION: Percent Dominant Species that are obly from of the second stratum Status & Areal Cover Code Scientific Name Stratum Status & Areal Cover 1 Polytrichum sp. 297 Carex gynandra 669 Tsuga canadensis Bryo NI 90.00 HerbNI20.00TreeFACU40.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Surface MineHydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-4 organic muck 4-9 silt N6/ none ox.roots 9-16 silty clay N3/ none ox.roots Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context) [X] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : HYDROLOGI:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Depth to Free Water in Pit:2.0 (in.)Depth to Saturated Soil:2.0 (in.)Source/Site Characterization:[X] Water Marks[X] Seasonal High Water Table[X] Drainage Patterns in WetlandsSecondary Indicators (2 or more req' Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Backwater [] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: sunny hot [] Other Recent Rainfall: none ----------------

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? no Wetland Hydrology? yes Wetland? yes Remarks: recently converted to wetland due to beaver activity, once was hemlock forest

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SITE/PLOT#: 1339D DATE: 07/08/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: Long Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIAb Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 57.00 Code Scientific Name Stratum Status & Areal Cover 1Polytrichum sp.BryoNI196Juncus marginatusHerbFACW237Rubus hispidusHerbFACW271Unidentifiable sedgeHerbNI297Carex gynandraHerbNI346Juncus articulatusHerbFACW453Hypericum prolificumShrubFACU 80.00 40.00 30.00 40.00 20.00 20.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Surface MineHydric Soil? no Depth Texture Matrix Color Mottle Color (%) Comments 0-3silty sand10 YR 7/1ox.roots3-8silty sand10 YR 6/110 YR 5/6 (20%) ox.roots8-12silty sand10 YR 3/1 -------Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[X] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Depth to Free Water in Pit:(in.)Depth to Saturated Soil:(in.)Image: Saturated Soil:(in.)Image: Saturated Soil:Image: Saturated Saturated Soil: [] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny hot[] OtherRecent Rainfall: none _____

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Hydrophytic Vegetation? yes Wetland? yes

SITE/PLOT#: 1339E DATE: 07/19/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: Long Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover - - - - - -_____ ------------------------250 Solidago sp. 297 Carex gynandra 305 Carex scoparia Herb NI Herb NI Herb FACW Shrub FACU 30.00 75.00 453 Hypericum prolificum 40.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Surface MineHydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments . -----0-3silty fine sand 10 YR 7/1none ox.roots3-8silty fine sand 10 YR 6/110 YR 5/6 (20%) ox.roots8-12silty fine sand 10 YR 3/1none N/A -----_____ Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma] Gleved [X] Entisol (organic context, vertical [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedContracted Soil:(in.)[X] Saturated in U Wetland Hydrology Indicators: [] Inundated
[X] Saturated in Upper 12
[] Water Marks
[] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Sediment Deposit [X] Drainage Patterns in Wetlands [X] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Backwater
[] Depressional [] Water-Stained Leaves
[] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs Recent Weather: rainy Recent Rainfall: today [] Other

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 parameters met Hydrophytic Vegetation? yes Wetland? yes

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SITE/PLOT#: 1339F DATE: 07/19/2 COUNTY: Tucker STATE: WV STREAM: Long COWARDIN CLASSIFICATION: PSS1A Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks: soils very disturbed		
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 40.00 Stratum Status % Areal Cover	40.00 % Areal Cover
1 Polytrichum sp. 3 Lichen 262 Thelypteris noveboracensis 453 Hypericum prolificum 541 Vaccinium myrtilloides		
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Sm Surface MineHydric Soil? no Mottle Color(%) Comments	Hydric Soil? no ments
0-4 sand 7.5 YR 4/2 4-8 sand 10 YR 5/8 8-10 sand 7.5 YR 3/2 10-12 sand 10 YR 5/1	none highly compacted none highly compacted 10 YR 5/8 (25%)streaks 10YR 4/ 10 YR 6/8 (5%)saturated	compacted compacted 5%)streaks 10YR 4/1 %)saturated
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [] Low [] mottles [X] Enti	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)	vertical spodosol)
HYDROLOGY:		
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 10.0 (in.) Depth to Saturated Soil: 10.0 (in.)	<pre>land Hydrology Indicators: Primary Indicators: [] Inundated [X] Saturated in Upper 12</pre>	per 12
<pre>HYDROLOGY: Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 10.0 (in.) Depth to Saturated Soil: 10.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [] Depressional</pre>	 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data 	t ns in Wetlands (2 or more req'd) hannels/Upper 12 eaves
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec [] Other Rec	[] FAC-Neutral Test [] Other (Explain in Remarks) ent Weather: cloudy ent Rainfall: today	st in Remarks)
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology?		

Remarks: based on presence of moss and saturation, 3 criteria met

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SITE/PLOT#: 1340 COUNTY: Tucker STATE: WY COWARDIN CLASSIFICATION: PEN Do Normal Circumstances exis Is the site significantly di Is the area a potential Prok Remarks: reclaimed strip mir	st on the site isturbed (Atyp olem Area?	°	no	FA, MZ, ABC, DMB at River
VEGETATION: Percent Dominant Code Scientific Name	Species that	are OBL, I Stratum	FACW or FAC Status	50.00 % Areal Cover
 153 Dichanthelium cland 195 Juncus effusus 237 Rubus hispidus 243 Scirpus atrovirens 250 Solidago sp. 305 Carex scoparia 453 Hypericum prolificu 	lestinum um	Herb Herb Herb Herb Herb Shrub	FAC+ FACW+ FACW OBL NI FACW FACU	5.00 5.00 65.00 90.00 5.00 20.00 20.00
SOIL PROFILE: (Minimum 18 in Depth Texture M	nches) Series Matrix Color	Name: Sm Mottle Co	H lor(%) Comm	ydric Soil? no ents
0-4 sandy silt 2 4-8 silt 1 8-14 clayey silt 2 14 auger refusal	2.5 Y 4/2 0 YR 4/2 2.5 Y 4/2	5 7 7	5 YR 4/6 (45% 7.5YR 5/6 (20 7.5YR 5/6 (15)ox.root channel %)ox.root channel %)ox.root channel
Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles	[] Hist [] Aqui [X] Low [] Enti	cic Epipedo ic Moisture Chroma isol (organ	n Regime ic context, r oma 3, wet sj	vertical
HYDROLOGY :				
Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Source/Site Characterization [] Seasonal High Water Tabl [] Spring/Seep [] Floodplain	Wet 0.0 (in.) 0.0 (in.) 14.0 (in.) :	land Hydro Primary In [] Inun [] Satu [X] Wate [X] Drif	logy Indicato dicators: dated rated in Uppe r Marks t Lines	er 12
[] Backwater [X] Depressional		[X] Oxid [] Wate		annels/Upper 12 aves
Recorded Data (Describe in Ro [] Stream, Lake, or Tide Gar [] Aerial Photographs [] Other	uge Rec Rec	[] FAC [] Oth	-Neutral Test er (Explain i r: hot dry	
WETLAND DETERMINATION: Hydr: Wetla Remarks: all 3 criteria met	ic soils prese and Hydrology?	nt? yes yes	Hydrophytic Wetland? ye	vegetation? yes

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SITE/PLOT#: 1341 DATE: 07/08/ COUNTY: Tucker STATE: WV STREAM: Long COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: rehabilitated surface mined area	? no ical Situation)? yes no	ABC iver
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 60 Stratum Status	.00 % Areal Cover
243 Scirpus atrovirens 250 Solidago sp. 269 Unidentifiable grass	Herb FACW Herb OBL Herb NI Herb NI Herb FACW	5.00 20.00 30.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: VeD Hydr: Mottle Color(%) Comments	ic Soil? no 5
0-1 sand 10 YR 3/1 1-8 sand 10 YR 2/1 8-10 gravel slitsand 10 YR 5/2	none ox.roots 7.5 YR 4/4 (5%)or none	k.roots

SITE/PLOT#: 1342A DATE: 07/08/1993 INVESTIGATOR: EFA, MZ, COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River INVESTIGATOR: EFA, MZ, ABC, DMB COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no ves Is the area a potential Problem Area? no Remarks: area has been logged in recent past - likely altered vegetation VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover Code Scientific Name Stratum Status Polytrichum sp.BryoNIDichanthelium acuminatumHerbFACDryopteris spinulosaHerbFAC+Juncus effususHerbFACW+Rubus hispidusHerbFACWScirpus atrovirensHerbOBLThelypteris noveboracensisHerbFACBromus tectorumHerbNI 1 Polytrichum sp. 10.00 154 20.00 60.00 40.00 161 195 237 35.00 30.00 243 262 339 Bromus tectorum 70.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: BrB Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments
 0-10
 silty clay
 10 YR 6/1
 10 YR 6/8 (40%) ox root channel

 10-12
 clay
 10 YR 5/8
 10 YR 7/3

 12
 auger refusal
 10 YR 7/3
 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: 12.0 (in.) Depth to Saturated Soil: 12.0 (in.) [] Saturated in Upper 12 [] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Floodplain [] Backwater [X] Depressional [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: hot dry Recent Rainfall: none Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: evidence of seasonal high water table or previous inundation-all 3 criteria met

SITE/PLOT#: 1342B DATE: 07/08/1993 INVESTIGATOR: EFA, MZ, COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River INVESTIGATOR: EFA, MZ, ABC, DMB COWARDIN CLASSIFICATION: PSS3E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no ves Is the area a potential Problem Area? no Remarks: adjacent area 1342A has been logged-but no apparent disturbance VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover FAC 501 Rhododendron maximum Shrub 100.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BrB Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-2loamy sand10 YR 2/1none2-6loamy sand10 YR 4/1none streaks 10YR 2/16-7sand10 YR 8/1none fragipan7refusal ------Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [X] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)

 HYDROLOGY:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 4.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 4.0 (in.)
 [X] Saturated in Upper 12

 [X] Water Marks
 [X] Drift Lines

 [X] Sediment Deposit
 [X] Sediment Deposit

 HYDROLOGY : -----Wetland Hydrology Indicators: [X] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Recent Weather: sunny hot [] Spring/Seep [X] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remained) [] Stream, Lake, or Tide Gauge [] Other (Explained) [] Aerial Photographs Recent Weather: sunny hot Recent Rainfall: none Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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SITE/PLOT#: 1343 DATE: 07/09/1993 INVESTIGATOR: EFA, DMB COUNTY: Tucker STATE: WV STREAM: Long Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1F/PSS Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? ño Remarks: surface mined area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 60.00 Code Scientific Name Stratum Status % Areal Cover 195 Juncus effusus243 Scirpus atrovirens269 Unidentifiable grass 195Juncus effususHerbFACW+243Scirpus atrovirensHerbOBL269Unidentifiable grassHerbNI305Carex scopariaHerbFACW453Hypericum prolificumShrubFACU 5.00 100.00 5.00 80.00 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments --------------------
 0-2
 silty clay
 10 YR 5/1
 10 YR 6/8 (10%) ox.root channel

 2-6
 silty clay
 10 YR 3/1
 10 YR 7/8 (10%)
 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma] Gleyed [] Entisol (organic context, vertical [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Indicators: Depth to Free Water in Pit: 3.0 (in.) [] Inundated Depth to Saturated Soil: 3.0 (in.) [] Saturated in Upper Wetland Hydrology Indicators: [] Inundated [] Saturated in Upper 12 [X] Water Marks [] Drift Lines Source/Site Characterization: [] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Cent Weather. [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater
[] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: Recent Rainfall: [] Other ------

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters present

SITE/PLOT#: 1344 DATE: 07/20/1993 COUNTY: Tucker STATE: WV STREAM: INVESTIGATOR: MZ, ABC, EFA WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIA/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: area logged-overstory eliminated and soils are compacted VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status & Areal Cover
 Bryo
 NI
 40.00

 Herb
 FAC+
 20.00

 Herb
 OBL
 20.00

 Herb
 FACW
 20.00

 Herb
 FACW
 20.00

 Shrub
 FAC
 30.00

 Shrub
 FACU
 30.00
 1 Polytrichum sp. 161 Dryopteris spinulosa 243 Scirpus atrovirens 305 Carex scoparia 339 Bromus tectorum 401 Acer rubrum 487 Prunus serotina SOIL PROFILE: (Minimum 18 inches) Series Name: BrB Hydric Soil? Depth Texture Matrix Color Mottle Color(%) Comments
 0-3
 silt
 10 YR 4/1
 none

 3-6
 sandy silt
 10 YR 6/1
 none

 6-12
 sandy silt
 10 YR 6/1
 7.5YR

 12
 refusal
 10 YR 6/1
 7.5YR
 none 7.5YR 6/8 (25%)ox.roots _____ Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical [] Histosol
[] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[X] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg/ Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Rem

 [] Aerial Photographs
 Recent Weather: cloudy

 [] Other
 Recent Rainfall: .3" yesterday

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Remarks: all 3 parameters met

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SITE/PLOT#: 1345 DAIE. JAIE. J DATE: 07/20/1993 INVESTIGATOR: MZ, ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes ves Is the area a potential Problem Area? no Remarks: former mined land VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 195 Juncus effusus
222 Poa palustris
243 Scirpus atrovirens
305 Carex scoparia Herb FACW+ 30.00 Herb FACW Herb OBL Herb FACW 20.00 60.00 60.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Strip Mine Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments

 0-1
 clayey silt
 10 YR 6/1
 10 YR 6/6 (20%) ox.roots

 1-8
 clayey silt
 10 YR 4/1
 10 YR 5/6 (15%) saturated

 8-12
 gravelly loam
 10 YR 2/1
 10 YR 3/3 (40%)

 12
 refusal
 10 YR 3/3 (40%)

 _ _ _ _ _ _ _ _ _ _ _ _ Hydric Soil Indicators: C Soli India [] Histosol [] Sulfidic Material [] Gleyed [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:8.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Drift LinesSource/Site Characterization:[] Drift Lines[] Seasonal With Water Table[X] Sediment Deposit [X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[X] With a chained for the second s [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Oxidized Root Champers/oppe [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: partly cloudy Recent Rainfall: .3 yesterday [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

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SITE/PLOT#: 1346 DATE: 07/ COUNTY: Tucker STATE: WV STREAM: DATE: 07/20/1993 INVESTIGATOR: EFA, DMB WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: strip mine bench/haul road VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 75.00 5.00 Bryo NI Bryo NI Herb OBL Herb OBL Herb NI Herb FAC 1 Polytrichum sp. 2 Sphagnum sp. 164 Eleocharis rostellata 75.00 60.00 25.00 243 Scirpus atrovirens 250 Solidago sp. 277 Viola spp. 75.00 90.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-8 silt coal muck _ _ _ _ _ _ _ _ _ _ Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical) [] Histosol streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 4.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Water Marks Source/Site Characterization: [] Drift Lines [] Seasonal High Water Table [] Seasonal High Water Table [X] Sediment Deposit [X] Spring/Seep [] Floodplain [] Backwater [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: partly sunny [] Other Recent Rainfall: brief shower yester. WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters present

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SITE/PLOT#: 1347 DATE: 07/ COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM/POW DATE: 07/20/1993 INVESTIGATOR: EFA, DMB WATERSHED: Cheat River Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status & Areal Cover 30.00 Herb FACW+ Herb FACU Herb FACW Herb OBL Herb FACW 195 Juncus effusus 5.00 230 Pteridium aquilinum 20.00 237 Rubus hispidus
243 Scirpus atrovirens
305 Carex scoparia Herb 30.00 30.00 5 00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ------0-3 coal sand muck 3-5 silty clay 5 Y 2.5/1 5-12 coal sand muck coal frags. Hydric Soil Indicators: [] Histosol [] Histic Epipedon] Sulfidic Material] Gleyed [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 12.0 (in.) [] Inundated Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Depth to Saturated Soil: 5.0 (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks):

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Aerial Photographs
 Recent Weather: partly sunny

 [] Other
 Recent Rainfall:

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks:

DATE: 07/20/1993 SITE/PLOT#: 1348 INVESTIGATOR: EFA, DMB STATE: WV STREAM: COUNTY: Tucker WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: strip mine bench VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover Bryo NI Herb FACW+ Herb FAC-Herb OBL Herb NI 1 Polytrichum sp. 20.00 195 Juncus effusus 5.00 200 Juncus tenuis 243 Scirpus atrovirens 269 Unidentifiable grass 80.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-12 silty clay 5 Y 2.5/1 Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: (in.) Primary Indicators: Depth to Free Water in Pit: 12.0 (in.) [] Inundated Depth to Saturated Soil: 12.0 (in.) [] Saturated in Upper 12 [X] Water Marks Source/Site Characterization: [X] Seasonal High Water Table [X] Drift Lines [] Sediment Deposit
[] Drainage Patterns in Wetlands [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data): [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: partly sunny Recent Rainfall: brief shower, mon. Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks:

SITE/PLOT#: 1349 DATE: 07/22/1993 INVESTIGATOR: EFA, DMB COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIC Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: area has been farmed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover _ _ _ _ _ _ _ _ _ _ 164 Eleocharis rostellata 176 Eupatoriadelphus maculatus Herb OBL 104Breccharts foscellataHerbOBL25.00176Eupatoriadelphus maculatusHerbFACW5.00195Juncus effususHerbFACW+30.00243Scirpus atrovirensHerbOBL60.00250Solidago sp.HerbNI5.00269Unidentifiable grassHerbNI80.00342Carex prasinaHerbOBL15.00 25.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BnB Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-12 muck 10 YR 2/1 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional

 [] Depressional
 [] Water-Stained Leaves

 Recorded Data (Describe in Remarks):
 [] Local Soil Survey Data

 [] Stream, Lake, or Tide Gauge
 [] Other

 [] Aerial Photographs
 Recent Weather:

 [] Other
 Recent Rainfall:

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1351 DATE: 07/20/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: area of spoil piles from surface mining - soils mixed ves VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover Bryo NI Bryo NI Herb NI Herb FACW Herb NI Herb FACW 1 Polytricnum sp. 3 Lichen 165 Eleocharis sp. 196 Juncus marginatus 297 Carex gynandra Polytrichum sp. 50.00 50.00 20.00 20.00 50.00 348 Ludwigia alternifolia 40.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Surface MineHydric Soil? no DepthTextureMatrix ColorMottle Color(%)Comments0-10gravel clayloam 5 Y 4/210 YR 4/6 (10%)ox.roots10refusal Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Aquic Moisture Regime [] Aquic Moisture Regent [] Aquic Moisture Regent [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) [] Sulfidic Material [] Gleyed [X] mottles HYDROLOGY : HYDROLOGI:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.)Depth to Free Water in Pit:(in.)Depth to Saturated Soil:(in.)Depth to Saturated Soil:(in.)I Water MarksSource/Site Characterization:[] Drift Lines[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves[] Local Soil Survey Data Recorded Data (Describe in Remarks):[] Hocal Soll Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] Other[] Other Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

DATE: 07/21/1993 INVESTIGATOR: MZ, ABC STATE: WV STREAM: Tub Run WATERSHED: Cheat River INVESTIGATOR: MZ, ABC SITE/PLOT#: 1352 COUNTY: Tucker COWARDIN CLASSIFICATION: PFO1A Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: nice undisturbed forested fringe wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status & Areal Cover 161 Dryopteris spinulosa
602 Acer rubrum
608 Betula alleghaniensis
651 Prunus serotina Herb FAC+ Tree FAC Tree FAC Tree FAC 90.00 20.00 50.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hvdric Soil? yes

 Join PROFILE: (Millinum 18 Inches / Selles Name: Bsc
 hydric Soll;

 Depth
 Texture
 Matrix Color
 Mottle Color(%)
 Comments

 4-6
 sandy loam
 10 YR 3/1
 10 YR 6/6 (15%) ox.roots

 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Drift Lines[] Spring/Seep[X] Sediment Deposit[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Water-Stained Leaves[] Depressional[X] Water-Stained Leaves[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test : [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: partly cloudy Recent Rainfall: 2 days ago Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes

Remarks: all 3 parameters met

SITE/PLOT#: 1353 DATE: 07/21/1993 COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1E DATE: 07/21/1993 INVESTIGATOR: MZ, ABC WATERSHED: Cheat River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? ves no Remarks: old roadway catches surface water-overgrown veg.-manmade soils VEGETATION: Percent Dominant Species that are OBL, FACW or FAC Code Scientific Name Stratum Status % Areal Cover % Areal Cover 161Dryopteris spinulosaHerbFAC+50.00189Impatiens capensisHerbFACW20.00195Juncus effususHerbFACW+20.00227Polygonum sagittatumHerbOBL50.00269Unidentifiable grassHerbNI20.00270Unidentifiable herbHerbNI5.00313Agrostis perennansHerbFACU20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: ErC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments

 0-2
 gravel sandloam 5 GY 4/1
 2.5 Y 5/4 (30%) saturated

 2-4
 gravel sandloam 2.5 Y 5/2
 2.5Y 2.5/1 (30%) ox.roots

 4-8
 gravel sandloam 7.5 YR 5/6
 2.5Y 6/4 (10%) ox.roots

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 -----Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [X] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.3 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Drift Lines[X] Floodplain[] Drainage Patterns in Wetlands[X] Floodplain[X] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves [] Backwater [] Depressional [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks)

 Recorded Data (Describe in Remainer)
 [] Other (Explain in Ref

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Ref

 [] Aerial Photographs
 Recent Weather: partly cloudy

 Recent Rainfall:

 Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1354A DATE: 07/21/3 COUNTY: Tucker STATE: WV STREAM: Big I COWARDIN CLASSIFICATION: PEM1A/ML Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks:	? ves		
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 83.00 Stratum Status % Areal Cover		
1 Polytrichum sp. 195 Juncus effusus 196 Juncus marginatus 237 Rubus hispidus 243 Scirpus atrovirens 352 Scirpus atrocinctus 453 Hypericum prolificum	Bryo NI 100.00 Herb FACW+ 20.00 Herb FACW 30.00 Herb FACW 40.00 Herb OBL 20.00 Herb FACW 40.00 Shrub FACW 40.00		
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BsC Hydric Soil? yes Mottle Color(%) Comments		
0-3 silt 5 YR 3/1 3-6 clayey silt 10 YR 7/1 6-9 gravel claysilt 10 YR 5/1 9-12 gravel claysilt 10 YR 4/1	5 YR 6/1 (10%)ox.roots 7.5YR 6/6 (20%)ox.roots 10 YR 6/8 (40%)ox.roots 10 YR 6/6 (10%)ox.roots		
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [X] mottles [] Enti stree	cic Epipedon c Moisture Regime Chroma sol (organic context, vertical eaking, chroma 3, wet spodosol)		
HYDROLOGY :			
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floodplain	land Hydrology Indicators: Primary Indicators: [] Inundated [X] Saturated in Upper 12		
Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [] Depressional	[X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves		
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec [] Other Rec	<pre>[] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) sent Weather: cloudy sent Rainfall: 2 days ago</pre>		
WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Wetland Hydrology? yes			

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SITE/PLOT#: 1354B DATE: 07/21/1 COUNTY: Tucker STATE: WV STREAM: Big R COWARDIN CLASSIFICATION: PF04A/ML Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypi Is the area a potential Problem Area? Remarks:	ve	S	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC Stratum Status	56.00 % Areal Cover	
1 Polytrichum sp. 161 Dryopteris spinulosa 196 Juncus marginatus 237 Rubus hispidus 453 Hypericum prolificum 602 Acer rubrum 608 Betula alleghaniensis 651 Prunus serotina 669 Tsuga canadensis	BryoNIHerbFACHHerbFACWHerbFACWShrubFACUTreeFACTreeFACTreeFACTreeFACTreeFACUTreeFACU	100.00 40.00 20.00 30.00 40.00 10.00 10.00 10.00 80.00	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BsC Mottle Color(%) Co	Hydric Soil? yes mments	
0-3 silt 5 YR 3/1 3-6 calyey silt 10 YR 7/1 6-9 gravel claysilt 10 YR 5/1 9-12 gravel claysilt 10 YR 4/1	5 YR 6/1 (1 7.5YR 6/6 (10 YR 6/8 (10 YR 6/8 (10 YR 6/6 (0%)ox.roots-sat. 20%)ox.roots-sat. 40%)ox.roots-sat. 10%)ox.roots-sat.	
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY:			
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep	land Hydrology Indic. Primary Indicators: [] Inundated [X] Saturated in U [X] Water Marks	ators:	
	Secondary Indicators [X] Oxidized Root [X] Water-Stained	(2 or more req'd) Channels/Upper 12 Leaves	
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec [] Other Rec	[] Local Soil Sur [] FAC-Neutral T [] Other (Explai ent Weather: cloudy ent Rainfall: 2 days	est n in Remarks)	
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 parameters met		tic Vegetation? yes yes	

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SITE/PLOT#: 1354C DATE: 07/21/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: Big Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover 1Polytrichum sp.BryoNI100.00195Juncus effususHerbFACW+20.00196Juncus marginatusHerbFACW30.00237Rubus hispidusHerbFACW40.00243Scirpus atrovirensHerbOBL20.00352Scirpus atrocinctusHerbFACW40.00453Hypericum prolificumShrubFACU20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments _ _ _ _ _ _ _ _ _ _

 0-3
 silt
 5 YR 3/1
 5 YR 6/1 (10%) ox.roots

 3-6
 clayey silt
 10 YR 7/1
 7.5YR 6/6 (20%) ox.roots

 6-9
 gravel claysilt 10 YR 5/1
 10 YR 6/8 (40%) ox.roots

 9-12
 gravel claysilt 10 YR 4/1
 10 YR 6/6 (10%) ox.roots

 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Water MarksSource/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seen[X] Drainage Patterns in W [X] Spring/Seep
[X] Floodplain
[] Backwater
[] Depressional [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves

 [1] Depressional
 [X] Water-Stained Leaves

 [2] Cocal Soil Survey Data

 Recorded Data (Describe in Remarks):
 [] FAC-Neutral Test

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Aerial Photographs
 Recent Weather: cloudy

 [] Other
 Recent Rainfall: 2 days ago

 WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes

Remarks: all 3 parameters met

SITE/PLOT#: 1354D DATE: 07/21/ COUNTY: Tucker STATE: WV STREAM: Big I COWARDIN CLASSIFICATION: PF04A/ML Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks:		Z, ABC t River	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC Stratum Status	56.00 % Areal Cover	
1 Polytrichum sp. 161 Dryopteris spinulosa 196 Juncus marginatus 237 Rubus hispidus 453 Hypericum prolificum 602 Acer rubrum 608 Betula alleghaniensis 651 Prunus serotina 669 Tsuga canadensis	BryoNIHerbFAC+HerbFACWHerbFACWShrubFACUTreeFACTreeFACTreeFACUTreeFACUTreeFACUTreeFACU	100.00 40.00 20.00 30.00 40.00 10.00 10.00 80.00	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BsC H Mottle Color(%) Comm	ydric Soil? yes ents	
0-3 silt 5 YR 3/1 3-6 clayey silt 10 YR 7/1 6-9 gravel claysilt 10 YR 5/1 9-12 gravel claysilt 10 YR 4/1	5 YR 6/1 (10% 7.5YR 6/6 (20) 10 YR 6/8 (40) 10 YR 6/8 (10))ox.roots sat. %)ox.roots sat. %)ox.roots sat. %)ox.roots sat.	
[] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [X] mottles [] Enti	tic Epipedon ic Moisture Regime Chroma isol (organic context, reading, chroma 3, wet sp	vertical	
HYDROLOGY:			
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep	land Hydrology Indicato Primary Indicators: [] Inundated [X] Saturated in Uppe	ors:	
Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [] Depressional	Secondary Indicators (2 [X] Oxidized Root Cha [X] Water-Stained Lea	2 or more req'd) annels/Upper 12 aves	
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec [] Other Rec	[] Local Soil Survey [] FAC-Neutral Test [] Other (Explain f cent Weather: cloudy cent Rainfall: 2 days ac	in Remarks)	
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met			

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SITE/PLOT#: 1354E DATE: 07/21/19 COUNTY: Tucker STATE: WV STREAM: Big Ru COWARDIN CLASSIFICATION: PF04A/ML Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypic Is the area a potential Problem Area? Remarks:	yes
VEGETATION: Percent Dominant Species that a Code Scientific Name S	are OBL, FACW or FAC 56.00 Stratum Status % Areal Cover
1 Polytrichum sp. 161 Dryopteris spinulosa 196 Juncus marginatus 237 Rubus hispidus 453 Hypericum prolificum 602 Acer rubrum 608 Betula alleghaniensis 651 Prunus serotina 669 Tsuga canadensis	Bryo NI 100.00 Herb FACH 40.00 Herb FACW 20.00 Herb FACW 30.00 Shrub FACU 40.00 Tree FAC 10.00 Tree FAC 10.00 Tree FACU 80.00
SOIL PROFILE: (Minimum 18 inches) Series M Depth Texture Matrix Color	Mottle Color(%) Comments
0-3 silt 5 YR 3/1 3-6 clayey silt 10 YR 7/1 6-9 gravel claysilt 10 YR 5/1 9-12 gravel claysilt 10 YR 4/1	5 YR 6/1 (10%)ox.roots sat. 7.5YR 6/6 (20%)ox.roots sat. 10 YR 6/8 (40%)ox.roots sat. 10 YR 6/6 (10%)ox.roots sat.
Hydric Soil Indicators:[] Histosol[] Histo[] Sulfidic Material[] Aquid[] Gleyed[X] Low ([X] mottles[] Entis	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical aking, chroma 3, wet spodosol)
HYDROLOGY:	
<pre>[] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Reconstruction Reconstructio</pre>	Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) ent Weather: cloudy ent Rainfall: 2 days ago
WETLAND DETERMINATION: Hydric soils preser Wetland Hydrology?	

Remarks: all 3 parameters met

.

..... yes

SITE/PLOT#: 1354F DATE: 10/13/1993 INVESTIGATOR: MZ, DAK COUNTY: Tucker STATE: WV STREAM: Big Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PF05Eb Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: floodplain wetland with standing dead trees, beaver dam VEGETATION: Percent Dominant Species that are OBL, FACW or FAC Code Scientific Name Stratum Status & Areal Cover % Areal Cover 1Polytrichum sp.BryoNI132Carex sp.HerbFACW153Dichanthelium clandestinumHerbFAC+169Equisetum fluviatileHerbOBL195Juncus effususHerbFACW+237Rubus hispidusHerbFACW501Rhododendron maximumShrubFAC534Tsuga canadensisShrubFACU608Betula alleghaniensisTreeFAC 60.00 20.00 10.00 30.00 20.00 20.00 20.00 50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Hydric Soil? Depth Texture Matrix Color Mottle Color(%) Comments
 0-3
 sandy loam
 10 YR 2/1

 3-6
 sandy loam
 10 YR 3/2

 6-7
 sandy loam
 10 YR 5/8

 7-12
 sandy loam
 2.5 Y 5/2
 ox.roots satura. ox.roots ox.roots ______ Hydric Soil Indicators:

 C Soll Indicators:
 [] Histic Epipedon

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [X] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Drift Lines[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] OtherRecent Weather: overcast[] OtherRecent Rainfall: yesterday WETLAND DETERMINATION. Hydrig soils procent? -- s

Marinado De		hydric soils present? yes	Hydrophytic Vegetation? ye
Remarks: a	all 3 criteria	Wetland Hydrology? yes met; trees and shrubs dead	Wetland? yes

SITE/PLOT#: 1354G DATE: 10/13/1993 INVESTIGATOR: MZ, DAK COUNTY: Tucker STATE: WV STREAM: Big Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: cottongrass meadow along Big Run VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover _ _ _ _ _ _ _ _ 1Polytrichum sp.BryoNI174Eriophorum virginicumHerbOBL195Juncus effususHerbFACW+196Juncus marginatusHerbFACW243Scirpus atrovirensHerbOBL352Scirpus atrocinctusHerbFACW 100.00 20.00 20.00 30.00 20.00 20.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Hydric Soil? Depth Texture Matrix Color Mottle Color(%) Comments _____

 0-3
 silt
 5 YR 3/1
 5 YR 6/1 (10%) ox.roots, satur.

 3-6
 clayey silt
 10 YR 7/1
 7.5YR 6/6 (20%) ox.roots

 6-9
 gravel claysilt
 10 YR 5/1
 10 YR 6/8 (40%) ox.roots

 9-12
 gravel claysilt
 10 YR 4/1
 10 YR 6/6 (10%) ox.roots

 Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Water MarksSource/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Depressional[X] Water-Stained Leaves[] Local Soil Survey Data Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other [] Other [] Other [] Other [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other [] Stream, Lake, or Tide Gauge [] Other [] Stream, Lake, or Tide Gauge [] Stream, Lake, or Stream, Lake, or Stream, St Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1361 DATE: 07/21/1993 INVESTIGATOR: EFA, DMB COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM2E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: ATV trails through area ves no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover Herb FACW Herb FACW Herb FAC Herb NI Herb FAC Shrub FACU 176 Eupatoriadelphus maculatus 10.00 Impatiens capensis 189 90.00 277 Viola spp.
343 Dennstaedtia punctilobula
356 Sphenopholis obtusata
507 Rosa multiflora 90.00 2.00 2.00 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Hydric Soil? Depth Texture Matrix Color Mottle Color(%) Comments 10 YR 5/2 10 YR 6/6 (10%) ox.root channel 0-12 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations: Wetland Hydrology Indic Depth of Surface Water: 0.5 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [X] Water Marks [] Drift Lines
[] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Conditional Part Charmols (Upper 12) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny[] OtherRecent Rainfall: none Recorded Data (Describe in Remarks): -------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

SITE/PLOT#: 1362A DATE: 09/20/1993 INVESTIGATOR: MZ, DAK COUNTY: Tucker STATE: WV STREAM: Long Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1A Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover -----------153Dichanthelium clandestinumHerbFAC+237Rubus hispidusHerbFACW244Scirpus cyperinusHerbFACW+249Solidago rugosaHerbFAC452Hypericum densiflorumShrubFAC+ 40.00 60.00 20.00 50.00 80.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-2sandy loam10 YR 3/3none ox.roots2-5silty loam10 YR 2/2none ox.roots5-18sand10 YR 3/2none ox.roots -----Hvdric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[X] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY -Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:18.0 (in.)[] InundatedDepth to Saturated Soil:18.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[Y] FloodplainSecondary Indicators (2 or more reg/ [X] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Backwater [] Depressional [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream. Lake. or Tide Gauge [] Other (Explain in Remarks)

 Recorded Data (Describe III Remains).
 []

 [] Stream, Lake, or Tide Gauge
 []

 [] Aerial Photographs
 Recent Weather: Recent Rainfall:

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all3 criteria met; BPJ indicates soil criteria is met - 37-6-2

SITE/PLOT#: 1362B DATE: 09/20/1993 INVESTIGATOR: MZ, DAK COUNTY: Tucker STATE: WV STREAM: Long Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSSIA Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 153Dichanthelium clandestinumHerbFAC+237Rubus hispidusHerbFACW244Scirpus cyperinusHerbFACW+249Solidago rugosaHerbFAC452Hypericum densiflorumShrubFAC+ 40.00 60.00 20.00 50.00 80.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color (%) Comments ----------------0-2sandy loam10 YR 3/3noneox.roots2-5silty loam10 YR 2/2noneox.roots5-18sand10 YR 3/2noneox.roots Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [X] Entisol (organic context, vertical

 [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:18.0 (in.)[] InundatedDepth to Saturated Soil:18.0 (in.)[] Naturated in U Wetland Hydrology Indicators: Primary indicators:
 [] Inundated
 [] Saturated in Upper 12
 [] Water Marks
 [] Drift Lines
 [] Sediment Deposit
 [X] Drainage Patterns in Wetlands
 Constructions (2 or more reg() Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seen] Spring/Seep [X] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves

 Recorded Data (Describe in Remarks):
 [] FAC-Neutral Test

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Aerial Photographs
 Recent Weather:

 [] Other
 Recent Rainfall:

 Recorded Data (Describe in Remarks):

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met; BPJ indicates soil criteria is met - 37-6-2

SITE/PLOT#: 1363A DATE: 09/20/1993 INVESTIGATOR: MZ, DAK COUNTY: Tucker STATE: WV STREAM: Long Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover Herb FACW Herb FAC+ Herb FACW Herb FAC 110 Aster umbellatus 20.00 153 Dichanthelium clandestinum 237 Rubus hispidus 80.00 249 Solidago rugosa 40.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments _ _ _ . . . _ _ _ _____ -------0-6sand10 YR 5/2noneconcretions-Mg6-18sand10 YR 2/1ox.roots , _____ Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[X] Entisol (organic context, vertical [] Histosol streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:18.0 (in.)[] InundatedDepth to Saturated Soil:18.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[Y1] FloodplainSecondary Indicators (2 or more reg/secondary Indicators (2 or more reg/seconda [] Spring/Seep [X] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12

 [] Depressional
 [] Water-Stained Leaves

 [] Depressional
 [] Water-Stained Leaves

 [] Recorded Data (Describe in Remarks):
 [] Local Soil Survey Data

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: [] Other Recent Rainfall: -----

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Wetland Hydrology? yes

SITE/PLOT#: 1363B DATE: 09/20/1993 INVESTIGATOR: MZ, DAK COUNTY: Tucker STATE: WV STREAM: Long Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover
 Herb
 FACW
 20.00

 Herb
 FAC+
 80.00

 Herb
 FACW
 40.00

 Herb
 FAC
 40.00
 110 Aster umbellatus 110 Aster underratus
153 Dichanthelium clandestinum
237 Rubus hispidus
249 Solidago rugosa SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-6sand10 YR 5/2noneconcretions-MG6-18sand10 YR 2/1ox.roots Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Aquic Moisture Regime [] Low Chroma [] Fatisol (organic contents) [X] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:18.0 (in.)[] InundatedDepth to Saturated Soil:18.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] OtherRecent Rainfall: HYDROLOGY : WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

DATE: 09/20/1993 INVESTIGATOR: MZ, DAK STATE: WV STREAM: Long Run WATERSHED: Cheat River INVESTIGATOR: MZ, DAK SITE/PLOT#: 1364 COUNTY: Tucker COWARDIN CLASSIFICATION: PSS1B Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 237Rubus hispidusHerbFACW80.00244Scirpus cyperinusHerbFACW+10.00452Hypericum densiflorumShrubFAC+40.00539Vaccinium corymbosumShrubFACW20.00 _____

 SOIL PROFILE: (Minimum 18 inches) Series Name: VeC
 Hydric Soil? no

 Depth
 Texture
 Matrix Color
 Mottle Color(%)
 Comments

 0-1
 organic/coal sl

 1-3
 silty clay
 10 YR 4/1
 10YR 6/8 (10%) MG concr,ox.root

 3-7
 silty clay
 10 YR 5/1
 10YR 6/6 (50%) ox.roots

 7-18
 silty clay
 10 YR 4/1
 none ox.roots
 ------_____ Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:18.0 (in.)[] InundatedDepth to Saturated Soil:18.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in WetlandsSecondary Indicators (2 or more reg') [] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remaine) [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes

SITE/PLOT#: 1365A DATE: 09/21/1993 COUNTY: Tucker STATE: WV STREAM: DATE: 09/21/1993 INVESTIGATOR: MZ, DAK WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: high altitude bog with perched water table VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover 1Polytrichum sp.BryoNI2Sphagnum sp.BryoNI174Eriophorum virginicumHerbOBL237Rubus hispidusHerbFACW315Vaccinium myrtilloidesHerbFAC539Vaccinium corymbosumShrubFACW 100.00 20 00 80.00 40.00 50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LdA Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-1 organic peat 10 YR 2/1 saturated 1-12 silty clay 10 YR 3/3 none ox.roots, satur. Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : HYDROLOGI.Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)I Water MarksSource/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[] Water-Stained Leaves[] Local Soil Survey Data[] Local Soil Survey Data[] FAC-Neutral Test Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall:

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Hydrophytic Vegetation? yes Wetland? yes

SITE/PLOT#: 1365B DATE: 09/21/199 COUNTY: Tucker STATE: WV STREAM: DATE: 09/21/1993 INVESTIGATOR: MZ, DAK WATERSHED: Cheat River COWARDIN CLASSIFICATION: PFO1B/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: forested edge of perched wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 33.00 Code Scientific Name Stratum Status % Areal Cover BryoNIBryoNIBryoNIHerbFACWShrubFACUShrubFACWTreeFACTreeFACUTreeFACUTreeFACU Polytrichum sp. 1 60.00 2 Sphagnum sp. 20.00 20.00 4 Lycopodium sp. 237 Rubus hispidus 40.00 538 Vaccinium angustifolium Vaccinium corymbosum 30.00 539 20.00 Betula alleghaniensis 608 30.00 645 Pinus strobus 645 Pinus strobus669 Tsuga canadensis 20.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Vb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0-1 organic peat 10 YR 2/2 1-3 silty loam 10 YR 3/2 none ox.roots,satur. 3-12 sandy clay 10 YR 5/2 10 YR 6/8 (40%)ox.roots,MG conc Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Floodplain[X] Drainage Patterns in Wetlands[] Backwater[X] Oxidized Root Channels/Upper 12 [] Spring/Seep [] Floodplain [] Backwater [X] Depressional [] Floodplain
[] Backwater
[] Backwater
[X] Depressional
Recorded Data (Describe in Remarks):
[] Stream, Lake, or Tide Gauge
[] Aerial Photographs
[] Other
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[X] Oxidized Root Channels/Upper 14
[X] Oxidiz -----

WETLAND DETERMINATION:Hydric soils present? yesHydrophytic Vegetation? yesWetland Hydrology? yesWetland? yesRemarks:BPJ indicates wetland, based on presence of Sphagnum & Polystrichum & saturatio

SITE/PLOT#: 1365C DATE: 10/01/1993 COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1B/ML INVESTIGATOR: MZ, DAK WATERSHED: Cheat River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: high altitude bog with perched water table VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status & Areal Cover 1Polytrichum sp.BryoNI2Sphagnum sp.BryoNI174Eriophorum virginicumHerbOBL237Rubus hispidusHerbFACW315Vaccinium myrtilloidesHerbFAC539Vaccinium corymbosumShrubFACW 100.00 20.00 80.00 40.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LdA-Lickdale Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-1 organic peat 10 YR 2/1 saturated 1-12 silty clay 10 YR 3/3 none ox.roots [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma Hydric Soil Indicators: [X] Low Chroma
[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Source/Site Characterization: [] Seasonal High Water Table [] Seasonal High Water Table [] Secondarv Indicators (2 or more req') Secondary Indicators (2 or more req') ------[] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional

 Recorded Data (Describe in Remarks):
 [] Local Soil Survey Data

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Aerial Photographs
 Recent Weather:

 [] Other
 Recent Rainfall:

 [] Local Soil Survey Data Recorded Data (Describe in Remarks):

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Hydrophytic Vegetation? yes Wetland? yes

SITE/PLOT#: I-66-4 DATE: 09/08/1993 INVESTIGATOR: EFA, DAE COUNTY: Shenandoah STATE: VA STREAM: near Mulberry RWATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEM 1F Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 OBL
 90.00

 Herb
 FACW+
 10.00

 Herb
 NI
 100.00

 Herb
 FACW
 5.00
 100 Acorus calamus Juncus effusus
Unidentifiable grass
Carex intumescens _____ ---------Hydric Soil? no SOIL PROFILE: (Minimum 18 inches) Series Name: Endcav Depth Texture Matrix Color Mottle Color(%) Comments 0-6 silty clay 2.5 Y 5/2 refusal ----none ox.root channel ------Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[X] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more reg/ [X] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] Backwater [X] Depressional [] FAC-Neutral Test
[] Other (Explain in Remarks)

 Recorded Data (Describe in Remained)
 [] Other (Explain

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain

 [] Aerial Photographs
 Recent Weather: overcast

 Recent Rainfall: none
 Recent Rainfall: none

 Recorded Data (Describe in Remarks): -----_____

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

SITE/PLOT#: 1365D DATE: 10/11/1993 COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1B/ML INVESTIGATOR: MZ, DAK WATERSHED: Cheat River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: high altitude bog with perched water table VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover 1Polytrichum sp.BryoNI2Sphagnum sp.BryoNI174Eriophorum virginicumHerbOBL237Rubus hispidusHerbFACW315Vaccinium myrtilloidesHerbFAC539Vaccinium corymbosumShrubFACW 100.00 20 00 80.00 40.00 50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: LdA-Lickdale Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-1 organic peat 10 YR 2/1 saturated 1-12 silty clay 10 YR 3/3 none ox.roots Hydric Soil Indicators:

 c Soil Indicators:
 [] Histic Epipedon

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 [] Histosol streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks)

 Recorded Data (Describe in Remarks):
 [] Other (Explain in Remarks)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Aerial Photographs
 Recent Weather:

 [] Other
 Recent Rainfall:

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1370A DATE: 10/11/1993 COUNTY: Tucker STATE: WV STREAM: DATE: 10/11/1993 INVESTIGATOR: MZ, DAK, TJS STREAM: WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B/ML Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: appears to be old trail VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status & Areal Cover Polytrichum sp. Bryo NI Bryo NI Herb OBL Herb OBL Herb FACW+ Herb FACW Herb FACW Shrub FACU Shrub FAC 1 Bryo NI 60.00 2 Sphagnum sp. 174 Eriophorum virginicum 40.00 40.00 193 Juncus canadensis 10.00 Juncus effusus Osmunda cinnamomea 195 219 10.00 237 Rubus hispidus 15.00 462 Kalmia latifolia 501 Rhododendron maximum 5.00 5.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Vb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-12
 peat
]

 12-13
 sand
 10 YR 4/1
 saturated

 13-16
 silty clay
 10 YR 5/2
 saturated

 16-24
 silty clay
 10 YR 3/3
 ox.roots
 Hydric Soil Indicators:

 [] Histosol
 [X] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [] Low Chroma

 [] mottles
 [X] Entisol (organic context, vertical

 [] Histosol streaking, chroma 3, wet spodosol) HYDROLOGY: _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [] Water Marks
[] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] BackwaterSecondary Indicators (2 or more req'd)[X] Depressional[X] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained LeavesRecorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: wet[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1370B DATE: 10 COUNTY: Tucker STATE: WV STREAM: DATE: 10/11/1993 INVESTIGATOR: MZ, DAK, TJS WATERSHED: Cheat River COWARDIN CLASSIFICATION: PFO1B/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: appears to be an old trail VEGETATION: Percent Dominant Species that are OBL, FACW or FAC Code Scientific Name Stratum Status & Areal Cover -------
 Bryo
 NI
 80.00

 Herb
 FACW
 50.00

 Shrub
 FACU
 20.00

 Shrub
 FAC
 100.00

 Tree
 FAC
 30.00

 Tree
 FACU
 50.00
 1 Polytrichum sp. 219 Osmunda cinnamomea 462 Kalmia latifolia 501 Rhododendron maximum 602 Acer rubrum 669 Tsuqa canadensis ----------SOIL PROFILE: (Minimum 18 inches) Series Name: Vb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----------0-12 peat 12-13 sand 10 YR 4/1 saturated 13-16 silty clay 10 YR 5/2 16-24 silty clay 10 YR 3/3 ox.roots Hydric Soil Indicators: [] Histosol[X] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: -----Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[Y] Seasonal High Water Table[] Sediment Deposit [X] Seasonal High Water Table [] Sediment Deposit
[X] Drainage Patterns in Wetlands [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Depressional[X] OxIdized Root Channels/Oppe[X] Depressional[] Water-Stained LeavesRecorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: wet[] OtherRecent Rainfall: ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1370C DATE: 10, COUNTY: Tucker STATE: WV STREAM: DATE: 10/11/1993 INVESTIGATOR: MZ, DAK, TJS WATERSHED: Cheat River COWARDIN CLASSIFICATION: PFO1B/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: appears to be an old trail VEGETATION: Percent Dominant Species that are OBL, FACW or FAC Code Scientific Name Stratum Status % Areal Cover ------1 Polytrichum sp. 219 Osmunda cinnamomea
 Bryo
 NI
 80.00

 Herb
 FACW
 50.00

 Shrub
 FACU
 20.00

 Shrub
 FAC
 100.00

 Tree
 FAC
 30.00

 Tree
 FACU
 50.00
 462 Kalmia latifolia 501 Rhododendron maximum 602 Acer rubrum 669 Tsuga canadensis SOIL PROFILE: (Minimum 18 inches) Series Name: Vb Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ____ ----------0-12 peat 12-13 sand 10 YR 4/1 saturated 12-16 silty clay 10 YR 5/2 16-24 silty clay 10 YR 3/3 ox.roots Hydric Soil Indicators: [] Histosol[X] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Water MarksSource/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other[] OtherRecent Weather:[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1371 DATE: 10/13/1 COUNTY: Tucker STATE: WV STREAM: Big R COWARDIN CLASSIFICATION: PEM1C/ML Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypi Is the area a potential Problem Area? Remarks: floodplain first terrace	ves	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 80.00 Stratum Status % Areal	Cover
1 Polytrichum sp. 153 Dichanthelium clandestinum 195 Juncus effusus 244 Scirpus cyperinus 262 Thelypteris noveboracensis 269 Unidentifiable grass 308 Rumex acetosella 387 Polygonum aviculare	Bryo NI 80.0 Herb FAC+ 50.0 Herb FACW+ 10.0 Herb FACW+ 20.0 Herb FAC 40.0 Herb NI 20.0 Herb NI 20.0 Herb NI 15.0	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BsC Hydric Soil? Mottle Color(%) Comments	yes
0-1 peat 10 YR 3/4	ox.roots ox.roots, satur. ox.roots	
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [X] Low [] mottles [] Enti	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical aking, chroma 3, wet spodosol)	
HYDROLOGY:		
<pre>[] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec</pre>	<pre>land Hydrology Indicators: Primary Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlan Secondary Indicators (2 or more r [] Oxidized Root Channels/Uppe [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) ent Weather: rainy ent Rainfall: yesterday</pre>	er 12
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology?		on? yes

Remarks: all 3 criteria met

.

SITE/PLOT#: 1372 DATE: 10 COUNTY: Tucker STATE: WV STREAM: COWARDIN_CLASSIFICATION: PEM1B/ML DATE: 10/13/1993 INVESTIGATOR: MZ, DAK WATERSHED: Cheat River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no ves Is the area a potential Problem Area? no Remarks: forested wetland, depressional VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover 1 Polytrichum sp. 161 Dryopteris spinulosa 501 Rhododendron maximum 602 Acer rubrum 669 Tsuga canadensis Bryo NI Herb FAC+ Shrub FAC Tree FAC Tree FAC 50.00 70.00 20.00 30.00 70.00 ----SOIL PROFILE: (Minimum 18 inches) Series Name: BsC Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-1 peat 1-3 silty loam 7.5 YR 2/0 ox.roots 3-6 silty clay 10 YR 5/1 ox.roots 6-12 silty clay 10 YR 5/8 10 YR 5/lox.roots, sat. Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:6.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit Source/Site Characterization: [] Seasonal High Water Table [] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FLC-Neutral Test [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: cloudy[] OtherRecent Rainfall: yesterday Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: vegetation is marginal, but BPJ suggests saturation for necessary duration

SITE/PLOT#: 1373A DATE: 10/13/1993 INVESTIGATOR: MZ, DAK COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: bog wetland emergent part VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover _ _ _ _ _ _ .. 1 Polytrichum sp. 2 Sphagnum sp. 174 Eriophorum virginicum 192 Juncus brevicaudatus 195 Juncus effusus
 Bryo
 NI
 80.00

 Bryo
 NI
 20.00

 Herb
 OBL
 60.00

 Herb
 OBL
 80.00

 Herb
 FACW+
 10.00
 SOIL PROFILE: (Minimum 18 inches) Series Name: LdA-Lickdale Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----0-18 peat 18-24 sandy clay 5 ¥ 4/1 ox.roots _____ Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [X] Aquic Moisture Regime [X] Low Chroma] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology India Depth of Surface Water: 0.5 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in W Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Recent Weather: overcast
Recent Rainfall: yesterday [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

SITE/PLOT#: 1373B DATE: 10/13/1993 INVESTIGATOR: MZ, DAK COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PFO4B/ML Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: bog wetland, forest part VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover
 Bryo
 NI
 10.00

 Herb
 FACW
 20.00

 Shrub
 FAC
 100.00

 Tree
 FAC
 50.00

 Tree
 FACU
 50.00
 Polytrichum sp. Osmunda cinnamomea 1 219 501 Rhododendron maximum 602 Acer rubrum 669 Tsuga canadensis Acer rubrum -----SOIL PROFILE: (Minimum 18 inches) Series Name: LdA-Lickdale Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments ----------0-18 peat 18-24 sandy clay 5 Y 4/1 ox.roots -Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Histic Epipedon [X] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:2.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[X] Sediment Deposit [] Seasonal High Water Table [] Spring/Seep [X] Sediment Deposit
[X] Drainage Patterns in Wetlands [] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: rain Recent Rainfall: [] Other -----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

DATE: 10/13/1993 SITE/PLOT#: 1374 DATE: 10 COUNTY: Tucker STATE: WV STREAM: INVESTIGATOR: MZ, DAK WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E/ML Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? πo Remarks: power line right of way depression VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 1 Polytrichum sp. Bryo NI 174 Eriophorum virginicum
195 Juncus effusus
198 Juncus sp.
269 Unidentifiable grass Herb OBL Herb FACW+ Herb NI Herb NI 80.00 20.00 30.00 80.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC-Brinkerton Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-1peatsaturated1-3silty loam10 YR 2/0noneox.roots3-6silty clay10 YR 5/1noneox.roots6-12silty sand10 YR 4/2noneox.roots Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Sediment Deposit Source/Site Characterization: [X] Seasonal High Water Table [] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: overcast[] OtherRecent Rainfall: yesterday WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1410 DATE: 07/15/1993 INVESTIGATOR: CMH, DMK COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: small wetland along intermittent stream VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover _ _ _ _ _ _ _ _ _ -------------------153 Dichanthelium clandestinum Herb FAC+ 30.00 HerbFAC+HerbFACWHerbOBLHerbFACHerbFACWHerbFACWShrubOBL Impatiens capensis Scirpus atrovirens 189 40.00 25.00 25.00 50.00 243 273 Verbesina alternifolia 282 Leersia virginica 290 Panicum dichotomiflorum 405 Alnus serrulata 10.00 20.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-2sandy loam10 YR 4/2nonesaturated2-6sandy loam10 YR 3/2none6-9silt loam10 YR 4/2nonesaturated9-12silt loam10 YR 4/3noneundecomposed Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] mottles [X] Entisol (organic cont [X] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[X] Floodplain[] Drainage Patterns in Wetlands[] Backwater[] Drainage Patterns in Wetlands[] Backwater[] Drainage Patterns in Wetlands[] Depressional[] Drainage Patterns in WetlandsRecorded Data (Describe in Remarks):[] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other[] Other _ _ _ ~ _ _ _ _ _ . WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

DATE: 07/15/1993 STATE: WV STREAM: unnamed SITE/PLOT#: 1411 INVESTIGATOR: CMH, DMK COUNTY: Tucker WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: swale drainage - heavily used by cows in pasture VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover 166Eleocharis tenuisHerbFACW195Juncus effususHerbFACW+227Polygonum sagittatumHerbOBL239Sagittaria latifoliaHerbOBL269Unidentifiable grassHerbNI271Unidentifiable sedgeHerbNI 80.00 15.00 20.00 20.00 70.00 50.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: EnC Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments ----------------_____ Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Histic Epipedon [X] Aquic Moisture Regime [] Low Chroma
[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit [] Sediment Deposit
[] Drainage Patterns in Wetlands [] Seasonal High Water Table [X] Spring/Seep Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data [] Floodplain
[] Backwater
[] Depressional

 Recorded Data (Describe in Remains).
 [] Other (Explain in Remains).

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remains).

 [] Aerial Photographs
 [] Recent Weather: clear dry for imonth Recent Rainfall: rain previous night

 Recorded Data (Describe in Remarks): * *

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: +hydric soil determination based on best professional judgement

SITE/PLOT#: 1412 DATE: 07/15/1993 INVESTIGATOR: JMG, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIC Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: the wetland is located within a cow pasture VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 129 Carex lurida Herb OBL 10.00 FACW+ 195Juncus effususHerbFACW+243Scirpus atrovirensHerbOBL268Typha latifoliaHerbOBL293Leersia oryzoidesHerbOBL320Vernonia noveboracensisHerbFACW 195 Juncus effusus 10.00 5.00 50.00 20.00 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: EnC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-4 silt 2.5 Y 6/2 4-10 silty clay 5 GY 5/1 ----Auager refusal -----Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[X] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:6.0 (in.)Primary Indicators:Depth to Free Water in Pit:4.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[] PleodellainSecondary Indicators (2 or more reg/ [] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge[] Other (Expla[] Aerial PhotographsRecent Weather: sunny[] OtherRecent Rainfall: 7/14 ·----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1501A DATE: 07/15/1993 INVESTIGATOR: JMG, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: a tributary flows throuth wetland, located within a cow pasture VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover 100Acorus calamusHerbOBL40.00129Carex luridaHerbOBL10.00269Unidentifiable grassHerbNI10.00320Vernonia noveboracensisHerbFACW30.00321Eupatoriadelphus fistulosusHerbFACW10.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-1"organic10 YR 3/4fiber1-12"sand7.5YR 2/05 YR 3/4 (15%) ox.roots12">refusal -----Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Drift LinesSource/Site Characterization:[] Drift Lines[] Sediment Deposit[] Sediment Deposit Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Pecent Weather: supply with clouds [] Floodplain [] Backwater [] Depressional

 Recorded Data (Describe in Kemarke, .

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Kemarke, .

 [] Aerial Photographs
 [] Recent Weather: sunny with clouds

 [] Aerial Photographs
 Recent Rainfall: 0.1" 7/14

 WETLAND DETERMINATION:Hydric soils present? yesHydrophytic Vegetation? yesWetland Hydrology? yesWetland? yes

SITE/PLOT#: 1501B DATE: 07/15/1993 COUNTY: Tucker STATE: WV STREAM: unnamed INVESTIGATOR: JMG, ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? Ves Is the site significantly disturbed (Atypical Situation)? no ' no Is the area a potential Problem Area? Remarks: a tributary flows through wetland, located within a cow pasture VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover _ _ _ _ _ _ . -----------------------------227 Polygonum sagittatum 269 Unidentifiable grass 321 Eupatoriadelphus fistulosus 405 Alnus serrulata
 Herb
 OBL
 30.00

 Herb
 OBL
 40.00

 Herb
 NI
 10.00

 Herb
 FACW
 20.00

 Shrub
 OBL
 100.00

 Shrub
 FACW
 100.00
 Carex lurida 405 Alnus serrulata 482 Platanus occidentalis SOIL PROFILE: (Minimum 18 inches) Series Name: Atkins siltloamHydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-12 silty sand 10 YR 3/2 7.5YR 4/4 (20%) ox.roots 125 ------Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Water Marks Source/Site Characterization: [] Seasonal High Water Table [] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands [X] Spring/Seep [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data

 Recorded Data (Describe in Remarks).
 [] Other (Explain in Remarks).

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks).

 [] Aerial Photographs
 Recent Weather: sunny with clouds

 [] Other
 Recent Rainfall: 0.1" on 7/14/93

 Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1502 DATE: 07/15/1993 INVESTIGATOR: JMG, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no ves Is the area a potential Problem Area? no Remarks: a tributary flows through the wetland, wetland is contour defined VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover 129Carex luridaHerbOBL30.00139Carex vulpinoideaHerbOBL30.00166Eleocharis tenuisHerbFACW30.00227Polygonum sagittatumHerbOBL25.00269Unidentifiable grassHerbNI20.00320Vernonia noveboracensisHerbFACW30.00 30.00 30.00 25.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: EnC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ---------------0-4" silty clay loam N 5/ 4-8" silty clay loam 5 Y 5/1 8-12" sandy clay loam 5 Y 6/1 ox.roots ox.roots ox.roots Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[X] Gleyed[X] Low Chroma [X] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGI:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 12.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 6.0 (in.)
 [] Saturated in Upper 12

 Source/Site Characterization:
 [] Water Marks

 [] Seasonal High Water Table
 [] Sediment Deposit

 [] Secondary Indicators (2 or more reg'

 [X] Dialinge Fatterins in wetlands Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other (Explain in Remarks) Recent Weather: sunn with clouds [] Other Recent Rainfall: 0.1" 7/14 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover Herb FACW Herb FACW Herb NI Herb OBL 132 Carex sp. 189 Impatiens 269 Unidentifi 5.00 189 Impatiens capensis 269 Unidentifiable grass 351 Potamogeton nodosus 70.00 80.00 60.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Alluvial Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments _ _ _ _ _ _ _ _ _ 0-1silt loam10 YR 3/2none organic material1-2silt loam10 YR 3/1none ox.root/mang cor2-7silt clay5 GY 5/110 YR 4/6 (40%) mottles decrease7-10dist.degr.shale10 YR 4/6 (40%) mottles decrease Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:10.0 (in.)[] InundatedDepth to Saturated Soil:10.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[X] ElocondplainSecondary Indicators (2 or more reg/ [X] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Backwater [X] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: scattered shws sunny[] OtherRecent Rainfall: .20" August Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

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DATE: 08/03/1993 SITE/PLOT#: 1504 INVESTIGATOR: EFA, DAE COUNTY: Randolph STATE: WV STREAM: WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: recent logging roads caused water to collect VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover Herb OBL Herb FACW Herb OBL Herb FAC Herb OBL 129 Carex lurida 30.00 189 Impatiens capensis
243 Scirpus atrovirens
248 Euthamia graminifolia
349 Lycopus americanus 40.00 90.00 5.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: EnC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-7 silt debris 5 Y 4/2 none uncons debris 7 auger refusal _ _ _ _ _ Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 [] Histosol streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations:Wetland Hydrology IndicDepth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [X] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg/ Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other [] Recent Rainfall: .20" August WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

DATE: 08/03/1993 SITE/PLOT#: 1505 INVESTIGATOR: EFA, DAE WATERSHED: Tygart Valley River COUNTY: Randolph STATE: WV STREAM: COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no no Is the area a potential Problem Area? no Remarks: prior conversion for pasture land VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 129 Carex lurida OBL Herb 40.00 164 Eleocharis rostellata 243 Scirpus atrovirens 269 Unidentifiable grass 164Eleocharis rostellataHerbOBL243Scirpus atrovirensHerbOBL269Unidentifiable grassHerbNI349Lycopus americanusHerbOBL350Polygonum hydropiperHerbOBL 75.00 50.00 40.00 75.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Py Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments ---------------0-12 silty clay 2.5 Y 5/0 10 YR 4/6 (30%)ox.root/mang con Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) ------HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more reg/ [] Seasonal High Water Table
[] Spring/Seep
[X] Floodplain
[] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: scattered shws/sunny[] OtherRecent Rainfall: .20" August Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1506A DATE: 08/24/1993 INVESTIGATOR: ABC, JMG COUNTY: Randolph STATE: WV STREAM: unnamed WATERSHED: Tygart Valley River COWARDIN_CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: tributary flows through the wetland area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 FACW
 20.00

 Herb
 OBL
 5.00

 Herb
 FACW+
 5.00

 Herb
 FAC
 15.00

 Herb
 FAC
 30.00

 Herb
 OBL
 25.00

 Shrub
 OBL
 100.00
 Eupatoriadelphus maculatus Juncus canadensis 176 193 193 Juncus canadensis
195 Juncus effusus
248 Euthamia graminifolia
249 Solidago rugosa
386 Oxypolis rigidier
405 Alnus serrulata Hydric Soil? SOIL PROFILE: (Minimum 18 inches) Series Name: Depth Texture Matrix Color Mottle Color(%) Comments -----
 0-1"
 organic
 2.5 Y 5/2
 7.5YR 5/8 (5%) oxidized

 1-12"
 VF sand/silt
 2.5 Y 5/2
 10 YR 5/8 (10%) root channels
 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical [] Histosol streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[] Water-Stained Leaves[] Depressional[] Water-Stained Leaves[] Local Soil Survey Data[] FAC-Neutral Test Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge btographs [] Otner (Explain in Recent Weather: sunny 90's Recent Rainfall:] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1506B DATE: 08/24/1993 COUNTY: Randolph STATE: WV STREAM: unnamed COWARDIN_CLASSIFICATION: PEM1E INVESTIGATOR: ABC, JMG WATERSHED: Tygart Valley River Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves no Is the area a potential Problem Area? Remarks: a tributary flows through the wetland no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover HerbFACWHerbFACW+HerbOBLHerbFACWHerbOBLHerbOBL 176 Eupatoriadelphus maculatus Herb Herb 15.00 15.00 15.00 178 Eupatorium perfoliatum 189 Impatiens capensis
227 Polygonum sagittatum
282 Leersia virginica
385 Aster puniceus 189 Impatiens capensis 227 Polygonum sagittatum 10.00 10.00 20.00 30.00 ------______ SOIL PROFILE: (Minimum 18 inches) Series Name: Hydric Soil? Depth Texture Matrix Color Mottle Color(%) Comments ---------------------0-4" organic 10 YR 5/1 oxidized 4-12" organic silt 10 YR 4/1 root channels Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Epticol [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:2.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks)

 Recorded Data (Describe in Remember)
 [] Other (Explain

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain

 [] Aerial Photographs
 Recent Weather: sunny 90

 [] Other
 Recent Rainfall:

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1506C DATE: 08/24/1993 INVESTIGATOR: ABC, JMG COUNTY: Randolph STATE: WV STREAM: unnamed WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: tributary flows through the wetland area no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 176Eupatoriadelphus maculatusHerbFACW15.00178Eupatorium perfoliatumHerbFACW+15.00189Impatiens capensisHerbFACW20.00227Polygonum sagittatumHerbOBL10.00282Leersia virginicaHerbFACW20.00385Aster puniceusHerbOBL30.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Hvdric Soil? Depth Texture Matrix Color Mottle Color(%) Comments 0-4" organic 10 YR 5/1 oxidized root 4-12 organic silt 10 YR 4/1 channels Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [] Gleyed [] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: 2.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Seasonal High Water Table [] Secondarv Indicators (2 or more reg [X] Spring/Seep
[] Floodplain
[] Backwater Secondary Indicators (2 or more req'd)

 [] Floodplain
 Secondary Indicators (2 or more req'd)

 [] Backwater
 [X] Oxidized Root Channels/Upper 12

 [] Depressional
 [] Water-Stained Leaves

 [] Depressional
 [] Local Soil Survey Data

 Recorded Data (Describe in Remarks):
 [] FAC-Neutral Test

 [] Stream, Lake, or Tide Gauge
 [] Other

 [] Aerial Photographs
 Recent Weather: sunny 90

 [] Other
 Recent Rainfall:

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1507A DATE: 08/03/ COUNTY: Randolph STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks: appears to be man-made ditch.	? по	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover	100.00 % Areal Cover
 129 Carex lurida 132 Carex sp. 153 Dichanthelium clandestinum 176 Eupatoriadelphus maculatus 178 Eupatorium perfoliatum 195 Juncus effusus 237 Rubus hispidus 243 Scirpus atrovirens 248 Euthamia graminifolia 		
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Berks-Weikert Hydric Soil? no Mottle Color(%) Comments	Hydric Soil? no ments
0-18 silt clay 10 YR 5/1	10 YR 5/8 (30%)ox.roots	0%)ox.roots
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqu: [] Gleyed [X] Low [X] mottles [] Enti	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)	vertical
HYDROLOGY:		
Field Observations: Wet Depth of Surface Water: 2.0 (in.) Depth to Free Water in Pit: -1.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge	<pre>tland Hydrology Indicators: Primary Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks)</pre>	(2 or more req'd) hannels/Upper 12 weaves rey Data st in Remarks)
[] Aerial Photographs Rec [] Other Rec	cent Weather: scattered shws/sunny cent Rainfall: .20" August	d shws/sunnv
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met	ent? yes Hydrophytic Vegetation? yes ? yes Wetland? yes	ic Vegetation? yes yes

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SITE/PLOT#: 1507B DATE: 08/0 COUNTY: Randolph STATE: WV STREAM: un COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the si Is the site significantly disturbed (At Is the area a potential Problem Area? Remarks:	4/1993 INVESTIGATOR: DEA, EFA named WATERSHED: Tygart Valley River te? yes ypical Situation)? no no
VEGETATION: Percent Dominant Species th	at are OBL, FACW or FAC 77.00
Code Scientific Name	Stratum Status % Areal Cover
 2 Sphagnum sp. 129 Carex lurida 176 Eupatoriadelphus maculatus 189 Impatiens capensis 195 Juncus effusus 237 Rubus hispidus 245 Scirpus validus 248 Euthamia graminifolia 269 Unidentifiable grass 401 Acer rubrum 404 Alnus rugosa 431 Cornus florida 453 Hypericum prolificum 528 Spiraea tomentosa 	Bryo NI 5.00 Herb OBL 5.00 Herb FACW 40.00 Herb FACW 10.00 Herb FACW+ 5.00 Herb FACW+ 5.00 Herb FACW 90.00 Herb FAC 15.00 Herb FAC 15.00 Herb FAC 15.00 Herb FAC 5.00 Shrub FAC 5.00 Shrub FAC 5.00 Shrub FACW+ 90.00 Shrub FACU- 10.00 Shrub FACU 75.00 Shrub FACW 40.00
SOIL PROFILE: (Minimum 18 inches) Seri Depth Texture Matrix Color 0-18 silt loam 2.5 Y 5/2 Hydric Soil Indicators: [] Histosol [] H [] Sulfidic Material [] A [] Gleyed [X] L [] mottles [] E s	es Name: Berks-Weikert Hydric Soil? no Mottle Color(%) Comments none ox.root channel
<pre>HYDROLOGY:</pre>	<pre>Wetland Hydrology Indicators:</pre>
Field Observations:	Primary Indicators:
Depth of Surface Water: (in.)	[] Inundated
Depth to Free Water in Pit: 12.0 (in.)	[X] Saturated in Upper 12
Depth to Saturated Soil: 8.0 (in.)	[] Water Marks
Source/Site Characterization:	[] Drift Lines
[] Seasonal High Water Table	[] Sediment Deposit
[X] Spring/Seep	[X] Drainage Patterns in Wetlands
[] Floodplain	Secondary Indicators (2 or more req'd)
[] Backwater	[X] Oxidized Root Channels/Upper 12
[] Depressional	[] Water-Stained Leaves
Recorded Data (Describe in Remarks):	[] Local Soil Survey Data
[] Stream, Lake, or Tide Gauge	[] FAC-Neutral Test
[] Aerial Photographs	[] Other (Explain in Remarks)
[] Other	Recent Weather: scatter shws/sunny
WETLAND DETERMINATION: Hydric soils pre	Recent Rainfall: .20" August
Wetland Hydrolog	esent? yes Hydrophytic Vegetation? yes
Remarks: all 3 criteria met	gy? yes Wetland? yes

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SITE/PLOT#: 1507C DATE: 08/04/1993 COUNTY: Randolph STATE: WV STREAM: unnamed INVESTIGATOR: EFA, DAE WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIE/POW Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover 129 Carex lurida 164 Eleocharis rostellata 197 Juncus scirpoides Herb OBL Herb OBL Herb FACW Herb NI 10.00 90.00 5.00 347 Lespedeza sp. 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Berks-Weidert Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----. 0-2 silt loam 10 YR 5/8 2-4 silty clay 2.5 Y 6/2 4" auger refusal none none vertical streak Hydric Soil Indicators: [] Histosol [] Sulfidia [] Histic Epipedon] Sulfidic Material] Gleyed [] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY :

 Hibkohogi.

 Field Observations:
 Wetland Hydrology Indicators.

 Depth of Surface Water:
 4.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Drift Lines

 Uigh Water Table
 [] Sediment Deposit

 [] Drainage Patterns in 1

 [X] Drainage Patterns in Wetlands [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Weather: scattered shws/sunny Recent Rainfall: .20" August ----WETLAND DETERMINATION: Hydric soils present? Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 1510 DATE: 08/ COUNTY: Tucker STATE: WV STREAM: u COWARDIN CLASSIFICATION: PEMIA/PFO Do Normal Circumstances' exist on the s Is the site significantly disturbed (A Is the area a potential Problem Area? Remarks:	site?	ves	EFA, DAE at River
VEGETATION: Percent Dominant Species t Code Scientific Name	hat are OBL, Stratum	FACW or FAC Status	67.00 % Areal Cover
<pre>132 Carex sp. 189 Impatiens capensis 227 Polygonum sagittatum 288 Pilea pumila 349 Lycopus americanus 350 Polygonum hydropiper 353 Solanum dulcamara 357 Urtica dioica 610 Betula nigra 636 Liriodendron tulipifera 639 Ostrya virginiana 669 Tsuga canadensis 675 Hamamelis virginiana</pre>	Herb Herb Herb Herb Herb Herb Herb Tree Tree Tree Tree Tree	FACW FACW OBL FACW OBL FAC FACU FACU FACU FACU FACU FACU FAC	$\begin{array}{c} 75.00\\ 90.00\\ 90.00\\ 90.00\\ 5.00\\ 50.00\\ 50.00\\ 75.00\\ 60.00\\ 20.00\\ 10.00\\ 25.00\\ 5.00\\ 5.00\\ \end{array}$
SOIL PROFILE: (Minimum 18 inches) Ser Depth Texture Matrix Colo	ries Name: Alu or Mottle C	vial H Color(%) Comm	Nydric Soil? no Ments
0-10 silt loam 10 YR 4/1 10-12 silt loam 5 Y 4/1 Hydric Soil Indicators: [] Histosol [] [X] Sulfidic Material [] [X] Gleyed [X] [] mottles []	Histic Epiped Aquic Moistur Low Chroma	don re Regime	vertical
HYDROLOGY .			
Field Observations: Depth of Surface Water: (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater	[X] Sec [] Dra Secondary [X] Oxi	inage Pattern / Indicators (dized Root Ch	is in Wetlands (2 or more req'd) nannels/Upper 12
[] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other	[] Loc [] FA [] Ot Recent Weath Recent Rainf	cer-Stained Le cal Soil Surve C-Neutral Tes cher (Explain her: scattered call: .20" Aug	ey Data st in Remarks) d shws/sunny
WETLAND DETERMINATION: Hydric soils p Wetland Hydrol Remarks: all 3 criteria met; periodic	oresent? yes .ogy? yes flooding-heav	Hydrophyti Wetland? y y deer browse	ic Vegetation? yes ves

DATE: 08/03/1993 INVESTIGATOR: DAE, EFA STATE: WV STREAM: unnamed WATERSHED: Cheat River SITE/PLOT#: 1511 COUNTY: Tucker COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: area is mowed as pasture VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover Herb OBL Herb NI Herb NI 100 Acorus calamus 269 Unidentifiable grass 336 Arctium minus 90.00 100.00 10.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: Bc Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-2
 silt loam
 10 YR 2/2
 none

 2-8
 sandy silt
 5 Y 4/1
 none
 _____ Hydric Soil Indicators: [] Histosol
[] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [X] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : ----------Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit [] Seasonal High Water Table [] Spring/Seep [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Floodplain condary indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data [] Backwater [] Depressional : [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: scattered shws/sunny Recent Rainfall: .20" august Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

SITE/PLOT#: 1602 DATE: 08/05/19 COUNTY: Randolph STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypic Is the area a potential Problem Area?		Vec	ey River
Remarks: VEGETATION: Percent Dominant Species that a Code Scientific Name S	re OBL, FACW c tratum St		eal Cover
SOIL PROFILE: (Minimum 18 inches) Series Na Depth Texture Matrix Color M	ame: Pn Mottle Color(%	Hydric So) Comments	oil? no
0-2 silt loam 10 YR 4/2 2-18 silt clay 2.5 Y 5/0	7.5YR none	4/6 (40%) org. material	
Hydric Soll Indicators:[] Histosol[] Histic[X] Sulfidic Material[] Aquic[] Gleyed[X] Low Ch[X] mottles[] Entiso	c Epipedon Moisture Regi nroma ol (organic co	me ntext, vertical , wet spodosol)	1
HYDROLOGY:		-	
Field Observations: Wetla Depth of Surface Water: (in.) Pr Depth to Free Water in Pit: 12.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain	and Hydrology rimary Indicat [] Inundated [X] Saturated	Indicators: ors: in Upper 12	
Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain Se [] Backwater [X] Depressional	[] Oxidized [] [] Water-Sta	ators (2 or mon Root Channels/U ined Leaves	ce reg'd)
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recen [] Other Recen	[] FAC-Neut	xplain in Reman attered shs/sur	rks) my
WETLAND DETERMINATION: Hydric soils present Wetland Hydrology? y Remarks: all 3 criteria met	? yes Hyd ves Wet	rophytic Vegeta land? yes	tion? yes

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SITE/PLOT#: 1603 DATE: 08/05/1 COUNTY: Randolph STATE: WV STREAM: COWARDIN CLASSIFICATION: PSS1E/PEM Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypi Is the area a potential Problem Area? Remarks:	993 INVESTIGATOR: DAE, EFA WATERSHED: Tygart Valley River cal Situation)? yes no
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover
153 Dichanthelium clandestinum 176 Eupatoriadelphus maculatus 189 Impatiens capensis 404 Alnus rugosa 522 Salix nigra	Herb FAC+ 30.00 Herb FACW 30.00 Herb FACW 40.00 Shrub FACW+ 60.00 Shrub FACW+ 30.00
SOIL PROFILE: (Minimum 18 inches) Series] Depth Texture Matrix Color	Name: Atkins Hydric Soil? no Mottle Color(%) Comments
0-2 silt loam 10 YR 4/2 2-5 silt loam 10 YR 5/2 5-12 sandy silt 10 YR 5/1 12 auger refusal	no organic material no organic no ox.root channel
Hydric Soil Indicators: [] Histosol [] Hist: [] Sulfidic Material [] Aquic [] Gleyed [X] Low ([] mottles [] Entis	ic Epipedon c Moisture Regime Chroma sol (organic context, vertical aking, chroma 3, wet spodosol)
HYDROLOGY:	
Field Observations: Wet] Depth of Surface Water: (in.) I Depth to Free Water in Pit: 12.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater	land Hydrology Indicators: Primary Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks
[] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional	<pre>[] Drift Lines [] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data</pre>
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rece [] Other Rece	[] FAC-Neutral Test [] Other (Explain in Remarks) ent Weather: scattered shs/sunny ent Rainfall: 0.20" Aug.
WETLAND DETERMINATION: Hydric soils presen Wetland Hydrology? Remarks: all 3 criteria met	nt? yes Hydrophytic Vegetation? yes yes Wetland? yes

INVESTIGATOR: EFA, DAK WATERSHED: Tygart Valley River SITE/PLOT#: 1604 DATE: 08/17/1993 COUNTY: Randolph STATE: WV STREAM: COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? ño Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover HerbFACWHerbOBLHerbOBLHerbFACHerbFACHerbFAC 132 Carex sp. 5.00 189 Impatiens capensis 243 Scirpus atrovirens 251 Solidago uliginosa 277 Viola spp. 80.00 10.00 _5.00 75.00 5.00 277 Viola spp. 90.00 • ____ -----SOIL PROFILE: (Minimum 18 inches) Series Name: Pn Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-4 silt muck 5 Y 3/1 4-12 silty clay 5 Y 4/1 12 auger refusal none organic none gleyed _____ Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon
[] Aquic Moisture Regime
[] Low Chroma
[] Entisol (organic context, vertical) [X] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[X] Backwater[] Oxidized Root Channels/Upper 12 [X] Floodplain [X] Backwater [X] Depressional [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: rain/heavy[] OtherRecent Rainfall: Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Wetland Hydrology? yes Remarks: all 3 criteria met

SITE/PLOT#: 1605 DATE: 08/17/ COUNTY: Randolph STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PEM2E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	_
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover
 153 Dichanthelium clandestinum 189 Impatiens capensis 219 Osmunda cinnamomea 250 Solidago sp. 277 Viola spp. 345 Hydrocotyle americana 349 Lycopus americanus 433 Cornus stolonifera 673 Carya glabra 	Herb FAC+ 2.00 Herb FACW 5.00 Herb FACW 20.00 Herb NI 2.00 Herb FAC 80.00 Herb OBL 20.00 Herb OBL 5.00 Shrub FACW+ Tree FACU
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: BkF Hydric Soil? no Mottle Color(%) Comments
0-2 organic 2-8 5 Y 4/1 8- 7/5YR 6/8 Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqu: [] Gleyed [X] Low [X] mottles [] Ent:	7.5YR 4/4 (10%) 5 Y 4/2 (5%)
HYDROLOGY :	
	<pre>tland Hydrology Indicators: Primary Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: rain cent Rainfall:</pre>
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met	ent? yes Hydrophytic Vegetation? yes ? yes Wetland? yes

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SITE/PLOT#: 1607 DATE: 08/17/1993 INVESTIGATOR: EFA, DAK COUNTY: Randolph STATE: WV STREAM: unnamed WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEM Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: recently clearcut VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover HerbOBLHerbFAC+HerbFACWHerbFACW+HerbOBLHerbOBLHerbFACW+HerbNI 129 Carex lurida 50.00 153 Dichanthelium clandestinum 80.00 Impatiens capensis 189 50.00 Juncus effusus Polygonum sagittatum 195 10.00 95.00 227 30.00 243 Scirpus atrovirens Scirpus cyperinus Solidago sp. 244 50.**00** 250 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: EnCHydric ScDepthTextureMatrix ColorMottle Color(%)Comments0-18muck10 YR 3/2Mn concretions Hydric Soil? no -------Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)

 HYDROLOGY:

 Field Observations:
 Wetland Hydrology Indicators.

 Depth of Surface Water:
 2.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [] Saturated in Upper 12

 [] Water Marks
 [] Drift Lines

 [] Sediment Deposit
 [] Sediment Deposit

 HYDROLOGY : [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Sediment Deposit
[X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] PRC Neutral Term] Backwater [X] Depressional [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: rain Recent Rainfall: [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1608 DATE: 08/17/1993 COUNTY: Randolph STATE: WV STREAM: unnamed INVESTIGATOR: EFA, DAK DATE: 08/17/1993 WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? 'nο Remarks: clearcut timber, leaching pond for sewage/manure VEGETATION: Percent Dominant Species that are OBL, FACW or FAC

 Code
 Scientific Name
 Stratum
 Status
 % Areal Cover

 164Eleocharis rostellataHerbOBL189Impatiens capensisHerbFACW227Polygonum sagittatumHerbOBL243Scirpus atrovirensHerbOBL269Unidentifiable grassHerbNI 90.00 10.00 90.00 10.00 75.00 SOIL PROFILE: (Minimum 18 inches) Series Name: EnC Hydrid Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no -----------0-4 sandy silt 7.5 YR 4/4 4-12 clay 5 Y 4/2 ox.root channel ox.root channel Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: ------Field Observations: Wetland Hydrology India Depth of Surface Water: 5.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [] Saturated in U Wetland Hydrology Indicators: Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves Source/Site Characterization: [] Seasonal High Water Table
[] Spring/Seep [X] Floodplain
[] Backwater
[X] Depressional [] Water-Stained Leaves [] Local Soil Survey Data

 Recorded Data (Describe in Remeine);
 [] Other (Explain in formation in today

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in formation in today

 [] Aerial Photographs
 Recent Weather: rain today

 Recent Rainfall:
 Recent Rainfall:

 [] FAC-Neutral Test [] Other (Explain in Remarks) Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes WETLAND DETERMINATION: Hydric soils present? yes

SITE/PLOT#: 1609 DATE: 08/17/1993 INVESTIGATOR: EFA, DAK COUNTY: Randolph STATE: WV STREAM: unnamed WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIE/PSS Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes yes Is the area a potential Problem Area? Remarks: portion of vegetation mowed no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 88.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 OBL
 90.00

 Herb
 FACW+
 5.00

 Herb
 FACW
 5.00

 Herb
 FACW
 60.00

 Herb
 FACW+
 15.00

 Herb
 FACW+
 15.00

 Herb
 FAC
 50.00

 Herb
 FAC
 90.00

 Herb
 FAC
 90.00

 Herb
 FAC
 90.00

 Herb
 FACW
 10.00

 Shrub
 FACU
 25.00
 129 Carex lurida 195 Juncus effusus 217 Onoclea sensibilis 237 Rubus hispidus Scirpus cyperinus Euthamia graminifolia Unidentifiable grass 244 248 269 2030HerbFAC90277Viola spp.HerbFAC90348Ludwigia alternifoliaHerbFACW10453Hypericum prolificumShrubFACU25 SOIL PROFILE: (Minimum 18 inches) Series Name: WeD Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no ------------------------------
 0-5
 sandy silt
 2.5 Y 6/2
 7.5YR 5/8 (20%) ox.root channel

 5-18
 clay
 2.5 Y 6/2
 7.5YR 5/8 (5%) ox.root channel
 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGI:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 3.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 3.0 (in.)
 [X] Saturated in Upper 12

 (aite Characterization:
 [X] Drift Lines

 [] Sediment Deposit

 Source/site Characterization:[X] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] Floodplain[X] Drainage Patterns in Wetlands[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other[] Other[] Other[] OtherRecent Weather:[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1610 SITE/PLOT#: 1610 DATE: 08/17/1993 INVESTIGATOR: EFA, DAK COUNTY: Randolph STATE: WV STREAM: Leading CreekWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PSSIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 5.00 HerbOBLHerbFACWHerbFACWHerbOBLHerbFACWHerbOBLShrubFACShrubFACW+ShrubFACU 129 Carex lurida Carex Luiiu Impatiens capensis 5.00 189 90.00 217 Onoclea sensibilis
227 Polygonum sagittatum
237 Rubus hispidus
345 Hydrocotyle americana 5.00 100.00 100.00 100.00 Acer rubrum 401 20.00 95.00 404 Alnus rugosa 453 Hypericum prolificum 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: WeD Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-18 silty clay 2.5 Y 4/2 none sulfidic Hydric Soil Indicators: [] Histosol [X] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Water MarksSource/Site Characterization:[X] Drift Lines[Y] Seasonal High Water Table[Y] Sediment Deposit [X] Seasonal High Water Table [X] Spring/Seep [X] Sediment Deposit
[X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data [X] Floodplain [] Backwater [X] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Aerial Photographs Recent Weather: rain today [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 1611 DATE: 08/18/ COUNTY: Randolph STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	?	ves	DAK alley River
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW Stratum S	or FAC 100.0 Status %)0 Areal Cover
 129 Carex lurida 153 Dichanthelium clandestinum 189 Impatiens capensis 195 Juncus effusus 203 Lobelia cardinalis 212 Mentha spicata 243 Scirpus atrovirens 250 Solidago sp. 269 Unidentifiable grass 333 Polygonum persicaria 	Herb Herb Herb Herb Herb Herb Herb Herb	OBL FAC+ FACW FACW+ FACW+ OBL NI NI FACW	50.00 30.00 80.00 40.00 5.00 5.00 20.00 15.00 90.00 75.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: MoB Mottle Color	Hydrid (%) Comments	c Soil? no
0-6 silt loam 2.5 Y 4/2 6-18 silt loam 5 Y 3/2	none none	ox.root chan faint sulfic	nnel lic
Hydric Soil Indicators: [] Histosol [] His [X] Sulfidic Material [] Aqu [] Gleyed [X] Low [] mottles [] Ent	tic Epipedon ic Moisture Reg Chroma isol (organic d eaking, chroma	gime context, vert:	ical
HYDROLOGY:			
Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional	Secondary Ind [] Oxidize [] Water-S	icators (2 or	more req'd) ls/Upper 12
	[] FAC-Net	utral Test (Explain in Ro hot sunny	emarks)
WETLAND DETERMINATION: Hydric soils pres Wetland Hydrology Remarks: all 3 criteria met		ydrophytic Ve etland? yes	getation? yes

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SITE/PLOT#: 1612 DATE: 08/18/1993 INVESTIGATOR: EFA, DAK COUNTY: Randolph STATE: WV STREAM: Leading CreekWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: old stream channel now a swale VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover Carex lurida 129 Herb OBL 80.00 129Carex stipataHerbOBL133Carex stipataHerbOBL147Cuscuta gronoviiHerbUPL178Eupatorium perfoliatumHerbFACW+180Galium tinctoriumHerbOBL189Impatiens capensisHerbFACW195Juncus effususHerbFACW+269Unidentifiable grassHerbNI320Vernonia noveboracensisHerbFACW345Hydrocotyle americanaHerbOBL 133 70.00 5.00 10.00 25.00 - 00 50.00 15.00 75.00 90.00 90.00 50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: MoB Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no 0-1 silt loam 10 YR 3/2 none organic 1-18 silt loam 5 Y 4/2 7.5YR 4/4 (30%)ox.root channel -----. Hydric Soil Indicators: C Soll Indicators:[] Histic Epipedon[] Histosol[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:6.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0:0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Drift Lines[X] FloodplainSecondary Indicators (2 or more reg/ [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] Hotal Soll Sulvey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: hot sunny[] OtherRecent Rainfall: earlier in week WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1613 DATE: 08/18/ COUNTY: Randolph STATE: WV STREAM: unnar COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp. Is the area a potential Problem Area? Remarks:	? ves
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover
<pre>129 Carex lurida 153 Dichanthelium clandestinum 189 Impatiens capensis 195 Juncus effusus 203 Lobelia cardinalis 212 Mentha spicata 243 Scirpus atrovirens 250 Solidago sp. 269 Unidentifiable grass 333 Polygonum persicaria</pre>	Herb OBL 50.00 Herb FAC+ 30.00 Herb FACW 80.00 Herb FACW+ 40.00 Herb FACW+ 5.00 Herb FACW+ 5.00 Herb FACW+ 5.00 Herb OBL 20.00 Herb NI 15.00 Herb NI 90.00 Herb FACW 75.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: MoB Hydric Soil? no Mottle Color(%) Comments
0-6 silt loam 2.5 Y 4/2 6-18 silt loam 5 Y 3/2	none ox.root channel none faint sulfidic
Hydric Soil Indicators: [] Histosol [] Histosol [X] Sulfidic Material [] Aqu: [] Gleyed [X] Low [] mottles [] Ent:	tic Epipedon ic Moisture Regime Chroma isol (organic context, vertical eaking, chroma 3, wet spodosol)
HYDROLOGY:	
Field Observations:WetDepth of Surface Water:6.0 (in.)Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)	tland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12
Field Observations: Wet Depth of Surface Water: 6.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional	[] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec [] Other Rec	[] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) cent Weather: hot sunny cent Rainfall: earlier in week
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology Remarks: all 3 criteria met	ent? yes Hydrophytic Vegetation? yes ? yes Wetland? yes

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SITE/PLOT#: 1621 DATE: 08/17/1993 INVESTIGATOR: MZ, DAE COUNTY: Randolph STATE: WV STREAM: Claylick RunWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: overgrown pasture VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 63.00 Code Scientific Name Stratum Status % Areal Cover Herb FACW Herb FAC+ Herb FACW Herb FACW Herb OBL Herb NI Herb OBL Herb FAC-132 Carex sp. 80.00 Dichanthelium clandestinum Onoclea sensibilis 153 30.00 217 217 Onociea sensibilis
225 Polygonum lapathifolium
227 Polygonum sagittatum
279 Asclepias syriaca
350 Polygonum hydropiper
370 Calvategia conium 20.00 20.00 30.00 20.00 370 Calystegia sepium SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-18 silty clay 10 YR 5/1 none many ox.roots Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Histosol
[] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 18.0 (in.) [] Inundated Depth to Saturated Soil: 18.0 (in.) [] Saturated in U Wetland Hydrology Indicators: Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: cloudy, rainy
Recent Rainfall: Aug 1.89"/normal4.2" WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

SITE/PLOT#: 1623 DATE: 08/17/1993 INVESTIGATOR: MZ, DAE COUNTY: Randolph STATE: WV STREAM: near Leading CrWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEM/PSS1 Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? no no Remarks: intermittent channel with small floodplain wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 89.00 Code Scientific Name Stratum Status & Areal Cover Mimulus ringensHerbOBL20.00Polygonum pensylvanicumHerbFACW30.00Polygonum sagittatumHerbOBL40.00Scirpus cyperinusHerbFACW+70.00Symplocarpus foetidusHerbOBL30.00Carex gynandraHerbNI40.00Vernonia noveboracensisHerbFACW+30.00Cornus stoloniferaShrubFACW+50.00Viburnum recognitumShrubFACW+20.00 Mimulus ringens Polygonum pensylvanicum 214 226 227 244 258 297 Vernonia noveboracensis 320 433 559 Viburnum recognitum SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----0-18 clayey silt 10 YR 5/1 none ox.roots Hvdric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Drift Lines[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more reg/ [X] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more req'd) [X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves[] Local Soil Survey Data[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: scattered shws/sunny[] OtherRecent Rainfall: Aug 1.89"/normal 4.2 Recorded Data (Describe in Remarks): -

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 1624 DATE: 08/17/1993 INVESTIGATOR: MZ, DAE COUNTY: Randolph STATE: WV STREAM: near Leading CrWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: open field areas next to corn field пo no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 214 Mimulus ringens 227 Polygonum sagittatum 227Polygonum sagittatumHerbOBL224Scirpus cyperinusHerbFACW+285Carex tribuloidesHerbFACW293Leersia oryzoidesHerbOBL320Vernonia noveboracensisHerbFACW 40.00 40.00 10.00 20.00 90.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments ------0-9 silty clay 7.5 YR 4/0 7.5 YR 5/4 (30%) ox.roots 9- silty sandy 10 YR 5/1 7.5 YR 4/4 (40%) Hydric Soil Indicators:

 C Soll Indicators:
 [] Histic Epipedon

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: (in.) Primary Indicators: Depth to Free Water in Pit: 12.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Drift Lines
[] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks):[] Local Soll Sulvey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: cloudy[] OtherRecent Rainfall: Aug 1.89"/normal 4.2 ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

ROOTINE WEILEND D.	ILERMINATION FORM	
SITE/PLOT#: 1625 DATE: 08/18/ COUNTY: Randolph STATE: WV STREAM: Pear COWARDIN CLASSIFICATION: PSS1A Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	yes	iver
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 88.00 Stratum Status % Areal	Cover
 176 Eupatoriadelphus maculatus 178 Eupatorium perfoliatum 189 Impatiens capensis 273 Verbesina alternifolia 320 Vernonia noveboracensis 372 Erigeron canadensis 404 Alnus rugosa 522 Salix nigra 	Herb FACW 50.0 Herb FACW+ 30.0 Herb FACW 20.0 Herb FAC 50.0 Herb FAC 20.0 Herb FACW 20.0 Herb FACW 20.0 Shrub FACW+ 40.0 Shrub FACW+ 10.0	0 0 0 0 0 0 0
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color		
0-12 silty clay 10 YR 5/1	none ox.roots	
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqu: [] Gleyed [X] Low [] mottles [] Ent:	tic Epipedon C Moisture Regime Chroma sol (organic context, vertical eaking, chroma 3, wet spodosol)	
HYDROLOGY:		
Field Observations: Wet Depth of Surface Water: (in.) Depth to Free Water in Pit: 12.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Records	<pre>land Hydrology Indicators: Primary Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetland Secondary Indicators (2 or more re [X] Oxidized Root Channels/Upper [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) sent Weather: cloudy eent Rainfall: Aug 1.89"/normal 4.1</pre>	eq'd) r 12
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology' Remarks: all 3 parameters met	ent? yes Hydrophytic Vegetation Yes Wetland? yes	n? yes

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SITE/PLOT#: 1626 DATE: 08/18/1993 INVESTIGATOR: MZ, DAE COUNTY: Randolph STATE: WV STREAM: Pearcy Run WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PFO1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status % Areal Cover 217Onoclea sensibilisHerbFACW20.00247Senecio aureusHerbFACW30.00258Symplocarpus foetidusHerbOBL50.00261Thalictrum pubescensHerbFACW+20.00270Unidentifiable herbHerbNI30.00433Cornus stoloniferaShrubFACW+20.00464Lindera benzoinShrubFACW20.00473Nyssa sylvaticaShrubFAC20.00487Prunus serotinaShrubFACU20.00602Acer rubrumTreeFAC30.00613Carpinus carolinianaTreeFACU-30.00635Liquidambar styracifluaTreeFAC30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments ------------------0-9 silty clay 10 YR 4/1 none ox.roots 9-12 silty clay 10 YR 4/1 7.5YR 4/4 (30%)saturated Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [Y] mottles
 [] Entisol (organic contents)

 [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:9.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[X] Sediment Deposit [] Seasonal High Water Table [] Spring/Seep [X] Sediment Deposit
[X] Drainage Patterns in Wetlands [] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[X] Oxidized Root Channels/Upper 12[X] Depressional[X] Water-Stained LeavesRecorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other[] Other[] Other[] OtherRecent Weather: cloudy[] OtherRecent Rainfall: Aug 1.89"/normal 4.2 WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

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SITE/PLOT#: 1627B DATE: 08/18/1993 INVESTIGATOR: MZ, DAE COUNTY: Randolph STATE: WV STREAM: Leading CreekWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: pasture areas not significantly disturbed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 132Carex sp.HerbFACW176Eupatoriadelphus maculatusHerbFACW189Impatiens capensisHerbFACW273Verbesina alternifoliaHerbFAC320Vernonia noveboracensisHerbFACW 40.00 40.00 20.00 30.00 30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BkF Hydrie Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no ----------0-12" silty clay 10 YR 5/1 10 YR 6/6 (10%) ox.roots Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[]InundatedDepth to Saturated Soil:8.0 (in.)[X]Saturated in Upper 12 [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [X] Sediment Deposit
[X] Drainage Patterns in Wetlands] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Depressional [X] Water-Stained Leaves Recorded Data (Describe in Remarks): [] Local Soil Survey Data [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) Recorded Data (Describe in Remaine).
[] Stream, Lake, or Tide Gauge
[] Aerial Photographs
[] Arian Photographs
[] Stream Recent Weather: partly cloudy
[] Recent Rainfall: Aug 1.89",norm.4.2" ------

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

SITE/PLOT#: 1627C DATE: 08/18/1993 INVESTIGATOR: MZ, DAE COUNTY: Randolph STATE: WV STREAM: Leading CreekWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: pasture areas not significantly disturbed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 132Carex sp.HerbFACW176Eupatoriadelphus maculatusHerbFACW189Impatiens capensisHerbFACW273Verbesina alternifoliaHerbFAC320Vernonia noveboracensisHerbFACW 40.00 40.00 20.00 30.00 30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BkF Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0-12" silty clay 10 YR 5/1 10 YR 6/6 (10%) ox.roots Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:8.0 (in.)[X] Saturated in Upper 12 [] Water Marks [] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge[] Other[] Other[] Other[] Aerial PhotographsRecent Weather: partly cloudy[] OtherRecent Rainfall: Aug 1.89", norm.4.2"

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 parameters met

SITE/PLOT#: 1627D DATE: 08/18/1993 INVESTIGATOR: MZ, DAE COUNTY: Randolph STATE: WV STREAM: near Leading CrWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PFO/PSS1 Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 88.00 Code Scientific Name Stratum Status & Areal Cover Herb FACW Herb FACW Herb FACW Herb OBL Herb NI Shrub FACW+ Shrub FACW+ Tree FAC 132 Carex sp.189 Impatiens capensis217 Onoclea sensibilis 30.00 20.00 20.00 20.00 30.00 40.00 217 Onociea sensibilis 227 Polygonum sagittatum 354 Solidago juncea 404 Alnus rugosa 559 Viburnum recognitum 40.00 602 Acer rubrum 30.00 -----_____ SOIL PROFILE: (Minimum 18 inches) Series Name: BkF Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? 0-12 silty clay 10 YR 5/1 10YR 6/6 (10%) ox.roots Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:8.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[X] Depressional[X] Water-Stained Leaves[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: scattered shws/sunny Recent Rainfall: Aug 1.89"/normal 4.2 [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks:

SITE/PLOT#: 1628 DATE: 08/18/1993 INVESTIGATOR: MZ, DAE COUNTY: Randolph STATE: WV STREAM: Leading CreekWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEM2E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: adjacent logging has not disturbed this area significantly VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 225Polygonum lapathifoliumHerbFACW375Peltandra virginicaHerbOBL 50.00 50.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: BkF Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-5
 silty clay
 10 YR 5/1
 10 YR 7/6 (10%)ox.roots/ sat.

 5-18
 silty clay
 10 YR 5/1
 10 YR 6/6 (10%)concretioius
 Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleved [X] Low Chroma [] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [X] Sediment Deposit [] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Backwater [X] Depressional [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks)

 Recorded Data (Describe in Remarks, in Semanal (Explain (Explain in Semanal (Explain (Ex Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Remarks: all 3 parameters met

SITE/PLOT#: 1630 DATE: 09/21/1993 INVESTIGATOR: MZ, DAK COUNTY: Randolph STATE: WV STREAM: WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: pasture-mowed regularly VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover 153Dichanthelium clandestinumHerbFAC+20.00217Onoclea sensibilisHerbFACW60.00270Unidentifiable herbHerbNI20.00273Verbesina alternifoliaHerbFAC20.00379Anemonella thalictroidesHerbNI20.00383Setaria faberiiHerbNI30.00384Viola septentrionalisHerbFACU80.00 Herb SOIL PROFILE: (Minimum 18 inches) Series Name: Ph Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-4 silty loam 2.5 Y 5/3 none ox.roots 4-12 silty loam 5 Y 5/3 10 YR 6/8 (30%)ox.roots Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 18.0 (in.) [] Inundated Depth to Saturated Soil: 18.0 (in.) [] Saturated in Upper 12 [] Water Marks [] Water Marks Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Drift Lines [X] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Floodplain [] Backwater [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in R [] Aerial Photographs Recent Weather: cool, cloudy [] Other Recent Rainfall: 0.5 inch [] FAC-Neutral Test
[] Other (Explain in Remarks)

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met;although soils do not meet chroma criteria,hydric soil prese

SITE/PLOT#: 1631 DATE: 09/21/3 COUNTY: Randolph STATE: WV STREAM: COWARDIN CLASSIFICATION: PEMIA Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks: pasture-mowed regularly	1993 INVESTIGATOR: MZ, DAK WATERSHED: Tygart Valley River no ical Situation)? no no				
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 50.00 Stratum Status % Areal Cover				
 153 Dichanthelium clandestinum 270 Unidentifiable herb 273 Verbesina alternifolia 379 Anemonella thalictroides 383 Setaria faberii 384 Viola septentrionalis 	Herb FAC+ 20.00 Herb NI 20.00 Herb FAC 20.00 Herb NI 80.00				
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Ph Hydric Soil? no Mottle Color(%) Comments				
0-4 silty loam 2.5 Y 5/3 4-12 silty loam 5 Y 5/3	none ox.roots 10 YR 6/8 (30%)ox.roots				
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)					
HYDROLOGY:					
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 10.0 (in.) Depth to Saturated Soil: 10.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep	<pre>land Hydrology Indicators: Primary Indicators: [] Inundated [] Saturated in Upper 12 [] Water Marks [X] Drift Lines [X] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12</pre>				
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec [] Other Rec					
WETLAND DETERMINATION: Hydric soils prese					

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met;although soils don't meet chroma criteria,hydric soils prese

.

SITE/PLOT#: 1632 DATE: 09/21/1993 INVESTIGATOR: MZ, DAK COUNTY: Randolph STATE: WV STREAM: unnamed WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: very wet shrub zone next to POW no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 189Impatiens capensisHerbFACW30.00227Polygonum sagittatumHerbOBL40.00262Thelypteris noveboracensisHerbFAC40.00269Unidentifiable grassHerbNI20.00380Aster nemoralisHerbFACW+20.00405Alnus serrulataShrubOBL50.00522Salix nigraShrubFACW+30.00544Viburnum dentatumShrubFAC30.00608Betula alleghaniensisTreeFAC20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Ph Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0- silty clay 5 Y 4/1 10 YR 5/80x.roots, satur 10 YR 5/8ox.roots, satur. Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [X] Sediment Deposit Source/site characterization:[] Drift Lines[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] Floodplain[X] Oxidized Root Channels/Upper 12[] Depressional[X] Oxidized Root Channels/Upper 12[] Depressional[] Water-Stained LeavesRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks) [] Seasonal High Water Table [] Spring/Seep Recorded Data (Describe in Remaine) [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1650A DATE: 11/01/1993 INVESTIGATOR: MZ, ABC COUNTY: Randolph STATE: WV STREAM: Claylick RunWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIF Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 129 Carex lurida 244 Scirpus cyperinus 297 Carex gynandra 526 Spiraea alba Herb OBL Herb FACW+ Herb NI Shrub FACW+ Herb 20.00 60.00 20.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Ph Hydric Soil? nl Depth Texture Matrix Color Mottle Color (%) Comments 0-2 ORGANIC 2-6 SILTY CLAY N4 6-10 SILTY CLAY 2.5 Y 4/2 OX.ROOTS OX.ROOTS -------Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.)Depth to Free Water in Pit:(in.)Depth to Saturated Soil:(in.)Depth to Saturated Soil:(in.)Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Drainage Patterns in Wetlands[] Spring/Seep[] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[X] Backwater[] Water-Stained Leaves[] Depressional[] Local Soil Survey Data[] Local Soil Survey Data[] FAC-Neutral Test[] The in Remarks):[] FAC-Neutral in Remarks) HYDROLOGY : Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: SNOW [] Aerial Photographs [] Other Recent Rainfall: 4"SNOW WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: ALL 3 CRITERIA MET

SITE/PLOT#: 1650B DATE: 11/01/1993 INVESTIGATOR: MZ, ABC COUNTY: Randolph STATE: WV STREAM: Claylick RunWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PF01B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status & Areal Cover 10.00 Herb FACW Herb NI Shrub FACW+ Shrub FACW Tree FAC Tree FACU 132 Carex sp.
269 Unidentifiable grass 20.00 433 Cornus stolonifera
539 Vaccinium corymbosum
613 Carpinus caroliniana
661 Quercus rubra 10.00 20.00 80.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Ph Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments
 0-1
 CLAYEY SILT
 10 YR 4/3
 OX.ROOTS

 1-2
 CLAYEY SILT
 10 YR 4/2
 10 YR 3/60X.ROOTS

 2-8
 SILT
 10 YR 4/3
 MG CONCRETIONS
 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:11.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Drift LinesSource/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit [] Seasonal High Water Table [] Spring/Seen [] Sediment Deposit [] Drainage Patterns in Wetlands [] Spring/Seep [X] Floodplain [] Spring/Seep [] Drainage Patterns in Wetlands
[X] Floodplain [] Backwater [] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Depressional [X] Oxidized Root Channels/Upper 12
[X] Depressional [] Water-Stained Leaves
[] Local Soil Survey Data
Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks)
[] Aerial Photographs Recent Weather: SNOW
[] Other Recent Rainfall: 4" SNOW - -WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: ALL 3 CRITERIA MET

SITE/PLOT#: 1651A DATE: 11/01/1993 INVESTIGATOR: MZ, ABC COUNTY: Randolph___STATE: WV_STREAM: Claylick RunWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PSSIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover -----20.00 250Solidago sp.HerbNI269Unidentifiable grassHerbNI524Sambucus canadensisShrubFACW 20.00 20.00 60.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Ph Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments CLAYEY SILT 10 YR 5/3 ORGANIC ------
 0-3
 CLAYEY SILT
 10 YR 5/3
 ORGANIC

 3-8
 CLAYEY SILT
 10 YR 5/2
 7.5YR 4/6 (25%)OX.ROOTS

 8-12
 CLAYEY SILT
 10 YR 5/2
 7.5YR 5/8 (25%)MG CONCRETIONS
 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:6.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Drift Lines[] Spring/Seep[] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[X] Backwater[X] Oxidized Root Channels/Upper 12 [] Spring/Seep [X] Floodplain [X] Backwater [] Depressional [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data

 Recorded Data (Describe in Remaine).
 [X] Other (Explaine)

 [] Stream, Lake, or Tide Gauge
 [X] Other (Explaine)

 [] Aerial Photographs
 Recent Weather: SNOW

 Recent Rainfall: 4" SNOW

 [] FAC-Neutral Test [X] Other (Explain in Remarks) WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: ALL 3 CRITERIA MET

SITE/PLOT#: 1651B DATE: 11/01/1993 INVESTIGATOR: MZ, ABC COUNTY: Randolph STATE: WV STREAM: Claylick RunWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover 250Solidago sp.HerbNI20.00269Unidentifiable grassHerbNI20.00388Rudbeckia trilobaHerbFACU20.00524Sambucus canadensisShrubFACW60.00814Ampelopsis arboreaVineFACW20.00
 Herb
 NI
 20.00

 Herb
 NI
 20.00

 Herb
 FACU
 20.00

 Shrub
 FACW
 60.00

 Vine
 FACW
 20.00
 SOIL PROFILE: (Minimum 18 inches) Series Name: Ph Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? nl _ _ _ _ _ _ _ _ _ _ _ _ ----------
 0-3
 clayey silt
 10 YR 5/3
 organic matter

 3-8
 clayey silt
 10 YR 5/2
 7.5YR 4/6 (25%) ox.roots

 8-12
 clayey silt
 10 YR 5/2
 7.5YR 5/8 (25%) concr.mg
 Hydric Soil Indicators:

 C Soli Indicators:
 [] Histic Epipedon

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: (in.) Depth to Saturated Soil: Source/Site Characterization: [] Seasonal High Water Table [] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg' [] Spring/Seep [X] Floodplain [X] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional [] Water-Stained Leaves
[] Local Soil Survey Data
Recorded Data (Describe in Remarks):
[] Stream, Lake, or Tide Gauge
[] Aerial Photographs
[] Other [X] Other (Explain in Remarks)
[] Other Recent Weather: snow
[] Other Reinfall: 4"snow

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Wetland Hydrology? yes

SITE/PLOT#: 1651C DATE: 11/01/1993 INVESTIGATOR: MZ, ABC COUNTY: Randolph STATE: WV STREAM: Claylick RunWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover ----------250 Solidago sp. 269 Unidentifiable grass Herb NI Herb NI Herb FACU Shrub FACW Vine FACW 20.00 20.00 20.00 60.00 20.00 388 Rudbeckia triloba 524 Sambucus canadensis 814 Ampelopsis arborea SOIL PROFILE: (Minimum 18 inches) Series Name: Ph Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hvdric Soil? nl

 0-3
 clayey silt
 10 YR 5/3
 organic matter

 3-8
 clayey silt
 10 YR 5/2
 7.5YR 4/6 (25%) ox.roots

 8-12
 clayey silt
 10 YR 5/2
 7.5YR 5/8 (25%) concr.mg

 _ _ _ _ _ _ _ _ _ _ _ Hydric Soil Indicators:

 C Soll Indicators:
 [] Histic Epipedon

 [] Histic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:6.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Drift Lines[] Spring/Seep[] Drainage Patterns in Wetlands[X] Floodplain[] Drainage Patterns in Wetlands[X] Floodplain[] Drainage Patterns in Wetlands[X] Backwater[] Drainage Patterns in Wetlands[] Depressional[X] Oxidized Root Channels/Upper 12[] Depressional[X] Oxidized Root Channels/Upper 12[] Stream, Lake, or Tide Gauge[] Local Soil Survey Data[] Aerial Photographs[X] Other (Explain in Remarks)[] Other[X] Other (Explain in Remarks) Recent Rainfall: 4"snow WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1652A DATE: 02/22/1994 INVESTIGATOR: EFA, DAK COUNTY: Randolph STATE: WV STREAM: Lazy Run WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: area divided into 3 vegetation classifications VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 66.00 Code Scientific Name Stratum Status & Areal Cover 4Lycopodium sp.BryoNI132Carex sp.HerbFACW153Dichanthelium clandestinumHerbFAC+237Rubus hispidusHerbFACW250Solidago sp.HerbNI269Unidentifiable grassHerbNI320Vernonia noveboracensisHerbFACW391Andropogon virginicusHerbFACU507Rosa multifloraShrubFACU 80.00 50.00 10.00 90.00 25.00 100.00 5.00 10.00 75.00 SOIL PROFILE: (Minimum 18 inches) Series Name: EnC Hydric Soil? no DepthTextureMatrix ColorMottle Color(%)Comments0-4silty clay/org2.5 Y 5/2ox.root channel
 0-4
 silty clay/org
 2.5 Y 5/2
 ox.root channel

 4-18
 silty clay
 5 Gy 5/1
 10 YR 5/6 (10%) ox.root channel
 _____ Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[X] Gleyed[X] Low Chroma[] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Drift Lines[] Seasonal High Water Table[X] Sediment Deposit [X] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [X] Backwater [] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks):

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Aerial Photographs
 [] Other

 [] Other
 [] Other

 [] Other
 [] Recent Weather: sunny

 [] Other
 [] Recent Rainfall: recent flood/receded

 WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: this data sheet is PEM portion of 1652; all 3 criteria met

SITE/PLOT#: 1652B DATE: 02/22/1994 INVESTIGATOR: DAK, EFA COUNTY: Randolph STATE: WV STREAM: Lazy Run WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PSS1E/PEM Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: area divided into 3 veg classif. no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover -----195 Juncus effusus 269 Unidentifiable grass 404 Alnus rugosa Herb FACW+ Herb NI Shrub FACW+ 5.00 95.00 50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: EnC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-12 silty-clay 2.5 Y 5/2 10 YR 5/6 (20%)ox.root channel ____ Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Gleyed [X] mottles [] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol)

 HYDROLOGY:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [] Saturated in Upper 12

 Source/Site Characterization:
 [X] Drift Lines

 [] Seasonal High Water Table
 [X] Sediment Deposit

 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more reg'

 Channels/Upper 1

 HYDROLOGY : Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [X] Backwater [] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other tographs [] Other (Explain in Remarks) Recent Weather: sunny Recent Rainfall: recent flood/receded -----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1652C DATE: 02/22/1994 INVESTIGATOR: EFA, DAK COUNTY: Randolph STATE: WV STREAM: Lazy Run WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PSS1E/PFO Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: area has been divided into a,b,c c/o different cowardin classif. VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover 5 Polystichum acrostichoides 237 Rubus hispidus 401 Acer rubrum 404 Alnus rugosa 651 Prunus serotina
 Bryo
 FACU 5.00

 Herb
 FACW
 90.00

 Shrub
 FAC
 5.00

 Shrub
 FACW+
 50.00

 Tree
 FACU
 15.00
 SOIL PROFILE: (Minimum 18 inches) Series Name: EnC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-12 silty clay 2.5 Y 5/2 saturated 12 refusal Hydric Soil Indicators: [] Histosol [] Sulfidic Material Histic Epipedon
 Aquic Moisture Regime
 Low Chroma
 Entisol (organic context, vertical) [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations: Wetland Hydrology Indic Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [X] Water Marks [X] Water Marks
[X] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FRC-Neutral Test Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain
[X] Backwater
[X] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other:[] OtherRecent Weather: sunny[] OtherRecent Rainfall: recent flood/receded WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1653 DATE: 02/22/1994 INVESTIGATOR: EFA, DAK COUNTY: Randolph STATE: WV STREAM: Lazy Run WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIF/PSS SITE/PLOT#: 1653 Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: stream channel alteration by landowner photos-16,15,14 VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover _ _ _ _ _ _ _ _ _ 176Eupatoriadelphus maculatusHerbFACW195Juncus effususHerbFACW+250Solidago sp.HerbNI269Unidentifiable grassHerbNI320Vernonia noveboracensisHerbFACW404Alnus rugosaShrubFACW+ 5.00 5.00 90.00 100.00 10.00 50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: EnC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ----------0-6 silty clay 2.5 Y 4/3 10 YR 4/6 (25%) ox.root channel 6-12 silty clay 2.5 YR 5/0 10 YR 4/6 (30%) no ox.root ch. ----------Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:12.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more reg/ [X] Floodplain [X] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional [] Water-Stained Leave [] Local Soil Survey Data [] FAC-Neutral Test Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks)

 Recorded Data (Describe in Remarks)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Aerial Photographs
 Recent Weather: sunny

 [] Other
 Recent Rainfall: recent flood/receded

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met; old ox bow; cut off from active stream channel

SITE/PLOT#: 1654 INVESTIGATOR: EFA, DAK WATERSHED: Tygart Valley River DATE: 02/22/1994 COUNTY: Randolph STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1F Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves ves Is the area a potential Problem Area? no Remarks: heavy silt load/erosion from paddock upslope. VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 66.00 Code Scientific Name Stratum Status & Areal Cover 106Apocynum cannabinumHerbFACU20.00132Carex sp.HerbFACW50.00153Dichanthelium clandestinumHerbFACH30.00176Eupatoriadelphus maculatusHerbFACW50.00195Juncus effususHerbFACW50.00237Rubus hispidusHerbFACW+50.00250Solidago sp.HerbNI75.00269Unidentifiable grassHerbNI90.00320Vernonia noveboracensisHerbFACW50.00391Andropogon virginicusHerbFACU20.00507Rosa multifloraShrubFACU5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Pm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-2
 silt/clay org
 2.5 Y 5/2
 10 YR 6/8 (5%)

 2-18
 silt loam
 2.5 Y 5/2
 10 YR 6/8 (5%) no org. debris
 Hydric Soil Indicators: [] Histosol [] Histic Epipedon
[] Sulfidic Material [] Aquic Moisture Regime
[] Gleyed [X] Low Chroma
[X] mottles [] Entisol (organic context, vertical
streaking chroma 3 wet condect) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[X] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more regional contents) [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more reg'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional [] Depressional [] Water-Stained Leaves
[] Local Soil Survey Data
[] Local Soil Survey Data
[] Local Soil Survey Data
[] Aerial Photographs
[] Aerial Photographs
[] Other [] Other [] Other [] Other [] Recent Weather: sunny
[] Other [] Recent Rainfall: recent flood/heavy _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 1655 DATE: 02/23/1994 COUNTY: Randolph STATE: WV STREAM: SITE/PLOT#: 1655 INVESTIGATOR: EFA, DAK WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: heavily eroded swale upslope deposits much sediment into wetland VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 40.00 Code Scientific Name Stratum Status % Areal Cover 153Dichanthelium clandestinumHerbFAC+30.00198Juncus sp.HerbNI5.00250Solidago sp.HerbNI10.00269Unidentifiable grassHerbNI75.00271Unidentifiable sedgeHerbNI30.00304Hypericum prolificumHerbFACU75.00404Alnus rugosaShrubFACW+95.00416Betula lentaShrubFACU5.00507Rosa multifloraShrubFACU10.00 153 Dichanthelium clandestinum SOIL PROFILE: (Minimum 18 inches) Series Name: BkF Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----

 0-3
 silt loam
 10 YR 4/4
 10 YR 6/8 (30%) ox.root channel

 3-8
 silt loam
 2.5 Y 4/3
 10 YR 5/8 (20%)

 8-11
 silt clay
 2.5 Y 4/0
 10 YR 5/8 (20%)

 Hydric Soil Indicators: [] Histosol
[] Sulfidic Material
[] Gleyed
[X] mottles [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Field Observations:Wetland Hydrology IndicDepth of Surface Water:18.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [X] Inundated
[X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines [X] Sediment Deposit Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Drainage Patterns in Wetlands [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves

 [] Depressional
 [] water-Stained Leaves

 Recorded Data (Describe in Remarks):
 [] Local Soil Survey Data

 [] Stream, Lake, or Tide Gauge
 [] FAC-Neutral Test

 [] Aerial Photographs
 [] Other

 [] Other
 Recent Weather: sunny

 [] Other
 Recent Rainfall: flooding snow melt

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 1656 DATE: 02/22/1994 INVESTIGATOR: EFA, DAK COUNTY: Randolph STATE: WV STREAM: WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEM1E/PSS Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no				
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum Status % Areal Cover			
 153 Dichanthelium clandestinum 195 Juncus effusus 237 Rubus hispidus 250 Solidago sp. 269 Unidentifiable grass 271 Unidentifiable sedge 304 Hypericum prolificum 502 Rhododendron periclymenoides 507 Rosa multiflora 544 Viburnum dentatum 	Herb FAC+ 30.00 Herb FACW+ 50.00 Herb FACW 75.00 Herb NI 75.00 Herb NI 90.00 Herb NI 30.00 Herb NI 25.00 Shrub FACU 5.00 Shrub FACU 5.00 Shrub FACU 5.00			
SOIL PROFILE: (Minimum 18 inches) Series Name: BkF Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments				
0-4 silt loam 2.5 Y 3/2 4-12 silt clay 2.5 Y 4/2	10 YR 6/8 (30%)ox.roots 10 YR 5/8 (30%)ox.roots concr.			
Hydric Soil Indicators: [] Histic Epipedon [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)				
HYDROLOGY:				
Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: (in.) Primary Indicators: Depth to Free Water in Pit: (in.) [] Inundated Depth to Saturated Soil: 12.0 (in.) [X] Saturated in Upper 12 Source/Site Characterization: [] Drift Lines [] Seasonal High Water Table [] Sediment Deposit [X] Spring/Seep [X] Drainage Patterns in Wetlands				
[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves				
Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: sunny[] OtherRecent Rainfall: flooding/snow melt				
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology Remarks: all 3 criteria met	ent? yes Hydrophytic Vegetation? yes ? yes Wetland? yes			

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SITE/PLOT#: 1657 DATE: 02/23/1994 INVESTIGATOR: EFA, DAK COUNTY: Randolph STATE: WV STREAM: Leading CreekWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PFO1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? πo no Remarks: adjacent to Leading Creek VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover Cornus stolonifera Fraxinus pennsylvanica 433 Shrub FACW+ Shrub FACW+ Shrub FACW Shrub NI Tree FAC Tree FACU 15.00 446 10.00 562 Crataegus sp.
602 Acer rubrum
651 Prunus serotina 10.00 60.00 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Ph Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-12" silt loam 10 YR 5/6 none -----------Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Gleyed [] mottles [] Aquic Moisture Regime
[] Low Chroma
[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[X] Floodplain[] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves[] Local Soil Survey Data ------[] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test [X] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: [] Other Other Recent Rainfall:

WETLAND DETERMINATION: Hydric soils present? no Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: numerous hydrology indicator lead to BPJ that the site is a wetland

SITE/PLOT#: 1659 DATE: 02/23/1994 INVESTIGATOR: EFA, DAK COUNTY: Randolph STATE: WV STREAM: Leading CreekWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PSS1E/PFO Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: floodwaters prohibit onside delineation. return later to finish VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover Code Scientific Name
 Herb
 NI
 30.00

 Herb
 NI
 75.00

 Herb
 NI
 25.00

 Herb
 FAC
 20.00

 Shrub
 FACW+
 40.00

 Shrub
 FACW+
 30.00

 Shrub
 FACW+
 30.00

 Shrub
 FACW+
 30.00

 Tree
 FACU
 30.00
 269 Unidentifiable grass 270 Unidentifiable herb 270 Unidentifiable herb
271 Unidentifiable sedge
277 Viola spp.
404 Alnus rugosa
420 Carpinus caroliniana
433 Cornus stolonifera
562 Crataegus sp.
651 Prunus serotina

 SOIL PROFILE: (Minimum 18 inches) Series Name: At
 Hydric S

 Depth
 Texture
 Matrix Color
 Mottle Color(%)
 Comments

 Hydric Soil? no
 0-6
 silty clay
 10 YR 4/1
 10 YR 4/3 (30%) ox.rt. ch.; sat

 6-18
 silty clay
 10 YR 4/3
 no ox.rt.ch.
 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:6.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[X] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[V] FloodplainSecondary Indicators (2 or more reg/ [X] Drainage Facterins in wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] PRO Neutral Test [X] Floodplain
[] Backwater Depressional Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: heavy rain/snow 32[] OtherRecent Rainfall: flooding Recorded Data (Describe in Remarks): Remarks: all 3 criteria met; near sta.630 line 16-F

SITE/PLOT#: 1660 DATE: 04/20/1994 INVESTIGATOR: MZ COUNTY: Randolph STATE: WV STREAM: WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEM Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC Code Scientific Name Stratum Status % Areal Cover -----------SOIL PROFILE: (Minimum 18 inches) Series Name: Hydric Soil? Depth Texture Matrix Color Mottle Color(%) Comments _____ Hydric Soil Indicators:

 C Soli Indicators:
 [] Histic Epipedon

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: (in.) Primary Indicators: [] Inundated Wetland Hydrology Indicators: Primary Indicators:
 [] Inundated
 [] Saturated in Upper 12
 [] Water Marks
 [] Drift Lines
 [] Sediment Deposit
 [] Drainage Patterns in Wetlands
 Secondary Indicators (2 or more req'd)
 [] Oridized Root Channels/Upper 12 Depth to Free Water in Pit: (in.) Depth to Saturated Soil: (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Depressional [] Water-Stained Louise [] Local Soil Survey Data [] EAC-Neutral Test Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] FAC-Neutral Test [] Other (Explain in Remarks) ſ [] Aerial Photographs [] Other Recent Weather: Recent Rainfall: WETLAND DETERMINATION:Hydric soils present?Hydrophytic Vegetation?Wetland Hydrology?Wetland?

Remarks:

SITE/PLOT#: 2101A DATE: 12/03/1993 INVESTIGATOR: EFA, DAK COUNTY: Frederick STATE: VA STREAM: Cedar Creek WATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PF01G Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? no ves Is the area a potential Problem Area? Remarks: road fill introduced ño VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status % Areal Cover Herb FACW Herb FACW+ Herb FACW Shrub FACW+ Shrub FACU Shrub FACW+ Tree FACW Vine FAC-5.00 108 Arisaema stewardsonii 108Arisaema stewardsonii195Juncus effusus217Onoclea sensibilis404Alnus rugosa507Rosa multiflora522Salix nigra646Platanus occidentalis803Lonicera japonica 5.00 5.00 5.00 50.00 95.00 75.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: Craigsville Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0-18 silty sand 10 YR 3/2 sat in pots Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:18.0 (in.)Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)Depth to Saturated Soil:0.0 (in.)Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Depressional[] Oxidized Root Channels/Upper 12[] Depressional[] Local Soil Survey Data[] FAC-Neutral Test[] FAC-Neutral Test HYDROLOGY Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other[] OtherRecent Weather: cold 30 degrees Recent Rainfall: none [] Other ------WETLAND DETERMINATION:Hydric soils present? yesHydrophytic Vegetation? yesWetland Hydrology? yesWetland? yesRemarks: all 3 criteria met; beaver damming water in backwater area; saturated in spots; ba

SITE/PLOT#: 2101B DATE: 12/03/1993 INVESTIGATOR: EFA, DAK COUNTY: Frederick STATE: VA STREAM: Cedar Creek WATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PF01G Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? $n \circ$ ves Is the area a potential Problem Area? Remarks: road fill introduced no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 176Eupatoriadelphus maculatusHerbFACW5.00227Polygonum sagittatumHerbOBL25.00464Lindera benzoinShrubFACW10.00522Salix nigraShrubFACW+30.00646Platanus occidentalisTreeFACW90.00803Lonicera japonicaVineFAC-75.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Craigsville Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments --------------------0-18 silty sand 10 YR 2/2 depth to sat. Hydric Soil Indicators: [] Histosol Histosol[] Histic EpipedonSulfidic Material[] Aquic Moisture RegimeGleyed[X] Low Chromamottles[] Entisol (organic context, vertical [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:8.0 (in.)[] InundatedDepth to Saturated Soil:8.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floodplain [X] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Depressional [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Weather: cold 30 Recent Rainfall: non WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 2102 DATE: 12/03/199 COUNTY: Shenandoah STATE: VA STREAM: unnamed COWARDIN CLASSIFICATION: PEM1E/PSS1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypica Is the area a potential Problem Area? Remarks:	yes			
VEGETATION: Percent Dominant Species that ar Code Scientific Name St	ratum Status % Areal Cover			
<pre>109 Asclepias incarnata 129 Carex lurida 153 Dichanthelium clandestinum 177 Eupatoriadelphus purpureus 178 Eupatorium perfoliatum 195 Juncus effusus 214 Mimulus ringens 242 Scirpus americanus 250 Solidago sp. 269 Unidentifiable grass 348 Ludwigia alternifolia 665 Salix nigra</pre>	Herb OBL 10.00 Herb OBL 15.00 Herb FAC+ 75.00 Herb FAC 25.00 Herb FACW+ 25.00 Herb FACW+ 75.00 Herb OBL 25.00 Herb OBL 10.00 Herb OBL 10.00 Herb NI 50.00 Herb NI 90.00 Herb FACW 5.00 Tree FACW+ 25.00			
SOIL PROFILE: (Minimum 18 inches) Series Name: Gainesboro-BerkHydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments				
0-2 silt 7.5 YR 4/4 2-6 silt 10 YR 5/2 6-12 silt 10 YR 6/1 refusal				
Hydric Soil Indicators: [] Histosol [] Histic [] Sulfidic Material [] Aquic [] Gleyed [X] Low Ch [X] mottles [] Entiso streak	Epipedon Moisture Regime roma 1 (organic context, vertical ing, chroma 3, wet spodosol)			
HYDROLOGY :				
Field Observations: Wetla Depth of Surface Water: 6.0 (in.) Pr Depth to Free Water in Pit: 4.0 (in.) Depth to Saturated Soil: 4.0 (in.) Source/Site Characterization:	nd Hydrology Indicators: imary Indicators: [X] Inundated [X] Saturated in Upper 12 [X] Water Marks			
[X] Spring/Seep	<pre>[X] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands condary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data</pre>			
Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recen [] Other Recen	[] FAC-Neutral Test [] Other (Explain in Remarks) t Weather: cold 30 t Rainfall: none			
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met				

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SITE/PLOT#: 2103 DATE: 12/04/1993 INVESTIGATOR: EFA, DAK COUNTY: Shenandoah STATE: VA STREAM: Zanes Run WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status Stratum Status & Areal Cover -----195 Juncus effusus
268 Typha latifolia
269 Unidentifiable grass
271 Unidentifiable sedge
803 Lonicera japonica Herb FACW+ Herb OBL Herb NI Herb NI Vine FAC-10.00 25.00 20.00 10.00 25.00 _____ -----SOIL PROFILE: (Minimum 18 inches) Series Name: Fred. & Popli. Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-6 muck 10 YR 4/2 refusal _ _ _ _ _ _ _ _ _ Hydric Soil Indicators: [] Histosol [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical)] Sulfidic Material] Gleyed] mottles [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : HiDrologi.Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)ImundatedDepth to Saturated Soil:0.0 (in.)Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Drift Lines[] Secondarv Indicators (2 or more requiredSecondarv Indicators (2 or more required) [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Depressional [] Water-Stained Leaves
[] Local Soil Survey Data [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge Recent Weather: cold 30 Recent Rainfall: heavy rain] Aerial Photographs [] Other -----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 2250A DATE: 11/10/1993 SITE/PLOT#: 2250A DAIL: 11 COUNTY: Frederick STATE: VA STREAM: INVESTIGATOR: EFA, DMB WATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PSS1F Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: well head/pipe has been installed into spring VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 UPL
 15.00

 Herb
 OBL
 40.00

 Herb
 NI
 20.00

 Shrub
 FACW+
 50.00

 Shrub
 FACW
 50.00
 147 Cuscuta gronovii 227 Polygonum sagittatum 392 Silene cucubalus
404 Alnus rugosa
464 Lindera benzoin SOIL PROFILE: (Minimum 18 inches) Series Name: Weikert-Berks Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-5 sandy silt 10 YR 5/1 refusal Hydric Soil Indicators: [] Histosol [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [X] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in U Wetland Hydrology Indicators: [X] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional [] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other[] OtherRecent Weather: clear sunny[] OtherRecent Rainfall: none WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 2250B DATE: 11/10/1993 INVESTIGATOR: EFA. DMB COUNTY: Frederick STATE: VA STREAM: WATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PSS1F Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? Remarks: well head/pipe has been installed into spring 'nο VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover Code Scientific Name Stratum Status -----147 Cuscuta gronovii
227 Polygonum sagittatum
392 Silene cucubalus
404 Alnus rugosa
464 Lindera benzoin Herb UPL Herb OBL Herb NI Shrub FACW+ Shrub FACW 15.00 40.00 20.00 50.00 50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Weikert-Berks Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-5 sandy silt 10 YR 5/1 refusal _____ Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Histosol [X] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:3.0 (in.)Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)[] Saturated in U Wetland Hydrology Indicators: [X] Inundated [] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: clear sunny[] OtherRecent Rainfall: none Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 2301 DATE: 11/09/1993 INVESTIGATOR: EFA, DMB SITE/PLOT#: 2301 DATE: 13 COUNTY: Hardy STATE: WV STREAM: WATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEM1E/PSS1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 150.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 FACW
 5.00

 Herb
 FACW+
 80.00

 Herb
 OBL
 100.00

 Shrub
 FACW+
 5.00

 Shrub
 OBL
 5.00

 Shrub
 OBL
 2.00
 189 Impatiens capensis 189 Impatiens capensis
195 Juncus effusus
268 Typha latifolia
404 Alnus rugosa
426 Cephalanthus occidentalis
507 Rosa multiflora _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Ln Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-12 silty clay 10 YR 6/2 12 refusal 7.5 YR 5/60x.roots -----Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:3.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in K [] Seasonal High Water Table
[] Spring/Seep
[] Floodplain [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Backwater [X] Depressional

 [X] Depressional
 [] Water-Stained Leaves

 [] Local Soil Survey Data

 Recorded Data (Describe in Remarks):
 [] FAC-Neutral Test

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarks)

 [] Aerial Photographs
 Recent Weather: cold <35</td>

 [] Other
 Recent Rainfall: none

 Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: recieves run-off from road, fields. all 3 criteria met

SITE/PLOT#: 2302DATE: 11/09/1993INVESTIGATOR: EFA, DMBCOUNTY: HardySTATE: WV STREAM: unnamedWATERSHED: Cacapon River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: grid of ditches draining pasture water collects in ponds. VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover Code Scientific Name S ------ - - - - - - - - - - - -2Sphagnum sp.BryoNI195Juncus effususHerbFACW+237Rubus hispidusHerbFACW244Scirpus cyperinusHerbFACW+320Vernonia noveboracensisHerbFACW391Andropogon virginicusHerbFACU 5.00 100.00 75.00 30.00 75.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Purdy Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments -----_ _ _ _ _ _ _ _ _ _ _ _ _ ------0-18 clay 10 YR 3/1 -----Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entipole abused and a second streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicatorsDepth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:-3.0 (in.)[] InundatedDepth to Saturated Soil:-3.0 (in.)[] Saturated in Upper Wetland Hydrology Indicators: [] Inundated [] Saturated in Upper 12 [X] Water Marks [X] Drift Lines Source/Site Characterization: Source/Site Characterization:
[] Seasonal High Water Table
[] Spring/Seep
[] Floodplain
[] Backwater
[] Depressional [] Sediment Deposit
[X] Drainage Patterns in Wetlands [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Sent Weather: cold Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge] Aerial Photographs Recent Weather: cold [] Other Recent Rainfall: none WETLAND DETERMINATION:Hydric soils present? yesHydrophytic Vegetation? yesWetland Hydrology? yesWetland? yesRemarks: possibly prior converted wetland (ditches)all 3 criteria met

SITE/PLOT#: 2303 DATE: 11/09/2 COUNTY: Hardy STATE: WV STREAM: unnar COWARDIN CLASSIFICATION: PEMIF/PSSIF Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp: Is the area a potential Problem Area? Remarks:	?	ves	SFA, DMB apon River		
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum	Status	<pre>% Areal Cover</pre>		
 142 Cirsium sp. 168 Epilobium hirsutum 195 Juncus effusus 212 Mentha spicata 227 Polygonum sagittatum 250 Solidago sp. 269 Unidentifiable grass 426 Cephalanthus occidentalis 519 Salix fragilis 	Herb Herb Herb Herb Herb Herb Shrub Shrub	NI FACW FACW+ OBL NI NI OBL FAC+	25.00 10.00 5.00 20.00 100.00 25.00 50.00 5.00 5.00		
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: AgB Mottle Cold	H Dr(%) Comm	lydric Soil? no ments		
0-8 sily clay 10 YR 4/2 8 refusal	7.5	5 YR 5/8sat	urated		
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)					
HYDROLOGY					
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[X] Depressional[] Oxidized Root Channels/Upper 12					
Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[X] Backwater[] Oxidized Root Channels/Upper 12[X] Depressional[X] Water-Stained Leaves[] Local Soil Survey Data					
	[] FAC-N	Neutral Tes c (Explain :			
	? yes	Wetland?	c Vegetation? yes		

Remarks: part of larger system extending outside property out-fill, all 3 criteria met

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SITE/PLOT#: 2601 DATE: 01, COUNTY: Hardy STATE: WV STREAM: DATE: 01/11/1994 INVESTIGATOR: MZ, DAK WATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: shrubby floodplain area adjacent to WV 55
 VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00
 Scientific Name
 Stratum
 Status
 % Areal Cover
 1 Polytrichum sp. 156 Dipsacus sylvestris 249 Solidago rugosa 507 Rosa multiflora 803 Lonicera japonica Bryo NI Herb NI Herb FAC Shrub FACU Vine FAC-60.00 20.00 40.00 80.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BrF Berks Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? nl ---------_ _ _ _ _ _ _ _ _ . 0-8 clay loam 10 YR 5/3 none 8-12+ gravelly clay 10 YR 5/2 7.5YR 5/6 (10%)ox.roots satur. -------Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 8.0 (in.) [] Inundated Depth to Saturated Soil: (in.) [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Sediment Deposit
[] Drainage Patterns in Wetlands [] Spring/Seep [X] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Depressional [] Water-Stained Leaves
[] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: partly cloudy Recent Rainfall: 2" snow Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other ------WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 2602 DATE: 01 COUNTY: Hardy STATE: WV STREAM: COWARDIN_CLASSIFICATION: PEMIE DATE: 01/11/1994 INVESTIGATOR: MZ, DAK WATERSHED: South Br. Potomac River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: ditch around farm field drains to creek VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover -----132 Carex sp. Herb FACW Herb FACW+ Herb OBL 20.00 195 Juncus effusus 268 Typha latifolia 20.00 40.00 SOIL PROFILE: (Minimum 18 inches) Series Name: NA Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments not flooded taken ____ Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[X] Aquic Moisture Regime[] Gleyed[] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 6.0 (in.) Primary Indicators: Depth to Free Water in Pit: (in.) [X] Inundated Depth to Saturated Soil: (in.) [] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Sediment Deposit
[] Drainage Patterns in Wetlands [] Spring/Seep
[] Floodplain
[] Backwater
[] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks)

 Recorded Data (Describe in Remainer, 1)
 [] Other (Explain in model)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in model)

 [] Aerial Photographs
 Recent Weather: partly cloudy

 [] Other
 Recent Rainfall: 2" snow

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

SITE/PLOT#: 2603 DATE: 02/ COUNTY: Hardy STATE: WV STREAM: DATE: 02/08/1994 INVESTIGATOR: EFA, DAK WATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: area used as pasture, heavily grazed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 164Eleocharis rostellataHerbOBL195Juncus effususHerbFACW+10.00228Polygonum sp.HerbNI75.00250Solidago sp.HerbNI25.00269Unidentifiable grassHerbNI100.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Me Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-2 ice 2-12 silt loam 10 YR 3/1 ox.roots 12-16 silt loam 10 YR 3/1 10YR 5/8 (40%)ox.roots 16-20 silty clay 10 YR 6/2 10YR 5/8 (40%) Hydric Soil Indicators: [X] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[] Low Chroma[X] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more reg/ [X] Floodplain [] Backwater [A] Drainage Facterins in wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC Newtral Weet [X] Depressional Recorded Data (Describe in Remarks): [] Local Soil Survey Data [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: freezing rain [] Other Reinfall: Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met;

SITE/PLOT#: 2604 DATE: 02 COUNTY: Hardy STATE: WV STREAM: COWARDIN_CLASSIFICATION: PEMIE DATE: 02/08/1994 INVESTIGATOR: EFA, DAK WATERSHED: South Br. Potomac River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: area used as pasture, heavily grazed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 195Juncus effususHerbFACW+228Polygonum sp.HerbNI269Unidentifiable grassHerbNI349Lycopus americanusHerbOBL 50.00 15.00 100.00 25.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Me Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments ----------------
 0-2
 ice

 2-12
 silt loam
 10 YR 3/1
 faint ox.root ch

 12-16
 silt loam
 10 YR 3/1
 10YR 5/8 (40%) faint ox.root ch

 16-20
 silty clay
 10 YR 6/1
 10YR 5/8 (40%) ox.root ch.
 Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:6.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[X] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[] Drainage Patterns in Wetlands[J] FloodplainSecondary Indicators (2 or more req'd)[X] Oxidized Root Channels/Upper 12 [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional [X] Depressional[] Water-Stained LeavesRecorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: rain/sleet[] OtherRecent Rainfall: heavy; freezing rain

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Wetland Hydrology? yes

DATE: 02/08/1994 INVESTIGATOR: EFA, DAK STREAM: WATERSHED: South Br. Potomac River SITE/PLOT#: 2605 DATE: 02 COUNTY: Hardy STATE: WV STREAM: COWARDIN CLASSIFICATION: PEMIE/POWUB Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? yes Remarks: heavily grazed field ves VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 195Juncus effususHerbFACW+25.00198Juncus sp.HerbNI50.00228Polygonum sp.HerbNI25.00269Unidentifiable grassHerbNI100.00320Vernonia noveboracensisHerbFACW30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Mc Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments _____ _____ 0-2 ice 2-12 silt loam 10 YR 3/1 ox.root ch 12-16 silt loam 10 YR 3/1 10YR 5/8 (40%)ox.root ch 16-20 silt clay 10 YR 6/1 10YR 5/8 (40%) Hydric Soil Indicators: c Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking chroma 3 wet spodosol) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Depth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg/ WETLAND DETERMINATION:Hydric soils present?Hydrophytic Vegetation? yesWetland Hydrology? yesWetland? yesRemarks: all 3 criteria met; heavily grazed pasture with multiple vegetation drainage sw

SITE/PLOT#: 2701A DATE: 12/03/1993 INVESTIGATOR: EFA, DAK COUNTY: Frederick STATE: VA STREAM: Cedar Creek WATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: road fill introduced VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 86.00 Code Scientific Name Stratum Status & Areal Cover Herb FACW Herb FACW+ Herb FACW Shrub FACW+ Shrub FACU Shrub FACW+ Tree FACW Vine FAC-108 Arisaema stewardsonii 5 00 Juncus effusus
Juncus effusus
217 Onoclea sensibilis
404 Alnus rugosa
507 Rosa multiflora 5.00 20.00 5.00 Salix nigra 522 50.00 646 Platanus occidentalis803 Lonicera japonica 95.00 75.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: Craigsville Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-18 silty sand 10 YR 3/2 sat. in spots -------Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:18.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Sediment Deposit [] Seasonal High Water Table [] Spring/Seep [X] Sediment Deposit
[X] Drainage Patterns in Wetlands [A] Drainage Factorins in wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Sont Weethers, gold 20 [X] Floodplain [X] Backwater [] Depressional

 Recorded Data (Describe in Keiner)
 [] Other (Explain

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain

 [] Aerial Photographs
 Recent Weather: cold 30

 Recent Rainfall: none

 Recorded Data (Describe in Remarks): ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: beaver damming water in backwater area, soils sat. in spots, high bank is dry

SITE/PLOT#: 2701B DATE: 11/09/1993 INVESTIGATOR: EFA, DMB COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEMLE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? Remarks: pasture, sections are heavily grazed, pond built in former stream VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 195Juncus effususHerbFACW+250Solidago sp.HerbNI269Unidentifiable grassHerbNI305Carex scopariaHerbFACW309Scirpus rubrotinctusHerbOBL320Vernonia noveboracensisHerbFACW 25.00 50.00 95.00 25.00 25.00 80.00 Hydric Soil? yes SOIL PROFILE: (Minimum 18 inches) Series Name: Me DepthTextureInches / Series Name: MeHydric Soil? yes0-3silty clay10 YR 5/2 (95%)10 YR 6/8 (5%) ox.root channel3-12silt10 YR 6/2 (50%)10 YR 6/6refusal10 YR 6/2 (50%)10 YR 6/6 Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:3.0 (in.)[] InundatedDepth to Saturated Soil:3.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[X] Seasonal High Water Table[X] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[L] ElocdplainSecondary Indicators (2 or more reg/ [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge Photographs [] Other (Explain in Recent Weather: warm, sunny Recent Rainfall: none [] Aeria] [] Other] Aerial Photographs -----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 2702A DATE: 11/10/1993 INVESTIGATOR: EFA, DMB COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: South Br. Potomac River Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: driveway & ditch constructed to direct water into 2702B VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 153Dichanthelium clandestinumHerbFAC+195Juncus effususHerbFACW+269Unidentifiable grassHerbNI 25.00 90.00 90.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: CkB Hvdric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments _____ -----------------0-4 silty clay 10 YR 4/2 4-18 silty clay 10 YR 6/1 (50%) 10 YR 6/8Mn conc. Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations: Wetland Hydrology Indic Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 3.0 (in.) [] Inundated Depth to Saturated Soil: 3.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [X] Drift Lines Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [] Sediment Deposit
[X] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data [X] Floodplain
[] Backwater
[X] Depressional Recorded Data (Describe in Remaine).
[] Stream, Lake, or Tide Gauge
[] Aerial Photographs
Recent Weather: warm overcast
Recent Rainfall: none [] FAC-Neutral Test [] Other (Explain in Remarks) WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 2702B DATE: 11/10/1993 COUNTY: Hardy STATE: WV STREAM: unnamed INVESTIGATOR: EFA, DMB INVESTIGATOR: EFA, Drub WATERSHED: South Br. Potomac River COWARDIN CLASSIFICATION: PEMIF/PSSIF Do Normal Circumstances exist on the site? Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 153Dichanthelium clandestinumHerbFAC+195Juncus effususHerbFACW+244Scirpus cyperinusHerbFACW+269Unidentifiable grassHerbNI320Vernonia noveboracensisHerbFACW404Alnus rugosaShrubFACW+ 153 Dichanthelium clandestinum 195 Juncus effusus Herb 25.00 90.00 25.00 90.00 60.00 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: CkB Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ---------------------0-4 silty clay 10 YR 4/2 4-18 silty clay 10 YR 6/1 (50%) 10 YR 6/8Mn conc. Hydric Soil Indicators: |] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Participation [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 3.0 (in.) Primary Indicators: Depth to Free Water in Pit: 3.0 (in.) [X] Inundated Depth to Saturated Soil: 3.0 (in.) [X] Saturated in Upper 12 [] Water Marks [] Water Marks [] Sediment Deposit [X] Seasonal High Water Table[X] Drift Lines[X] Spring/Seep[] Sediment Deposit[X] Floodplain[X] Drainage Patterns in Wetlands[X] Floodplain[X] Drainage Patterns in Wetlands[X] Depressional[] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained LeavesRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks) Recorded Data (Describe in Kemarks).
[] Stream, Lake, or Tide Gauge
[] Aerial Photographs
[] Action
[] Act ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 2801 DATE: 11/28/1993 INVESTIGATOR: EFA, DAK COUNTY: Grant STATE: WV STREAM: unnamed WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? Remarks: heavily grazed pasture no no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 195Juncus effususHerbFACW+50.00222Poa palustrisHerbFACW20.00250Solidago sp.HerbNI20.00269Unidentifiable grassHerbNI80.00320Vernonia noveboracensisHerbFACW15.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: BrC, Du Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments -----_____ 0-1silty loam2.5 Y 4/3saturated1-6silty clay2.5 Y 5/2ox.root channel6-18silty clay5 Y 5/1ox.root channel Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [X] Gleyed [X] mottles [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:4.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines Source/Site Characterization: Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [X] Depressional [X] Sediment Deposit
[X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data : [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: 5-8" rain Recent Rainfall: cold 40 Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 2802 DATE: 11/29/1993 COUNTY: Grant STATE: WV STREAM: INVESTIGATOR: EFA, DAK WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE/POWUBX Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 66.00 Code Scientific Name Stratum Status % Areal Cover HerbFAC+HerbNIHerbNIHerbOBLShrubFACUShrubNI 158 Dryopteris goldiana
269 Unidentifiable grass
271 Unidentifiable sedge
371 Dulichium arundinaceum
507 Rosa multiflora
512 Rubus strigosus 50.00 90.00 75.00 5.00 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BrF Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----0-4silty clay5 B 4/1ox.root channel4-18silty clay5 Y 5/1ox.root channel Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [X] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Depth of Surface Water: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:18.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[] Drainage Patterns in Wetlands Wetland Hydrology Indicators: [] Drainage Facterns in wetrands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Floodplain [] Backwater [X] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: cloudy[] OtherRecent Rainfall: 3-8" _____

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 2803 INVESTIGATOR: EFA, DAK DATE: 11/29/1993 COUNTY: Grant STATE: WV STREAM: unnamed WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes ves Is the area a potential Problem Area? no Remarks: rocky, intermittent stream channel, heavily grazed pasture VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover 195Juncus effususHerbFACW+50.00269Unidentifiable grassHerbNI80.00271Unidentifiable sedgeHerbNI50.00

 SOIL PROFILE: (Minimum 18 inches) Series Name: TvB
 Hydric

 Depth
 Texture
 Matrix Color
 Mottle Color(%)
 Comments

 Hydric Soil? no 0-4 silty muck 2.5 Y 4/0 refusal ox.root channel Mn concr Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations:Wetland Hydrology IndicDepth of Surface Water:6.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: cloudy cold 30 Recent Rainfall: 3-8" several day ago Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes

Remarks: all 3 criteria met

DATE: 11/30/1993 INVESTIGATOR: EFA, DAK STREAM: unnamed WATERSHED: North Br. Potomac River SITE/PLOT#: 2804DATE: 11/30/1993COUNTY: GrantSTATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: mowed pasture VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 195Juncus effususHerbFACW+269Unidentifiable grassHerbNI271Unidentifiable sedgeHerbNI 90.00 75.00 75.00 ~ -----SOIL PROFILE: (Minimum 18 inches) Series Name: TvR Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-8" silt loam 2.5 Y 5/2 refusal -------------Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:8.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal Wigh Water Table[] Sediment Deposit [] Seasonal High Water Table [] Sediment Deposit
[] Drainage Patterns in Wetlands [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [Recent Weather: rain Recent Rainfall: [] Other WETLAND DETERMINATION: Hydric soils present? no Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 2901 DATE: 12/ COUNTY: Grant STATE: WV STREAM: COWARDIN CLASSIFICATION: PSSIF/PEMIF Do Normal Circumstances exist on the s Is the site significantly disturbed (A Is the area a potential Problem Area? Remarks: spring/seep			A, DAK Br. Potomac River
VEGETATION: Percent Dominant Species t Code Scientific Name	hat are OBL, F Stratum	ACW or FAC Status	75.00 % Areal Cover
227 Polygonum sagittatum 269 Unidentifiable grass 270 Unidentifiable herb 271 Unidentifiable sedge 322 Cardamine rotundifolia 328 Lindera benzoin 378 Tussilago farfara 397 Chelone sp.	Herb Herb Herb Herb Herb Herb Herb	OBL NI NI OBL FACW FACU NI	$\begin{array}{c} 20.00 \\ 5.00 \\ 10.00 \\ 5.00 \\ 25.00 \\ 25.00 \\ 75.00 \\ 15.00 \end{array}$
SOIL PROFILE: (Minimum 18 inches) Ser Depth Texture Matrix Color	ies Name: Pb r Mottle Co	Hyd lor(%) Commer	lric Soil? nl nts
0-3 sandy muck 2.5 Y 3/2 3-6 silty clay 2.5 Y 5/0	1	0 YR 4/4 (50%)	Mn Concr.
Hydric Soll Indicators: [] Histosol [] I [] Sulfidic Material [] I [] Gleyed [X] I [X] mottles [] I		n Regime ic context, ve	ertical
HYDROLOGY:			
<pre>Field Observations: Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other</pre>	Wetland Hydro Primary In [] Inun [] Satu [X] Wate [] Drif [] Sedi [] Drai Secondary [X] Oxid	logy Indicator dicators: dated rated in Upper r Marks t Lines ment Deposit nage Patterns Indicators (2 ized Root Char	or more req'd) mels/Upper 12
WETLAND DETERMINATION: Hydric soils provide the second sec	resent?	Hydrophytic	Vegetation? yes

Remarks: all 3 criteria met Hydrology? yes Hydrophytic Vegetation? yes

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SITE/PLOT#: 2902 DATE: 11/30/1 COUNTY: Grant STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1E/PSS1E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypi Is the area a potential Problem Area? Remarks:	y ve	s s
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC Stratum Status	100.00 % Areal Cover
 227 Polygonum sagittatum 243 Scirpus atrovirens 269 Unidentifiable grass 271 Unidentifiable sedge 280 Alisma subcordatum 380 Aster nemoralis 522 Salix nigra 	HerbOBLHerbOBLHerbNIHerbOBLHerbOBLHerbFACW+ShrubFACW+	10.00 10.00 90.00 15.00 50.00 25.00 25.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color		
0-6 silt loam 2.5 Y 4/3 6-12 silt loam 2.5 Y 3/2 refusal	grave ox.ro	l ot channel
Hydric Soil Indicators: [] Histosol [] Hist [] Sulfidic Material [] Aqui [] Gleyed [] Low [] mottles [] Enti	ic Epipedon c Moisture Regime Chroma sol (organic context aking, chroma 3, wet	, vertical
HYDROLOGY :		
Field Observations: Wet Depth of Surface Water: 4.0 (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: (in.) Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [X] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Record	[] Water-Stained [] Local Soil Sur [] FAC-Neutral T [] Other (Explai ent Weather: cloudy ent Rainfall: 3-8" d	Leaves vey Data est n in Remarks) ays earlier
WETLAND DETERMINATION: Hydric soils prese Wetland Hydrology? Remarks: all 3 criteria met	ent? yes Hydrophy Yes Wetland?	tic Vegetation? yes yes

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SITE/PLOT#: 2903 DATE: 11 COUNTY: Grant STATE: WV STREAM: DATE: 11/30/1993 INVESTIGATOR: EFA, DAK WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE/PSSIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes yes Is the area a potential Problem Area? Remarks: road fill has been introduced no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover Herb OBL Herb NI Herb FACW Herb OBL Herb OBL 180 Galium tinctorium 10.00 269 Unidentifiable grass 348 Ludwigia alternifolia 349 Lycopus americanus 396 Bidens tripartita 90.00 10.00 60.00 5.00 * SOIL PROFILE: (Minimum 18 inches) Series Name: Pu Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-4 silt muck 10 YR 3/2 4-8 clay 5 GY 4/1 gravel/shale fra ĩ/4" Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[X] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)

 HYDROLOGY:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 6.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [X] Sediment Deposit

 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req'

 HYDROLOGY: [] Floodplain [] Backwater [] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: cloudy[] OtherRecent Rainfall: heavy rain days ago ------

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 3001 DATE: 12/02/1993 INVESTIGATOR: EFA, DAK COUNTY: Grant STATE: WV STREAM: Abram Creek WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE/PSSIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves пo Is the area a potential Problem Area? no Remarks: broad floodplain, acid mine drainage in areas VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 89.00 Code Scientific Name Stratum Status % Areal Cover 2Sphagnum sp.BryoNI153Dichanthelium clandestinumHerbFAC+161Dryopteris spinulosaHerbFAC+178Eupatorium perfoliatumHerbFACW+195Juncus effususHerbFACW+227Polygonum sagittatumHerbOBL237Rubus hispidusHerbFACW250Solidago sp.HerbNI269Unidentifiable grassHerbNI329Betula lentaHerbFACU464Lindera benzoinShrubFACW501Rhododendron maximumShrubFAC677Magnolia acuminataTreeNI 25.00 30.00 30.00 10.00 5.00 25.00 80.00 50.00 80.00 20.00 30.00 15.00 15.00 10.00 ~ ------SOIL PROFILE: (Minimum 18 inches) Series Name: ByB Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -------------------0-1 silt 10 YR 3/1 saturated 1-3 silt 7.5 YR 5/8 3-8 sandy silt 10 YR 6/2 7.5YR 5/8 (5%) Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: Depth to Free Water in Pit: Depth to Saturated Soil: Wetland Hydrology Indicators: Metland Hydrology Indicators: Primary Indicators: [X] Inundated [X] Saturated in Upper 12 [X] Saturated in Upper 12 [X] Inundated [X] Saturated in Upper 12 [X] Water Marks Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Drift Lines[X] Spring/Seep[X] Sediment Deposit[X] Floodplain[X] Drainage Patterns in Wetlands[] Backwater[X] Drainage Patterns in Wetlands[] Depressional[] Oxidized Root Channels/Upper 12[] Depressional[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other[] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 3003 DATE: 12 COUNTY: Grant STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1E DATE: 12/02/1993 INVESTIGATOR: EFA, DAK WATERSHED: North Br. Potomac River Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? ves Is the area a potential Problem Area? no Remarks: reclaimed strip mine area, acid mine drainage VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp.
195 Juncus effusus
268 Typha latifolia
269 Unidentifiable grass Bryo NI Herb FACW+ Herb OBL Herb NI 10.00 30.00 50.00 90.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: CeB Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ------------------0-4 clay 10 YR 6/3 10 YR 6/6 (5%)1/2"gravel/debri refusal _____ Hvdric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [X] Saturated in Upper 12 [X] Water Marks [X] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [] Sediment Deposit
[] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Depressional [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other[] OtherRecent Weather: cold 20 degrees[] OtherRecent Rainfall: last wknd/5 days ago

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: acid mine drainage apparently filtered or retained by wetland, clearer than grou

SITE/PLOT#: 3004 DATE: 12 COUNTY: Grant STATE: WV STREAM: DATE: 12/02/1993 INVESTIGATOR: EFA, DAK INVESTIGATOR: EFA, DAN WATERSHED: North Br. Potomac River COWARDIN CLASSIFICATION: PEMIE/PSSIE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? Remarks: old field area no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 2 Sphagnum sp. Bryo NI 50.00 Bryo NI Herb FAC+ Herb FACW+ Herb OBL Herb FACW Herb NI Herb NI Herb NI Shrub FACW+ Vine FAC 161 195 Dryopteris spinulosa Juncus effusus 30.00 10.00 227 Polygonum sagittatum 15.00 90.00 Rubus hispidus Solidago sp. Unidentifiable grass 237 250 75.00 269 90.00 25.00 271 Unidentifiable sedge 559 Viburnum recognitum 809 Smilax rotundifolia 30.00 5.00 -----SOIL PROFILE: (Minimum 18 inches) Series Name: WoC Hydric So: Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? no 0-1 organic/peat 1-4 silty-clay 2.5 Y 4/2 ox.root channel 4-12 silty-clay 2.5 Y 4/2 10 YR 6/8 (50%)ox.root channel Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : -----------Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12 [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit Source/Site Characterization: [X] Seasonal High Water Table [] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial Photographs[] Other[] OtherRecent Weather: cold 20 degrees
Recent Rainfall: last wk/5 days ago _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 3301 DATE: 10/25/1993 COUNTY: Tucker STATE: WV STREAM: INVESTIGATOR: ABC, EFA WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E/PSS1E Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: low area between Rt.93 & abandoned RR (strip mined) VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status % Areal Cover 2Sphagnum sp.BryoNI153Dichanthelium clandestinumHerbFAC+195Juncus effususHerbFACW+237Rubus hispidusHerbFACW250Solidago sp.HerbNI251Solidago uliginosaHerbOBL453Hypericum prolificumShrubFACU 5.00 15.00 80.00 25.00 30.00 25.00 _ _ _ _ _ _ _ _ SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-8 silty clay 10 YR 6/1 7.5 YR 6/8 Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context, vertical) [] Histo**sol** [X] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [X] Seasonal High Water Table [] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg' ------[] Spring/Seep [] Floodplain [] Backwater [X] Depressional [] Spring/Seep [] Drainage Patterns in Wetlands
[] Floodplain [] Backwater [] Oxidized Root Channels/Upper 12
[X] Depressional [] Oxidized Root Channels/Upper 12
[X] Depressional [] Water-Stained Leaves [] Local Soil Survey Data
Recorded Data (Describe in Remarks):
[] Stream, Lake, or Tide Gauge [] Other [] Othe

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: near road in swale water depth 6-12"; all 3 parameters present

SITE/PLOT#: 3302 DATE: Tucker STATE: WV STREAM: DATE: 10/25/1993 INVESTIGATOR: ABC, EFA WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSSIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: RR access to coke ovens VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 FACW
 10.00

 Herb
 FACW+
 10.00

 Herb
 NI
 100.00

 Shrub
 FACW+
 75.00

 Shrub
 FACW+
 100.00
 Herb 176 Eupatoriadelphus maculatus 178 Eupatorium perfoliatum
269 Unidentifiable grass
404 Alnus rugosa
522 Salix nigra SOIL PROFILE: (Minimum 18 inches) Series Name: Ernest Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-8 vegetation mat -not peat ;grass 8-12+ slag/muck Nz ;grass ---Hydric Soil Indicators: [X] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGI:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 3.0 (in.)
 [X] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [X] Water Marks

 [] Seasonal High Water Table
 [X] Sediment Deposit

 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req'

 [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Percent Weather. [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: [] Other Recent Rainfall:

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: acid mine drainage visible; all 3 criteria met

SITE/PLOT#: 3303 DATE: 10/26/1993 COUNTY: Tucker STATE: WV STREAM: DATE: 10/26/1993 INVESTIGATOR: ABC, EFA WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: possible fill in portion of wetland, not recent VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 FAC+
 50.00

 Herb
 FACW+
 15.00

 Herb
 FACW+
 20.00

 Herb
 OBL
 100.00

 Herb
 FACW+
 75.00

 Herb
 NI
 50.00

 Herb
 NI
 50.00

 Herb
 NI
 50.00

 Shrub
 FACW+
 50.00

 Shrub
 FAC+
 75.00
 Dichanthelium clandestinum 153 Dichanthelium clandestinum 178 Eupatorium perfoliatum 195 Juncus effusus Juncus effusus Polygonum sagittatum Scirpus cyperinus 227 244 250 Solidago sp. Unidentifiable grass 269 404 Alnus rugosa 519 Salix fragilis SOIL PROFILE: (Minimum 18 inches) Series Name: DaB Hydric Soil? no Depth Texture Matrix Color Mottle Color (%) Comments 0-6 muck N2 6 refusal Hydric Soil Indicators: [] Histosol [] Histic Epipedon
[] Sulfidic Material [] Aquic Moisture Regime
[] Gleyed [X] Low Chroma
[] mottles [] Entisol (organic context, vertical
streaking chroma 3 wet spedesel) streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:6.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[] Seasonal High Water Table[X] Sediment Deposit[X] Spring/Seep[X] Drift Lines[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained Leaves[] Local Soil Survey Data [X] Depressional
Recorded Data (Describe in Remarks):
[] Local Soll Survey Data
[] Local Soll Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
[] Other (Explain in Remarks) Recorded Data (Describe in Remains).
[] Stream, Lake, or Tide Gauge
[] Aerial Photographs
[] Action
[] Act WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: 3 parameters present

SITE/PLOT#: 3304 DATE: 10/26/1993 INVESTIGATOR: ABC, EFA COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE/PSSIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: water treatment station for nursing home has introduced fill VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover BryoNIHerbOBLHerbFAC+HerbFACW+HerbOBLHerbOBLHerbNIHerbFACUTreeFACUTreeFACU 2 Sphagnum sp. 100.00 129 Carex lurida 129 Carex Iurida 153 Dichanthelium clandestinum 75.00 10.00 Juncus effusus Rubus hispidus Solidago uliginosa Typha latifolia 195 25.00 237 100.00 251 75.00 268 5.00 Unidentifiable grass Hypericum prolificum Pinus strobus Populus tremula 75.00 269 304 645 15.00 650 Populus tremula 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: DkB Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ----0-6 sphagnum 6-12 muck N2 cool slag/ Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [X] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12[X] Water Marks[X] Water MarksSource (Site Characterization)[X] Drift Lines [X] Water Parks [X] Drift Lines [X] Sediment Deposit [X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more reg'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional Recorded Data (Describe in Remarks): [] Local Soll Survey Data [] Stream, Lake, or Tide Gauge [] FAC-Neutral Test [] Aerial Photographs [] Other [] Other (Explain in Remarks) [] Other Recent Weather: clear, sunny Recent Rainfall: -----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: 3 parameters present

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SITE/PLOT#: 3304A DATE: 10/26/1993 INVESTIGATOR: ABC, EFA COUNTY: Tucker STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEM1E/PSS1E WATERSHED: Cheat River INVESTIGATOR: ABC. EFA Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: water treatment station for nursing home has introduced fill VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover Bryo NI Herb OBL Herb FAC+ Herb FACW+ Herb FACW Herb OBL Herb OBL Herb NI Herb NI Herb FACU Tree FACU Tree FACU 2 Sphagnum sp. 129 Carex lurida 100.00 75.00 153 Dichanthelium clandestinum 10.00 195 Juncus effusus Rubus hispidus 25.00 237 100.00 Solidago uliginosa Typha latifolia Unidentifiable grass 251 75.00 268 5.00 269 Unidentifiable grass 304 Hypericum prolificum 75.00 15.00 645 Pinus strobus650 Populus tremula 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: DkB Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-6 sphagnum 6-12 muck N2 cool slag/silty _____ Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[X] Seasonal High Water Table[X] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[A] PloodplaipSecondary Indicators (2 or more reg/ [X] Spring/Seep [] Floodplain [] Backwater Image Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[X] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained LeavesRecorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: clear; sunny[] OtherRecent Rainfall: -----WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: 3 parameters present

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SITE/PLOT#: 3305 DATE: 10/26/ COUNTY: Tucker STATE: WV STREAM: Snyde COWARDIN CLASSIFICATION: PSS1E Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp. Is the area a potential Problem Area? Remarks:	? ves	FA, ABC t River	
VEGETATION: Percent Dominant Species that Code Scientific Name			
4 Lycopodium sp. 100 Acorus calamus 129 Carex lurida 153 Dichanthelium clandestinum 195 Juncus effusus 243 Scirpus atrovirens 251 Solidago uliginosa 304 Hypericum prolificum 380 Aster nemoralis 522 Salix nigra	Bryo NI Herb OBL Herb OBL Herb FAC+ Herb FACW+ Herb OBL Herb OBL Herb FACU Herb FACW+ Shrub FACW+	$ \begin{array}{c} 10.00\\ 10.00\\ 20.00\\ 20.00\\ 15.00\\ 10.00\\ 15.00\\ 20.00\\ 15.00\\ 20.00\\ 100.00 \end{array} $	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: At Hy Mottle Color(%) Comm	ydric Soil? no ents	
0-2 organic 2-8 SiS 10 YR 3/1 8-12+ silt loam 10 YR 3/2 Hydric Soil Indicators:	10 YR 5/6 (5%) 10 YR 4/6 (8%)) ox.roots) ox.roots	
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY:		·	
<pre>Field Observations: We Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 12.0 (in.) Depth to Saturated Soil: 5.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Re</pre>	tland Hydrology Indicato Primary Indicators: [] Inundated [] Saturated in Uppo [X] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Pattern Secondary Indicators ([X] Oxidized Root Ch [X] Water-Stained Le [] Local Soil Surve [] FAC-Neutral Tes [] Other (Explain Secont Weather: sunny Secont Rainfall: light	annels/Upper 12 aves y Data t	
WETLAND DETERMINATION: Hydric soils pres Wetland Hydrology		c Vegetation? yes es	

Remarks: all 3 properties established

SITE/PLOT#: 3306 DATE: 10 COUNTY: Tucker STATE: WV STREAM: DATE: 10/26/1993 INVESTIGATOR: EFA, ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PSSIE/PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? пo Remarks: strip mine bench, upland inclusions, very disturbed area VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover
 Bryo
 NI
 25.00

 Herb
 OBL
 5.00

 m
 Herb
 FAC+
 5.00

 Herb
 FAC+
 25.00

 Herb
 FACW+
 25.00

 Herb
 OBL
 95.00

 Herb
 NI
 75.00

 Herb
 OBL
 5.00

 Herb
 NI
 75.00

 Herb
 FAC
 75.00

 Herb
 FAC
 75.00

 Herb
 FACW+
 75.00

 Herb
 FACW+
 5.00

 Herb
 FAC+
 5.00
 2 Sphagnum sp. 129 Carex lurida 153 Dichanthelium clandestinum Juncus effusus Scirpus atrovirens 195 243 Solidago sp. Typha latifolia 250 268 Unidentifiable grass 269 209 Onidencification grace
277 Viola spp.
380 Aster nemoralis
519 Salix fragilis SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ox.root channel -----0-3 muck 5 Y 5/1 ox.root c 3-12 loam 5 Y 5/1 10 YR 5/6 (30%) 12 refusal Hydric Soil Indicators:

 C SOII Indicators:
 [] Histic Epipedon

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [] Gleyed
 [] Low Chroma

 [X] mottles
 [] Entisol (organic context, vertical

 [] Histosol streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Depth to Saturated Soil:0.0 (in.)[] Water MarksSource/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[] Oxidized Root Channels/Upper 12 [X] Spring/Seep [] Floodplain [] Backwater [X] DepressionalSecondary Indicators (2 or more req'd)[X] Depressional[] Oxidized Root Channels/Upper 12Recorded Data (Describe in Remarks):[] Local Soil Survey Data[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: brief showers[] OtherRecent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: acid mine drainage in ditch along road' 3 criteria met

SITE/PLOT#: 3307B DATE: 10/27/1994 INVESTIGATOR: EFA, ABC COUNTY: Tucker STATE: WV STREAM: WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIEb Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no			
VEGETATION: Percent Dominant Species that are OBL, FACW or FAC Code Scientific Name Stratum Status	60.00 % Areal Cover		
2Sphagnum sp.BryoNI153Dichanthelium clandestinumHerbFAC+219Osmunda cinnamomeaHerbFACW250Solidago sp.HerbNI380Aster nemoralisHerbFACW+			
SOIL PROFILE: (Minimum 18 inches) Series Name: BrB H Depth Texture Matrix Color Mottle Color(%) Commo	ydric Soil? yes ents		
0-3 peat 3-4 silty clay 10 YR 4/2 4-6 silty clay 10 YR 4/2 10 YR 6/8 (50) 6-9 clay 5 Y 5/1 10 YR 6/8 (50) Hydric Soil Indicators: [] Histosol [] Histic Epipedon	%)w/gravel %)		
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [X] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY :			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:24.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[X] InundatedDepth to Saturated Soil:8.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12			
Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[X] Water-Stained Leaves[] Local Soil Survey Data			
Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: light rain [] Other Recent Rainfall: <1"			
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met			

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SITE/PLOT#: 3307C DATE: DATE: Tucker STATE: WV STREAM: DATE: 10/27/1993 INVESTIGATOR: EFA, ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1Eb Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 60.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp.
153 Dichanthelium clandestinum
219 Osmunda cinnamomea
250 Solidago sp.
380 Aster nemoralis
 Bryo
 NI
 10.00

 Herb
 FAC+
 10.00

 Herb
 FACW
 15.00

 Herb
 NI
 15.00

 Herb
 FACW+
 10.00
 SOIL PROFILE: (Minimum 18 inches) Series Name: BrB Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-3 peat 3-4 silty clay 10 YR 4/2 4-6 silty clay 10 YR 4/2 10 YR 6/8 (50%)w/gravel 6-9 clay 5 Y 5/1 10 YR 6/8 (50%) Hydric Soil Indicators: /C Soll Indicator: [] Histosol [] Sulfidic Material [X] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:24.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[X] InundatedDepth to Saturated Soil:8.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit [] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Recent Weather: light rain
Recent Rainfall: <1"</pre> [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 3307D DATE: 10/ COUNTY: Tucker STATE: WV STREAM: DATE: 10/27/1993 INVESTIGATOR: EFA. ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIEb Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover 499 Rhododendron canadense 608 Betula alleghaniensis 669 Tsuga canadensis Shrub OBL Tree FAC Tree FACU 10.00 10.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BrB Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-3 peat 3-4 silty clay 10 YR 4/2 4-6 silty clay 10 YR 4/2 10 YR 6/8 (50%)w/gravel 6-9 clay 5 Y 5/1 10 YR 6/8 (50%) Hydric Soil Indicators:

 [] Histosol
 [] Histic Epipedon

 [] Sulfidic Material
 [] Aquic Moisture Regime

 [X] Gleyed
 [X] Low Chroma

 [Y] mattles
 [] Enticol (organic cent.)

 [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Wetland Hydrology Indic Depth of Surface Water: 24.0 (in.) Primary Indicators: Wetland Hydrology Indicators: Depth to Free Water in Pit: 12.0 (in.) Depth to Saturated Soil: 8.0 (in.) [X] Inundated [X] Saturated in Upper 12 [X] Water Marks [] Drift Lines Source/Site Characterization: [] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
):
 [] FAC-Neutral Test
[] Other (Explain in Remarks)
Recent Weather: light rain
Recent Rainfall: <1"</pre> [] Seasonal High Water Table [X] Spring/Seep [] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Hydrophytic Vegetation? yes Wetland? yes

SITE/PLOT#: 3308 DATE: 10/27/1993 COUNTY: Tucker STATE: WV STREAM: INVESTIGATOR: EFA, ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: 2 perennial streams fedding strip mine borrow pond VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover -----Bryo NI Herb OBL Herb OBL Herb FACW+ Herb OBL Herb FACW Herb OBL 2 Sphagnum sp. 129 Carex lurida 20.00 30.00 Eriophorum virginicum 174 10.00 195 Juncus effusus 15.00 90.00 Juncus subcaudatus 199 237 Rubus hispidus 268 Typha latifolia 5.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BrB/Sm Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments

 0-3"
 peat

 3-6"
 peat & siltloam 10 YR 4/1

 0-3"
 0x.roots

 3-6"
 silt loam

 10 YR 4/1
 0x.roots

 8-10"
 silty clay

 10 YR 5/1
 10 YR 5/6 (10%) 0x.roots

 ------Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chrome [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[Y] FloodplainSecondary Indicators (2 or more reg/ [] Spring/Seep [X] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] Hotal Soll Sulvey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: showers[] OtherRecent Rainfall: <1" rain</td> -----WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Hydrophytic Vegetation? yes Remarks: all 3 criteria met

SITE/PLOT#: 3309 DATE: 10/28/1993 INVESTIGATOR: EFA, ABC COUNTY: Tucker STATE: WV STREAM: Long Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM/PFO/ML Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: bog wetland which has been strip mined in past VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover BryoNIHerbOBLHerbFACW+HerbOBLHerbFACWHerbOBLShrubFACUShrubOBLTreeFACU 2 Sphagnum sp. 174 Frierb 90.00 Eriophorum virginicum 90.00 195 Juncus effusus 10.00 Juncus subcaudatus 199 50.00 237 Rubus hispidus 251 Solidago uliginosa 50.00 90.00 10.00 50.00 453 Hypericum prolificum 503 Rhododendron viscosum 669 Tsuga canadensis 60 00

 SOIL PROFILE: (Minimum 18 inches) Series Name: Sm
 Hydric

 Depth
 Texture
 Matrix Color
 Mottle Color(%)
 Comments

 Hydric Soil? no 0-6 peat 6-9 muck N2 9-12 clay 10 YR 4/1 10 YR 5/8 (50%) Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chrome [] Histosol [] Sulfidic Material [X] Gleyed [X] mottles [X] Low Chroma
[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY: Field Observations: Depth of Surface Water: 5.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Seasonal High Water Table [] Seasonal High Water Table [] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg' [] Floodplain
[] Backwater
[X] Depressional Secondary Indicators (2 or more req'd) [] Floodplain
[] Backwater
[] Backwater
[X] Depressional
[X] Depressional
[X] Depressional
[] Stream, Lake, or Tide Gauge
[] Aerial Photographs
[] Other
[] Stream, Lake, or Tide Gauge
[] Aerial Photographs
[] Other
[] Stream, Lake, or Tide Gauge
[] Aerial Photographs
[] Other
[] Stream, Lake, or Tide Gauge
[] Stream, Lake, or Tide Gauge
[] Aerial Photographs
[] Other
[] Stream, Lake, or Tide Gauge
[] Aerial Photographs
[] Other
[] Stream, Lake, or Tide Gauge
[] Stream, Lake, or Tide Gau -------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 3310 DATE: 10/28/1993 INVESTIGATOR: EFA, ABC COUNTY: Tucker STATE: WV STREAM: Long Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? 'nο Remarks: swale/deperssional area along Rt.219 VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 OBL
 5.00

 Herb
 FACW+
 25.00

 Herb
 OBL
 10.00

 Herb
 OBL
 10.00

 Herb
 OBL
 100.00

 Herb
 OBL
 100.00
 129 Carex lurida 195 Juncus effusus 199 Juncus subcaudatus 243 Scirpus atrovirens 268 Typha latifolia SOIL PROFILE: (Minimum 18 inches) Series Name: Sm Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ------------0-8" muck N2 8" refusal Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[] mottles[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[] Backwater[] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained Leaves[] Local Soil Survey Data [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: overcast[] OtherRecent Rainfall: none -----

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 3311 DATE: 10/28/1993 INVESTIGATOR: EFA, ABC COUNTY: Tucker STATE: WV STREAM: Slip Hill MillWATERSHED: Cheat River COWARDIN CLASSIFICATION: PFO4F/PEM1F Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 2 Sphagnum sp. 219 Osmunda cinnamomea Bryo NI Herb FACW Herb OBL Shrub OBL Tree FAC Tree FACU 30.00 268 Typha latifolia
503 Rhododendron viscosum
608 Betula alleghaniensis 5.00 15.00 60.00 10.00 669 Tsuga canadensis 80.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BsC/Sm Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments ----------------0-3 peat/organic 3-6 silty clay 7.5 YR 4/2 7.5 YR 5/6 (20%) 6-12 silty clay 10 YR 6/2 10 YR 6/8 (50%) -----Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Aquic Moisture Regime [] Sulfidic Material [] Gleyed [X] mottles [X] Low Chroma
[] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : HYDROLOGI:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:3.0 (in.)Depth to Free Water in Pit:0.0 (in.)Depth to Saturated Soil:0.0 (in.)Depth to Saturated Soil:0.0 (in.)Source/Site Characterization:[X] Water Marks[X] Seasonal High Water Table[X] Sediment Deposit[X] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more reg'd)[] Oxidized Root Channels/Upper 12 [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge
[] Aerial Photographs Recent Weather: overcast [] Aerial Recent Rainfall: none WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: all 3 criteria present

SITE/PLOT#: 3312 DATE: 11/01/1993 INVESTIGATOR: EFA, ABC COUNTY: Tucker STATE: WV STREAM: Roaring Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1H Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: farm pond with small PEM area (manmade pond) VEGETATION: Percent Dominant Species that are OBL, FACW or FAC Code Scientific Name Stratum Status & Areal Cover 268 Typha latifolia Herb OBL 100 00 SOIL PROFILE: (Minimum 18 inches) Series Name: DaF Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-6" water -6to-18" muck N2 Hvdric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indic Depth of Surface Water: 6.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [X] Inundated Depth to Saturated Soil: 6.0 (in.) [X] Saturated in U [] Water Marks Wetland Hydrology Indicators: [X] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [X] Backwater [X] Sediment Deposit
[X] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Vater-Stained Leaves [] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Weather: scattered showers Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 3401 DATE: 11/ COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PF01B DATE: 11/03/1993 INVESTIGATOR: MZ, ABC WATERSHED: Cheat River Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status & Areal Cover 116Caltha palustrisHerbOBL30.00275Viola pallensHerbOBL80.00317Solidago altissimaHerbFACU60.00507Rosa multifloraShrubFACU20.00636Liriodendron tulipiferaTreeFACU30.00814Ampelopsis arboreaVineFACW20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Al Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-6 sandy loam 10 YR 3/3 6-12 silt 10 YR 7/1 10 YR 5/8 (45%) concretions Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:14.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit Source/Site Characterization: [] Seasonal High Water Table [] Sediment Deposit
[] Drainage Patterns in Wetlands [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] Hotal Soll Bulvey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather: cloudy, cold[] OtherRecent Rainfall: 6" snow -----

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: BPJ suggests more wetland plants seen during growing season

VEGETATION: Percent Dominant Species that are OBL, FACW or FAC71.00CodeScientific NameStratumStatus* Areal Cover176Eupatoriadelphus maculatusHerbFACW20.00224Polygonum cuspidatumHerbFACU-20.00269Unidentifiable grassHerbNI100.00273Verbesina alternifoliaHerbFAC20.00404Alnus rugosaShrubFACW+30.00506Robinia pseudoacaciaShrubFACW+20.00646Platanus occidentalisTreeFACW10.00655Salix nigraTreeFACW+20.00SOIL PROFILE: (Minimum 18 inches) Series Name: AlHydric Soil? nlDepthTextureMatrix ColorMottle Color(%) Comments0-14sand10 YR 3/310 YR 4/6 (25%) ox.roots	SITE/PLOT#: 3402 DATE: 11/03/1993 INVESTIGATOR: MZ, ABC COUNTY: Hardy STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PFOLE Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks:
SOIL PROFILE: (Minimum 18 inches) Series Name: AlHydric Soil? nlDepthTextureMatrix ColorMottle Color(%)Comments0-14sand10 YR 3/310 YR 4/6 (25%)ox.roots	VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status % Areal Cover
SOIL PROFILE: (Minimum 18 inches) Series Name: AlHydric Soil? nlDepthTextureMatrix ColorMottle Color(%)Comments0-14sand10 YR 3/310 YR 4/6 (25%)ox.roots	176Eupatoriadelphus maculatusHerbFACW20.00224Polygonum cuspidatumHerbFACU-20.00269Unidentifiable grassHerbNI100.00273Verbesina alternifoliaHerbFAC20.00404Alnus rugosaShrubFACW+30.00506Robinia pseudoacaciaShrubFACU-20.00646Platanus occidentalisTreeFACW10.00665Salix nigraTreeFACW+20.00
0-14 sand 10 YR 3/3 10 YR 4/6 (25%) ox.roots	COTL DECETLE. (Minimum 19 inches) Series Name, Al Hudric Soil? nl
Nudvia Coil Indiantora	0-14 sand 10 YR 3/3 10 YR 4/6 (25%) ox.roots
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [] Low Chroma [] mottles [X] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)	
HYDROLOGY:	HYDROLOGY:
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Depth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[X] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: cloudy cold[] OtherRecent Rainfall: 4" snow	
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes	

Remarks:

SITE/PLOT#: 3403A DATE: 11/03/1993 COUNTY: Hardy STATE: WV STREAM: DATE: 11/03/1993 INVESTIGATOR: MZ. ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? Remarks: mowed drainage swale no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover Herb Hert 195 Juncus effusus269 Unidentifiable grass270 Unidentifiable herb Herb FACW+ Herb NI Herb NI 40 00 60.00 20.00 ----------SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? nl

 0-1
 sandy organic
 10 YR 3/2

 1-5
 sand
 10 YR 3/3
 10 YR 4/6 (20%) saturated

 5-9
 sand
 10 YR 4/1
 5 YR 4/6 (35%)

 9-12
 sand
 N 2/
 fragipan

 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[X] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : _____ Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:4.0 (in.)[] InundatedDepth to Saturated Soil:1.0 (in.)[X] Saturated in Upper 12 [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12

 Image: Sepressional
 Image: Sepressional

 Recorded Data (Describe in Remarks):
 [] Water-Stained Leaves

 [] Stream, Lake, or Tide Gauge
 [] Local Soil Survey Data

 [] Aerial Photographs
 [] Other

 [] Other
 Recent Weather:

 [] Other
 Recent Reinfoll

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: BPJ suggests vegetation would be bydrophytic when undisturbed

SITE/PLOT#: 3403B DATE: 11/03/1993 COUNTY: Hardy STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1E INVESTIGATOR: MZ, ABC WATERSHED: Cheat River Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? Remarks: mowed drainage swale 'nο VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 195Juncus effususHerbFACW+269Unidentifiable grassHerbNI270Unidentifiable herbHerbNI 40.00 60.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments _ _ _ _ _ _ _ _ _

 0-1
 sandy organic
 10 YR 3/2

 1-5
 sand
 10 YR 3/3
 10 YR 4/6 (20%) saturated

 5-9
 sand
 10 YR 4/1
 5 YR 4/6 (35%)

 9-12
 sand
 N 2/
 fragipan

 Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[X] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:4.0 (in.)[] InundatedDepth to Saturated Soil:1.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more reg/ [] Spring/Seep [] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves Recorded Data (Describe in Remarks):[] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other[] OtherRecent Weather: Recorded Data (Describe in Remarks): _____

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: BPJ suggests vegetation would be hydrophytic when undisturbed

SITE/PLOT#: 3404 DATE: 11/03/ COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	? ve	S	
VEGETATION: Percent Dominant Species that Code Scientific Name			
<pre>118 Carex baileyi 153 Dichanthelium clandestinum 176 Eupatoriadelphus maculatus 178 Eupatorium perfoliatum 195 Juncus effusus 224 Polygonum cuspidatum 243 Scirpus atrovirens 269 Unidentifiable grass 389 Aster simplex</pre>	HerbOBLHerbFAC+HerbFACW+HerbFACW+HerbFACU-HerbOBLHerbNIHerbFACW	20.00 10.00 20.00 10.00 20.00 20.00 20.00 80.00 10.00	
SOIL PROFILE: (Minimum 18 inches) Series	Name: At	Hydric Soil? nl	
0~6 sand 10 YR 3/2 10+ auger refusal	10 YR 3/4 (2	25%)ox.roots/sat.	
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [] Low Chroma [] mottles [X] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY:	·		
Field Observations: Wet Depth of Surface Water: (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain	<pre>tland Hydrology Indica Primary Indicators: [X] Inundated [X] Saturated in Up [] Water Marks [] Drift Lines [] Sediment Deposi </pre>	pper 12	
[] Spring/Seep [X] Floodplain [] Backwater [] Depressional	[] Drainage Patter Secondary Indicators [X] Oxidized Root ([] Water-Stained I [] Local Soil Surv	Channels/Upper 12 Leaves	
Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: cloudy [] Other Recent Rainfall: 4" snow			
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met			

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SITE/PLOT#: 3405ADATE: 11/03/1993INVESTIGATOR: MZ, ABCCOUNTY: TuckerSTATE: WV STREAM: unnamedWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1E Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? yes Is the area a potential Problem Area? no Remarks: heavily grazed pasture, plants unidentifiable, soil disturbed VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 269Unidentifiable grassHerbNI320Vernonia noveboracensisHerbFACW 80.00 60.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: GcD Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments ----------0-2 loam 10 YR 2/1 2-10 loam 10 YR 2/1 5 YR 4/6 (10%)ox.roots 10-12 gravelly loam 10 YR 4/1 10 YR 4/6 (30%) Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma [] Sulliand [] Gleyed [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:8.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit [] Dritt Hines
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
[] Dritte Wetterly Data [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater
[] Depressional [] FAC-Neutral Test
[] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: cloudy Recent Rainfall: 6" snow [] Other -

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: BPI suggests plants hydrophytic when undisturbed

SITE/PLOT#: 3405B DATE: 11/03/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Cheat River COWARDIN CLASSIFICATION: PF01B Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? ves Is the area a potential Problem Area? Remarks: lightly grazed pasture/forest ño VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 269 Unidentifiable grass 602 Acer rubrum 269 269Unidentifiable grassHerbNI80602Acer rubrumTreeFAC60 80.00 60.00 SOIL PROFILE: (Minimum 18 inches) Series Name: GcD Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments ------
 0-2
 loam
 10 YR 2/1

 2-10
 loam
 10 YR 2/1
 5 YR 4/6 (10%)ox.roots

 10-12
 gravelly loam
 10 YR 4/1
 10 YR 4/6 (30%)
 Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:8.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[X] FloodplainSecondarv Indicators (2 or more reg') [X] Floodplain Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Backwater
[] Depressional

 Recorded Data (Describe in Remarks):
 [] Local Soil Survey Data

 [] Stream, Lake, or Tide Gauge
 [] Other

 [] Aerial Photographs
 Recent Weather: cloudy

 [] Other
 Recent Rainfall: 6" snow

 -------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: BPJ suggests vegetation hydrophytic when undisturbed

DATE: 11/03/1993 SITE/PLOT#: 3406 INVESTIGATOR: MZ, ABC STATE: WV STREAM: COUNTY: Tucker WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEMIE Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover 132Carex sp.HerbFACW251Solidago uliginosaHerbOBL269Unidentifiable grassHerbNI404Alnus rugosaShrubFACW+ 40.00 20.00 60.00 40.00 SOIL PROFILE: (Minimum 18 inches) Series Name: GcF Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments _____
 0-5
 gravelly loam
 5 Y 4/1
 7.5YR 6/8 (25%) saturated

 5-12
 clay loam
 5 Y 5/1
 2.5Y 5/4 (40%)
 _____ Hvdric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.5 (in.) Primary Indicators: Depth to Free Water in Pit: (in.) [X] Inundated Depth to Saturated Soil: (in.) [X] Saturated in Upper 12 [] Water Marks Source/Site Characterization: [] Drift Lines [] Seasonal High Water Table [] Sediment Deposit [] Spring/Seep [] Drainage Patterns in Wetlands Secondary Indicators (2 or more reg [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks):[] Local Soll Survey Data[] Stream, Lake, or Tide Gauge[] FAC-Neutral Test[] Aerial Photographs[] Other (Explain in Remarks)[] OtherRecent Weather:[] OtherRecent Rainfall: _____

WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

DATE: 11/03/1993 SITE/PLOT#: 3407 DATE: 11 COUNTY: Tucker STATE: WV STREAM: INVESTIGATOR: MZ, ABC WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: former farm pond (drained) VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover 176Eupatoriadelphus maculatusHerbFACW251Solidago uliginosaHerbOBL269Unidentifiable grassHerbNI273Verbesina alternifoliaHerbFAC507Rosa multifloraShrubFACU 20.00 50.00 80.00 30.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: ErC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-3 clayey silt N 4/ 3-8 silty clay 5 GY 6/1 7.5YR 6/8 (15%)ox.roots/sat. 8-12 silt 5 Y 4/1 fibrous _____ Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[X] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:(in.)Primary Indicators:Depth to Free Water in Pit:(in.)[] InundatedDepth to Saturated Soil:5.0 (in.)[X] Saturated in Upper 12 Primary Indicators:
 [] Inundated
 [X] Saturated in Upper 12
 [] Water Marks
 [] Drift Lines
 [] Sediment Deposit
 [] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
 [X] Oxidized Root Channels/Upper 12
 [X] Water-Stained Leaves
 [] Local Soil Survey Data Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional

 [A] Bepressional
 [A] Water-Stailled Leaves

 Recorded Data (Describe in Remarks):
 [] Local Soil Survey Data

 [] Stream, Lake, or Tide Gauge
 [] Aerial Photographs

 [] Aerial Photographs
 Recent Weather: cloudy, cold

 [] Other
 Recent Rainfall: 6" snow

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 criteria met

SITE/PLOT#: 3408 DATE: 11/03/1 COUNTY: Tucker STATE: WV STREAM: Haddi COWARDIN CLASSIFICATION: PF01E Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypi Is the area a potential Problem Area? Remarks:		ves	C er
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW Stratum S	or FAC 71.0 tatus %	0 Areal Cover
132 Carex sp. 269 Unidentifiable grass 384 Viola septentrionalis 404 Alnus rugosa 501 Rhododendron maximum 602 Acer rubrum 608 Betula alleghaniensis 636 Liriodendron tulipifera 646 Platanus occidentalis	Herb Herb Shrub Shrub Tree Tree Tree Tree	FACW NI FACU FACW+ FAC FAC FAC FACU FACU	60.00 40.00 40.00 20.00 20.00 20.00 20.00 60.00 20.00
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Alluvial Mottle Color(Hydric %) Comments	Soil? nl
0-14 gravelly silt 10 YR 3/1 10 YR 4/6 (25%) sat/ox.roots Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY:			
Field Observations: Wet Depth of Surface Water: (in.) Depth to Free Water in Pit: (in.) Depth to Saturated Soil: 0.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep	land Hydrology Primary Indica [] Inundate [X] Saturate [] Water Ma [] Drift Li [X] Sediment	Indicators: tors: d d in Upper 12 rks nes Deposit	
<pre>[] Spring/Seep [X] Floodplain [] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Rec [] Other Rec</pre>	Secondary Indi [X] Oxidized [X] Water-St	cators (2 or 1 Root Channels ained Leaves	more req'd) s/Upper 12 a
[] Aerial Photographs Rec [] Other Rec WETLAND DETERMINATION: Hydric soils prese		loudy 6" snow drophytic Vege	

WETLAND DETERMINATION:Hydric soils present? yesHydrophytic Vegetation? yesWetland Hydrology? yesWetland? yesRemarks: all 3 criteria metWetland?

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SITE/PLOT#: 3409 DATE: 11/04/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: Haddix Run WATERSHED: Cheat River COWARDIN_CLASSIFICATION: PSS1B/PEM Do Normal Circumstances exist on the site? no Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? yes no Remarks: soils disturbed, much gravel fill, winter conditions VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover 2 Sphagnum sp. 250 Solidago sp.
 Bryo
 NI
 50.00

 Herb
 NI
 80.00

 Herb
 OBL
 30.00

 Shrub
 FACW+
 20.00

 Shrub
 FACU
 40.00

 Shrub
 NI
 20.00

 Tree
 FACW
 20.00

 Vine
 FACW
 40.00
 Bryo NI 50.00 275 Viola pallens
404 Alnus rugosa
507 Rosa multiflora
572 Rhus typhina 646 Platanus occidentalis 814 Ampelopsis arborea · · · SOIL PROFILE: (Minimum 18 inches) Series Name: Alluvial Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments ---------
 0-8
 clayey silt
 5 YR 4/3
 10YR 5/6 (5%) coal pieces

 8-12
 clayey silt
 2.5 Y 4/3
 2.5 Y 5/6 (15%)
 Hydric Soil Indicators: .c Soil Indicators:
[] Histosol [] Histic Epipedon
[] Sulfidic Material [] Aquic Moisture Regime
[] Gleyed [] Low Chroma
[] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY:

 HYDROLOGI.

 Field Observations:
 Wetland Hydrology Indicators.

 Depth of Surface Water:
 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 (in.)
 [] Inundated

 Depth to Saturated Soil:
 18.0 (in.)
 [] Saturated in Upper 12

 Source/Site Characterization:
 [] Drift Lines

 Image Patterns in I
 [] Drainage Patterns in I

 [] Drainage Patterns in Wetlands [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Cent Weather: partly cloudy [X] Floodplain [] Backwater [] Depressional

 Recorded Data (Describe in Remaine).
 [] Other (Explain in Remaine).

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Recent Weather: partly cloudy Recent Rainfall:

 Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: BPJ suggests site saturated during growing season

SITE/PLOT#: 3410 DATE: 11/04/ COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PSS1B/PEM Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	?	ves	
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or Stratum Sta	FAC 86.00 tus % Areal Cover	
109 Asclepias incarnata 129 Carex lurida 176 Eupatoriadelphus maculatus 250 Solidago sp. 269 Unidentifiable grass 320 Vernonia noveboracensis 401 Acer rubrum 507 Rosa multiflora 814 Ampelopsis arborea	Herb OB Herb OB Herb FA Herb NI Herb NI Herb FA Shrub FA Shrub FA Vine FA	L 10.00 L 30.00 CW 10.00 40.00 60.00 CW 10.00 CW 20.00 CU 30.00 CW 40.00	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: Alluvial Mottle Color(%)	Hydric Soil? nl Comments	
0-6 sandy silt 5 Y 4/1 6+ auger refusal	0	x.roots	
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY :			
Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: (in.) Primary Indicators: Depth to Free Water in Pit: (in.) [] Inundated Depth to Saturated Soil: 18.0 (in.) [] Saturated in Upper 12 Source/Site Characterization: [] Drift Lines [] Seasonal High Water Table [X] Sediment Deposit [] Spring/Seep [] Drainage Patterns in Wetlands			
Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Floodplain [] Backwater [X] Depressional	Secondary Indica [X] Oxidized R	tors (2 or more req'd) oot Channels/Upper 12 ned Leaves	
	[] FAC-Neutra		
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met			

Remarks: all 3 criteria met

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SITE/PLOT#: 3411 DATE: 11/ COUNTY: Tucker STATE: WV STREAM: COWARDIN CLASSIFICATION: PSS1E DATE: 11/04/1993 INVESTIGATOR: MZ, ABC WATERSHED: Cheat River Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover ------------176 Eupatoriadelphus maculatu
227 Polygonum sagittatum
269 Unidentifiable grass
293 Leersia oryzoides
320 Vernonia noveboracensia Eupatoriadelphus maculatusHerbFACWPolygonum sagittatumHerbOBLUnidentifiable grassHerbNILeersia oryzoidesHerbOBLVernonia noveboracensisHerbFACWSalix nigraShrubFACW+ Eupatoriadelphus maculatus 10.00 30.00 50.00 10.00 40.00 522 Salix nigra SOIL PROFILE: (Minimum 18 inches) Series Name: Bc Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments _____
 0-4
 silt
 5 Y 4/1
 fibrous mat

 4-12
 silt
 5 B 4/1
 5 YR 5/80x.roots
 fibrous matter Hydric Soil Indicators: [] Histosol[] Histic Epipedon[] Sulfidic Material[] Aquic Moisture Regime[] Gleyed[X] Low Chroma[X] mottles[] Entisol (organic contents [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.5 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Drift Lines[] Spring/Seep[] Drainage Patterns in Wetlands[] PleodulainSecondary Indicators (2 or more reg/ [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks)

 Recorded Data (Describe in Remarke,)
 [] Other (Explain in Remarke,)

 [] Stream, Lake, or Tide Gauge
 [] Other (Explain in Remarke,)

 [] Aerial Photographs
 Recent Weather: partly cloudy

 Recent Rainfall: 6" snow

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 3412 DATE: 11/04/1993 INVESTIGATOR: MZ, ABC COUNTY: Tucker STATE: WV STREAM: Haddix Run WATERSHED: Cheat River COWARDIN_CLASSIFICATION: PEMIE/PSS Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves Is the area a potential Problem Area? no Remarks: newly created wetland, water diversion unknown cause VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover HerbFACWHerbFAC+HerbOBLHerbFACWHerbFACW+HerbNIHerbFACWHerbFACWShrubFACW+ 132 Carex sp. 20.00 Dichantĥelium clandestinum 153 10.00 Epilobium coloratum Eupatoriadelphus maculatus 167 20.00 10.00 10.00 176 Juncus effusus Unidentifiable grass Vernonia noveboracensis 195 269 40.00 320 10.00 320 Vernonia novesoracemere 390 Lysimachia ciliata 30.00 404 Alnus rugosa 20.00 ------SOIL PROFILE: (Minimum 18 inches) Series Name: Alluvial Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments none flooded taken ------_____ Hydric Soil Indicators: [] Histosol

 [] Histosol
 [] Histic Epipedon

 [X] Sulfidic Material
 [X] Aquic Moisture Regime

 [] Gleyed
 [] Low Chroma

 [] mottles
 [] Entisol (organic context, vertical

 streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:2.0 (in.)Primary Indicators:Depth to Free Water in Pit:(in.)[X] InundatedDepth to Saturated Soil:(in.)[] Saturated in Upper 12Depth to Saturated Soil:(in.)[] Water MarksSource/Site Characterization:[] Drift Lines[] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[] Oxidized Root Channels/Upper 12[] Depressional[X] Water-Stained Leaves[] Local Soil Survey Data[] Local Soil Survey Data _____ (Describe in Remarks): (Describe in Remarks): (a, or Tide Gauge cographs (b) Cographs (c) Cogra Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs [] Aerial WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 3501 DATE: 11/08/1993 INVESTIGATOR: ABC, WER COUNTY: Tucker STATE: WV STREAM: trib.Haddix RunWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? Remarks: mowed field next to US 219 no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 71.00 Code Scientific Name Stratum Status & Areal Cover ------195 195Juncus effususHerbFACW+217Onoclea sensibilisHerbFACW249Solidago rugosaHerbFAC269Unidentifiable grassHerbNI293Leersia oryzoidesHerbOBL321Eupatoriadelphus fistulosusHerbFACW389Aster simplexHerbFACW Juncus effusus Herb FACW+ 20.00 15.00 20.00 20.00 10.00 10.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Ph Hydric Soil? nl Old PROFILE: (Minimum to inches / Series Name: FinHydric SoliDepthTextureMatrix ColorMottle Color(%)Comments0-6"clay silt5 Gy 5/1ox.roots6-12+clay silt5 Gy 6/15 YR 5/8 (20%)ox.roots Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [X] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 1.0 (in.) Primary Indicators: Depth to Free Water in Pit: 6.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [X] Water Marks [] Drift Lines [] Sediment Deposit _____ Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Sediment Deposit
[] Drainage Patterns in Wetlands [X] Floodplain [] Backwater [] Depressional [] Drainage Patterns in wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Pecent Weather: cold supput Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Weather: cold sunny Recent Rainfall: <1" WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 3502 DATE: 11/08/ COUNTY: Tucker STATE: WV STREAM: Hadd COWARDIN CLASSIFICATION: PF01B Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:		es o	
VEGETATION: Percent Dominant Species that Code Scientific Name	Stratum Status	<pre>% Areal Cover</pre>	
2 Sphagnum sp. 116 Caltha palustris 153 Dichanthelium clandestinum 249 Solidago rugosa 317 Solidago altissima 395 Aster vimineus 399 Solidago canadensis 507 Rosa multiflora 562 Crataegus sp. 572 Rhus typhina 602 Acer rubrum 636 Liriodendron tulipifera 652 Prunus virginiana 674 Crataegus sp.	BryoNIHerbOBLHerbFAC+HerbFACHerbFACUHerbFACUShrubFACUShrubNIShrubNITreeFACUTreeFACUTreeFACUTreeFACUNiNIShrubNININIShrubNITreeFACUTreeFACUNiNIShrubNIShrubNITreeFACUTreeNI	$ \begin{array}{c} 10.00\\ 15.00\\ 20.00\\ 20.00\\ 10.00\\ 5.00\\ 10.00\\ 10.00\\ 10.00\\ 10.00\\ 10.00\\ 10.00\\ 10.00\\ 10.00\\ 10.00\\ 10.00\\ 10.00\\ 10.00\\ 15.00\\ \end{array} $	
SOIL PROFILE: (Minimum 18 inches) Series Depth Texture Matrix Color	Name: At Mottle Color(%) Co	Hydric Soil? nl omments	
0-6" silt 10 YR 3/1 6-10" silt 10 YR 5/1 10" refusal	0X.rd 10 YR 5/6	oots (25%)	
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY :			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:10.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[] Drainage Patterns in Wetlands[] Depressional[X] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Other[] Other[] OtherRecent Rainfall: <1"			
WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Hydrology? yes Wetland? yes			

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SITE/PLOT#: 3503 DATE: 11/09/1993 INVESTIGATOR: ABC, WER COUNTY: Tucker STATE: WV STREAM: Haddix Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: along U.S. 219 VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover 153Dichanthelium clandestinumHerbFAC+30.00177Eupatoriadelphus purpureusHerbFAC20.00195Juncus effususHerbFACW+15.00279Asclepias syriacaHerbNI10.00317Solidago altissimaHerbFACU10.00320Vernonia noveboracensisHerbFACW30.00405Alnus serrulataShrubOBL20.00636Liriodendron tulipiferaTreeFACW10.00814Ampelopsis arboreaVineFACW15.00 SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-6" silt 10 YR 4/1 10 YR 6/8 (30%)ox.roots too wet Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:6.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[X] Seasonal High Water Table[] Drainage Patterns in Wetlands[] Spring/Seep[] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[X] Water-Stained Leaves[] Local Soil Survey Data[] FAC-Neutral Test[] FAC-Neutral Test[] Scher (Explain in Remarks) HYDROLOGY : Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: cold[] OtherRecent Rainfall: <1"</td> ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 3504 DATE: 11/08/1993 INVESTIGATOR: ABC, WER COUNTY: Tucker STATE: WV STREAM: trib.Haddix RunWATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: trib into Haddix Run along U.S.219 VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 73.00 Code Scientific Name Stratum Status % Areal Cover Caltha palustrisHerbOBL15.00Dichanthelium clandestinumHerbFAC+20.00Typha latifoliaHerbOBL10.00Unidentifiable grassHerbNI15.00Vernonia noveboracensisHerbFACW20.00Eupatoriadelphus fistulosusHerbFACW15.00Quercus rubraShrubFACU10.00Salix fragilisShrubFACU10.00Salix nigraShrubFACW+10.00Castanea dentataTreeNI10.00Solidago patulaHerbOBL10.00 116 Caltha palustris
153 Dichanthelium clandestinum
268 Typha latifolia Typna Latifolia Unidentifiable grass 269 320 321 497 519 522 676 Castanea dentata 901 Solidago patula ------SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-5" silt 5 Gy 4/1 7.5YR 5/6 (15%) 5-10" gravelly silt 10 YR 4/1 7.5YR 4/6 (20%) 10" refusal ----Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [X] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators. Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 10.0 (in.) [] Inundated Depth to Saturated Soil: 8.0 (in.) [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit _____ [] Seasonal High Water Table [] Sediment Deposit [] Drainage Patterns in Wetlands Spring/Seep [X] Floodplain [] Backwater [X] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: cold Recorded Data (Describe in Remaine).
[] Stream, Lake, or Tide Gauge [] Other (Expl [] Aerial Photographs Recent Weather: cold Recent Rainfall: <1" Recorded Data (Describe in Remarks): ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 3505A DATE: 11/09/1993 INVESTIGATOR: ABC, WER COUNTY: Tucker STATE: WV STREAM: Haddix Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: depressional with fill in some areas VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 64.00 Code Scientific Name Stratum Status & Areal Cover 249 Solidago rugosa Herb FAC 20.00 268
 Herb
 OBL
 15.00

 Herb
 NI
 10.00

 Herb
 FACW
 15.00

 Shrub
 FAC
 15.00

 Shrub
 FAC
 15.00

 Shrub
 FAC
 15.00

 Shrub
 FAC
 15.00

 Shrub
 FACU
 10.00

 Shrub
 FACW+
 20.00

 Tree
 FAC
 10.00

 Tree
 FACU
 5.00

 Tree
 FACU
 5.00
 Typha latifolia Herb OBL 269 Unidentifiable grass 321 Eupatoriadelphus fistulosus 401 Acer rubrum Alnus serrulata Rosa multiflora 405 507 Salix nigra 522 602 Acer rubrum
637 Malus sylvestris
651 Prunus serotina SOIL PROFILE: (Minimum 18 inches) Series Name: Bc Hydric Soil? nl DepthTextureMatrix ColorMottle Color(%)Hydric Soll?0-4"silt10 YR 3/110 YR 5/8 (15%) ox.roots4-10"sandy silt10 YR 4/110 YR 4/6 (10%) ox.roots Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma] Sulfidic Material [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:4.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Water MarksSource/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Drift Lines[] Spring/Seep[] Drift Lines[] Spring/Seep[] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[X] Depressional[X] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other[] Other[] Other[] OtherRecent Weather: sunny[] OtherRecent Rainfall: <1"</td> HYDROLOGY : WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks:

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SITE/PLOT#: 3505B DATE: 11/09/1993 INVESTIGATOR: ABC, WER COUNTY: Tucker STATE: WV STREAM: Haddix Run WATERSHED: Cheat River INVESTIGATOR: ABC, WER COWARDIN CLASSIFICATION: PSS1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 70.00 Code Scientific Name Stratum Status % Areal Cover 1Polytrichum sp.BryoNI106Apocynum cannabinumHerbFACU116Caltha palustrisHerbOBL129Carex luridaHerbOBL153Dichanthelium clandestinumHerbFAC+195Juncus effususHerbFACW+217Onoclea sensibilisHerbFACW249Solidago rugosaHerbFAC269Unidentifiable grassHerbNI321Eupatoriadelphus fistulosusHerbFACW 1 106 Polytrichum sp. Apocynum cannabinum 10.00 10.00 15.00 15.0 20.00 15.00 15.00 10.00 15.00 20.00 10.00 ______ SOIL PROFILE: (Minimum 18 inches) Series Name: Bc Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments ------0-5" silt 10 YR 4/1 >5" refusal 10 YR 5/8 (10%)ox.roots Hydric Soil Indicators:

 HISTOSOL
 [] Histic Epipedon

] Sulfidic Material
 [] Aquic Moisture Regime

] Gleyed
 [X] Low Chrome

 [] Histosol] Gleyed [X] Low Chroma
[] Entisol (organic context, vertical [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY: HYDROLOGI:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Depth to Free Water in Pit:4.0 (in.)Depth to Saturated Soil:0.0 (in.)Depth to Saturated Soil:0.0 (in.)Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Drift Lines[] Spring/Seep[] Drainage Patterns in Wetlands[VI FloodplainSecondary Indicators (2 or more req'd)[X] Oxidized Root Channels/Upper 12 [] Spring/Seep [X] Floodplain [] Backwater [X] Depressional [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remarks):

 Recorded Data (Describe in Remarks):
 [] FAC-Neutral Test

 [] Stream, Lake, or Tide Gauge
 [] Other

 [] Aerial Photographs
 [] Other

 [] Other
 Recent Weather: sunny

 [] Other
 Recent Rainfall: <1"</td>

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 3506 DATE: 11/09/1993 INVESTIGATOR: ABC, WER COUNTY: Tucker STATE: WV STREAM: Haddix Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 78.00 Code Scientific Name Stratum Status % Areal Cover HerbFAC+HerbFACWHerbFACW+HerbFACW+HerbFACHerbNIShrubFACUTreeFACHerbOBL 153 Dichanthelium clandestinum 168 Epilobium hirsutum Herb 15.00 Epilobium niisutaan Eupatorium perfoliatum 10.00 20.00 10.00 15.00 178 Juncus effusus 195 Solidago rugosa 249 269 Unidentifiable grass 20.00 10.00 10.00 507 Rosa multiflora 602 Acer rubrum 901 Solidago patula 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Bc Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-3" silt 10 YR 3/1 3-5" silt 10 YR 5/1 5-7" silt 10 YR 3/1 7" refusal 10 YR 6/80x.roots Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:7.0 (in.)[] InundatedDepth to Saturated Soil:5.0 (in.)[X] Saturated in Upper 12[] Water Marks[] Water MarksSource/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit [] Seasonal High Water Table [] Spring/Sear [] Sediment Deposit
[] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[X] Oxidized Root Channels/Upper 12 [] Spring/Seep [X] Floodplain [] Backwater [X] Depressional [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks)

 Recorded Data (Describe in Remarks).
 [] Other (Explain []] Oth Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 3507 DATE: 11/09/1993 INVESTIGATOR: ABC, WER COUNTY: Tucker STATE: WV STREAM: Haddix Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 56.00 Code Scientific Name Stratum Status % Areal Cover Apocynum cannabinum 106 FACU Herb Caltha palustris Dichanthelium clandestinum 116 Herb OBL. 153 Herb FAC+ FAC NI FACW FACU UPL FAC Eupatorium perfoliatum Unidentifiable grass 178 Herb 269 Herb Herb Shrub Eupatoriadelphus fistulosus 321 Rosa multiflora 507 637 Malus sylvestris652 Prunus virginiana Tree Tree SOIL PROFILE: (Minimum 18 inches) Series Name: AtHydric SDepthTextureMatrix ColorMottle Color(%)Comments0-3"silt2.5 Y 3/2ox.roots3-6"silt2.5 Y 4/12.5Y 4/4 (40%)6-8"gravel siltloam 2.5 Y 4/210 YR 4/6 (10%)8"refusal Hydric Soil? nl ------Hvdric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : ------------Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:8.0 (in.)[]Depth to Saturated Soil:6.0 (in.)[X]Saturated in Upper 12 [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table Spring/Seep Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [X] Floodplain Backwater [X] Depressional [] Local Soil Survey Data Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge [] Other (Expla [] Aerial Photographs Recent Weather: sunny [] Other Recent Rainfall: <1" WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 3508 SITE/PLOT#: 3508 DATE: 11/09/1993 INVESTIGATOR: ABC, WER COUNTY: Tucker STATE: WV STREAM: Haddix Run WATERSHED: Cheat River INVESTIGATOR: ABC, WER COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 80.00 Code Scientific Name Stratum Status & Areal Cover -----153 Dichanthelium clandestinum Herb Herb FAC+ FACW+ 178 Eupatorium perfoliatum FACW+ FACW+ FAC FACW FAC FAC FAC-FACU 195 Juncus effusus Herb Scirpus cyperinus Solidago rugosa 244 Herb 249 Herb Herb 321 Eupatoriadelphus fistulosus Cornus foemina 432 Shrub Shrub Cornus toemina Hamamelis virginiana 451 507 507 Rosa multiflora 639 Ostrya virginiana Shrub FACU-Tree SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments 0-5" loam 10 YR 3/2 5" refusal 10 YR 4/6 (20%) -----Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical)] Gleyed X] mottles [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY:

 HiDROBEL

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 5.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 5.0 (in.)
 [] Mater Marks

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [] Sediment Deposit

 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req'

 _____ Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Backwater [X] Depressional [X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test
[] Other (Explain in Remarks)
Recent Weather: sunny
Recent Rainfall: <1"</pre> Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 3509 DATE: 11/10/1993 INVESTIGATOR: ABC, WER COUNTY: Tucker STATE: WV STREAM: Haddix Run WATERSHED: Cheat River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks:			
VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 62.00 Code Scientific Name Stratum Status % Areal Cover			
1Polytrichum sp.BryoNI15.00116Caltha palustrisHerbOBL15.00129Carex luridaHerbOBL10.00153Dichanthelium clandestinumHerbFAC+20.00195Juncus effususHerbFACW+15.00237Rubus hispidusHerbFACW+15.00268Typha latifoliaHerbOBL10.00269Unidentifiable grassHerbNI20.00474Ostrya virginianaShrubFACU-10.00522Salix nigraShrubFACW+15.00602Acer rubrumTreeFAC20.00639Ostrya virginianaTreeFACU-5.00656Quercus albaTreeFACU10.00			
SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments			
0-6" silt 10 YR 3/1 5 YR 4/6 (20%) 6" refusal Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY:			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:5.0 (in.)[] InundatedDepth to Saturated Soil:3.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Drift Lines[] Spring/Seep[] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[] Oxidized Root Channels/Upper 12[X] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Aerial PhotographsRecent Weather: sunny[] OtherRecent Rainfall: <1"			
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met			

SITE/PLOT#: 3510 DATE: 11/10/1993 INVESTIGATOR: ABC, WER COUNTY: Tucker STATE: WV STREAM: unnamed WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PSS1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? Remarks: head waters of an unnamed stream no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 78.00 Code Scientific Name Stratum Status % Areal Cover 116 Caltha palustris 153 Dichanthelium clandestinum OBL Herb 20.00 116Caltha palustrisHerbOBL153Dichanthelium clandestinumHerbFAC+342Carex prasinaHerbOBL432Cornus foeminaShrubFAC451Hamamelis virginianaShrubFAC-498Rhododendron arborescensShrubFAC608Betula alleghaniensisTreeFAC636Liriodendron tulipiferaTreeFACU656Quercus albaTreeFACU 20.00 60.00 10.00 25.00 10.00 20.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BeF Hydric Soil? nl Depth Texture Matrix Color Mottle Color(%) Comments _____ 4" sandy loam 5 Gy 4/1 too wet ------Hydric Soil Indicators: [] Histosol [X] Sulfidic Material [X] Gleyed [] mottles [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Water Marks[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[X] Drainage Patterns in Wetlands[X] Floodplain[] Oxidized Root Channels/Upper 12[X] Depressional[] Local Soil Survey Data -----(Describe in Remarks): ke, or Tide Gauge btographs (Describe in Remarks): ke, or Tide Gauge (Describe in Remarks): ke, or Tide Gauge (Describe in Remarks): (Describe Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 3511 DATE: 11/09/1993 INVESTIGATOR: ABC, WER COUNTY: Randolph STATE: WV STREAM: unnamed WATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PFO1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks:			
VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 64.00 Code Scientific Name Stratum Status % Areal Cover			
110Aster umbellatusHerbFACW20.00153Dichanthelium clandestinumHerbFAC+35.00158Dryopteris goldianaHerbFAC+10.00249Solidago rugosaHerbFAC20.00297Carex gynandraHerbNI20.00430Cornus amonumShrubFACW20.00610Betula nigraTreeFACW20.00636Liriodendron tulipiferaTreeFACU10.00656Quercus rubraTreeFACU10.00661Quercus rubraTreeFACU10.00809Smilax rotundifoliaVineFAC20.00			
SOIL PROFILE: (Minimum 18 inches) Series Name: BeF Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments			
0-1" organic 1-4" silt loam 2.5 Y 3/1 2.5 Y 6/3 (20%)ox.roots 4-8" silt loam 2.5 Y 4/2 2.5 Y 6/3 (20%)Mg concr. 8" refusal			
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HIDROLOGI:			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:8.0 (in.)[] InundatedDepth to Saturated Soil:5.0 (in.)[X] Saturated in Upper 12Depth to Saturated Soil:5.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Sediment Deposit[] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[] Water-Stained Leaves[] Depressional[] Water-Stained Leaves[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] OtherRecent Weather: sunny w/frost[] OtherRecent Rainfall: <1"			
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met			

DATE: 11/10/1993 SITE/PLOT#: 3512 INVESTIGATOR: ABC, WER WATERSHED: Tygart Valley River COUNTY: Randolph STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEMIB Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? ves no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover Dichanthelium clandestinum 153 Herb FAC+ 249 Solidago rugosa 269 Unidentifiable grass 453 Hypericum prolificum 507 Rosa multiflora 901 Solidago patula 50.00
 Herb
 FAC+
 50.00

 Herb
 FAC
 15.00

 Herb
 NI
 20.00

 Shrub
 FACU
 10.00

 Shrub
 FACU
 10.00

 Herb
 OBL
 15.00
 SOIL PROFILE: (Minimum 18 inches) Series Name: BkD Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments

 0-4"
 silt
 2.5 Y 4/2
 ox.roots

 4-8"
 gravelly silt
 2.5 Y 3/2
 2.5 Y 5/3 (10%)

 8-12"
 sandy silt
 2.5 Y 4/2
 10 YR 5/8 (15%)

 12"
 refusal
 refusal
 10 YR 5/8 (15%)

 ------Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : -----. Field Observations: Wetland Hydrology Indic Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 2.0 (in.) [X] Saturated in U Wetland Hydrology Indicators: Primary Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [X] Depressional Recorded Data (Describe in Remarks): Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: sunny[] OtherRecent Rainfall: <1"</td> _____ WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 3513 DATE: 11/10/1993 INVESTIGATOR: ABC, WER COUNTY: Randolph STATE: WV STREAM: Leading CreekWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 62.50 Code Scientific Name Stratum Status % Areal Cover Herb FACW+ Herb FAC Herb NI Herb FACW Herb FACW Herb NI Shrub FAC Shrub FAC Juncus effusus Solidago rugosa 195 20.00 249 20.00 Unidentifiable grass 320 Vernonia noveboracensis 333 Polygonum persicaria 394 Aster patens 432 Corpus formi 40.00 10.00 15.00 10.00 432 Cornus foemina 507 Rosa multiflora 20.00 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Ph Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments
 0-10"
 sandy silt
 5 Y 5/2
 5 YR 5/6 (20%) ox.roots

 10-12"
 sandy silt
 5 Y 5/1
 2.5YR 4/8 (30%) ox.roots

 12"
 refusal
 2.5YR 4/8 (30%) ox.roots Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [] Gleyed [X] mottles [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:10.0 (in.)[] InundatedDepth to Saturated Soil:10.0 (in.)[X] Saturated in Upper 12 [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain
[] Backwater
[X] Depressional Secondary Indicators (2 or more reg'd) [X] Oxidized Root Channels/Upper 12
[] Water-Stained Leaves
[] Local Soil Survey Data Recorded Data (Describe in Remarks): Recorded Data (Describe in Remarks):[] FAC-Neutral Test[] Stream, Lake, or Tide Gauge[] Other (Explain in Remarks)[] Aerial PhotographsRecent Weather: morning frost[] OtherRecent Rainfall: <1"</td> WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

DATE: 11/11/1993 INVESTIGATOR: ABC, WER STREAM: unnamed WATERSHED: Tygart Valley River SITE/PLOT#: 3514 COUNTY: Randolph STATE: WV STREAM: unnamed COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 67.00 Code Scientific Name Stratum Status % Areal Cover Herb OBL Herb FACW+ Herb NI Shrub OBL Tree FACW Vine FACW 116 Caltha palustris 30.00 195 Juncus effusus 15.00 20.00 269 Unidentifiable grass 405 Alnus serrulata 634 Larix laricina 814 Ampelopsis arborea 50.00 10.00 15.00 SOIL PROFILE: (Minimum 18 inches) Series Name: BkC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ____ ---------. 0-3" silt 7.5 YR 5/1 2.5YR 4/8 (20%) 5" silt 10 YR 5/1 10 YR 6/8 (20%) 5" refusal Hydric Soil Indicators: [] Histosol [] Sulfidic Material Histic Epipedon
 Aquic Moisture Regime
 Low Chroma
 Entisol (organic context, vertical [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGY:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 1.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 6.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [] Sediment Deposit

 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req'

 [X] Floodplain
[] Backwater
[X] Depressional Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [X] water-Stained Betves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remaine). [] Stream, Lake, or Tide Gauge [] Other (Expire [] Aerial Photographs Recent Weather: sunny Recent Rainfall: <1" WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: 3515 DATE: 11/17/19 COUNTY: Randolph STATE: WV STREAM: COWARDIN CLASSIFICATION: PSS1B Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypica Is the area a potential Problem Area? Remarks:	yes		
VEGETATION: Percent Dominant Species that a: Code Scientific Name St	ratum Status % Areal Cover		
 Sphagnum sp. Carex bromoides Carex lurida Eupatoriadelphus purpureus Eupatorium perfoliatum Rubus hispidus Scirpus cyperinus Solidago rugosa Typha latifolia Unidentifiable grass Alnus serrulata Hypericum prolificum Hypericum prolificum Salix nigra Acer rubrum Ostrya virginiana Crataegus sp. Vernonia gigantea 			
SOIL PROFILE: (Minimum 18 inches) Series Na Depth Texture Matrix Color M	Aottle Color(%) Comments		
0-18" silty clay 10 YR 5/1 10 YR 5/8ox.roots Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY:			
Field Observations: Wetla Depth of Surface Water: 0.0 (in.) Pr Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.)	and Hydrology Indicators: rimary Indicators: []]Inundated [X] Saturated in Upper 12		
Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [] Floodplain Sa [] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent	<pre>[] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands econdary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) at Weather: overcast at Rainfall: <1"</pre>		
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met			

SITE/PLOT#: 3516 SITE/PLOT#: 3516 DATE: 11/10/1993 INVESTIGATOR: ABC, WER COUNTY: Randolph STATE: WV STREAM: Leading CreekWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes yes Is the area a potential Problem Area? no Remarks: pasture area-wetland was a former oxbow VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover 195Juncus effususHerbFACW+269Unidentifiable grassHerbNI320Vernonia noveboracensisHerbFACW900Solidago giganteaHerbFACW 10.00 30.00 30.00 30.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Tg Hydric Depth Texture Matrix Color Mottle Color(%) Comments Hydric Soil? ves -----0-4" silt 10 YR 3/1 4-12" sandy silt 10 YR 4/2 12" refusal 10 YR 4/6 (10%)ox.roots 10 YR 5/8 (10%) _____ ------Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
[] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 12.0 (in.) [] Inundated Depth to Saturated Soil: 8.0 (in.) [X] Saturated in Upper 12 Primary Indicators: [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines [] Sediment Deposit [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data 8.0 (in.) Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [X] Depressional [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: sunny Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Rainfall: <1" -------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 3601DATE: 11/15/1993INVESTIGATOR: ABC, DMBCOUNTY: RandolphSTATE: WV STREAM: unnamedWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEMIB Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: across from the Elkins speed way entrance VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status % Areal Cover HerbFACHerbFACWHerbOBLHerbNIHerbNIShrubOBLShrubFACW+HerbOBL 154 Dichanthelium acuminatum 30 00 176 Eupatoriadelphus maculatus 20.00 Solidago uliginosa Unidentifiable grass 251 30.00 10.00 20.00 25.00 269 Aster patens 394 405 Alnus serrulata 522 Salix nigra 901 Solidago patula 10.00 30.00 ------_ _ _ _ _ _ _ _ _ _ _ _ SOIL PROFILE: (Minimum 18 inches) Series Name: Ph Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-12 silty clay 10 YR 5/2 2.5 Y 6/6 12" refusal ------Hydric Soil Indicators: [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : HYDROLOGI:Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:2.0 (in.)[] InundatedDepth to Saturated Soil:2.0 (in.)[] Saturated in Upper 12Depth to Saturated Soil:2.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Depressional[] Oxidized Root Channels/Upper 12[] Depressional[] Local Soil Survey Data(I) Demarks):[] FAC-Neutral Test [] FAC-Neutral Test [] Other (Explain in Remarks) Recent Weather: rain/overcast [] Stream, Lake, or Tide Gauge
[] Aerial Photographs [] Other Recent Rainfall:

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 criteria met Hydrophytic Vegetation? yes Wetland? yes

SITE/PLOT#: 3602 DATE: 11/15/1993 INVESTIGATOR: ABC, DMB COUNTY: Randolph STATE: WV STREAM: Leading CreekWATERSHED: Tygart Valley River SITE/PLOT#: 3602 COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? yes ves Is the area a potential Problem Area? Remarks: area is mowed for recreational use no VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 55.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 FACW
 20.00

 Herb
 FACW+
 50.00

 Herb
 FACU 10.00

 Herb
 FAC
 10.00

 Shrub
 FACW+
 10.00

 Tree
 FACU 5.00

 Tree
 FACU
 10.00

 Herb
 OBL
 20.00
 132 Carex sp. 195 Juncus effusus Polygonum cuspidatum 224 Unidentifiable grass 269 Verbesina alternifolia 273 Carex gynandra Salix nigra 297 522 602 Acer rubrum 639 Ostrya virginiana 639 Ostrya Virginiana 651 Prunus serotina 901 Solidago patula SOIL PROFILE: (Minimum 18 inches) Series Name: Ph Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-18" clay 10 YR 5/2 10 YR 6/6sat Hydric Soil Indicators: [] Histosol [] Sulfidic Material] Gleyed X1 mottles [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : _____ -----Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:12.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:12.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit [] Seasonal High Water Table [] Spring/Seep [] Sediment Deposit
[] Drainage Patterns in Wetlands
Secondary Indicators (2 or more req'd)
[] Oxidized Root Channels/Upper 12
[X] Water-Stained Leaves
[] Local Soil Survey Data
[] FAC-Neutral Test [X] Floodplain
[] Backwater
[] Depressional Recorded Data (Describe III Remains) [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: Recent Rainfall: [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

SITE/PLOT#: 3604 DATE: 11/16/1993 INVESTIGATOR: ABC, DMB COUNTY: Randolph STATE: WV STREAM: Leading CreekWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? ves Is the area a potential Problem Area? no Remarks: grazed pasture & disturbed-very wet VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 50.00 Code Scientific Name Stratum Status % Areal Cover FACW Carex bromoides Carex folliculata 119 Herb 10.00 Herb NI Herb OBL Herb FACW+ Herb FACW+ Herb NI Herb NI Herb NI 124 10 00 129 Carex lurida 40.00 Eupatorium perfoliatum 178 20.00 Juncus effusus Unidentifiable grass 195 50.00 269 20.00 300 Asclepias sp. 394 Aster patens 10.00 10.00 SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? yes DepthTextureMatrix ColorMottle Color(%)Comments0-18"clay10 YR 4/12.5YR 4/8 (35%)ox. roots (tons) Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [X] mottles [] Histic Epipedon [] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGI:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 2.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 12.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 12.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more reg'

 Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] Backwater NATION: Hydric [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge] Aerial Photographs [] Other ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 3605 DATE: 11/16/1993 INVESTIGATOR: ABC, DMB COUNTY: Randolph STATE: WV STREAM: Stalnaker RunWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: AA located in a pasture along 219 VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 75.00 Code Scientific Name Stratum Status & Areal Cover -----Herb FACW+ Herb FACW+ Shrub OBL Shrub FACU 178 Eupatorium perfoliatum 30.00 195 Juncus effusus 405 Alnus serrulata 25.00 20.00 507 Rosa multiflora 5.00 _____ SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? ves Depth Texture Matrix Color Mottle Color(%) Comments 0-5" silt 10 YR 2/1 5-12" silt 10 YR 3/2 12" refusal 10 YR 6/8 (15%)ox.roots -----Hydric Soil Indicators: [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context, vertical) [] Histosol [] Sulfidic Material [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology IndicDepth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:10.0 (in.)[X] Saturated in U Wetland Hydrology Indicators: [] Inundated
[] Inundated
[X] Saturated in Upper 12
[] Water Marks
[] Drift Lines
[] Sediment Deposit
[] Drainage Patterns in Wetlands Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater [] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Teathers [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other Recent Weather: Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 3606 DATE: 11/16/ COUNTY: Randolph STATE: WV STREAM: unna COWARDIN CLASSIFICATION: PEM1B/PSS Do Normal Circumstances exist on the site Is the site significantly disturbed (Atyp Is the area a potential Problem Area? Remarks:	?	ves	BC, DMB rt Valley River
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, F. Stratum	ACW or FAC Status	71.00 % Areal Cover
<pre>116 Caltha palustris 119 Carex bromoides 124 Carex folliculata 165 Eleocharis sp. 178 Eupatorium perfoliatum 195 Juncus effusus 269 Unidentifiable grass 277 Viola spp. 320 Vernonia noveboracensis 342 Carex prasina 398 Clethra acuminata 405 Alnus serrulata 507 Rosa multiflora 901 Solidago patula</pre>	Herb Herb Herb Herb Herb Herb Herb Herb	OBL FACW NI FACW+ FACW+ NI FAC FACW OBL NI OBL FACU OBL	5.00 5.00 10.00 5.00 25.00 20.00 10.00 10.00 10.00 10.00 50.00 20.00 15.00
SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? yes Depth Texture Matrix Color Mottle Color(%) Comments 0-18 silty clay 10 YR 4/1 7.5 YR 5/80x.roots (tons) Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:2.0 (in.)[X] Saturated in Upper 12Depth to Saturated Soil:2.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Drift Lines[] Spring/Seep[] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[X] Oxidized Root Channels/Upper 12[X] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall:			
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met			

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SITE/PLOT#: 3608DATE: 11/17/1993INVESTIGATOR: ABC, DMBCOUNTY: RandolphSTATE: WV STREAM: unnamedWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no yes Is the area a potential Problem Area? no Remarks: unnamed stream VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 83.00 Code Scientific Name Stratum Status & Areal Cover
 Herb
 FACW+
 10.00

 Herb
 FACW+
 70.00

 Herb
 FAC
 15.00

 Herb
 FACW
 10.00

 Herb
 NI
 15.00

 Tree
 FACW 10.00
 195 Juncus effusus Phalaris arundinacea Solidago rugosa 221 249 249 Solidago rugosa
320 Vernonia noveboracensis
394 Aster patens
664 Salix babylonica -SOIL PROFILE: (Minimum 18 inches) Series Name: EnC Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments _ _ _ _ _ _ _ _ _ _ _ _ ---------10 VD E/Poy roota 0-18 silty clay 10 YR 5/1 10 YR 5/80x.roots Hydric Soil Indicators:

 Soli indicators:
 [] Histic Epipedon

] Histosol
 [] Aquic Moisture Regime

] Sulfidic Material
 [] Aquic Moisture Regime

] Gleyed
 [X] Low Chroma

 X] mottles
 [] Entisol (organic context, vertical

 [] Histosol [] Gleyed [X] mottles streaking, chroma 3, wet spodosol) HYDROLOGY :

 HYDROLOGI.

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 1.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [] Saturated in Upper 12

 [] Water Marks
 [] Drift Lines

 [] Seasonal High Water Table
 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more reg'

 [] Spring/Seep [] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [X] Depressional [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks):

 Recorded Data (Describe in Remaining)
 [] Other

 [] Stream, Lake, or Tide Gauge
 [] Other

 [] Aerial Photographs
 Recent Weather:

 Recent Rainfall:
 Recent Rainfall:

 WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

SITE/PLOT#: 3609 DATE: 11/18/19 COUNTY: Randolph STATE: WV STREAM: COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypic Is the area a potential Problem Area? Remarks:		ves	OMB alley River
VEGETATION: Percent Dominant Species that a Code Scientific Name	are OBL, FACW Stratum	or FAC 87.5 Status %	50 Areal Cover
154 Dichanthelium acuminatum 237 Rubus hispidus 249 Solidago rugosa 405 Alnus serrulata 453 Hypericum prolificum 522 Salix nigra 602 Acer rubrum 602 Acer rubrum	Herb Herb Shrub Shrub Shrub Tree Tree	FAC FACW FAC OBL FACU FACW+ FAC FAC	10.00 20.00 15.00 20.00 20.00 20.00 10.00 15.00
SOIL PROFILE: (Minimum 18 inches) Series M Depth Texture Matrix Color	Name: Ph & Pn Mottle Color	Hydric (%) Comments	c Soil? no
0-12" silt 10 YR 5/1	10 Y	R 6/8 (25%)ox	roots
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY :			
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 12.0 (in.) Depth to Saturated Soil: 6.0 (in.)	land Hydrolog Primary Indic [] Inundat [X] Saturat	y Indicators: ators: ed ed in Upper 12 arks	2
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:12.0 (in.)[] InundatedDepth to Saturated Soil:6.0 (in.)[X] Saturated in Upper 12Depth to Saturated Soil:6.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Depressional[] Water-Stained Leaves[] Local Soil Survey Data			
	[] FAC-Ne [] Other ent Weather: ent Rainfall:	utral Test (Explain in Re	
WETLAND DETERMINATION: Hydric soils preser Wetland Hydrology? Remarks: all 3 criteria met	nt?yes H yes W	ydrophytic Veg Wetland? yes	getation? yes

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Is the site significantly disturbed (Atypical Situation)?	10 -		
VEGETATION: Percent Dominant Species that are OBL, FACW or FA Code Scientific Name Stratum Status	AC 69.00 % % Areal Cover		
116Caltha palustrisHerbOBL154Dichanthelium acuminatumHerbFAC221Phalaris arundinaceaHerbFACW+251Solidago uliginosaHerbOBL269Unidentifiable grassHerbNI273Verbesina alternifoliaHerbFAC277Viola spp.HerbFAC321Eupatoriadelphus fistulosusHerbFACW+404Alnus rugosaShrubFACW+405Alnus serrulataShrubOBL507Rosa multifloraShrubFACW+676Castanea dentataTreeNI815Vitis sp.VineNI	$\begin{array}{c} 5.00\\ 20.00\\ 15.00\\ 10.00\\ 15.00\\ 60.00\\ 5.00\\ 10.00\\ 10.00\\ 15.00\\ 15.00\\ 15.00\\ 15.00\\ 20.00\\ \end{array}$		
SOIL PROFILE:(Minimum 18 inches)Series Name: At DepthDepthTextureMatrix ColorMottle Color(%)C0-5"silt10 YR 5/210 YR 5/45-12"sandy silt10 YR 4/210 YR 5/612"refusal	Hydric Soil? yes omments		
Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic contex streaking, chroma 3, weights	t. vertical		
HYDROLOGY :	-		
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.)Primary Indicators:Depth to Free Water in Pit:10.0 (in.)[] InundatedDepth to Saturated Soil:4.0 (in.)[] InundatedDepth to Saturated Soil:4.0 (in.)[] Saturated in Upper 12Source/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Drift Lines[] Seasonal High Water Table[] Drainage Patterns in Wetlands[] Spring/Seep[] Drainage Patterns in Wetlands[X] FloodplainSecondary Indicators (2 or more req'd)[] Backwater[] Oxidized Root Channels/Upper 12[] Depressional[] Local Soil Survey DataRecorded Data (Describe in Remarks):[] FAC-Neutral Test[] Aerial PhotographsRecent Weather:[] OtherRecent Rainfall:			
WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met			

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SITE/PLOT#: 3610B DATE: 11/18/1993 INVESTIGATOR: ABC, DMB COUNTY: Randolph STATE: WV STREAM: Claylick RunWATERSHED: Tygart Valley River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: wetland borders on county 11 VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 69.00 Code Scientific Name Stratum Status % Areal Cover
 Herb
 OBL
 5.00

 Herb
 FAC
 20.00

 Herb
 FACW+
 15.00

 Herb
 OBL
 10.00

 Herb
 NI
 15.00

 Herb
 FAC
 60.00

 Herb
 FAC
 5.00

 Herb
 FAC
 5.00

 Herb
 FAC
 5.00

 Herb
 FACW
 10.00

 Shrub
 FACW+
 10.00

 Shrub
 FACW+
 10.00

 Shrub
 FACU
 15.00

 Tree
 NI
 5.00

 Vine
 NI
 20.00
 116 Caltha palustris 154 Dichanthelium acuminatum 221 Phalaris arundinacea Solidago uliginosa Unidentifiable grass Verbesina alternifolia 251 269 273 Viola spp. 277 Eupatoriadelphus fistulosus 321 Alnus rugosa 404 405 Alnus serrulata
507 Rosa multiflora
676 Castanea dentata
815 Vitis sp. SOIL PROFILE: (Minimum 18 inches) Series Name: At Hydric Soil? yes DepthTextureMatrix ColorMottle Color(%)Comments0-5"silt10 YR 5/210 YR 5/4 (10%) ox.roots5-12"sandy silt10 YR 4/210 YR 5/6 (15%) ox.roots12"refusal10 YR 4/210 YR 5/6 (15%) ox.roots Hydric Soil Indicators: c Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) [] Histosol HYDROLOGY :

 HYDROLOGI.

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 1.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 10.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 4.0 (in.)
 [X] Saturated in Upper 12

 Source/Site Characterization:
 [] Drift Lines

 [] Seasonal High Water Table
 [] Sediment Deposit

 [] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more req'

 Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Backwater [] Depressional [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Other [] Aerial Photographs Recent Weather: [] Other Recent Rainfall: WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes Remarks: all 3 criteria met

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SITE/PLOT#: I-66-1 DATE: 09/08/1 COUNTY: Shenandoah STATE: VA STREAM: unnam COWARDIN CLASSIFICATION: PEM/POW Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypi Is the area a potential Problem Area? Remarks: manmade pond	? ves		
VEGETATION: Percent Dominant Species that Code Scientific Name	are OBL, FACW or FAC 100.00 Stratum Status % Areal Cover		
 178 Eupatorium perfoliatum 199 Juncus subcaudatus 268 Typha latifolia 320 Vernonia noveboracensis 340 Carex intumescens 373 Hydrilla sp. 374 Juncus torreyi 522 Salix nigra 	Herb FACW+ 5.00 Herb OBL 5.00 Herb OBL 15.00 Herb FACW 10.00 Herb FACW 5.00 Herb FACW 10.00 Herb FACW 5.00 Herb FACW 10.00 Shrub FACW+ 30.00		
SOIL PROFILE: (Minimum 18 inches) Series Name: Frederick Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments			
0-3 silty clay 5 Y 4/1 3-8 silty clay 2.5 YR 5/0	none $2.5 \text{YR} 5/6 (3.0 \text{ k})$		
refusal Hydric Soil Indicators: [] Histosol [] Histic Epipedon [] Sulfidic Material [] Aquic Moisture Regime [] Gleyed [X] Low Chroma [X] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol)			
HYDROLOGY:			
Field Observations: Wet Depth of Surface Water: 0.0 (in.) Depth to Free Water in Pit: 0.0 (in.) Depth to Saturated Soil: 0.0 (in.)	land Hydrology Indicators: Primary Indicators: [] Inundated [X] Saturated in Upper 12		
Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)[] InundatedDepth to Saturated Soil:0.0 (in.)[X] Saturated in Upper 12Source/Site Characterization:[X] Water Marks[X] Seasonal High Water Table[X] Sediment Deposit[] Spring/Seep[] Drainage Patterns in Wetlands[] FloodplainSecondary Indicators (2 or more req'd)[X] Depressional[] Water-Stained Leaves[] Local Soil Survey Data			
Recorded Data (Describe in Remarks): [] FAC-Neutral Test [] Stream, Lake, or Tide Gauge [] Other (Explain in Remarks) [] Aerial Photographs Recent Weather: overcast [] Other Recent Rainfall: none			
WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 parameters met Wetland Hydrology? yes			

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SITE/PLOT#: I-66-2 DATE: 09/08/1993 INVESTIGATOR: EFA, DAE COUNTY: Shenandoah STATE: VA STREAM: unnamed WATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover 129Carex luridaHerbOBL25.00178Eupatorium perfoliatumHerbFACW+40.00204Lobelia siphiliticaHerbFACW+50.00243Scirpus atrovirensHerbOBL20.00269Unidentifiable grassHerbNI90.00320Vernonia noveboracensisHerbFACW50.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Endcav Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-3 silt loam 10 YR 3/2 3-12 silty clay N 5/ none much organic 10 YR 5/6 (20%) refusal Hydric Soil Indicators: [] Histosol [] Sulfidic Material [X] Gleyed [X] mottles [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[X] Entisol (organic context, vertical
[X] Entisol (organic context, vertical) streaking, chroma 3, wet spodosol)

 HYDROLOGY:

 Field Observations:
 Wetland Hydrology Indicators:

 Depth of Surface Water:
 0.0 (in.)
 Primary Indicators:

 Depth to Free Water in Pit:
 0.0 (in.)
 [] Inundated

 Depth to Saturated Soil:
 0.0 (in.)
 [] Mater Marks

 Source/Site Characterization:
 [] Drift Lines

 [X] Seasonal High Water Table
 [] Sediment Deposit

 [X] Drainage Patterns in Wetlands

 Secondary Indicators (2 or more reg'

 HYDROLOGY :

 Image: Patterns in Wetlands

 Secondary Indicators (2 or more req'd)

 Image: Patterns in Wetlands

 Secondary Indicators (2 or more req'd)

 Image: Patterns in Wetlands

 Secondary Indicators (2 or more req'd)

 Image: Patterns in Wetlands

 Secondary Indicators (2 or more req'd)

 Image: Patterns in Wetlands

 Secondary Indicators (2 or more req'd)

 Image: Patterns in Wetlands

 Secondary Indicators (2 or more req'd)

 Image: Patterns in Wetlands

 Secondary Indicators (2 or more req'd)

 Image: Patterns in Wetlands

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 [X] Backwater [] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge
[] Aerial Photographs [] Other WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

SITE/PLOT#: I-66-3A DATE: 09/08/1993 INVESTIGATOR: EFA, DAE COUNTY: Shenandoah STATE: VA STREAM: near Mulberry RWATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no ves Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover -----------HerbFACWHerbFACW+HerbFACW+HerbNIHerbFACWHerbFACWHerbFACW 113 Bidens frondosa 10.00 Eupatorium perfoliatum Lobelia siphilitica 178 40.00 50.00 204 269 Unidentifiable grass
320 Vernonia noveboracensis
333 Polygonum persicaria
340 Carex intumescens 100.00 50.00 10.00 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: FRE; Endcav Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments ------0-6 silty clay 2.5 Y 4/2 refusal ox.root channel concretions Hydric Soil Indicators: [] Histosol [] Histic Epipedon
[] Aquic Moisture Regime
[X] Low Chroma
[] Entisol (organic context, vertical
] Entisol (organic context, vertical) [] Sulfidic Material [] Gleyed [] mottles streaking, chroma 3, wet spodosol) HYDROLOGY : -----Field Observations: Wetland Hydrology Indicators: Depth of Surface Water: 0.0 (in.) Primary Indicators: Depth to Free Water in Pit: 0.0 (in.) [] Inundated Depth to Saturated Soil: 0.0 (in.) [X] Saturated in Upper 12 [] Inundated [X] Saturated in Upper 12 [] Water Marks [] Drift Lines Source/Site Characterization: [] Seasonal High Water Table [] Spring/Seep [] Sediment Deposit
[X] Drainage Patterns in Wetlands [X] Floodplain [X] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Depressional [] Water-Stained Leaves [] Local Soil Survey Data Recorded Data (Describe in Remains). [] Stream, Lake, or Tide Gauge [] Other (Explain [] Aerial Photographs Recent Weather: overcast Recent Rainfall: none [] FAC-Neutral Test [] Other (Explain in Remarks) WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters met

SITE/PLOT#: I-66-3B DATE: 09/08/1993 INVESTIGATOR: EFA, DAE COUNTY: Shenandoah STATE: VA STREAM: near Mulberry RWATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEM1B Do Normal Circumstances exist on the site? yes Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status % Areal Cover -----HerbFACWHerbFACW+HerbNIHerbFACWHerbFACWHerbFACWHerbFACW 113 Bidens frondosa
178 Eupatorium perfoliatum
204 Lobelia siphilitica
269 Unidentifiable grass
320 Vernonia noveboracensis
322 Performe periodentia Bidens frondosa 10.00 40.00 50.00 100.00 50.00 10.00 333 Polygonum persicaria 340 Carex intumescens 20.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Frederick; EndcaHydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments 0-6 silty clay 2.5 Y 4/2 refusal ox.root channel concretions Hvdric Soil Indicators: [] Histosol [] Sulfidic Material [] Gleyed [] mottles [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : HYDROLOGI.Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:0.0 (in.)Primary Indicators:Depth to Free Water in Pit:0.0 (in.)I InundatedDepth to Saturated Soil:0.0 (in.)[] Water MarksSource/Site Characterization:[] Drift Lines[] Seasonal High Water Table[] Sediment Deposit[] Secondary Indicators (2 or more reg' [X] Drainage Patterns in Wetlands Secondary Indicators (2 or more req'd) [] Oxidized Root Channels/Upper 12 [] Water-Stained Leaves [] Local Soil Survey Data [] FAC-Neutral Test [] Other (Explain in Remarks) Cent Weather: overcast [X] Backwater [X] Depressional Recorded Data (Describe in Remarks): [] Stream, Lake, or Tide Gauge [] Aerial Photographs Recent Weather: overcast Recent Rainfall: none [] Other ------WETLAND DETERMINATION: Hydric soils present? yes Hydrophytic Vegetation? yes Wetland Hydrology? yes Wetland? yes

Remarks: all 3 parameters present

SITE/PLOT#: I-66-4 DATE: 09/08/1993 INVESTIGATOR: EFA, DAE COUNTY: Shenandoah STATE: VA STREAM: near Mulberry RWATERSHED: Shenandoah River COWARDIN CLASSIFICATION: PEM 1F Do Normal Circumstances exist on the site? ves Is the site significantly disturbed (Atypical Situation)? no Is the area a potential Problem Area? no Remarks: VEGETATION: Percent Dominant Species that are OBL, FACW or FAC 100.00 Code Scientific Name Stratum Status & Areal Cover Herb OBL Herb FACW+ Herb NI Herb FACW 90.00 100 Acorus calamus 195 Juncus effusus 269 Unidentifiable grass 10.00 100.00 340 Carex intumescens 5.00 SOIL PROFILE: (Minimum 18 inches) Series Name: Endcav Hydric Soil? no Depth Texture Matrix Color Mottle Color(%) Comments -----_ 0-6 silty clay 2.5 Y 5/2 none ox.root channel refusal _____ -----Hydric Soil Indicators: [] Histosol [] Sulfidic Material [] Histic Epipedon [] Aquic Moisture Regime [X] Low Chroma [] Gleyed [] mottles [] Entisol (organic context, vertical streaking, chroma 3, wet spodosol) HYDROLOGY : Field Observations:Wetland Hydrology Indicators:Depth of Surface Water:1.0 (in.) Primary Indicators:Depth to Free Water in Pit:0.0 (in.) [X] InundatedDepth to Saturated Soil:0.0 (in.) [X] Saturated in Upper 12 [X] Inundated
[X] Inundated
[X] Saturated in Upper 12
[X] Water Marks
[X] Drift Lines
[X] Sediment Deposit
[X] Drainage Patterns in Wetlands Source/Site Characterization: [X] Seasonal High Water Table [] Spring/Seep [X] Floodplain [] Backwater Secondary Indicators (2 or more req'd) [X] Oxidized Root Channels/Upper 12 [X] Water-Stained Leaves [] Local Soil Survey Data [X] Depressional Recorded Data (Describe in Remarks): [] FAC-Neutral Test
[] Other (Explain in Remarks) [] Stream, Lake, or Tide Gauge [] Aerial Photographs [] Other -----

WETLAND DETERMINATION: Hydric soils present? yes Wetland Hydrology? yes Remarks: all 3 parameters met Hydrology? yes Wetland? yes