US 522
BERKELEY SPRINGS BYPASS
PROJECT

STATE PROJECT U333-522-11.92 SEC 02
FEDERAL PROJECT NFA-2317(005)D

# RE-EVALUATION OF THE FINAL ENVIRONMENTAL IMPACT STATEMENT

ORIGINALLY APPROVED
SEPTEMBER 2000 AND AUGUST 2001
REVISED DECEMBER 2019

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# EXECUTIVE SUMMARY

## ES.1 Introduction

The West Virginia Department of Transportation, Division of Highways (WVDOH) is considering improvements and updates to US 522 through Morgan County, West Virginia. The WVDOH has requested a re-evaluation of the US 522 Final Environmental Impact Statement (FEIS) that was approved in September 2000 and August 2001 for the construction of a portion of the Selected Alternative called the Berkeley Springs Bypass. The Berkeley Springs Bypass project begins approximately 0.42 miles south of Winchester Road (CR 13) to approximately 0.20 miles south of Sandmine Road (CR 38/1), for a distance of approximately 4 miles.

Following the Record of Decision (ROD) in 2001, the overall project was broken into seven useable sections, that will, when completed, be sections that can be constructed within a reasonable period of time based on funding assumptions. WVDOH has requested this environmental re-evaluation on useable Sections 1 and 2 of the Selected Alternative. Useable Section 1 is the portion of US 522 beginning at CR 13, Winchester Grade Road to north of WV 9. Useable Section 2 is the portion from north of WV 9 including a connection to existing US 522. Useable Sections 1 and 2 are referred to as the "Berkeley Springs Bypass". The study area covers the revised right of way limits as discussed in Chapter 1. Based on the changes identified, Federal Highway Administration (FHWA) will determine whether the US 522 FEIS needs to be supplemented with additional environmental documentation.

## ES.2 Purpose and Need

The major north-south roadway traversing Morgan County and the Eastern Panhandle through the community of Berkeley Springs is US 522. The roadway is a two-lane highway that has variable shoulder widths and restricted passing areas. Segments of US 522 have high accident rates and within Berkeley Springs high levels of traffic congestion are present.

The purpose of the proposed US 522 – Berkeley Springs Bypass is to improve traffic operations and provide a safe facility that serves the local and regional traffic demands of the US 522 Corridor in Morgan County. The WVDOH is considering improvements and upgrading of US 522 in Morgan County. The improvements are intended to relieve traffic congestion in Berkeley Springs, reduce the accident rate on US 522 within West Virginia and increase capacity of the road in general. The remainder of this section discusses the corresponding needs in detail.

The proposed action is intended to meet the following needs:

- Improve Traffic Operations
- Improve Safety

## ES.3 Selected Alternative Changes

The need for and purpose of the project has not changed since the 2001 ROD. However, the Selected Alternative, Alternative I, for the Berkeley Springs Bypass has undergone a refinement in design. The Berkeley Springs Bypass is anticipated to be the first portion of the entire US 522 corridor constructed and therefore, the refined design includes two deviations to connect into the existing US 522 roadway. The southern connection to US 522 will include a roundabout approximately 0.42 miles south of Winchester Road (CR 13). The northern connection will include a "T" intersection with a northbound slip ramp approximately 0.20 miles south of Sandmine Road (CR 38/1). In addition to the deviations, additional refinements were made to the following intersections: Winchester Grade Road (CR 13), Sugar Hollow Road (CR 38/14), Johnson Mill Road (CR 38/3), Martinsburg Road (WV 9), and Fairfax Street (CR 9/9).

## ES.3 Summary of Berkeley Springs Bypass Environmental Re-Evaluation

The re-evaluation of the US 522 FEIS for the Berkeley Springs Bypass was conducted consistently with FHWA regulations for a written re-evaluation. This analysis indicates that while there have been changes to the Selected Alternative of the Berkeley Springs Bypass and regulatory changes relative to certain resource categories analyzed in the NEPA documents, those changes do not result in new significant impacts as compared to those disclosed in the 2000 FEIS and 2001 ROD. **Table ES-1** provides a comparison of impacted resources for the US 522 FEIS and the re-evaluation of the Berkeley Springs Bypass. Additional evaluation in a supplemental EIS is not required for the US 522 – Berkeley Springs Bypass project.

**Table ES-1: Berkeley Springs Bypass Environmental Resources Impact Comparison**

| Environmental Resource | US 522 FEIS - Berkeley Springs Bypass Impacts | Re-evaluation of Berkeley Springs Bypass Impacts | Will the time lapse or modified alignment change the impacts? | Level of Impact Change |
|---|---|---|---|---|
| Land Use | None | None | No | Same |
| Prime & Unique Farmland (total acreage within right of way limits) | 3.72 | 18.74 | Yes | More |
| ROW Acquisition (acreage) | 216.71 | 345.91 | Yes | More |
| Number of Residences displaced | 29 | 41 | Yes | More |
| Number of Businesses displaced | 0 | 1 | Yes | More |
| Community Impacts – Economic Growth and Development | Yes | Yes | No | Same |
| Community Impacts – Environmental Justice | None | None | No | Same |
| Community Impacts – Community Cohesion | None | None | No | Same |
| Wetlands (acreage) | 0.74 | 0.56 | Yes | Less |
| Streams (linear feet) | 405 | 14,650 | Yes | More |
| Floodplains (acreage) | 0 | 14.82 | Yes | More |
| Air Quality | None | None | No | Same |
| Number of Noise receivers Impacted | 1 | 5 | No | More |
| Threatened and Endangered Species | None | None | No | Same |
| Historic and Archaeological Resources | None | None | No | Same |
| Public Lands and Section 4(f) and 6(f) | None | None | No | Same |
| Hazardous Waste Sites | None | None | No | Same |

# 1. RE-EVALUATION BACKGROUND AND APPROACH

## 1.1 INTRODUCTION

The West Virginia Department of Transportation (WVDOT) Division of Highways (DOH) is considering improvements and updates to US 522 through Morgan County, West Virginia. The WVDOH has requested a re-evaluation of the US 522 Final Environmental Impact Statement (FEIS) that was approved in September 2000 and August 2001 for the construction of a portion of the Selected Alternative called the Berkeley Springs Bypass. The Berkeley Springs Bypass begins near CR 13, Winchester Grade Road to north of WV-9, from north of WV-9 including a connection to existing US 522.

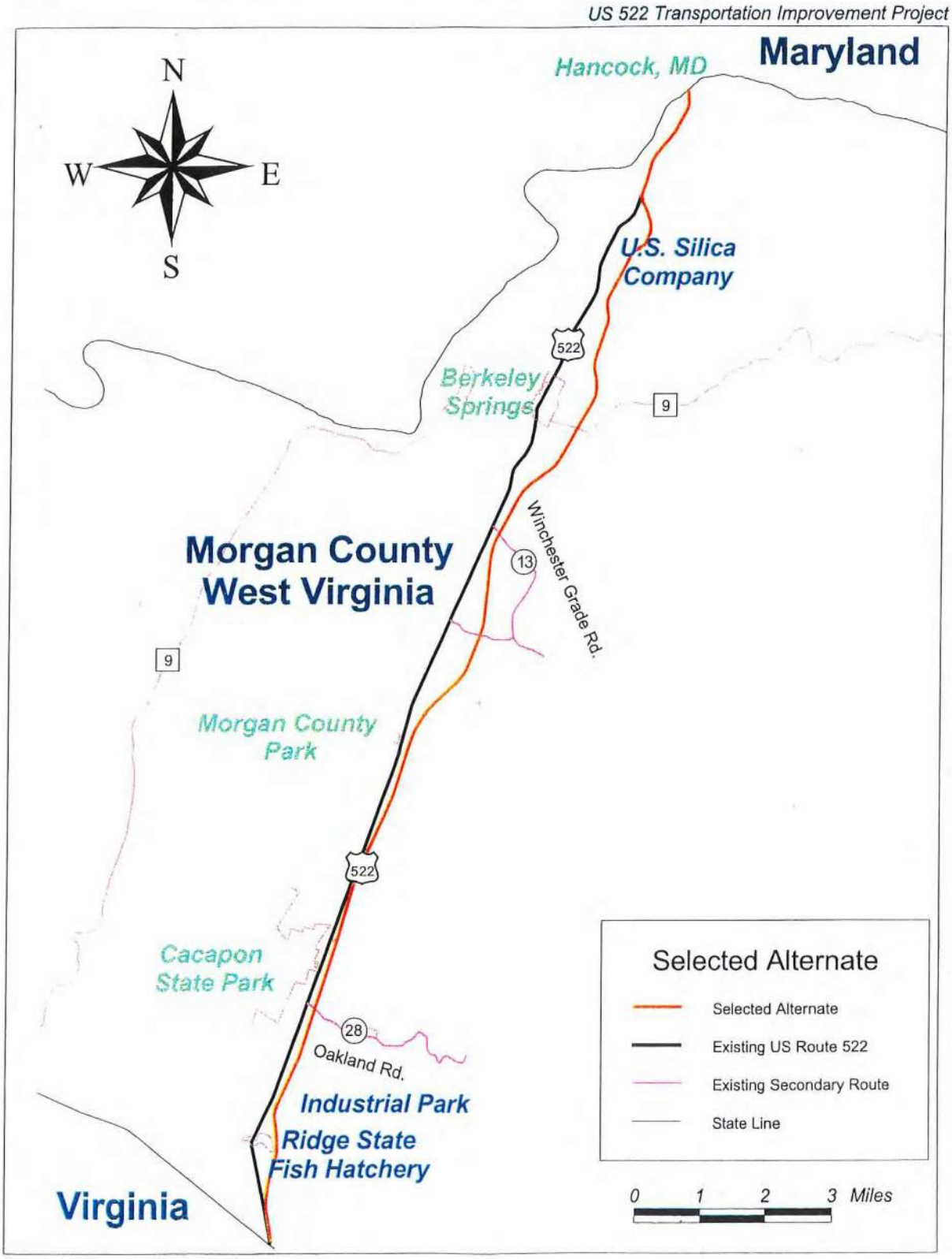
A Record of Decision (ROD) was received for the US 522 FEIS corridor from the Virginia State Line to Maryland State Line in 2001. The Selected Alternative is a four-lane, divided, limited-access highway, and 18.7 miles in length. The new alignment is generally parallel to and east of existing US 522 (**Figure 1-1**). Following the ROD, the overall project was broken into seven useable sections, that will, when completed, be constructed within a reasonable period of time based on funding assumptions. **Table 1-1** summarizes the seven useable sections and they are shown in **Figure 1-2**.

This document has been prepared pursuant to Title 23 Code of Federal Regulations (CFR) Part 771 and related Federal Highway Administration (FHWA) procedures which require a written re-evaluation prior to a request for FHWA action for final design or construction when there has been a time lapse or changes related to a project that have occurred between the previous National Environmental Policy Act (NEPA) approval and request for action. The purpose of this re-evaluation is to identify the design changes and associated environmental impacts between what was approved in the US 522 FEIS and the updated project design for the Berkeley Springs Bypass. This re-evaluation covers useable Section 1 (CR 13 Winchester Grade Road to North of WV 9) and useable Section 2 (North of WV 9 to US 522 Connector only). The Fairview Connector is being evaluated separately as a Categorical Exclusion because it was not originally evaluated in the US 522 FEIS and is operationally independent of the Berkeley Springs Bypass. Useable Sections 1 and 2 are herein referred to as the "Berkeley Springs Bypass".

**Table 1-1: US 522 Project Useable Sections**

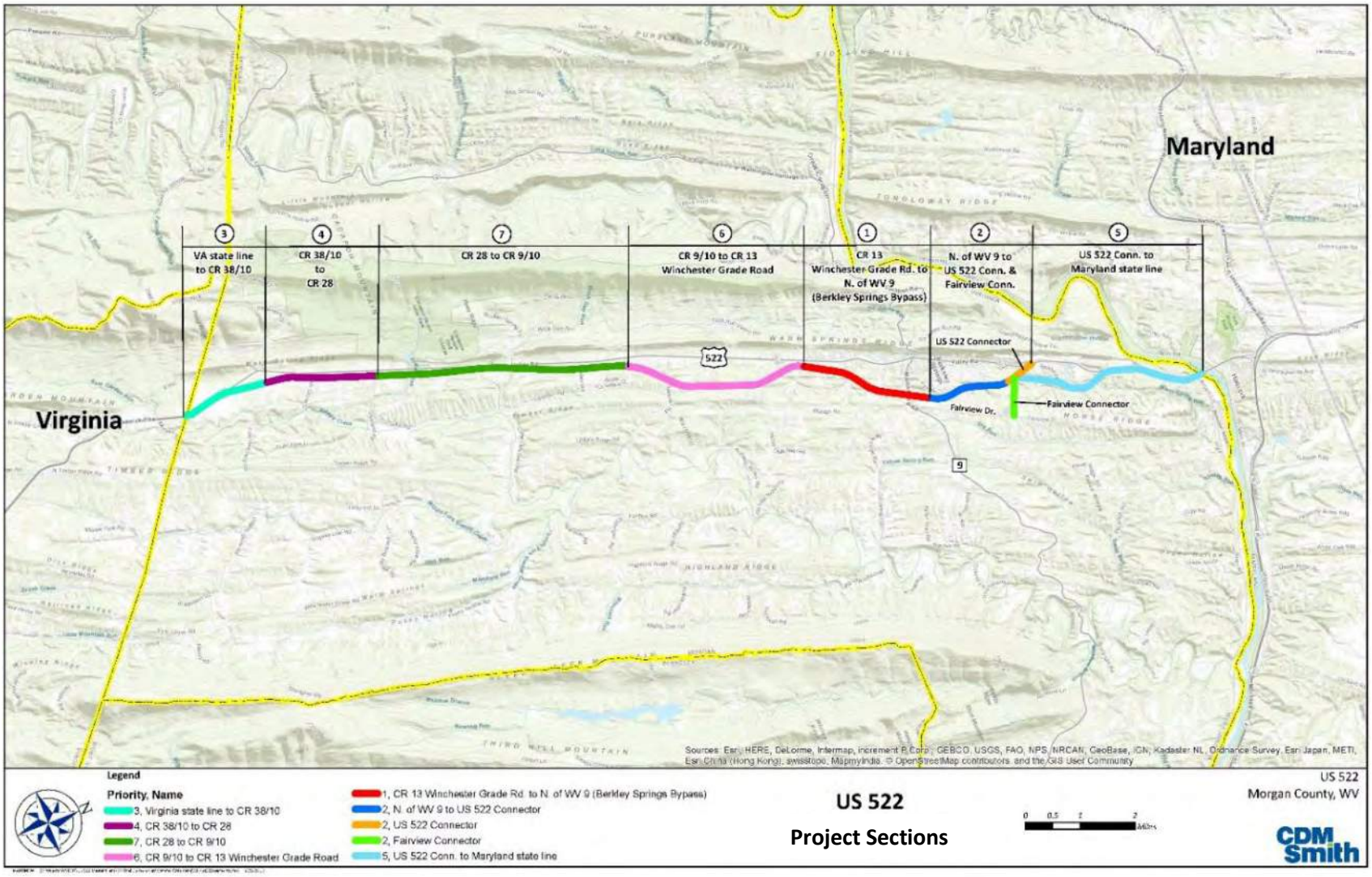
| No. | Section | Length (miles) | Est. Cost ($ millions) | Construction Schedule | |
|---|---|---|---|---|---|
| | | | | Start | Complete |
| 1 | CR 13 Winchester Grade Road to North of WV 9 (Berkeley Springs Bypass) | 3.43 | 75 | 2020 | 2022 |
| 2 | North of WV 9 to US 522 Connector (includes US 522 Connector and Fairview Connector) | 0.75 | 22 | 2020 | 2024 |
| 3 | Virginia State Line to CR 38/10 | 1.3 | 27 | 2033 | 2037 |
| 4 | CR 38/10 to CR 28 | 2.2 | 45 | 2037 | 2041 |
| 5 | US 522 Connector to Maryland state line | 3.7 | 75 | 2041 | 2045 |
| 6 | CR 9/10 to CR 13 Winchester Grade Road | 3.5 | 72 | 2045 | 2049 |
| 7 | CR 28 to CR 9/10 | 4 | 81 | 2049 | 2053 |

**Figure 1-1: US 522 FEIS Selected Alternative**




*Source: US 522 Virginia State Line to Maryland State Line Record of Decision, August 2001.*

**Figure 1-2: US 522 Project Useable Sections**



## 1.2 Project History

The US 522 project dates back to the late 1970s when the project was identified in the *Summary Report on the Eastern Panhandle Area Transportation Study*, completed in 1978, as needing improvements including the widening of US 522 between Berkeley Springs and the Virginia state line and a bypass for US 522 around Berkeley Springs. At the time of the 1978 study, the traffic volumes did not warrant a four-lane highway. As traffic volume increased above the American Association of State Highway and Transportation Officials (AASHTO) and WVDOH standards in the late 1990s, it became necessary to propose the upgrade of US 522 to a four-lane highway.

### 1.2.1 Project Alternatives

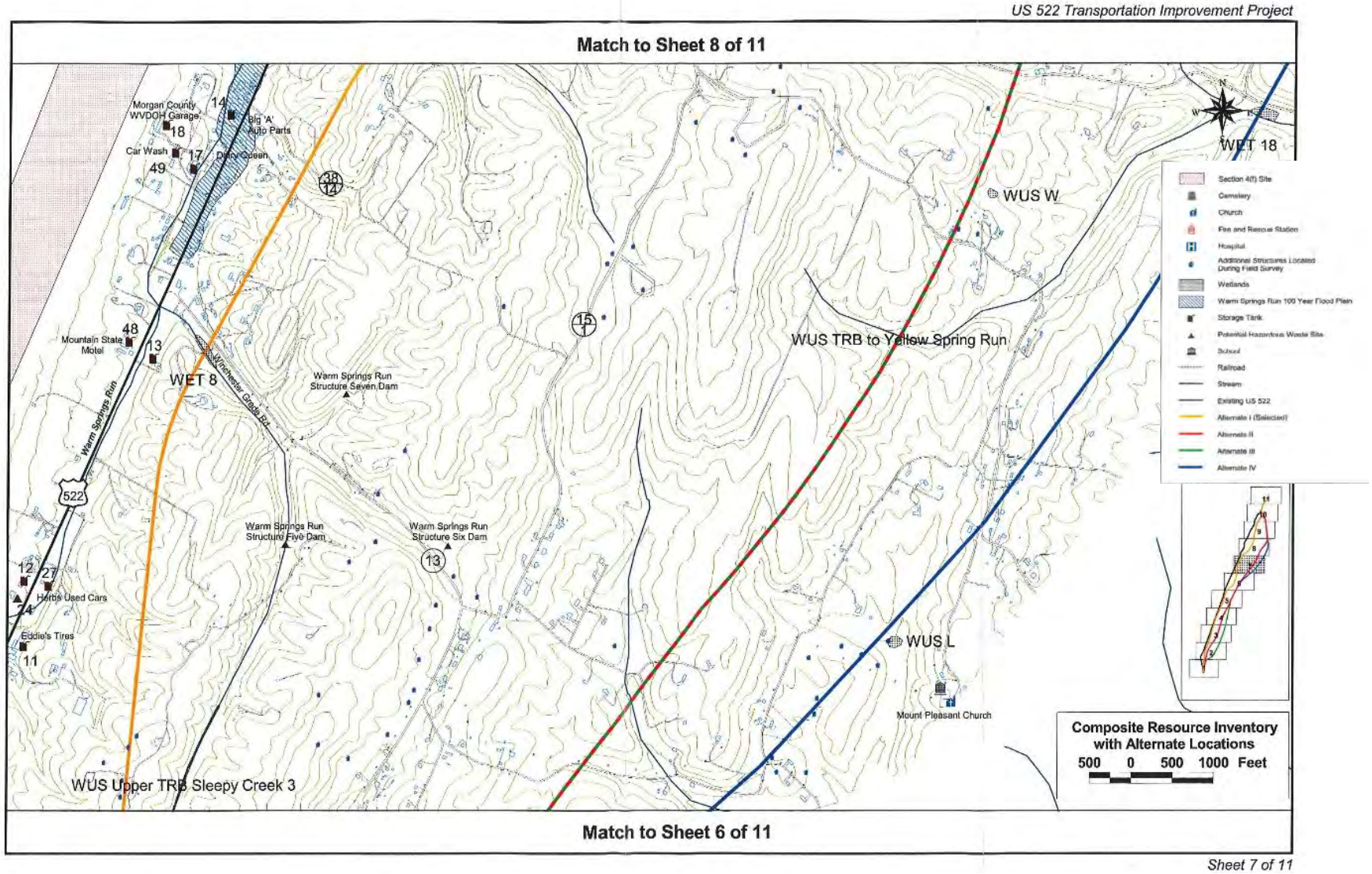
Four Build Alternatives and the No-Build Alternative were evaluated in the DEIS. **Table 1-2** compares the Build Alternatives. Figures showing the composite environmental resource inventory of the four Build Alternatives including the Selected Alternative, Alternative I, are located in **Appendix A** – Record of Decision. **Figures 1-3 through 1-5** illustrate the Berkeley Springs Bypass portion of the composite environmental resource inventory for US 522 FEIS.

**Table 1-2: US 522 DEIS Build Alternatives Comparison**

| | Alternative I (Selected) | Alternative II | Alternative III | Alternative IV |
|---|---|---|---|---|
| Residence/Business Relocations | 53/2 | 42/1 | 44/0 | 40/1 |
| Farm Soils (acres) | 80 | 85 | 97 | 78 |
| Wetlands (acres) | 6.2 | 5.8 | 9.0 | 8.3 |
| Floodplains (acres) | 3.9 | 0 | 0 | 0 |
| Potential Hazardous Waste Sites/ USTs Within Project ROW | 0/1 | 0/0 | 0/0 | 0/0 |
| Stream Impacts (feet) | 405 | 2,050 | 3,370 | 3,010 |
| Crosses Sleepy Creek | No | No | Yes (two crossings) | Yes (two crossings) |
| Bridges & Culverts (feet) | 9,400 | 12,660 | 13,920 | 13,920 |
| National Register Historic Sites (listed and eligible) | 0 | 0 | 0 | 0 |
| Near Known Archaeological Sites | 2 | 1 | 1 | 2 |
| 4(f) Sites | 0 | 0 | 0 | 0 |
| Estimated Construction Cost | $95,263,000 | $111,837,000 | $116,149,000 | $115,947,000 |

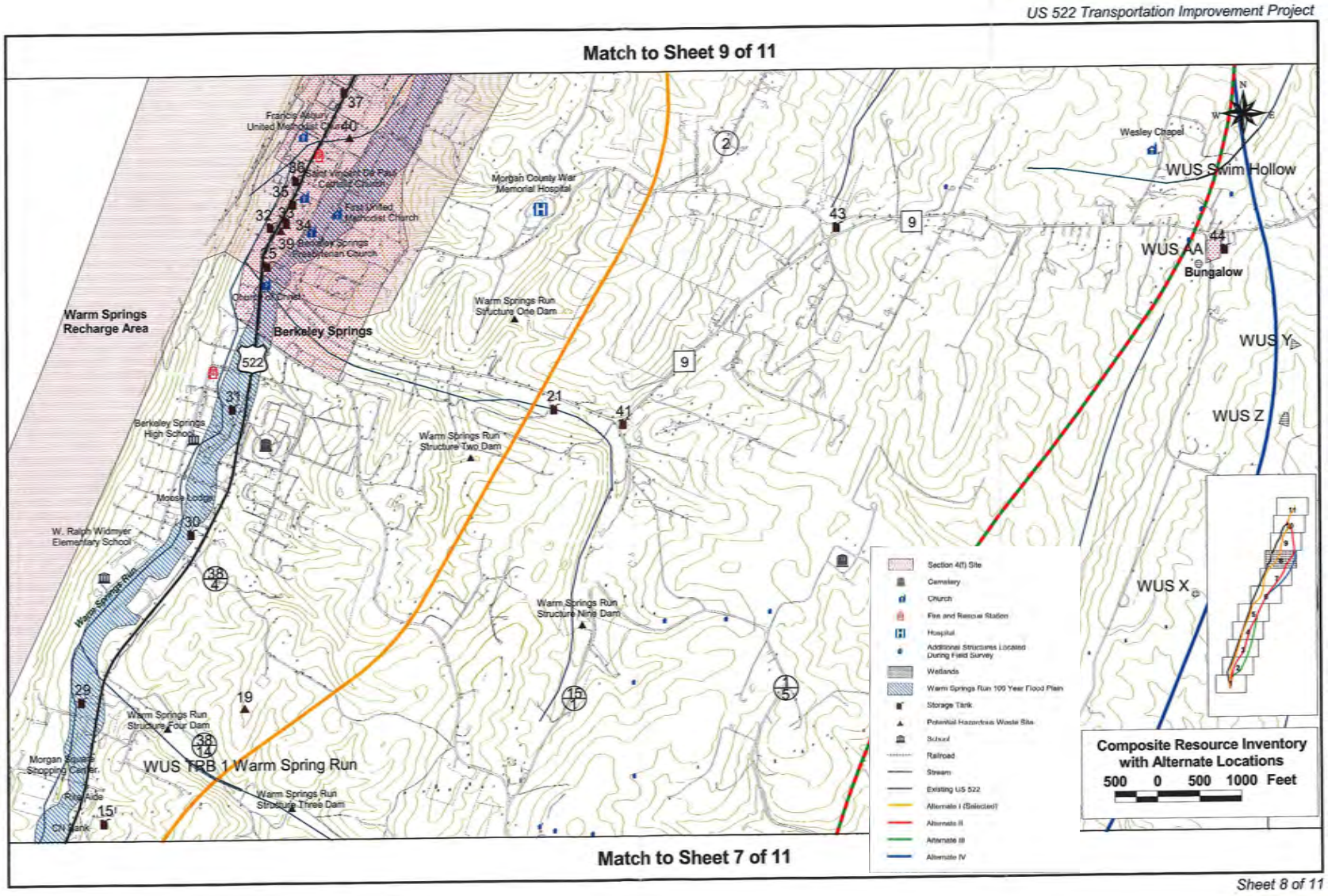
*Source: US 522 Record of Decision, August 2001.*

**Figure 1-3: US 522 FEIS Composite Resource Inventory with Alternative Locations (showing Berkeley Springs Bypass)**



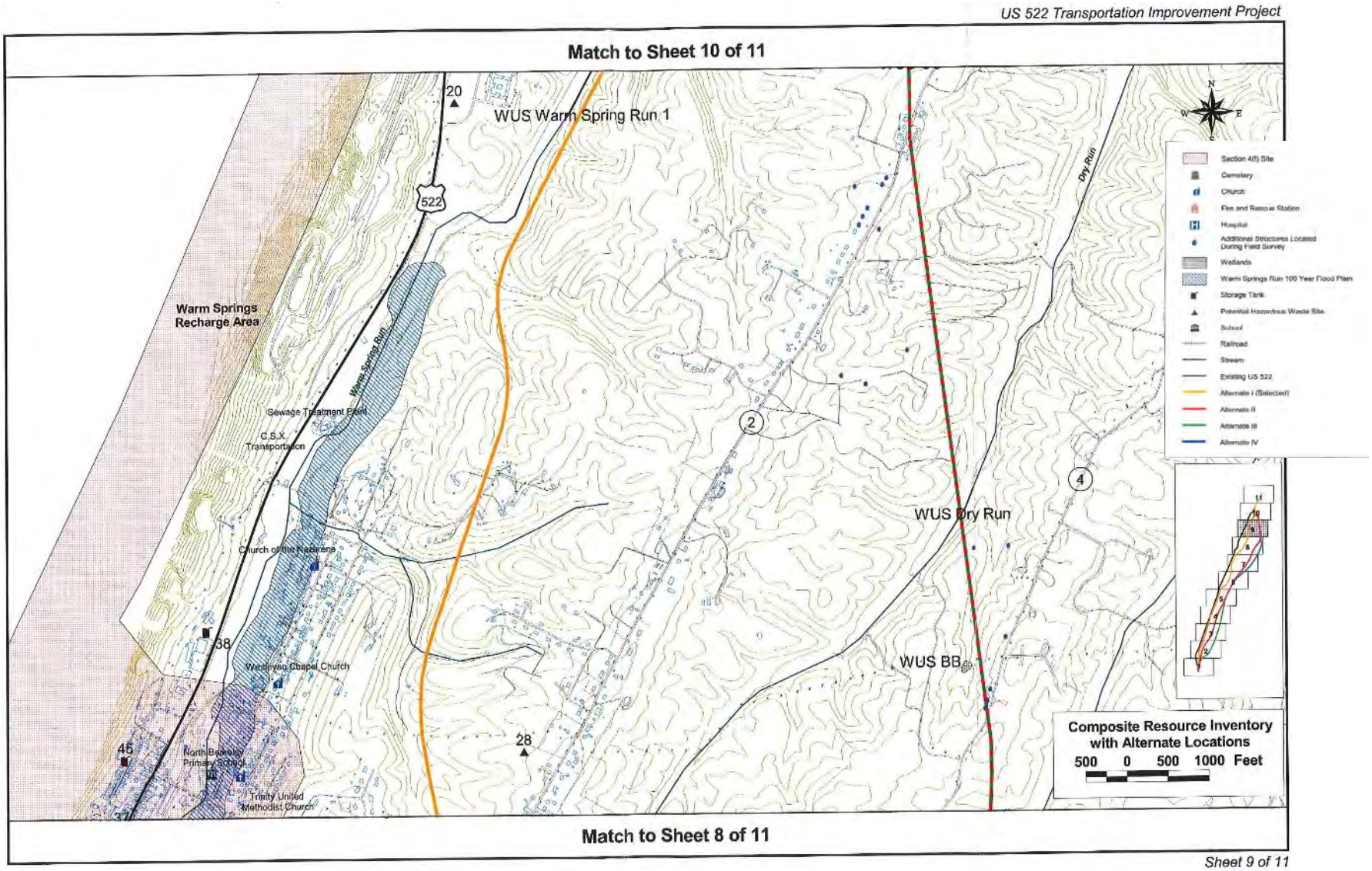

*Source: US 522 Record of Decision, 2001*

**Figure 1-4: US 522 FEIS Composite Resource Inventory with Alternative Locations (showing Berkeley Springs Bypass)**




*Source: US 522 Record of Decision, 2001*

**Figure 1-5: US 522 FEIS Composite Resource Inventory with Alternative Locations (showing Berkeley Springs Bypass)**




*Source: US 522 Record of Decision, 2001*

A public meeting for the US 522 project was held June 2, 1998 at which over 700 citizens attended. A majority of individuals expressed a preference for Alternative I. The DEIS was made available for public comment in August 1999 and the Selected Alternative, Alternative I, was presented at a Public Meeting on September 30, 1999. A public hearing was then held on October 14, 1999 for Alternative I. Following the end of the public comment period on November 1, 1999, Alternative I was chosen as the Selected Alternative. Three additional public meetings were held at the request of the public and the Morgan County Commission on May 2, June 26, and August 17 in 2000.

### 1.2.2 Selected Alternative

The FHWA and WVDOH evaluated the advantages and disadvantages of each of the Build Alternatives and the No-Build Alternative considered in the FEIS. Based on the resource agencies' recommendations, the public responses received during the comment period, and the environmental and engineering analysis of the alternatives, the FHWA and WVDOH chose Alternative I, with mitigation measures incorporated, as the Selected Alternative. Selected Alternative I is the environmentally preferred alternative. The FHWA and WVDOH based this decision on the fact that Alternative I has the least overall impact of any of the Build Alternatives on the human and natural environment. In particular, the FHWA and WVDOH considered the following factors:

- **Endangered Species** – Alternative I avoids impacts to the Federal endangered plant species, *Harperella*, found in the lower reaches of Sleepy Creek.
- **Wetlands** – The Selected Alternative (Alternative I) impacts fewer Palustrine Emergent and Scrub Shrub wetlands (0.54 acres) than the lowest alternative (Alternative II) with a total impact of 1.43 acres.
- **Farmland** – Alternative I has the least impact on Prime, Unique, and State and Local Importance Farmlands.
- **Community Cohesion** – Alternative I closely parallels existing US 522 for the majority of the corridor. The alignment shifts eastward to avoid residential subdivisions and to avoid Berkeley Springs (Town of Bath). Alternative I will provide for superior access to the existing transportation system, concentrate secondary development within the existing corridor and have the least impact to the more rural portions of the study area.
- **Construction Cost** – Alternative I is the most cost effective alternative. It will save between $16 and $21 million dollars in comparison to other studied build alternatives.
- **Rural Setting** – Alternative I has the least impact upon the overall rural setting in Morgan County. Maintaining the existing rural qualities of the area is achieved by placing the alternative as close to the existing roadway as possible and feasible.
- **Streams** – Alternative I has 405 feet of stream impacts compared to the next lowest alternative (Alternative II) which has 2,050 feet of stream impacts.
- **Bridges & Culverts** – Alternative I requires approximately 9,400 feet of culverts and bridges. Alternative II is second with 12,660 feet. Lower bridge and culvert costs are reflected in lower maintenance costs in future years.

The Notice of Availability of the FEIS was published in the Federal Register on October 20, 2000. The comment period extended from October 20, 2000 through December 15, 2000. The FHWA issued its ROD in August 2001.

## 1.3 Re-evaluation Approach

The US 522 project has been divided into seven useable sections to facilitate the financing, final design, and construction. The seven useable sections are shown in **Table 1-1** and **Figure 1-2** in Section 1.1 above. This re-evaluation covers useable Sections 1 and 2. Useable Sections 3 through 7 of the US 522 project will also be re-evaluated in the future before construction of those sections.

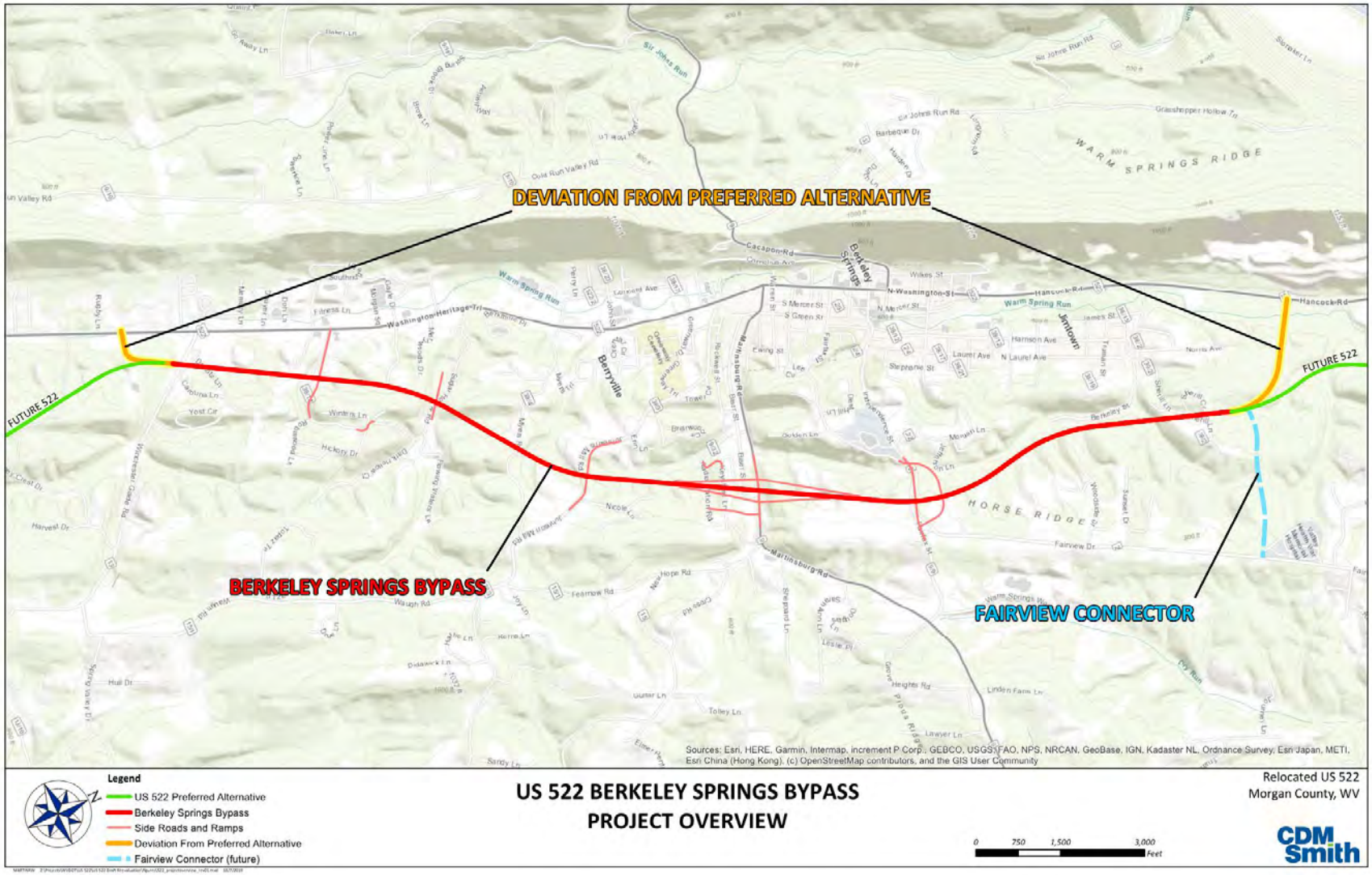
The original FEIS conducted in 2000 evaluated the entire US 522 corridor from the Virginia state line to the Maryland state line. Because this re-evaluation covers only a portion of the original US 522 FEIS, the impacts for useable Sections 1 and 2 (Berkeley Springs Bypass) were extracted from the full impact assessment for the US 522 FEIS Selected Alternative using GIS analysis. A corridor width of 400 feet was assumed for the Selected Alternative to calculate the US 522 FEIS impacts for the Berkeley Springs Bypass portion.

This document presents the re-evaluation of potential impacts based on final design for useable Sections 1 and 2. **Chapter 2** presents the Environmental Re-evaluation Analysis for the Berkeley Springs Bypass.

## 1.4 Summary of Proposed Action

This project proposes to construct the Berkeley Springs Bypass, useable Sections 1 and 2 (**Figure 1-3**). **Figure 1-3** illustrates the original location of the US 522 Selected Alternative in green and red. The green portion is the future alignment of US 522 as further useable sections are constructed. The yellow portion illustrates the deviation required for useable Sections 1 and 2. The project begins approximately 0.42 miles south of Winchester Road (CR 13) to approximately 0.20 miles south of Sandmine Road (CR 38/1), for a distance of approximately 4 miles, including a connector from US 522 to Fairview Drive (near War Memorial Hospital). The Berkeley Springs Bypass will be a four-lane, controlled access expressway with a grassed median and an ultimate design speed of 65 miles per hour. Further information on the proposed project can be found in the US 522 FEIS and US 522 ROD (provided in **Appendix A**).

**Figure 1-6: Project Overview**



## 1.5 Purpose of the Proposed Action

The major north-south roadway traversing Morgan County and the Eastern Panhandle through the community of Berkeley Springs is US 522. The roadway is a two-lane highway that has variable shoulder widths and restricted passing areas. Segments of US 522 have high accident rates and within Berkeley Springs high levels of traffic congestion are present.

The purpose of the proposed US 522 – Berkeley Springs Bypass is to improve traffic operations and provide a safe facility that serves the local and regional traffic demands of the US 522 Corridor in Morgan County. The WVDOH is considering improvements and upgrading of US 522 in Morgan County. The improvements are intended to relieve traffic congestion in Berkeley Springs, reduce the accident rate on US 522 within West Virginia and increase capacity of the road in general. The remainder of this section discusses the corresponding needs in detail.

## 1.6 Need for the Proposed Action

The proposed action is intended to meet the following needs:

- Improve Traffic Operations
- Improve Safety

### 1.6.1 Improve Traffic Operations

Morgan County residents have been increasingly subjected to delays from escalating traffic volumes. Congestion from business related growth along US 522 south of Berkeley Springs has added to traffic delays. Residents have requested traffic improvements in Berkeley Springs and the routing of truck traffic away from Berkeley Springs. Vehicles entering Washington Street (US 522 in Berkeley Springs) are frequently delayed due to the volume of cars and trucks.

The traffic analysis presented in this report is based on 2017 traffic data provided by WVDOH, and the collection of 2018 traffic volumes for the major state roads and highways entering the US 522 corridor. The 2017 average annual daily traffic (AADT) is summarized in **Table 1-3**. The 2017 average daily traffic for US 522 through Berkeley Springs is 10,825.

**Table 1-3: 2017 Average Annual Daily Traffic (AADT)**

| Highway | Location | AADT |
|---|---|---|
| US 522, Valley Road | South of Berkeley Springs/Winchester Grade Road | 9,977 |
| US 522, Valley Road | South of Meyers Road | 13,046 |
| US 522, Washington Street | North of Independence Street | 9,454 |
| SH 2, Fairview Drive | East of Berkeley Springs | 1,717 |
| Independence Street | East of Washington Street | 1,071 |
| SH 9, Martinsburg Road | East of Berkeley Springs | 4,090 |
| Johnson Mill Road | East of Berkeley Springs | 581 |
| SH 13 Winchester Grade Road | Southeast of Berkeley Springs | 2,436 |

*Source: WVDOH*

Truck volume percentages were also calculated for the US 522 highway. Heavy vehicles account for 13 percent northbound and 18 percent southbound during the AM peak hours between 7-9AM. During the PM peak hours between 4-6PM, heavy vehicles account for 14 percent northbound and 12 percent southbound. These higher truck percentages have a greater impact on an arterial's traffic operations with often higher delays and pavement conditions.

In order to evaluate both the unsignalized and signalized traffic control devices, capacity and level of service were calculated using the Highway Capacity Manual, published by the Transportation Research Board (TRB). Signalized and unsignalized intersections were evaluated based on estimated intersection delays, which may be related to level of service (LOS). LOS and capacity are the measurements of an intersection's ability to accommodate traffic volumes. LOS for intersections range from A to F. LOS F is failing.

For signalized intersections, a LOS of A has an average estimated intersection delay of less than 10 seconds, and LOS F has an estimated delay of greater than 80 seconds. LOS of C and D are typical design values. Within urban areas, a LOS D, delay between 35 and 55 seconds, is considered acceptable by the Institute of Transportation Engineers (ITE) for signalized intersections.

Unsignalized intersections LOS have lower thresholds of delays. LOS of F exceeds estimated delays of 50 seconds. For urban arterials, minor approaches may frequently experience LOS E. A full level of service description for unsignalized, signalized, and roundabouts are presented in **Table 1-4**. For the analysis of the roundabout, delays and levels of service associated with STOP/YIELD control are applied.

**Table 1-4: Level of Service Descriptions**

| Grade | Level of Service Description | Control Delay (d) – Signals | Control Delay (d) – Stop/Yield |
|---|---|---|---|
| A | Free flow | d ≤ 10 | d ≤ 10 |
| B | Stable flow (slight delays) | 10 < d ≤ 20 | 10 < d ≤ 15 |
| C | Stable flow (acceptable delays) | 20 < d ≤ 35 | 15 < d ≤ 25 |
| D | Approaching unstable flow (tolerable delay, occasionally waiting through more than one signal cycle before proceeding) | 35 < d ≤ 55 | 25 < d ≤ 35 |
| E | Unstable flow (intolerable delay) | 55 < d ≤ 80 | 35 < d ≤ 50 |
| F | Forced flow (congested, queues fail to clear) | d > 80 | d > 50 |

*Source: Highway Capacity Manual*

LOS C is an accepted standard for rural roadways and roads in small towns. Traffic flow on roadway links at LOS D is considered stable but is becoming susceptible to congestion and unstable flow; therefore, LOS D is an accepted standard for major urban areas. Any roadway link on US 522 with traffic volumes resulting in levels of service below LOS D, that is LOS E or F, would be considered to exceed the capacity at which the roadway can operate safely and satisfactorily.

Current traffic volumes were counted, future traffic volumes were estimated, and performance was measured in terms of LOS. LOS of the roadways and key intersections (**Table 1-5**) in Berkeley Springs were evaluated. The study intersections along US 522 are found to be currently operation at acceptable

LOS. The eastbound approach to the Myers Road intersection experiences a LOS E during the AM peak hour, most probably associated with the W. Ralph Widmyer Elementary School located at this intersection. Analyses of the signalized intersection of Washington Street (US 522) and Martinsburg Road finds the intersection operating with acceptable LOS, but the northbound queue may extend more than 300 feet during the PM peak hour.

**Table 1-5: Level of Service for US 522 Select Intersections**

| Controlling LOS | Existing US 522 No Build | Existing US 522 Build | US 522 Berkeley Springs Bypass |
|---|---|---|---|
| Southern Connector | N/A | C | C |
| CR 13 Winchester Grade Road | F | B | N/A |
| CR 38/14 Sugar Hollow Road | D | B | C |
| Myers Road | F | C | N/A |
| CR 38/3 Johnson Mill Road | F | B | D |
| WV 9 Martinsburg Road | C | C | B |
| CR 9/9 Fairfax Street | C | D | B |
| WV 9 E Cacapon Road | D | B | N/A |
| Fairview Drive | N/A | N/A | B |
| Northern Connector | N/A | B | B |

## Future Conditions – No Build Condition

Traffic from 2018 was grown 28.2 percent through year 2043 resulting in No-Build Traffic Conditions. The projected 2043 daily traffic for US 522 is approximately 20,065. This projected volume of traffic exceeds the recommended capacity of a 2-lane highway (arterial). This traffic was analyzed to determine a 2043 operational baseline. From the analysis conducted, US 522 will operate with increased delays with several unsignalized approaches failing including the study intersections of Meyers Road, Johnson Mill Road, and Winchester Grade Road. With optimization of the signal timing, the signalized intersections of the Washington Street (US 522) can function with acceptable LOS, but increased delays will be experienced. For the intersection of Washington Street and Martinsburg Road, the signalized intersection will approach unstable traffic conditions with an intersection V/C (Volume/Capacity) of 0.86 and the northbound queue may extend more than 450 feet during the PM peak hour.

## Future Conditions – Build Condition

Using the projected 2043 traffic volumes for traffic entering onto the study corridor from the roads and highways and the trip distribution determined from the origin and destination (O/D) survey, traffic was reassigned with the Berkeley Springs Bypass constructed. From the O/D survey, it was found that more than 69 percent of the traffic originating from US 522 north travels through Berkeley Springs to the south, and more than 68 percent from US 522 south travels through Berkeley Springs to the north. In addition, the survey found significant traffic volumes from Martinsburg Road (SH 9), would be destined for north and south of Berkeley Springs. The traffic study assumed that 80 percent of the traffic entering the US 522 corridor destined to the north and south of Berkeley Springs would use the alternative bypass; the other 20 percent would continue their existing paths and travel through Berkeley Springs.

From this distribution and reassignment, the projected daily traffic that may use the bypass to and from south of Berkeley Springs is approximately 10,670 and 11,300 at the north and south termini, respectively. This traffic was removed from the existing US 522.

Analyses conducted for the Build conditions found that planned intersections for the both the US 522 Business and Bypass would function at acceptable LOS. Signalized intersections would function at a minimum LOS D and STOP controlled intersections should function at a minimum LOS B. The signalized intersection of Washington Street and Martinsburg Road, which approaches capacity with the No-Build condition, should be improved with the Build condition, as the capacity ratio (V/C) is significantly reduced, and the adverse northbound queue is mitigated.

### 1.6.2 Improve Safety

The proposed action would address the need to provide a reduction in the number and severity of traffic accidents in the US 522 corridor. A traffic accident rate analysis was prepared for the proposed Berkeley Springs Bypass project. Crash data was collected for US 522 from Jimtown Road to Winchester Grade Road. The average AADT from three count stations for US 522 is approximately 10,825 for the 2-lane highway segment of 3.25 miles. The total number of collisions occurring on this 3.25-mile road segment is 158 over the past five years with 1 fatality and 30 injuries. **Table 1-6** presents the crash history summary and the calculated rates for the existing US 522.

**Table 1-6: US 522 Crash Rates 2013-2017**

| | Property Damage | Injuries | Fatalities |
|---|---|---|---|
| 2013 | 26 | 4 | 0 |
| 2014 | 24 | 8 | 1 |
| 2015 | 24 | 6 | 0 |
| 2016 | 29 | 7 | 0 |
| 2017 | 24 | 5 | 0 |
| **Total** | **127** | **30** | **1** |
| | | | |
| Segment mileage | 3.25 | | |
| AADT | 10,825 | | |
| Statewide Average Crash Rate | 1.63 | | |
| Average Crash Rate | 2.46 | | |
| Critical Crash Rate | 2.009 | | |
| Severity Index | 0.41 | | |

From the crash rates calculated for US 522, the rate of 2.46/mvmt is found greater than the statewide average of 1.63/mvmt and the critical rate of 2.01/mvmt, thereby identifying the US 522 corridor through Berkeley Springs as a high accident corridor. More than 75 percent of the collisions have notable contributing factors as identified below:

- Lighting Condition 78.62% Daylight
- Environmental Contributing Factors 88.05% None

- Weather Conditions 76.73% Clear
- Roadway Surface Conditions 86.16% Dry
- Roadway Contributing Factors 93.08% None

Adverse contributing factors appear less than 25 percent thereby suggesting good driving conditions. More of the crashes appear to occur between the hours of 1:00-2:00PM. Construction of the proposed Berkeley Springs Bypass would reduce crashes to a level lower than the state average.

For the intersection of Washington Street (US 522) and Martinsburg Road (SH 9), the more critical intersection for the U.S. 522 corridor in Berkeley Springs with a total entering traffic volume of 17,970, one (1) collision was reported over the past five years. Intersections with US 522 experiencing five (5) or more collisions are identified in the following **Table 1-7**.

**Table 1-7: US 522 Intersection Crashes (2013-2017)**

| | | Collision Type | | |
|---|---|---|---|---|
| Intersection | Total Collisions | Angle | Rear End | Other |
| Fairfax Street | 7 | 1 | 5 | 1 |
| Independence Street | 5 | 3 | 2 | 0 |
| Myers Road[1] | 15 | 12 | 1 | 2 |
| Union Street | 7 | 4 | 1 | 2 |

[1]*Myers Road experienced 5 collisions in 2017, 4 angle collisions.*

Of the intersection crash history, Myers Road experienced the greater number of collisions with five (5) occurring in 2017, 4 angle collisions.

## 1.7 Selected Alternative Changes

The need for and purpose of the project has not changed since the 2001 ROD. However, the Selected Alternative, Alternative I, for the Berkeley Springs Bypass has undergone a refinement in design. The Berkeley Springs Bypass is anticipated to be the first portion of the entire US 522 corridor constructed and therefore, the refined design includes two deviations to connect into the existing US 522 roadway as shown in **Figure 1-3**. The southern connection to US 522 will include a roundabout approximately 0.42 miles south of Winchester Road (CR 13). The northern connection will include a "T" intersection with a northbound slip ramp approximately 0.20 miles south of Sandmine Road (CR 38/1). In addition to the deviations, additional refinements were made to the following intersections: Winchester Grade Road (CR 13), Sugar Hollow Road (CR 38/14), Johnson Mill Road (CR 38/3), Martinsburg Road (WV 9), and Fairfax Street (CR 9/9).

## 1.8 Public/Stakeholder Involvement Process

The WVDOH hosted two open-house public meetings for the US 522 – Berkeley Springs Bypass and Fairview Connector project in April 2018 and February 2019. The public meeting summaries are included in **Appendix B** and brief summary of each meeting is provided below.

### 1.8.1 April 2018 Open-House Public Meeting

An open-house public meeting was held on Thursday, April 19, 2018 for the US 522 – Berkeley Springs Bypass and Fairview Connector project. The meeting was held at the Berkeley Springs High School in Berkeley Springs, WV from 4:00 PM to 7:00 PM. The meeting was attended by 228 members of the public. Maps of the Berkeley Springs Bypass (useable Sections 1 and 2 of US 522) and two corridor options for the Fairview Connector were on display and members of the public were invited to view the maps and talk with WVDOH and consultant staff in attendance. WVDOH District Five Right of Way staff were also in attendance to answer questions about the WVDOH right of way acquisition process. Meeting attendees were invited to provide written comments during the meeting or via mail or email during the 30-day comment period that was open through May 21, 2018. A total of 375 comments were submitted during the comment period as well as a few weeks following the comment period.

A majority of the comments received regarded concern with the design of the beginning of the bypass on the south end of US 522, which did not allow local traffic to continue onto the existing portion of US 522. There were also several comments with concerns with Option 1 of the Fairview Connector due its proximity to the Fairview Subdivision as well as topography. Some comments referenced concern over bypassing the Town of Bath and the potential decline of tourism. Several comments were in favor of the project noting that the existing truck traffic on US 522 presents safety, noise, and health issues for visitors, residents, and business owners within the Town of Bath.

### 1.8.2 February 2019 Open-House Public Meeting

A second open-house public meeting was held on Thursday, February 28, 2019 to present changes to the proposed project that reflect the consideration of public comments and concerns voiced at the April 26, 2018 public meeting as well as additional information obtained since that time. Some highlights of the changes to the project design included:

- Revised intersections at the southern and northern connections to the existing US 522 (a T-intersection and roundabout were presented for both connections to existing US 522)
- Elimination of at-grade intersection at CR 38/4 (Myers Road)
- Construction of ramps for Winchester Grade Interchange will be delayed for future construction
- Elimination of one option for the Fairview Connector due to potential for wetland impacts, relocations, and public comments

The meeting was held at the Berkeley Springs High School in Berkeley Springs, WV from 4:00 PM to 7:00 PM. The meeting was attended by 220 members of the public. Maps of the revised Berkeley Springs Bypass and the Fairview Connector were on display and members of the public were invited to view the maps and talk with WVDOH and consultant staff in attendance. WVDOH District Five Right of Way staff were also in attendance to answer questions about the WVDOH right of way acquisition process. Meeting attendees were invited to provide written comments during the meeting or via mail or email during the 30-day comment period that ended on April 1, 2019. A total of 29 comments were submitted during the comment period. Some comments referenced support for either the roundabouts or T-intersections with traffic signals at the southern and northern end connections to existing US 522. Some

additional comments referenced concern for safety, speed limits, noise, loss of tourism, and loss of access on Sugar Hollow Lane.

The Fairview Connector was presented at both public meetings as part of the project but is now being evaluated separately as a Categorical Exclusion because it is operationally independent of the Berkeley Springs Bypass.

# 2. BERKELEY SPRINGS BYPASS ENVIRONMENTAL RE-EVALUATION ANALYSIS

## 2.1 ENVIRONMENTAL RE-EVALUATION/CONSULTATION FORM (NEPA)

**23 CFR 771.129**

*West Virginia Department of Transportation, Division of Highways/Federal Highway Administration*

| REGION: | STATE PROJECT NO.: | PROJECT TITLE, DOCUMENT TYPE: |
|---|---|---|
| West Virginia Division | U233-522-0.02 (02) | US 522 Virginia state line to Maryland state line Final Environmental Impact Statement |
| DATE APPROVED: | FEDERAL PROJECT NO.: | |
| 2000 | STP-0522 (007) | |

### 2.1.1 Reason for Consultation

The US 522 Virginia state line to Maryland state line FEIS was approved in 2000 and the ROD was signed in August 2001. Following the ROD, the overall project was broken into seven useable sections (see **Figure 1-1**), that will, when completed, be sections that can be constructed within a reasonable period of time based on funding assumptions. WVDOH has requested an environmental re-evaluation on useable Sections 1 and 2 of the Selected Alternative. Useable Section 1 is the portion of US 522 beginning at CR 13, Winchester Grade Road to north of WV 9. Useable Section 2 is the portion from north of WV 9 including a connection to existing US 522. This document is the environmental re-evaluation for revisions to useable Sections 1 and 2, herein referred to as "Berkeley Springs Bypass". The study area covers the revised right of way limits as discussed in Chapter 1. Based on the changes identified, FHWA will determine whether the US 522 FEIS needs to be supplemented with additional environmental documentation.

Because this re-evaluation covers only a portion of the original US 522 FEIS, the impacts for useable Sections 1 and 2 were extracted from the full impact assessment for the US 522 FEIS Selected Alternative, Alternative I using GIS analysis. A corridor width of 400 feet was assumed for the Alternative I to calculate the US 522 FEIS impacts for the Berkeley Springs Bypass portion. The **Table 2-1** summarizes the environmental resource impacts identified in the US 522 FEIS for the entire Selected Alternative I and the extracted impacts for the Berkeley Springs Bypass. These were utilized to compare the previous impacts to the current impacts evaluated for this this re-evaluation document.

**Table 2-1: US 522 FEIS Environmental Resource Impacts for Alternative I (Selected) and Berkeley Springs Bypass Portion**

| Environmental Resource | Alternative I (Selected) | Berkeley Springs Bypass |
|---|---|---|
| Residence Relocations | 53 | 29 |
| Business Relocations | 2 | 0 |
| Prime, Unique, and State & Local Importance Farmland | 5.0 acres | 3.72 acres |
| Wetlands[1] | 6.24 acres | 0.74 acres |
| 100-year Floodplains | 3.9 acres | 0 |
| Potential Hazardous Waste Sites | 0 | 0 |
| UST's within Project Right-of-Way | 1 (possible AUST at former Dawson's Service Station) | 0 |
| Stream Impacts | 405 feet<br>1.74 acres of Waters of the US | 405 feet |
| Endangered Species | 0 | 0 |
| National Register Historic Sites | 0 | 0 |
| Near known Archaeological Sites[2] | 2 | 0 |
| Section 4(f) Sites | 0 | 0 |
| Air Quality | None | None |
| Noise Impacts | 18 Sensitive (Category B) Receptors | 1 Sensitive Receptor[3] |
| EJ Communities | None | None |

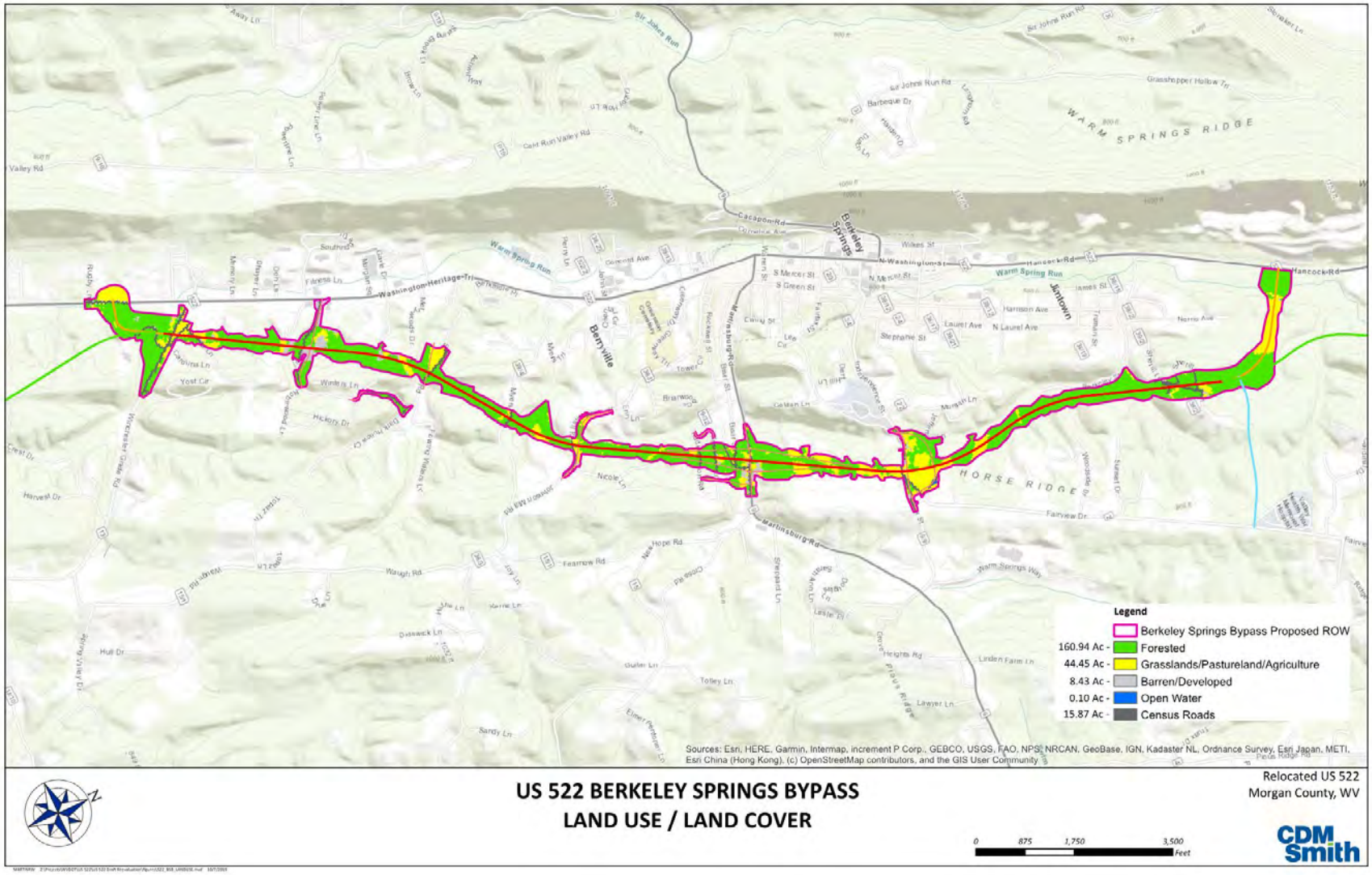
*[1] Palustrine Emergent – 0.35 acres, Palustrine Scrub/Shrub – 0.19 acres, Palustrine Forested – 4.70 acres*
*[2]According to the ROD, four sites were identified outside the project APE for Alternative I: Site 46Mn103, Site 46Mn59, Site 46Mn101, and Site 46Mn100.*
*[3]Used DEIS Figure 4-3B Noise Analysis Receptor Locations (within 500 feet of centerline)*
*Stream Impacts – Rock Gap Run is only High Quality Stream impacted by Selected Alternative (not included in Bypass portion)*

**Will the time lapse or modified alignment change the impacts to the following:**

### 2.1.2 Land Use

The changes to land use from the completion of the Berkeley Springs Bypass will have similar effects on the overall existing land use and zoning compared to the US 522 FEIS. Land use impacts identified in **Figure 2-1** below include 160.9 acres of forested land, 44.5 acres of grasslands/pastureland/agriculture, 8.4 acres barren/developed, 0.1 acres open water, and 15.9 acres Census Roads. The Berkeley Springs Bypass is consistent with the 2017 Morgan County Comprehensive Plan. Impacts to land use are not anticipated to change from what was included in the US 522 FEIS.

**Figure 2-1: Land Use/Land Cover within Berkeley Springs Bypass**



### 2.1.3 Prime and Unique Farmland

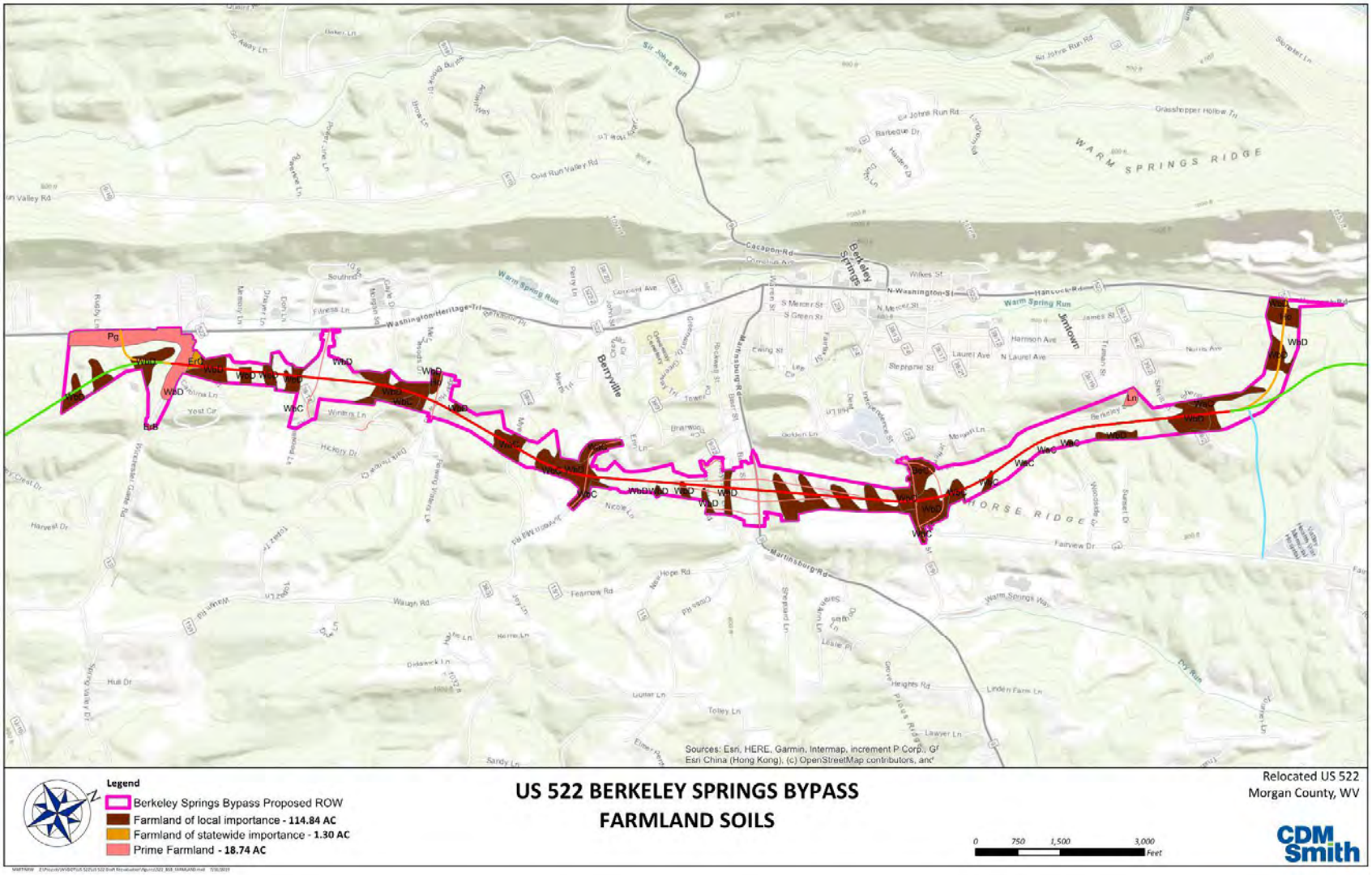
Tabular and spatial soil data were downloaded from Natural Resources Conservation Service (NRCS) Web Soil Survey, National Cooperative Soil Survey for Morgan County in July 2019. The soil map units considered as prime farmland, unique farmland and farmland of statewide or local importance were identified for Berkeley Springs Bypass and resulted in an increase in two soil types defined as prime farmlands by NRCS: Philo gravelly loam (Pg) and Lindside silt loam (Ln). The Pg soil type is concentrated in one area along the existing US 522 roadway at the southern end of the project corridor and along Winchester Grade Road. The Ln soil type is concentrated in one area around Berkeley Street.

The NRCS Form AD 1006 was completed for the Berkeley Springs Bypass (**Appendix C**). The farmland assessment score is 26 points (Part VI of Form) and would result in a total score less than 160 points. According to 7 CFR 658.4 (c)(2), sites that receive a score less than 160 points (Part VII of Form) receive minimal level of consideration for protection under the Act. The **Table 2-2** below lists the soil types within the study area (shown in **Figure 2-2**). The US 522 FEIS identified a total of 2.0 acres of farmland of statewide and local importance and no areas of prime farmland for the entire US 522 corridor. Changes to the Berkeley Springs Bypass would result in 18.74 acres of minimal impacts to prime farmland.

**Table 2-2: Soil Types within Berkeley Springs Bypass**

| Soil Type | Size (Acres) | Percent of Total |
|---|---|---|
| Farmland of local importance | 114.84 | 33.2% |
| Farmland of statewide importance | 1.30 | 0.4% |
| All areas are prime farmland | 18.74 | 5.4% |
| Not prime farmland | 211.03 | 61.0% |
| **TOTAL** | **345.91** | **100.0%** |

**Figure 2-2: Soil Types within Berkeley Springs Bypass**



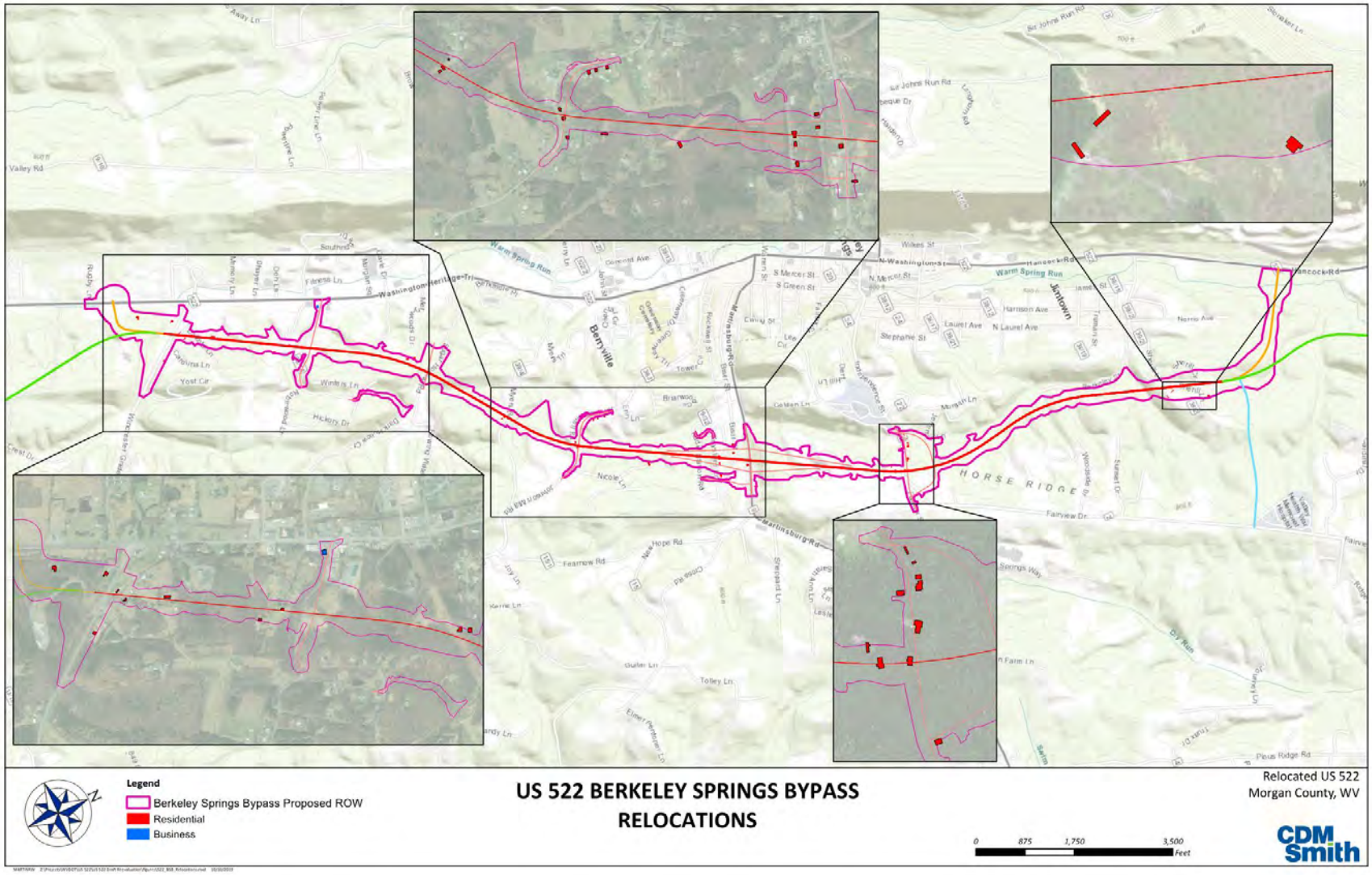
### 2.1.4 Right-of-Way Acquisition and Displacements

The changes to the Berkeley Springs Bypass project since the US 522 FEIS have resulted in the need for more right of way resulting in additional relocations. Approximately 345.91 acres of additional right of way is required, an increase from 216.71 acres in the US 522 FEIS. The changes to the Berkeley Springs Bypass would require the potential relocation of 41 residences and 1 business as shown on **Figure 2-3**. This increased from 29 residences and no businesses in the US 522 FEIS. It should be noted that 16 of the 41 residential displacements identified in this analysis have been purchased by early acquisition.

Property acquisition of affected properties will be conducted in accordance with the relocation procedures established in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (referred to as the Uniform Act), as amended (42 U.S.C. 4601). The Uniform Act and West Virginia state laws require that just compensation be paid to the owner(s) of private property taken for public use. The Uniform Act is carried out without discrimination and in compliance with Title VI (the Civil Rights Act of 1964), the President's Executive Order on Environmental Justice, and the Americans with Disabilities Act.

An appraisal of fair market value is the basis for determining just compensation to be offered the owner for property to be acquired. The Uniform Act defines an appraisal as a written statement independently and impartially prepared by a qualified appraiser setting forth an opinion of defined value of an adequately described property as of a specific date, supported by the presentation and analysis of relevant market information.

**Figure 2-3: Berkeley Springs Bypass Relocations**



### 2.1.5 Community Impacts – Economic Growth and Development

The changes to the Berkeley Springs Bypass will affect businesses and jobs in three ways; access changes from closed roads and driveways, one business relocation, and improved travel times. The changes to the Berkeley Springs Bypass will result in one business relocation, instead of no business relocations as identified in the US 522 FEIS. This change to business relocation impacts does not warrant further analysis.

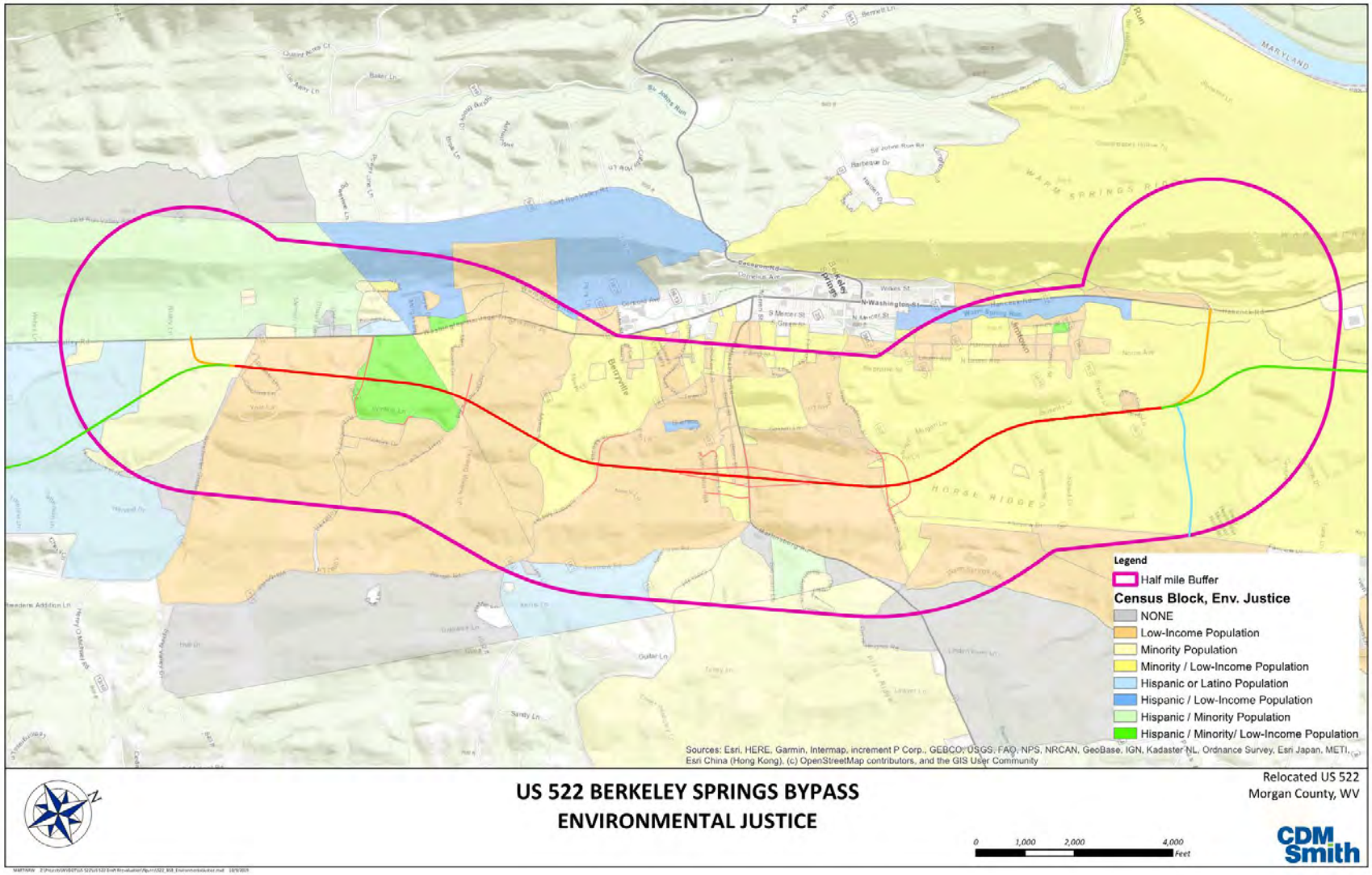
### 2.1.6 Community Impacts – Environmental Justice

Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires that each Federal agency, to the greatest extent allowed by law, administer and implement its programs, policies, and activities that affect human health or the environment to identify and avoid "disproportionately high and adverse" effects on minority and low-income populations. Disproportionate impacts are defined as, a project that predominately impacts a minority or low-income population group or, the impact is "more severe" than that experienced by non-minority or non-low-income populations. If disproportionately high and adverse impacts are expected, the proposed project cannot be completed unless it can be proven that there is a substantial need for the project; that avoidance and mitigation of the impacts is not practicable, or will have increased high and adverse social, economic, environmental, or human health impacts that are more sever; or there are increased costs of extraordinary magnitude.

Council on Environmental Quality (CEQ) guidance defines "minority" as non-white or Hispanic and defines the population of an affected area as a minority population when the total minority percentage in the affected area exceeds 50 percent or "is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis." Low-income populations, according to the CEQ guidance, are identified based on poverty thresholds used by the U.S. Census Bureau.

In order to better understand the makeup of the study area from an environmental justice perspective, minority and low-income populations were analyzed within a 0.5 mile buffer using the 2017 American Community Survey and US Census Factfinder website. **Figure 2-4** illustrates the environmental justice study area which comprises three census blocks: Census Tract 9710, Block Group 2; Census Tract 9708, Block Group 4; and Census Tract 9708, Block Group 1.

**Figure 2-4: Berkeley Springs Bypass Environmental Justice Study Area**



## Minority and Hispanic/Latino Populations

The minority and Hispanic/Latino populations within 0.5 mile of the proposed project is shown in **Table 2-3**. The following definitions are used in this analysis:

- All races/ethnicity groups except non-Hispanic or Latino White alone are considered minority populations
- Total Minority is defined as the Total Hispanic or Latino and the Non-Hispanic or Latino Minority combined
- Non-Hispanic or Latino Minority is defined as all non-Hispanic or Latino races except for non-Hispanic or Latino White alone

**Table 2-3: Minority and Hispanic/Latino Populations in Berkeley Springs Bypass Study Area Census Blocks**

| | West Virginia | Morgan County | Overall | Census Tract 9710, Block Group 2 | Census Tract 9708, Block Group 4 | Census Tract 9708, Block Group 1 |
|---|---|---|---|---|---|---|
| Total Population | 1,846,092 | 17,514 | 4,798 | 1,269 | 1,195 | 2,334 |
| Total Non-Minority | 1,706,156 | 16,781 (96%) | 4,652 (97%) | 1,261 (99%) | 1,132 (95%) | 2,259 (97%) |
| Total Minority | 139,936 | 733 (4%) | 146 (3%) | 8 (1%) | 63 (5%) | 75 (3%) |
| Total Hispanic or Latino | 26,247 | 245 (1%) | 34 (1%) | 8 (1%) | 4 (0%) | 22 (1%) |
| Non-Hispanic or Latino Minority | 113,689 | 17,269 (99%) | 4,764 (99%) | 1,261 (99%) | 1,191 (95%) | 2,312 (97%) |
| Black of African American Alone | 62,385 | 156 (1%) | 3 (0%) | 0 (0%) | 0 (0%) | 3 (0%) |
| American Indian and Alaskan Native Alone | 3,053 | 13 (0%) | 4 (0%) | 0 (0%) | 2 (0%) | 2 (0%) |
| Asian Alone | 13,575 | 67 (0%) | 1 (0%) | 0 (0%) | 0 (0%) | 1 (0%) |
| Native Hawaiian and Other Pacific Islander Alone | 505 | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) |
| Some Other Race | 2064 | 22 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) |
| Two or More Races | 31,925 | 230 (1%) | 105 (2%) | 0 (0%) | 57 (5%) | 48 (2%) |

*Source: EPA Environmental Justice Screening and Mapping Tool (Version 2018), U.S. Census Bureau, 2012-2016 ACS Estimates.*

According to the EPA Environmental Justice Screening and Mapping Tool (Version 2018), the total population of the study area's three census blocks is 1,269 persons and one percent of that population comprises minority population. The Berkeley Springs Bypass project is not anticipated to disproportionately affect minority populations. Zero percent of the census block population is linguistically isolated – Households in which no one over age 14 speaks English "very well". The Berkeley Springs Bypass project is not anticipated to disproportionately affect linguistically isolated households.

## Low-income Populations

The percentage of individuals with income below the poverty level was derived using the American Community Survey data (2012-2016) as shown in **Table 2-4**. Census Tract 9708 had 4.3 percent

population below the poverty level, which is lower than the state average of 17.9 percent. The Berkeley Springs Bypass project is not anticipated to disproportionately affect low-income populations.

**Table 2-4: Low-income Population in Berkeley Springs Bypass Study Area Census Tracts/Blocks**

| | Population for Whom Poverty Status is Determined | Income in Past 12 Months Below Poverty Level |
|---|---|---|
| West Virginia | 1,792,808 | 318,060 (17.7%) |
| Morgan County | 17,273 | 1,962 (11.4%) |
| Overall | n/a | 207 |
| Census Tract 9710, Block Group 2 | n/a | 44 |
| Census Tract 9708, Block Group 4 | n/a | 89 |
| Census Tract 9708, Block Group 1 | n/a | 74 |

*Source: EPA Environmental Justice Screening and Mapping Tool (Version 2018), U.S. Census Bureau, 2012-2016 ACS Estimates.*

The Berkeley Springs Bypass area is lightly populated and minorities represent a lower percentage of the population in Morgan County than in West Virginia. Also, the percentage of the population below the poverty level in Morgan County is lower than the statewide average.

Changes made to the Berkeley Springs Bypass would not result in disproportional high and adverse effects on minority and low-income populations, in accordance with provisions of Executive Order 12898 and FHWA Order 6640.23. No further Environmental Justice analysis is required.

### 2.1.7 Community Impacts – Community Cohesion

The heavy volume of large trucks currently passing through Berkeley Springs is especially incompatible with pedestrians and bicyclists. By routing through traffic around Berkeley Springs, pedestrians and bicyclists will not have to compete with heavy truck traffic and will have more ease of movement in the urban area. In addition, residents, tourists, and visitors to Berkeley Springs will experience ease of movement within the Town of Bath. The Berkeley Springs Bypass also reduces traffic volumes near Widmyer Elementary School and Berkeley Springs High School. As stated in the US 522 FEIS, some residents outside the Town of Bath will be divided by the new bypass, and although access will be provided, it may be less convenient than at present. Community cohesion impacts remain the same as documented in the US 522 FEIS and no further analysis is warranted.

### 2.1.8 Wetlands and Waters of the US

A wetland and stream assessment and wetland delineation were conducted for the Berkeley Springs Bypass in accordance with the West Virginia Stream and Wetland Valuation Metric (SWVM) and is summarized in the *US 522 Berkeley Springs Bypass and Fairview Connector – Wetland and Stream Technical Report*, which is included in the project file and available for review upon request. Site visits were conducted in June and July 2018 and July 2019. The field investigations identified four (4) wetlands and 24 streams within the Berkeley Spring Bypass, an increase to the what was stated in the US 522 FEIS. The US 522 FEIS identified 6.24 acres of impacted wetlands, 0.74 of which was within the Berkeley Springs Bypass portion. Stream impacts identified in the US 522 FEIS were 405 feet with 1.74 acres of Waters of the United States. No stream impacts were identified for the Berkeley Springs Bypass portion.

The new wetland and stream impacts were determined using project limits provided by the project engineer for the entire length of the Berkeley Springs Bypass between the southern and northern termini with existing US 522. Project limits were determined by adding a 50 feet buffer to the currently designed cut and fill slopes to account for potential minor changes in slope design. In addition, a 500 feet buffer was used at both termini to allow for final intersection/roundabout design and configuration. In all other areas, the construction limits (cut/fill) of the project, including sediment and erosion control ponds, were used to determine the project limits and areas of impact. **Tables 2-5 and 2-6** list the impacts to the wetlands and streams and **Figures 2-5 to 2-8** illustrate their location. The new analysis indicates that there are 0.56 acres of wetland impacts and 14,650 linear feet of stream impacts.

Since the 2000 FEIS, the regulatory environment relative to headwater tributary streams has changed. The difference in stream impacts is due to the difference in data and methods available and utilized in 2000 versus those used for the Re-evaluation of the Berkeley Springs Bypass. The Clean Water Act rules enacted by the US Environmental Protection Agency (EPA) and the US Army Corps of Engineers (USACE) have added protections for ephemeral streams where they did not exist during the assessment of impacts for the 2000 FEIS. Additionally, the field surveys for the new analysis include streams not included in the more basic analysis that was sufficient for selecting an alternative in 2000. As discussed in **Chapter 1**, the alignment of the Berkeley Springs Bypass is generally in the same location as it was in 2000 except for the deviations shown in **Figure 1-6** to account for the independent utility of the useable Section. Most of the current wetland and stream impacts overlap the Selected Alternative. The deviations of the Berkeley Springs Bypass account for new impacts to Stream 1 (795 feet) at the southern end of the Bypass and Stream 24 (599 feet) at the northern end of the Bypass. The current wetland and stream impact calculations are not based on jurisdictional determinations of waters of the US. The USACE Jurisdictional Determination has not been finalized for this project.

**Table 2-5: Wetland Impacts within Berkeley Springs Bypass**

| Wetland ID | Classification* | Wetland Size (ac) | Wetland Impact (ac) |
|---|---|---|---|
| 1 | PF01 | 0.29 | 0.29 |
| 2 | PEM1 | 0.04 | 0.04 |
| 3 | PUB/F01 | 0.05 | 0.05 |
| 4 | PEM1 | 0.18 | 0.18 |
| **Total** | | **0.56** | **0.56** |

**Acronyms: PF01 = palustrine forested wetlands with broad-leaved deciduous trees, PEM1 = palustrine emergent wetlands with persistent vegetation, PUB = palustrine unconsolidated bottom, forested with broad-deciduous trees*

**Table 2-6: Streams Impacts within Berkeley Springs Bypass**

| Stream ID | Classification | Stream Impact Length (ft) |
|---|---|---|
| 1 | Perennial | 795 |
| 2 | Perennial | 1,821 |
| 3 | Ephemeral | 1,329 |
| 4 | Perennial | 778 |
| 5 | Ephemeral | 582 |
| 6 | Ephemeral | 111 |
| 7 | Ephemeral | 183 |
| 8 | Ephemeral | 833 |
| 9 | Ephemeral | 851 |
| 10 | Ephemeral | 381 |
| 11 | Ephemeral | 245 |
| 12 | Ephemeral | 832 |
| 13 | Perennial | 860 |
| 14 | Ephemeral | 631 |
| 15 | Ephemeral | 585 |
| 16 | Ephemeral | 431 |
| 17 | Ephemeral | 352 |
| 18 | Ephemeral | 375 |
| 19 | Ephemeral | 344 |
| 20 | Ephemeral | 323 |
| 21 | Ephemeral | 720 |
| 22 | Intermittent | 404 |
| 23 | Ephemeral | 286 |
| 24 | Perennial | 599 |
| **Total** | | **14,650** |

**Figure 2-5: Wetlands & Streams Impacts within Berkeley Springs Bypass (Key Sheet)**

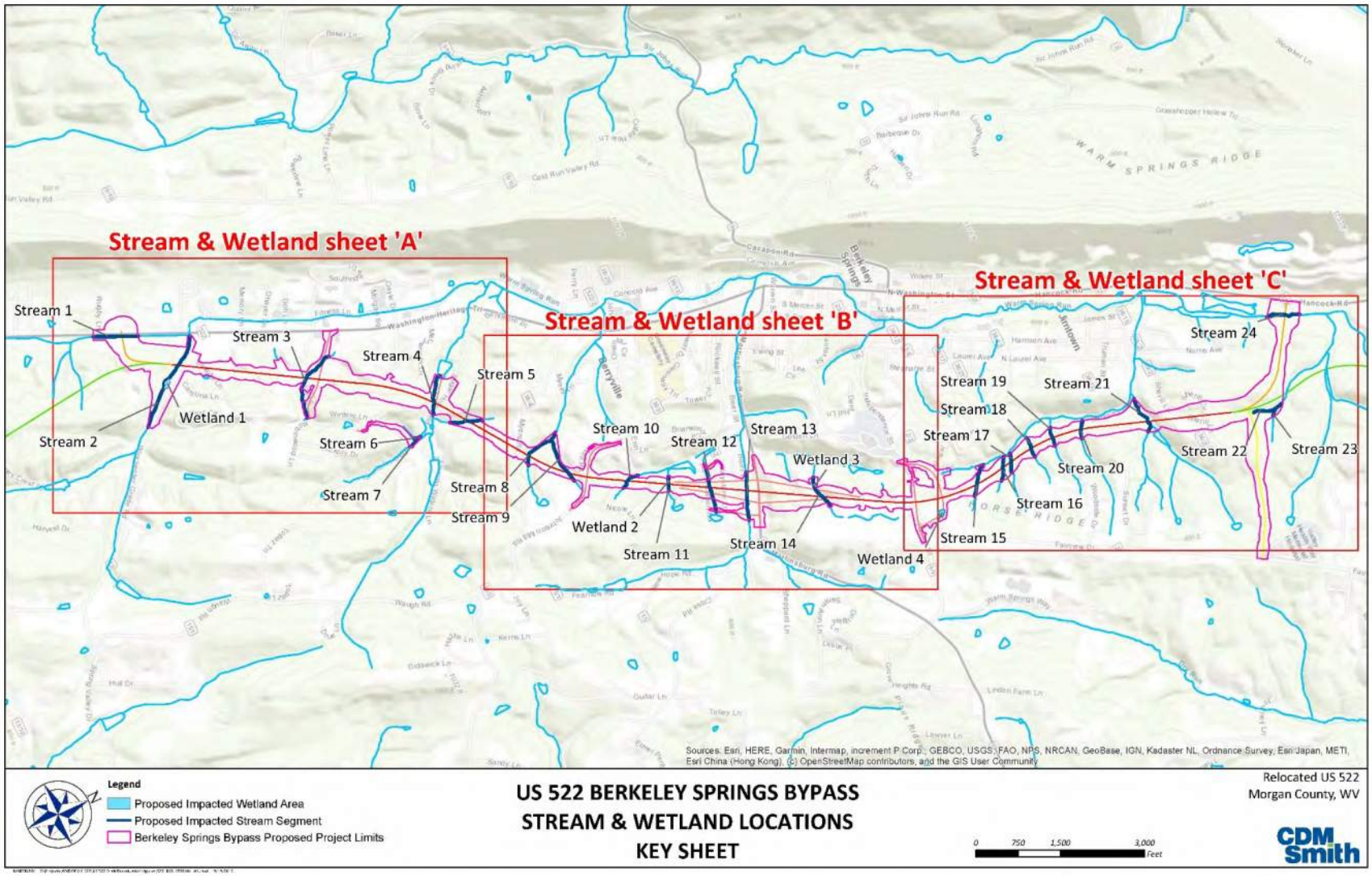


**Figure 2-6: Wetlands & Streams Impacts within Berkeley Springs Bypass (Sheet A)**

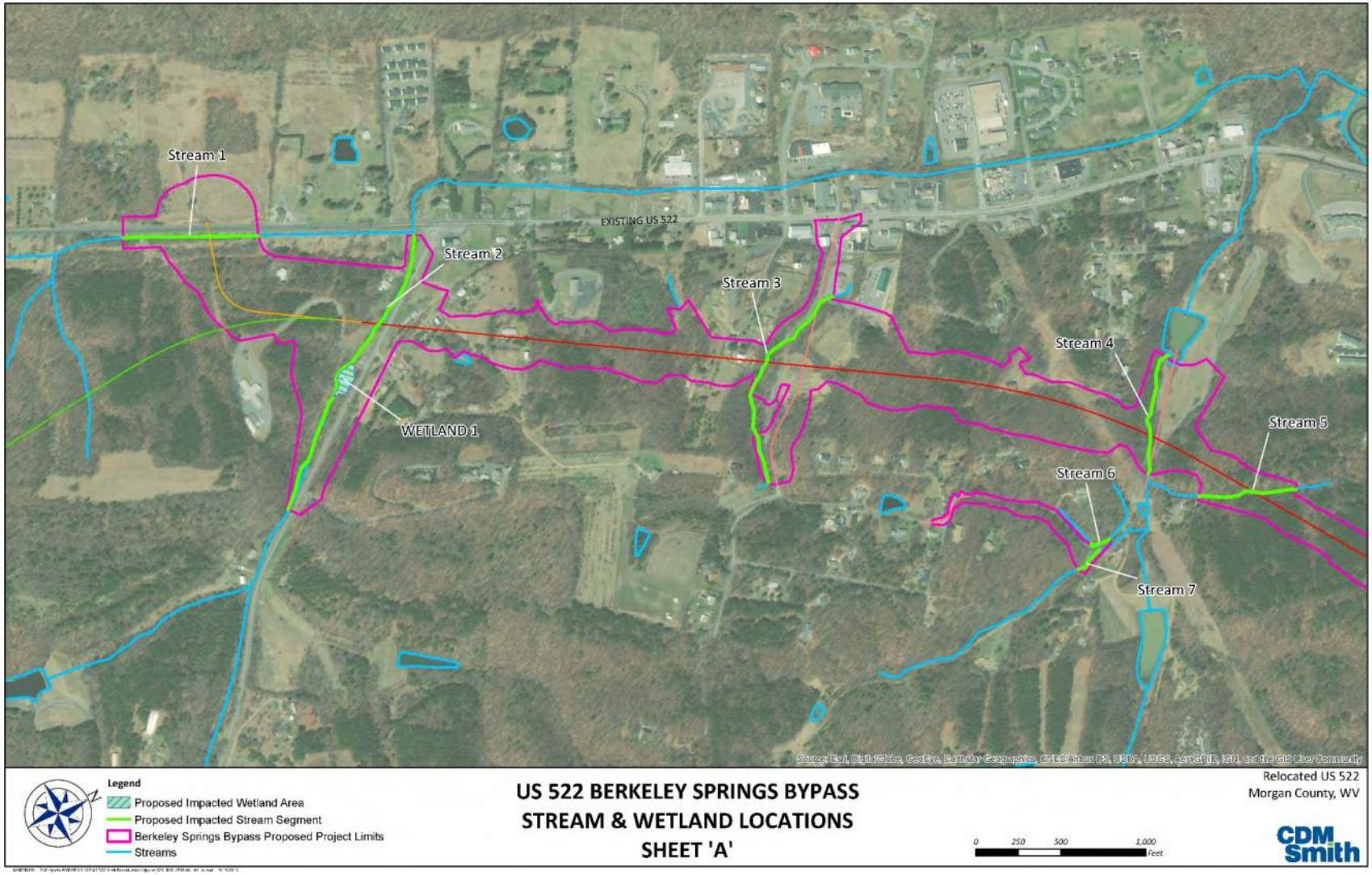


**Figure 2-7: Wetlands & Streams Impacts within Berkeley Springs Bypass (Sheet B)**

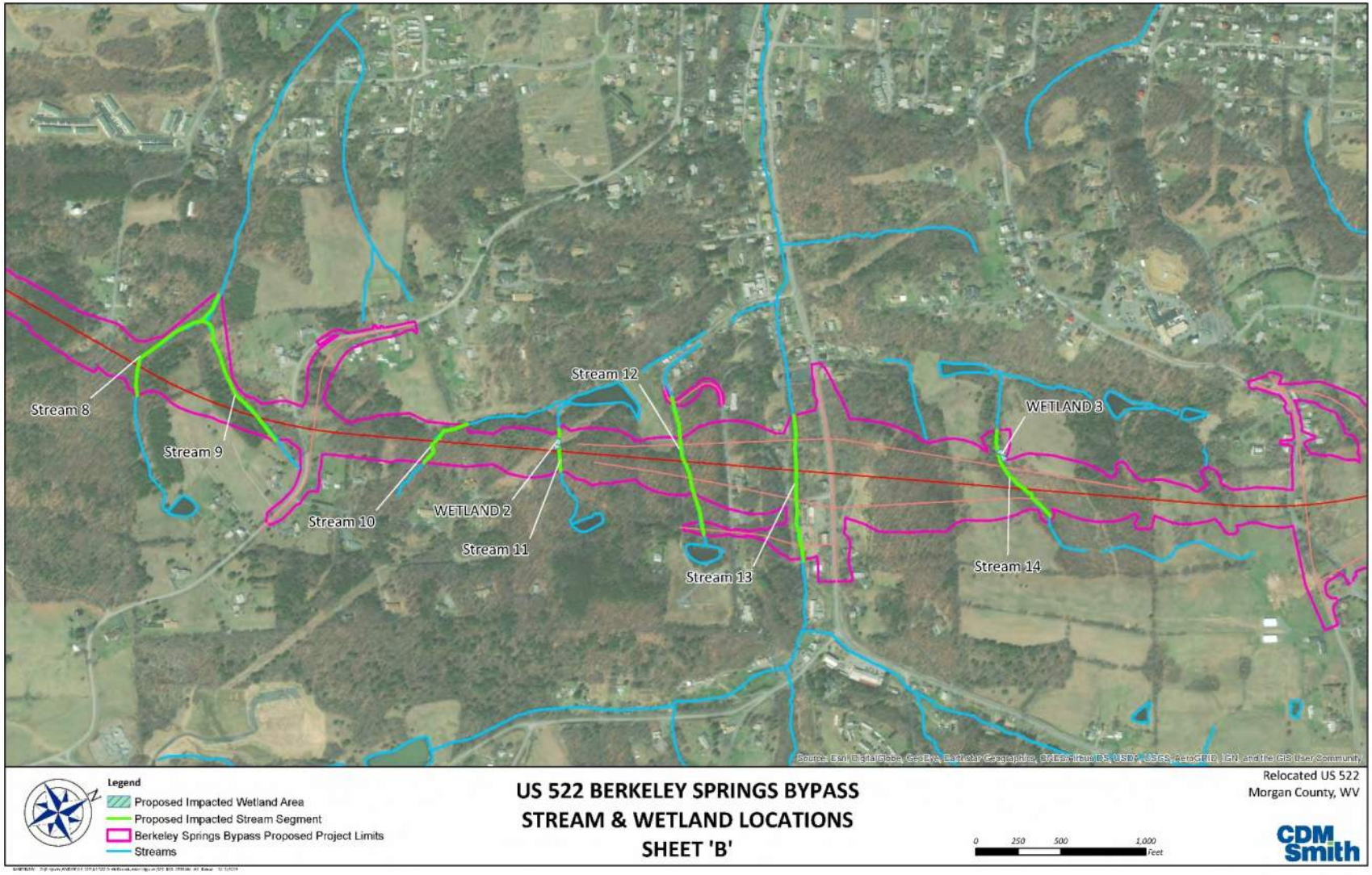
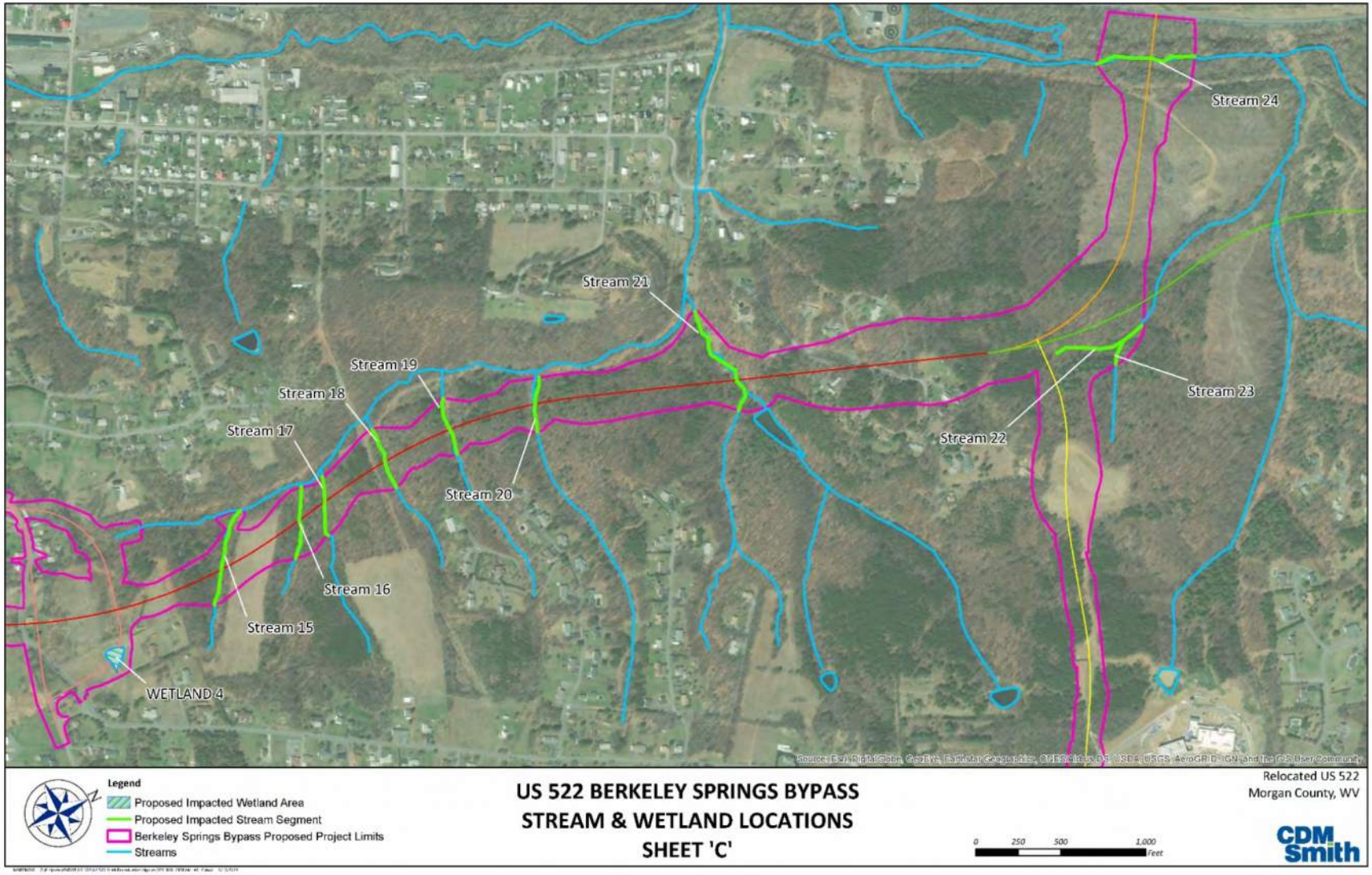


**Figure 2-8: Wetlands & Streams Impacts within Berkeley Springs Bypass (Sheet C)**

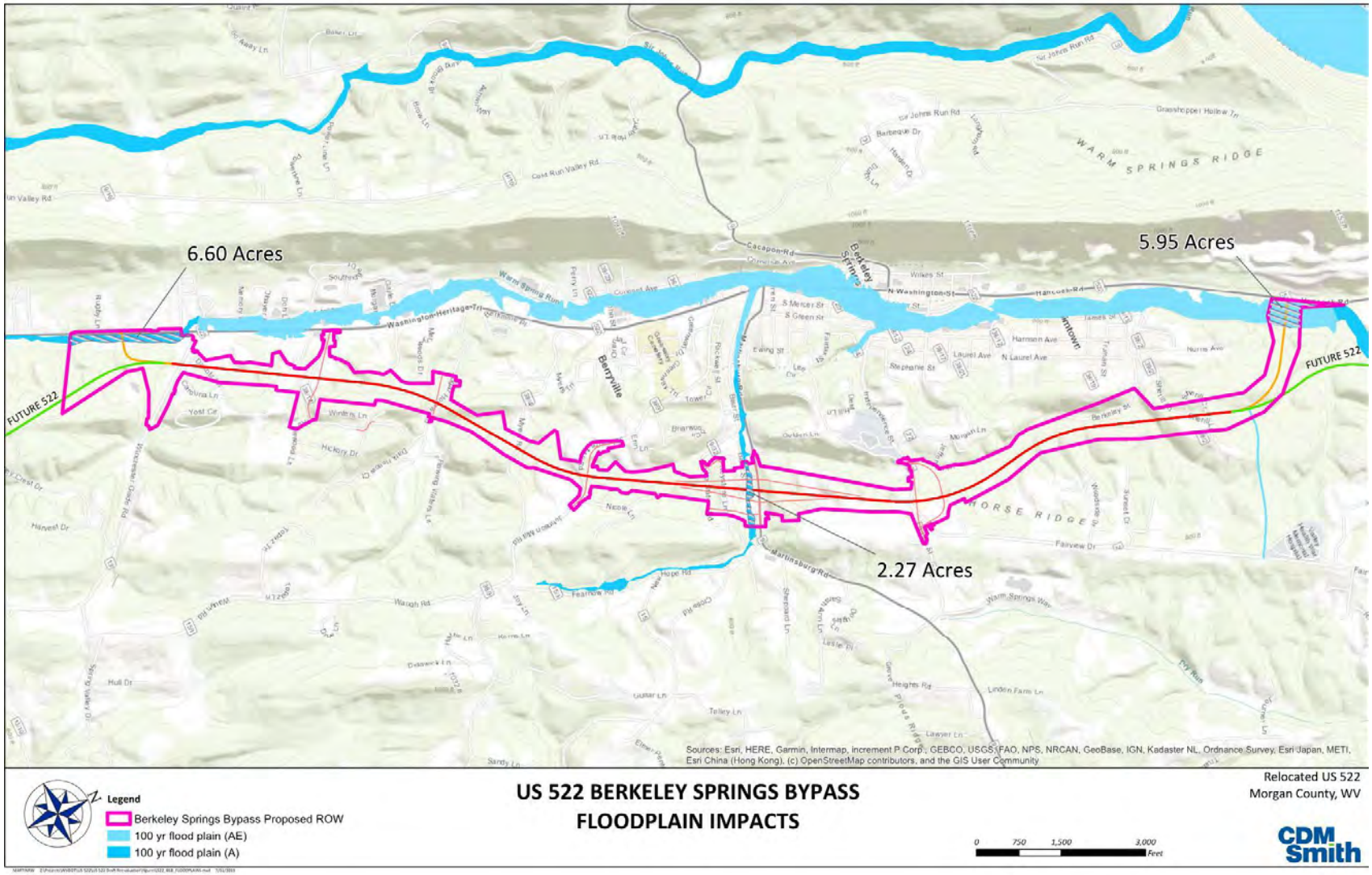


### 2.1.9 Floodplains

The changes to the Berkeley Springs Bypass will have an increase in impacts to the 100-year floodplain with 14.82 acres compared to zero acres identified for the same area in the US 522 FEIS. Since the 2000 FEIS, Federal floodplain management regulations have changed. The difference in floodplain impacts is due to the variance in available data and methods utilized in 2000 versus those used for the Re-evaluation of the Berkeley Springs Bypass. As discussed in Chapter 1, the alignment of the Berkeley Springs Bypass is generally in the same location as it was in 2000 except for the deviations shown in **Figure 1-6** to account for the independent utility of the useable Section. The floodplain impacts consist of 6.60 acres at the southern portion of the project parallel to the existing US 522 roadway, 2.27 acres parallel to Martinsburg Road, and 5.59 acres near the norther connection of the Berkeley Springs Bypass and existing US 522. The 5.59 acres of floodplain impacts is associated with Warm Springs Run. **Figure 2-9** illustrates the location of the floodplain impacts.

During final design and prior to construction, WVDOH will coordinate with the Morgan County Floodplain Coordinator, as appropriate. During final design and construction, impacts to floodplains will be mitigated by using appropriate erosion and sedimentation control measures. Post-construction mitigation measures for base floodplain encroachments may include committing to special flood-related design criteria, elevating facilities above base flood level where feasible, and locating non-conforming structures and facilities out of the floodplain. In addition, appropriate stormwater controls will be installed. Design of these controls will occur during final design.

**Figure 2-9: Floodplain Impacts within Berkeley Springs Bypass**



### 2.1.10 Air Quality

The changes to the Berkeley Springs Bypass were reviewed for impacts to air quality since the FEIS was signed. Morgan County is currently in attainment for all principal pollutants identified as criteria pollutants in the National Ambient Air Quality Standards (NAAQS). Additionally, the project is not linked with any special Mobile Source Air Toxics concerns. Air quality impacts remain the same as documented in the US 522 FEIS and no further analysis is warranted.

### 2.1.11 Noise

The US 522 FEIS identified one noise sensitive receptor. A new noise study was conducted for the Berkeley Springs Bypass project. The US 522 Berkeley Springs Bypass and Fairview Connector Noise Study (CDM Smith, 2019) provided as **Appendix E**, documents the evaluation of all potential traffic noise impacts for the Berkeley Springs Bypass and follows guidelines established by the FHWA relative to environmental studies for Type I roadway improvement projects. Ambient (existing) field noise levels were monitored following the FHWA procedures described in *Sound Procedures for Monitoring Highway Noise*. The noise analysis procedure used to project traffic noise was the TNM 2.5 computer model developed by the FHWA.

TNM 2.5 was used to estimate both existing and future noise levels associated with the proposed alignment. Input data needed for the noise level analysis included roadway coordinates, site location coordinates, receiver coordinates, traffic volumes, and vehicle speeds. Traffic volumes were obtained from the February 5, 2019, Traffic Study completed by CDM Smith. The report reflects 2018 existing traffic volumes and 2043 projected traffic volumes.

Noise-sensitive land uses were identified and grouped into nine unique Common Noise Environments (CNEs) to facilitate the analysis. A good correlation exists between monitored and modeled existing noise levels (3 decibels [dBA] or under) at most CNE locations, although some experienced a higher difference. The TNM 2.5 computer model does not take into account ambient noise sources (e.g., airplanes, dogs barking, people talking, and construction noise) other than vehicular traffic. These noise sources affect the overall monitored noise levels but cannot be modeled by TNM 2.5.

The analysis performed for this study followed the FHWA guidelines for traffic generated noise impacts. The FHWA traffic generated noise impacts are defined as "impacts which occur when the predicted noise levels approach or exceed the noise abatement criteria or when the predicted traffic noise levels substantially exceeds the existing noise levels" (title 23 Code of Federal Regulations Part 772 [23 CFR 772], *Procedures for Abatement of Highway Traffic Noise and Construction Noise*). In addition, WVDOH has developed guidelines to determine when substantial noise increases occur in *DD-253 Noise Analysis and Abatement Guidelines* (updated November 15, 2016).

Noise impact assessment sites (all residences, commercial uses, churches, motels, hotels, and hospitals) within 152 meters (500 feet) of the proposed roadway were analyzed for noise impacts for the Berkeley Springs Bypass. A total of 173 receptors were analyzed using the above criteria in the model. All the sites along the proposed highway are classified as either Activity Category B, Category C or Category E of the FHWA Noise Abatement Criteria (NAC). Thus, if the noise level at a site was predicted to be 66 dBA

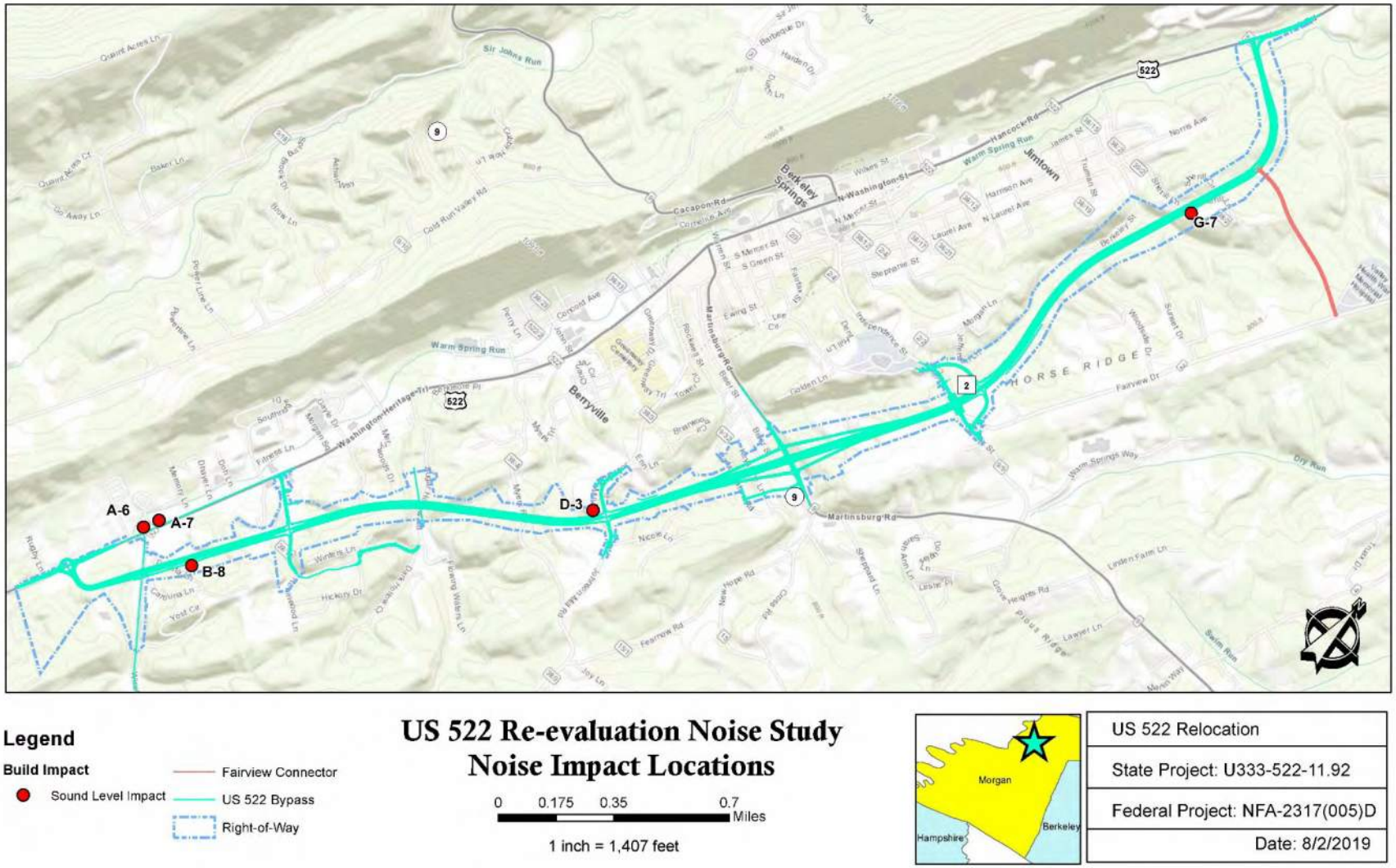
(Category B and C) or greater or 71 dBA (Category E) or greater, the FHWA NAC considers it as impacted, and noise abatement measures should be studied at the location. The sites were also analyzed for noise level increases. The increase in noise level was calculated by comparing the projected noise level to both the noise levels calculated by the existing condition TNM model, and the field monitored noise levels. There was no noise level increase of 15 dBA or greater; therefore, no "Substantial Impacts" occurred.

The preliminary analysis indicated that there were five sites that were identified as having sound level impacts. All five sites were sound level impacts. After the required right of way was established and applied to the impacts, three of the sites were identified as relocations. These sites are listed in **Table 2-7** and shown in **Figure 2-10**.

**Table 2-7: Impacted Noise Receiver Locations within Berkeley Springs Bypass**

| Receiver | Location Description | dBA Reading | Impact | Abatement Measure |
|---|---|---|---|---|
| A-6 | A residential lot, 75 feet from US 522, adjacent to the intersection of Winchester Grade Road. The property has direct access to US 522. | 66.7 | Sound Level | None Recommended |
| A-7 | A residential lot, 80 feet from US 522 (Valley Road). The property has direct access to US 522. | 66.2 | Sound Level | None Recommended |
| B-8 | On Dakota lane, 800 feet from US 522 (Valley Road) and approximately 790 feet from Winchester Grade Road. The structure appears to be an outbuilding and will be required to be relocated. | 67.5 | Sound Level | None Recommended |
| D-3 | Approximately 40 feet from Johnsons Mill Road, and approximately 50 feet from the US 522 Bypass. The residential structure will be required to be relocated due to the project. | 66 | Sound Level | None Recommended |
| G-7 | On Sherill Lane approximately 2280 feet from Fairview Road. The lot is residential and heavily wooded. This property access is being impacted by the US 522 Bypass and G-7 and G-8 will be required to be relocated due to the project. | 67.7 | Sound Level | None Recommended |

**Figure 2-10: Berkeley Springs Bypass Noise Impact Locations**



In accordance with WVDOH's *DD-253 Noise Analysis and Abatement Guidelines* (updated November 15, 2016), noise abatement measures must be both reasonable and feasible. Feasibility deals primarily with engineering considerations (e.g., can a barrier be built given the topography of the location; can a substantial noise reduction be achieved given certain access, drainage, snow, safety or maintenance requirements; are other noise sources present in the area, etc.) Reasonableness is a more subjective criterion than feasibility. It implies that common sense and good judgment were applied in arriving at a decision.

Noise abatement measures were reviewed for receptors A-6, A-7, B-8, D-3, and G-7. Receptors A-6 and A-7 are located along US 522 and noise barrier would not be feasible/reasonable and still allow access to the property. Receptor B-8, D-3, and G7 would be relocated due to right of way required for the proposed project. Due to the reasoning above no barrier, walls were modeled or recommended for construction as part of the Berkeley Springs Bypass project.

### 2.1.12 Threatened and Endangered Species

According to the West Virginia Division of Natural Resources, Wildlife Resources Section, there are no known records of any rare, threatened or endangered species or natural trout streams within the project area.

Since the publication of the US 522 FEIS, the Northern Long-Eared Bat (*Myotis septentrionalis*) was listed as threatened by US Fish and Wildlife Service (USFWS) subject to 4D rule. USFWS has also identified that this species has the potential be located within the revised right of way of the Berkeley Springs Bypass. USFWS-required presence/absence surveys were conducted for the federally listed bat species (e.g., Indiana bat [*Myotis sodalis*] and northern long-eared bat [*M. septentrionalis*]) or other bat species of concern that may occur in the area of potential effect for the project.

Both the Indiana and northern long-eared bats can occur in any forested area in the state of West Virginia. These species hibernate in caves or mines only during the winter. The rest of the year they roost under loose tree bark in tree crevices or cavities during the day and forage around tree canopies of floodplain, riparian, and upland forests at night. Trees which should be considered potential roosting habitat include those exhibiting loose or shaggy bark, crevices, or hollows. Tree species often include but are not limited to: shellbark or shagbark hickory, white oak, cottonwood, and maple.

From June 4-14, July 7-12, and July 31 to August 11, 2018, WVDOH Environmental staff and the consultant conducted a federally listed bat mist net survey for the proposed project. A total of 110 net nights were completed within the Berkeley Springs Bypass and Fairview Connector Study Area. During the mist net survey, a total of 75 bats representing three (3) species were captured and identified. No Indiana bats or northern long eared bats were captured during the survey. No open portals or caves were observed within the Berkeley Springs Bypass during the survey.

Acting as the designated non-federal representative for FHWA for the purposes of USFWS Section 7 Endangered Species Act consultation, WVDOH submitted consultation and requested concurrence with the "have no effect/not likely to adversely affect" determination. USFWS concurred with this determination. **Appendix D** contains the USFWS concurrence.

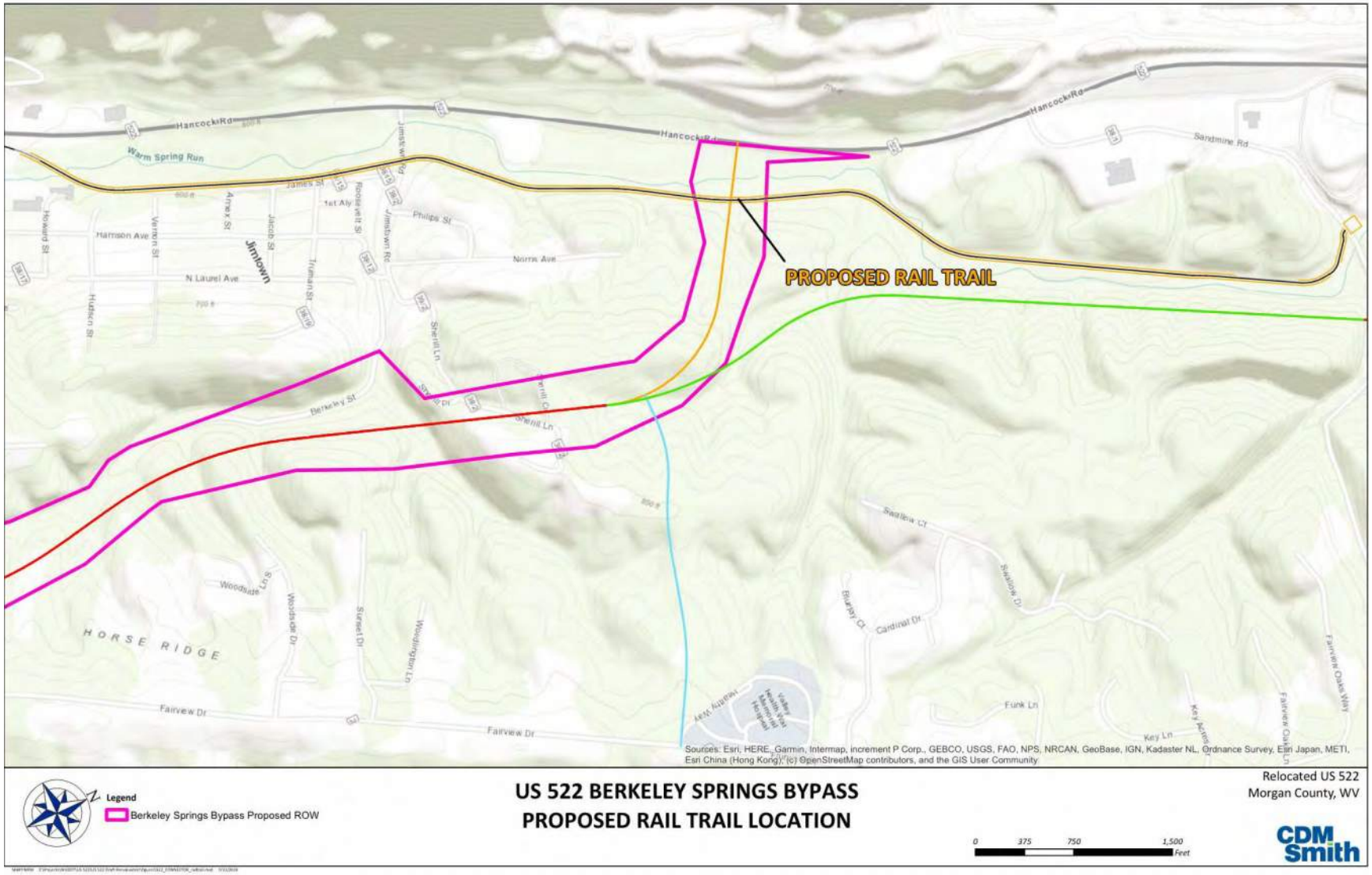
### 2.1.13 Historic and Archaeological Sites

No historic or archaeological impacts were identified for the Berkeley Springs Bypass portion of the US 522 FEIS. Cultural resources were analyzed again in 2018 and 2019 for this re-evaluation. The Berkeley Springs Bypass project will not impact historic resources or archaeology resources within the area of potential effects (APE). The WVDOH received a letter from the State Historic Preservation Office (SHPO) on April 15, 2019 stating their concurrence of no adverse effect on the historic resources in the APE based on their review of the Historic Architectural Resource Survey conducted in June 2018. This letter is included in **Appendix D**. In addition, the WVDOH received a letter from the SHPO on July 9, 2019 stating their concurrence of no adverse effect on the archaeological resources within the APE based on their review of the Phase I Archaeological Survey conducted in June 2018 and November 2018. This letter is included in **Appendix D**.

### 2.1.14 Public Lands and Section 4(f) and 6(f)

There are no Section 4(f) and 6(f) resources within the Berkeley Springs Bypass. However, the WVDOH is currently coordinating with the Morgan County Commission regarding the conversion of an abandoned railroad line to a public multi-use trail. The trail property is currently owned by Morgan County and the proposed alignment will cross the proposed trail location (see **Figure 2-11**). The proposed trail is currently under design and anticipated for construction in 2020. The WVDOH is committed to coordinate final design and construction of the Berkeley Springs Bypass with the design and construction of the proposed rail trail to minimize and/or avoid impacts.

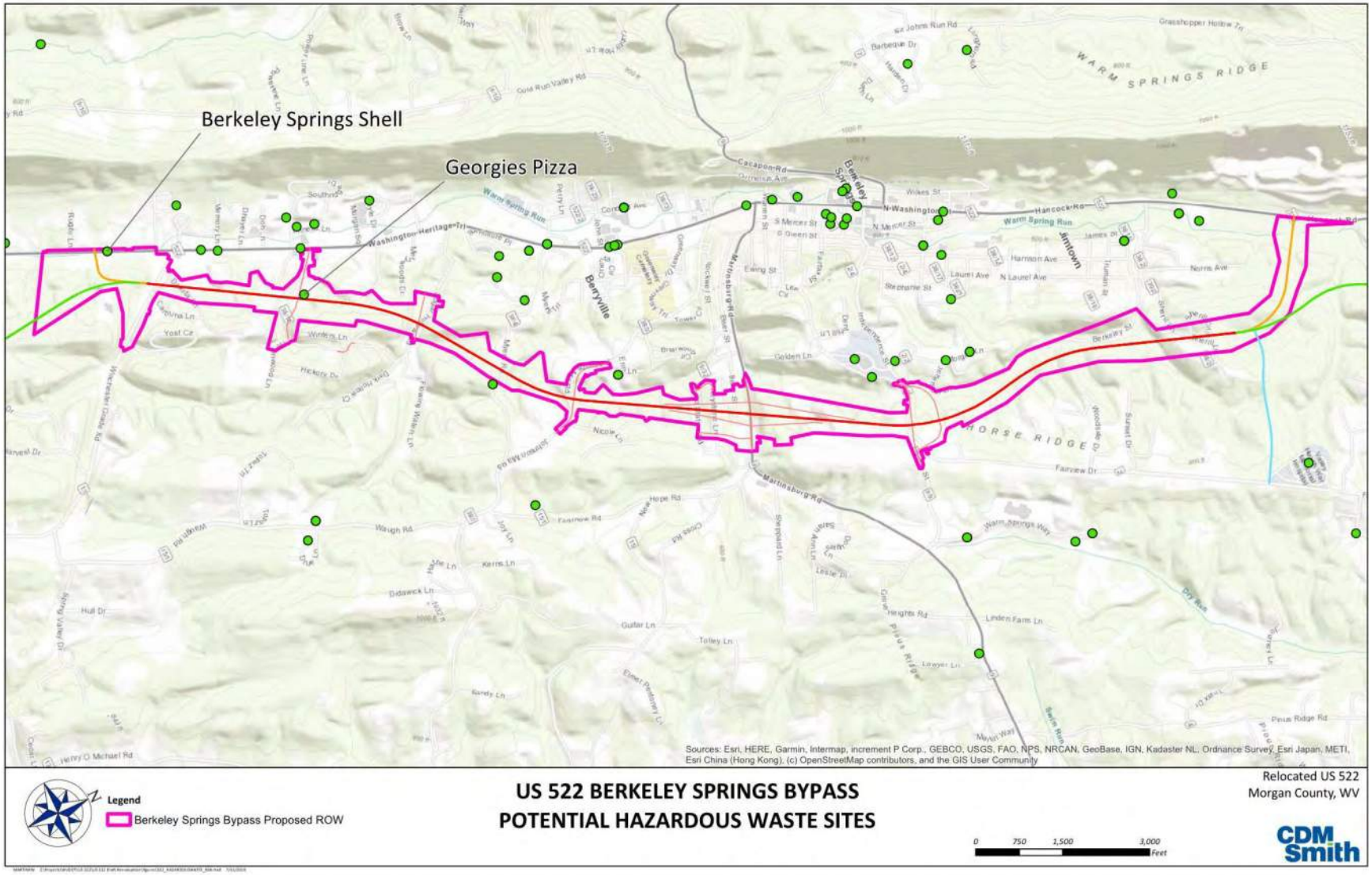
**Figure 2-11: Proposed Rail Trail within Berkeley Springs Bypass**



### 2.1.15 Hazardous Waste Sites

According to EPA data, there are two (2) hazardous waste sites located within the Berkeley Springs Bypass right of way. However, according to field review, the two locations are vacant or empty lots. **Figure 2-12** illustrates the locations of the potential hazardous waste sites around the Berkeley Springs Bypass. There were no hazardous waste sites previously identified in the US 522 FEIS for the Berkeley Springs Bypass. No further analysis is warranted.

**Figure 2-12: Hazardous Waste Sites near Berkeley Springs Bypass**



## 2.2 Summary of Berkeley Springs Bypass Environmental Re-evaluation

The re-evaluation of the US 522 FEIS for the Berkeley Springs Bypass was conducted consistently with FHWA regulations for a written re-evaluation. This analysis indicates that while there have been changes to the Selected Alternative of the Berkeley Springs Bypass and regulatory changes relative to certain resource categories analyzed in the NEPA documents, those changes do not result in new significant impacts as compared to those disclosed in the 2000 FEIS and 2001 ROD. **Table 2-8** provides a comparison of impacted resources for the US 522 FEIS and the re-evaluation of the Berkeley Springs Bypass. Additional evaluation in a supplemental EIS is not required for the US 522 – Berkeley Springs Bypass project.

**Table 2-8: Berkeley Springs Bypass Environmental Resources Impact Comparison**

| Environmental Resource | US 522 FEIS - Berkeley Springs Bypass Impacts | Re-evaluation of Berkeley Springs Bypass Impacts | Will the time lapse or modified alignment change the impacts? | Level of Impact Change |
|---|---|---|---|---|
| Land Use | None | None | No | Same |
| Prime & Unique Farmland (total acreage within right of way limits) | 3.72 | 18.74 | Yes | More |
| ROW Acquisition (acreage) | 216.71 | 345.91 | Yes | More |
| Number of Residences displaced | 29 | 41 | Yes | More |
| Number of Businesses displaced | 0 | 1 | Yes | More |
| Community Impacts – Economic Growth and Development | Yes | Yes | No | Same |
| Community Impacts – Environmental Justice | None | None | No | Same |
| Community Impacts – Community Cohesion | None | None | No | Same |
| Wetlands (acreage) | 0.74 | 0.56 | Yes | Less |
| Streams (linear feet) | 405 | 14,650 | Yes | More |
| Floodplains (acreage) | 0 | 14.82 | Yes | More |
| Air Quality | None | None | No | Same |
| Number of Noise receivers Impacted | 1 | 5 | No | More |
| Threatened and Endangered Species | None | None | No | Same |
| Historic and Archaeological Resources | None | None | No | Same |
| Public Lands and Section 4(f) and 6(f) | None | None | No | Same |
| Hazardous Waste Sites | None | None | No | Same |

## 2.3 Mitigation and Commitments

### 2.3.1 Wetlands and Streams

The general approach to reducing impacts to the surface water resources within the study area is to avoid and minimize impacts to the greatest extent possible, then to compensate for any unavoidable impacts. In order to minimize potential construction and operational impacts to water quality and the aquatic biota, the following mitigation items will be implemented:

- Promptly revegetate all disturbed areas to prevent accelerated erosion.
- Construct all cofferdams, causeways, and temporary crossings from large clean rock fill material with filter fabric installed on the downstream side to trap sediments.
- Minimize the need for in-stream work by heavy equipment.
- Develop project sequencing to facilitate in-stream work during periods of seasonal low flow.
- Designate equipment fueling and service areas away from aquatic habitats to minimize the potential for accidental spillage of petrochemicals.
- Minimize the amount of vegetative clearing and impervious surface within the right-of- way to reduce runoff volume and thermal increases.
- Minimize the diversion of surface water flow within the cleared portion of the right-of-way to reduce thermal increases.
- Design and construct all stormwater management facilities to prevent or minimize runoff resulting in erosion and sedimentation.
- Consider the use of vegetated stormwater management basins and wide flat drainage ditches to reduce sediment and toxicant loading in highway runoff.
- Reduce the amount of aquatic habitat (and riparian vegetation) which would be disturbed by minimizing the linear distance of streams impacted at each crossing.
- Design and construct culvert structures, which would promote the reestablishment of benthic habitat within the culvert.
- Design and implement an Erosion and Sedimentation Control Plan, which would prevent sediment deposition to aquatic habitats.

Wetlands and other "waters of the United States" are regulated under Section 401 and 404 of the Clean Water Act. Impacts to these resources require a Section 404 permit from the U.S. Army Corps of Engineers (COE) for the discharge of dredged or fill material into waters of the United States, including wetlands. In accordance with the guidelines detailed in Section 404 b (1) of the Clean Water Act and Executive Order 11990, wetland mitigation includes, in order of priority, the avoidance of wetland impacts, the minimization of wetland impacts, and the replacement of impacted wetlands. Avoidance and minimization of impacts is an ongoing process throughout alternative selection and design. An analysis of the alternatives developed for the Environmental Impact Statement, and other alternatives considered will be required to demonstrate that the selected alternative avoids wetland impacts to the greatest extent practicable. These minimization measures include the use of bridges for wetland crossings, the reduction of roadway width where wetlands occur, the use of 2:1 slopes adjacent to wetlands, and construction of retaining walls. Mitigation measures to compensate for unavoidable

wetland impacts include wetland enhancement, restoration, or creation. Following completion of final design, wetland impacts will be mitigated at no less than 1.5:1 replacement to impact ratio in accordance with the December 1, 1998 WVDOH/FHWA Stewardship Agreement and the goals outlined in the Presidential Executive Order 11990-Protection of Wetlands.

Federal and state regulations require that various environmental permits be acquired prior to the construction of the Berkeley Springs Bypass. The following permits will be required:

- Section 404 of the Clean Water Act
- Section 401 of the Clean Water Act (Water Quality Certification)
- National Pollutant Discharge Elimination System (NPDES)

Necessary permits will be obtained in compliance with the integrated NEPA/404 process. For wetland impact permits, all of the pertinent technical information that has been generated for the NEPA studies will be incorporated into the permit packages. This is consistent with FHWA guidance on the coordination of NEPA studies and federal permit processing.

### 2.3.2 Floodplains

Detailed hydraulic studies and design procedures will be used to minimize the potential impact of each stream crossing. The best management practices will be applied such as an evaluation of realigning the roadway and using bridges in place of box culverts. All the floodplain modifications, including detailed hydraulic studies, will be required prior to permits being issued.

Preventative measures in the WVDOH Erosion and Sediment Control Manual will be required to minimize impacts during construction. Construction will be limited to the minimum essential in the floodplain. The WVDOH commits to raising the flood elevation by no more than one foot. Materials used in the streams will be clean and meet required standards prior to use. Notice will be given to the West Virginia Department of Natural Resources (DNR)prior to construction so that procedures are reviewed and maintained.

The roadway embankments will be seeded to mitigate impacts to the natural and beneficial floodplain values. In addition, efforts will be taken during final design to minimize encroachment on the 100-year floodplains.

Approval by DNR and the U.S. Army Corps of Engineers will be required for each floodplain encroachment. This approval will be requested during final design.

Any construction within the floodplains will be in compliance with Executive Order 11988, Floodplain Management, dated May 24, 1977; FEMA regulations; and all federal, state, and local regulations. The WVDOH will also coordinate with FEMA during final design to provide FEMA with the information needed for map revisions.

Alignments that require activity in the floodplain will be carefully considered. Any alignment that encroaches will be considered only when there is no other practicable alternative.

### 2.3.3 Public Lands/Section 4(f)

The WVDOH is committed to coordinate final design and construction of the Berkeley Springs Bypass with the design and construction of the proposed rail trail to minimize and/or avoid impacts.

### 2.3.4 Hazardous Waste Sites

Hazardous waste sites and USTs will be avoided during final design whenever possible. Those sites and USTs that are not able to be avoided will require further background research and field inspection to determine the extent of contamination or precise location of the UST (in accordance with the WVDOH Guidelines for Identifying and Dealing with Hazardous Waste on Highway Project (1989). A remediation plan will then be developed in coordination with the WVDEP.

# APPENDICES

MUSEUM

# APPENDIX A

## US 522 VIRGINIA STATE LINE TO MARYLAND STATE LINE FINAL ENVIRONMENTAL IMPACT ASSESSMENT, 2000

## US 522 VIRGINIA STATE LINE TO MARYLAND STATE LINE RECORD OF DECISION, 2001

# Final Environmental Impact Statement

BERKELEY SPRINGS

## US 522

### Virginia State Line to Maryland State Line
### Morgan County, West Virginia

State Project U233-522-0.02 (02)
Federal Project STP-0522 (007)

WVDOT
DIVISION OF HIGHWAYS

## SEPTEMBER 2000

FHWA WV-EIS-99-03-F
Federal Project: STP-0522 (007)
State Project: U233-522-0.02 02

# US 522 in Morgan County, West Virginia from Virginia State Line to Maryland State Line

## FINAL

## ENVIRONMENTAL IMPACT STATEMENT

Submitted Pursuant to 42 U.S.C. 4332 (2) (c)
by the
U.S. Department of Transportation
Federal Highway Administration
and
West Virginia Department of Transportation
Division of Highways

9-20-00
Date of Approval

Samuel N Burnage
For West Virginia Department of Transportation,
Division of Highways

9-26-00
Date of Approval

Thomas J Smith
For Federal Highway Administration
Division Administrator

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Charleston, WV 25305-0430
Telephone: (304) 558-2885

The proposed project consists of improvements and upgrading of US 522, from the Virginia State Line, through Morgan County, to the Maryland state line, for a distance of 18.7 miles (30.2 km). A selected alternate (Alternate I) is presented and compared to the other alternatives under consideration.

Comments on the Final EIS are due by _____ and should be sent to:

Mr. James E. Sothen
Director, Engineering Division
WVDOT-Division of Highways
State Capitol Complex, Building 5
Charleston, WV 25305

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# GLOSSARY OF COMMONLY USED ABBREVIATIONS AND ACRONYMS

## *A*

| | |
|---|---|
| **AASHTO** | American Association of State Highway and Transportation Officials |
| **ac** | Acre |
| **ACHP** | Advisory Council on Historic Preservation |
| **ADT** | Average Daily Traffic |
| **AUST** | Abandoned Underground Storage Tank |

## *B*

| | |
|---|---|
| **BMP** | Best Management Practices |

## *C*

| | |
|---|---|
| **CAA** | Clean Air Act |
| **CEQ** | Council on Environmental Quality |
| **CERCLA** | Comprehensive Environmental Response, Compensation and Liability Act |
| **CERCLIS** | Comprehensive Environmental Response, Compensation and Liability Information System |
| **CFR** | Code of Federal Regulations |
| **CO** | Carbon Monoxide |
| **COE** | U.S. Army Corps of Engineers (see also USACOE) |

## *D*

| | |
|---|---|
| **dB** | Decibels |
| **dBA** | Decibels on the A-weighted Scale |
| **DEIS** | Draft Environmental Impact Statement |
| **DEM** | Digital Elevation Model |
| **DHV** | Design Hourly Volume |

## *E*

| | |
|---|---|
| **EA** | Environmental Assessment |
| **EIS** | Environmental Impact Statement |
| **EMS** | Emergency Medical Service |

## *F*

| | |
|---|---|
| **FEIS** | Final Environmental Impact Statement |
| **FEMA** | Federal Emergency Management Agency |
| **FHWA** | Federal Highway Administration |
| **FIRM** | Flood Insurance Rate Maps |
| **FONSI** | Finding of No Significant Impact |
| **FPPA** | Farmland Protection Policy Act of 1991 |
| **ft** | feet/foot |
| **FTA** | Federal Transit Administration |

## *G*

| | |
|---|---|
| **GIS** | Geographic Information Systems |

## GLOSSARY OF COMMONLY USED ABBREVIATIONS AND ACRONYMS (Cont.)

### *H*

| | |
|---|---|
| **ha** | Hectare |
| **HABS** | Historic American Building Survey |
| **HAER** | Historic American Engineering Record |
| **HAZMAT** | Hazardous Material |

### *I*

| | |
|---|---|
| **ISTEA** | Intermodal Surface Transportation Efficiency Act of 1991 |

### *K*

| | |
|---|---|
| **km** | kilometer(s) |
| **kph** | kilometers per hour |

### *L*

| | |
|---|---|
| **LOS** | Level of Service |
| **LUST** | Leaking Underground Storage Tank |
| **LWCFA** | Land and Water Conservation Fund Act |

### *M*

| | |
|---|---|
| **m** | meter(s) |
| **mi** | mile(s) |
| **MOA** | Memorandum of Agreement |
| **mph** | miles per hour |
| **MPO** | Metropolitan Planning Organization |

### *N*

| | |
|---|---|
| **NAAQS** | National Ambient Air Quality Standards |
| **NAC** | Noise Abatement Category |
| **NEPA** | National Environmental Policy Act of 1969 |
| **NHS** | National Highway System |
| **NPDES** | National Pollutant Discharge Elimination System |
| **NPL** | National Priority List |
| **NPS** | National Park Service |
| **NRCS** | Natural Resources Conservation Service (formerly Soil Conservation Service) |
| **NRHP** | National Register of Historic Places |
| **NWI** | National Wetlands Inventory |

### *O*

| | |
|---|---|
| **OSHA** | Occupational Safety and Health Administration |

### *P*

| | |
|---|---|
| **pH** | a value used to express relative acidity and alkalinity |
| **PRT** | Potential Roosting Tree |

## GLOSSARY OF COMMONLY USED ABBREVIATIONS AND ACRONYMS (Cont.)

### *R*

| | |
|---|---|
| **RCRA** | Resource Conservation and Recovery Act |
| **ROD** | Record of Decision |
| **ROW** | Right-of-Way |

### *S*

| | |
|---|---|
| **SHPO** | State Historic Preservation Officer |
| **SIP** | State Implementation Plan |
| **STORET** | United States Environmental Protection Agency Storage and Retrieval Federal Database System |
| **STP** | Shovel Test Pit |

### *T*

| | |
|---|---|
| **TEA-21** | Transportation Equity Act for the 21st Century |
| **TIP** | Transportation Improvement Plan |
| **TSM** | Transportation Systems Management |

### *U*

| | |
|---|---|
| **U.S. or US** | United States |
| **USACOE** | United States Army Corps of Engineers |
| **USDA** | United States Department of Agriculture |
| **USGS** | United States Geological Survey |
| **USDOT** | United States Department of Transportation |
| **USEPA** | U.S. Environmental Protection Agency |
| **USFWS** | United States Fish and Wildlife Service |
| **UST** | Underground Storage Tank |

### *V*

| | |
|---|---|
| **VOC** | Volatile Organic Compounds |

### *W*

| | |
|---|---|
| **WHPA** | Well Head Protection Areas |
| **WV** | West Virginia |
| **WVDEP** | West Virginia Division of Environmental Protection |
| **WVDHHR** | West Virginia Department of Health and Human Resources |
| **WVDNR** | West Virginia Division of Natural Resources |
| **WVDOH** | West Virginia Division of Highways |
| **WVDOT** | West Virginia Department of Transportation |
| **WVDCH** | West Virginia Division of Culture and History |
| **WVGES** | West Virginia Geological and Economic Survey |
| **WVOAQ** | West Virginia Office of Air Quality |

# GLOSSARY OF COMMONLY USED TERMS

**Alignment:** Refers to the proposed routing of a Build Alternative.

**Alternative:** General term that refers to possible approaches to meeting the project purpose and need. Typically refers to the No-build Alternative, the System Wide Improvement Alternatives, the Transit Alternatives, and the Build Alternatives.

**Aquifer:** A water-bearing bed or stratum of permeable rock, sand, or gravel which yield considerable quantities of water to springs and wells.

**Attainment:** A condition in which various pollutants are within acceptable guidelines as described in the NAAQS.

**Biodiversity:** The variety and abundance of species, their genetic composition and communities, ecosystems, and landscapes in which they occur.

**Biotic:** Of or pertaining to living organisms.

**Carbon Monoxide:** A colorless, odorless, poisonous gas that is formed as a product of the incomplete combustion of carbon and is emitted directly by automobiles and trucks.

**Cumulative Impact:** An impact on the environment which results from the incremental impact of the action when added to past, present, and reasonably foreseeable future actions.

**Environmental Justice:** Presidential Executive Order 12898 requires federal agencies to take into consideration disproportionately high and adverse human health or environmental effects of federal programs and projects on low-income or minority populations.

**Floodplain:** The portion of a river or stream valley, adjacent to the channel, which is covered with warm water when the river or stream overflows its banks at flood stage. It is also defined as lowland and relatively flat areas adjoining inland and coastal waters including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year.

**Floodway:** An area of high flooding risk potential, usually immediately adjacent to a river or stream channel and subject to floodwaters of high velocity. Specifically, the floodway refers to that portion of the floodplain, which is effective in carrying flow, within which is effective in carrying flow, within which this carrying capacity must be preserved and when the flood hazard is generally highest.

**Groundwater:** Naturally occurring water that moves through the ground and underlying rock, at a depth of several feet to several hundred feet below the earth's surface.

**Historic Archaeological site:** Any subsurface cultural manifestation dated post European contact.

## GLOSSARY OF COMMONLY USED TERMS (Cont.)

**Level of Service (LOS):** Operating conditions within a stream of traffic describing safety, traffic interruptions, speed, freedom to maneuver, comfort and convenience. Six level of service are defined, designated A through F, with A representing the best conditions and F the worst.

**Low-income Population:** A population whose household income is below the Department of Health and Human Services poverty guidelines.

**Mist Net Survey:** Mist Net Surveys are used to determine the possible presence of Indiana Myotis (or other bat species) in a specific area. Monofilament netting is set up across a potential Myotis flyway and any Myotis captured are identified, weighed and measured, and released in accordance with the directives of the USFWS

**Nitrogen Oxide:** Colorless, sweet-tasting gas emitted directly by automobiles and trucks.

**Non-attainment:** A condition where a pollutant exceeds the NAAQS two or more times during a year.

**Ozone:** Unstable blue gas with a pungent odor formed principally in secondary reactions involving volatile organic compounds, nitrogen oxides and sunlight.

**Prehistoric Archaeological Site:** Any subsurface cultural manifestation dated to pre-European contact.

**Palustrine Emergent Wetland:** Wetlands which are characterized by erect, herbaceous vegetation present for most of the growing season (i.e. marches, wet meadows, fens, sloughs, or potholes).

**Palustrine Forested Wetland:** Wetlands which are characterized by woody vegetation over 6 meters (20 feet) in height (i.e. swamps or bottomlands).

**Palustrine Scrub-Shrub Wetland:** Wetlands which are characterized by woody vegetation less than 6 meters (20 feet) in height (i.e. pocosins, shrub swamps, or wet thickets).

**Physiographic Province:** A region which is generally consistent in geologic structure and climate and which has had a unified geomorphic history.

**Preferred Alternative:** An alternative chosen from those presented in the DEIS which best suits the need and purpose of the proposed action while imposing a minimum of impacts to the social, natural, and physical environment.

**Prime Farmland:** Land best suited, and available for, producing food, feed, forage, fiber or oil-seed crops.

**Riparian:** Pertaining to anything connected with or immediately adjacent to the banks of a stream.

## GLOSSARY OF COMMONLY USED TERMS (Cont.)

**Secondary Impact:** Impacts caused by the action but are later in time or are farther removed in distance but are still reasonably foreseeable.

**Section 106:** A provision of the National Historic Preservation Act of 1966, as amended in 1980 and 1982, which governs the identification, evaluation and protection of historical and archaeological resources affected by state and federal undertakings.

**Section 4(f):** Enacted as a portion of the Department of Transportation Act of 1966, amended in 1968. Section 4(f) declares that the Secretary of Transportation shall not approve the use of publicly owned land from a public park, recreation area, or wildlife or waterfowl refuge, or any historic site unless there is no prudent or feasible alternative to the use of such lands and that the action includes all possible planning to minimize impacts.

**Statewide Important Farmland:** In addition to prime and unique farmlands, this land is of statewide importance for the production of food, feed, fiber, forage and oil seed crops.

**Unique Farmland:** Land, other than prime farmland, used for the production of high value food and fiber crops.

**Upland Habitat:** Land that has sufficiently dry conditions that hydrophytic vegetation, hydric soils, and/or wetland hydrology are lacking. Any area that is neither a wetland, deepwater aquatic habitat, nor other special aquatic site is considered an upland habitat.

**Viewshed:** All land seen from one static point.

**Volatile Organic Compounds:** Vapors from substances containing compound, hydrogen and oxygen atoms, characterized by relatively low vapor pressures to ambient air temperature.

**Watershed:** A specific geographic area drained by a major stream or river.

**Wetland:** Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

# SUMMARY

## 1. Action Being Considered

The West Virginia Division of Highways (WVDOH) is considering improvements to US 522 through Morgan County, West Virginia. Several actions are being considered to provide a safe and efficient highway from the Virginia state line[1] to the Maryland state line[2] through the Eastern Panhandle. Build Alternate I has been identified as the selected alternate.

## 2. Other Related Actions

WV 9: WV 9, a major east-west roadway in the Eastern Panhandle is being studied for possible improvement and upgrade from the Virginia-West Virginia state line north to its intersection with US 522 near Berkeley Springs in Morgan County. These improvements will greatly improve regional travel in Berkeley, Morgan and Jefferson Counties.

## 3. Purpose and Need for US 522 Improvements

Segments of US 522 in Morgan County currently operate at unacceptable levels of service. Traffic projections compiled by the Traffic Engineering Division of the West Virginia Department of Transportation indicate that traffic volumes will double in 20 years. Improvements and upgrades to US 522 would restore capacity to an acceptable level of service for the increased traffic.

Traffic flow on US 522 through Berkeley Springs is congested. Local residents are unable to move conveniently in the town's central area. Automobile and large truck traffic is impeded in its passage through Morgan County.

According to the 1999 West Virginia Crash Data Report and "WVDOH Accident Data Reports for US 522, January 1997 - December 1999", the accident rate for US 522 through the town of Berkeley Springs was 414 accidents per 100 million vehicle miles. This is substantially higher than the statewide two lane urban primary rate of 294 accidents per hundred million vehicles per mile (HMVM). Further, citizens have expressed concern for traffic safety at the commercial developments in south Berkeley Springs where the accident rate is 192 accidents per HMVM; slightly higher than the

[1] $39^0$ 26' 29.43" N latitude, $78^0$ 18' 24.26" W longitude (UTM27 Zone17 4,369,012.16/N 731,757.58/E)
[2] $39^0$ 41' 33.72" N latitude, $78^0$ 11' 09.58" W longitude (UTM27 Zone17 4,397,216.69/N 741,277.61/E)

statewide average for similar roadways of 176 accidents per HMVM. The accident rate for each section of the study area is shown in Table I-6.

There are several roadway and alignment deficiencies along US 522 in Morgan County: restricted passing, short sight distances, unsafe access points, a lack of turn lanes for exits, variable shoulder widths and mixed use of the roadway including metered parallel parking and pedestrian crosswalks in Berkeley Springs. Improvements and upgrades are needed to correct these deficiencies.

## *4. Summary of Alternatives Considered*

Several alternatives were investigated within the study area from US 522 at the Virginia state line to the Maryland state line at the south end of the Potomac River Bridge. These alternatives included the following:

***No Build-*** This is the simplest of all considered alternatives. Using the No-Build, US 522 would retain its current alignment and configuration. Spot improvements (turn lanes and traffic signals) will continue to be considered as part of the No-Build alternative.

***Build-*** These alternatives include substantial changes in the alignment and configuration of the roadway. In order to adequately evaluate all viable build alternatives, the study area was separated into two sections. Section I included the southern portion of the study area from the Virginia state line north to the intersection of US 522 and Morgan County Route 13 (Winchester Grade Road). Section II extends from the north end of Section I to the Maryland state line. Twenty-five alternative alignments were developed and studied within Section I and thirteen alignments were studied within Section II.

Originally studied build alternatives consisted of a four-lane divided roadway with partial control of access on several alternate alignments. These alternatives included using the existing US 522 alignment for the two southbound lanes or using the existing US 522 alignment for the two northbound lanes. Other alternative alignments consisted of segments that avoid the Ridge State Fish Hatchery, the Cacapon State Park entrance, the Morgan County industrial park, Morgan County Park, wetlands, commercial businesses and residential developments.

The alternatives included alignments east of and completely removed from the existing US 522. Some alternatives contained a section that lies west of Sleepy Creek crossing the creek twice and passing approximately 3.1 miles (5 km) east of Berkeley Springs. Three bypass alignments around Berkeley Springs to the east were proposed:

1) close in, west of the hospital
2) near and east of the hospital
3) farther east of most residential development

After the likely effects of each of the alignments were studied, alternatives that were anticipated to have unacceptable impacts to Section 4(f) sites, historic properties, displacements, wetlands, archaeological sites, and hazardous waste sites were eliminated from further consideration. After the elimination of these unacceptable alignments, four alignments remained for further consideration.

Following a public meeting held on June 2, 1998, at Berkeley Springs High School, Build Alternative I was selected as the preferred alternative for this project. This alternative was next presented to the public at a public meeting and public hearing following the issuance of the Draft Environmental Impact Statement. These meetings were held on September 30, 1999 and October 14, 1999. Alternate I was chosen as the selected alternative following the final date for receipt of public comments, November 1, 1999.

### *ALTERNATE I (SELECTED)*

This is the most western alignment carried forward from the Draft Environmental Impact Statement. The southern 8.7 miles (14 km) of the alternate is generally parallel to and east of existing US 522. The new alignment is within 500 feet (150 m) of the existing roadway for most of its length. In the vicinity of the proposed Ridge Historic District, the alignment extends farther away from the existing road to avoid impacts to this Section 4(f) property and the fish hatchery (part of the Ridge Historic District). By remaining east of the existing roadway in this area, impacts to the Cacapon State Park Gate House and Morgan County Park are also avoided. Several small wetland areas are impacted along Breakneck Run and other small streams. Special attention has been given to avoiding Sleepy Creek. This waterway will not be impacted through the use of the alternate. Displacements will occur primarily where the alignment crosses local roadways, which connect to US 522, but not directly on existing US 522.

The alignment continues north, parallel to existing US 522 for approximately six miles (9.7 km), at this point, the alignment shifts northeast to avoid a residential subdivision. After avoiding the subdivision, the alignment turns northwest to parallel existing US 522 for approximately 1.5 miles (.93 km). This portion is characterized by few displacements and minimal wetland impacts.

Immediately south of Berkeley Springs, the alignment again shifts to the northeast of existing US 522. This shift avoids the downtown area and the National Register eligible structures within the Town of Bath.

The alignment remains east of existing US 522 and extends around the U.S. Silica Company mining and processing facilities north of Berkeley Springs. The alignment joins with the existing roadway just north of those facilities and continues to the Maryland state line.

The advantages of Alternate I are summarized below:

- No involvement with Section 4(f) properties,
- Does not impact any historic property,
- Requires less bridges and culverts than other alternatives,
- Does not cross Sleepy Creek,
- Far less stream impacts than other alternatives, and
- Alternate I is the most cost effective alternate (saves between $16 and $21 million)

### *ALTERNATE II*

This alternate is a more central alignment than the other alternates studied. South of Berkeley Springs, it generally varies from 0.4 miles to 1 mile (0.5 km to 1.5 km) east of the existing US 522 roadway. As the proposed alignment approaches Berkeley Springs, it is 1.5 to 2 miles (2.5 km to 3 km) east of the existing roadway. Immediately north of the U.S. Silica Plant, the alignment shifts northwest to join the existing roadway and continues to the Maryland state line.

This alternate extends through a relatively undeveloped portion of the county and has relatively few displacements. Most displacements occur where the alignment crosses an existing east-west roadway.

Disadvantages:

- Impact on rural setting outside of existing transportation corridor
- Impacts 5.8 acres of wetland
- Significantly higher stream impacts than the Selected Alternate
- Requires significantly more bridge construction than the Selected Alternate.
- $16 million more expensive than the Selected Alternate.

### *ALTERNATE III*

This alternate represents one of two eastern alignments recommended to be retained for further study. Alternate III and Alternate IV follow the same alignment for approximately 9.5 miles (5.89 km). At this point, Alternate III changes course and follows the Alternate II alignment. This alternate crosses Sleepy Creek about 1.25 miles (0.78 km) into the project. Alternate III generally parallels the creek, outside the eastern floodplain limits, for about 5.3 miles (8.5 km). By staying east of Sleepy Creek, impacts to the Dawson Farmstead (Section 4(f) site) are avoided. After crossing Sleepy Creek a second time, the alignment continues north and passes immediately east of the Messner Farmstead (Section 4(f) site) avoiding a direct impact.

North of Berkeley Springs, the alignment curves northwest joining with existing US 522 and continues to the Maryland state line.

This alternative is generally through farmlands and undeveloped areas. Therefore, the anticipated displacements are comparatively low and there are no known impacts to hazardous waste sites.

Disadvantages:

- Impact on rural setting outside of existing transportation corridor
- Impacts 9.1 acres of wetland
- Largest amount of stream impacts of alternatives carried forward
- Requires significantly more bridge construction than the Selected Alternate
- Two crossings of Sleepy Creek
- $21 million more expensive than the Selected Alternate

### *ALTERNATIVE IV*

This alignment is similar to Alternate III in that they follow the same course for approximately 9.5 miles (5.89 km). Just north of the Messner Farmstead, Alternate IV veers 0.5 miles southeast of Alternate II and Alternate III. In the vicinity of WV 9, Alternate IV begins to head northwest to join with Alternates II and III. As the alignment continues in a northwest direction, it connects with existing US 522 north of the US Silica plant.

This alternative is also through farmland and undeveloped property making impacts to residences, businesses and hazardous waste sites comparatively small.

Disadvantages:
- Impacts on rural setting outside of existing transportation corridor
- Impacts 8.3 acres of wetlands
- Second largest amount of stream impacts of alternatives carried forward
- Requires significantly more bridge construction than the Selected Alternative
- Two crossings of Sleepy Creek
- $20 million more expensive than the Selected Alternative

## 5. SUMMARY OF IMPACTS

***NO BUILD-*** The current congestion problems will continue and worsen as traffic volumes increase. Spot improvements to add turn lanes and traffic signals at congested intersections will help, but will not resolve the congestion in Berkeley Springs. The level of service will continue to deteriorate. In addition, projected traffic increases will have indirect adverse impacts on the National Register of Historic Places listed properties in the Town of Bath (Berkeley Springs).

***BUILD ALTERNATIVES-*** Four lanes of divided roadway with partially controlled access and a bypass around Berkeley Springs will provide a safe and efficient highway that includes adequate capacity for current and projected transportation needs for motorists using US 522 in Morgan County. The environmental features considered in selecting an alignment for the improved highway include, but were not limited, to the following:

- water quality supplied to the fish hatchery,
- land taken from the publicly owned park lands: Cacapon State Park and Morgan County Park,
- impacts to the Sleepy Creek watershed,
- encroachment on the 100-year floodplain of Warm Spring Run,
- disruption to the Oriskany sand mining and processing and potential limestone quarry sites,
- impacts to wetlands,
- impacts to cultural resources, and
- residential and business relocations required for the roadway.

Table S-1 summarizes the environmental impacts and construction costs for the four build alternatives including Selected Alternate I.

## 6. AREAS OF CONTROVERSY

During project planning for the US 522 Improvements, some issues of potential controversy have become apparent through the public involvement process. Due to the complex nature of highway projects such as this, varying viewpoints are to be expected. The most prevalent issues include:

- Concerns about residential impacts.

  Throughout the project development process residential impacts have been avoided or minimized as much as possible while ensuring that alternatives continue to meet project purpose and need. This process will continue throughout final design.

- A desire among some citizens to ban through truck traffic from downtown Berkeley Springs.

  This action, while providing some temporary relief, would not serve to alleviate the Level of Service (LOS) and accident problems previously outlined. The restriction of traffic on any state maintained highway is prohibited by WVDOH policy as long as all established size and load requirements are met.
  These vehicles pay substantial road user taxes in order to use West Virginia highways.

- Limited opposition to the construction of a new roadway on new location.

  Due to the unacceptable Level of Service (LOS) and high accident rate, improvements are necessary. Use of the existing roadway as either the two north-bound or south-bound lanes of a new four-lane roadway on existing location was explored. However, the high numbers of relocations, impacts to historic structures, and involvement with numerous hazardous waste sites render such an alternative imprudent.

## 7. OTHER FEDERAL ACTIONS REQUIRED

In order for the US 522 Improvements to be constructed, further Federal Action will be required. A section 404 Permit for compliance with the Clean Water Act will be prepared.

## *TABLE S-1*

| COMPARISON OF BUILD ALTERNATIVES | | | | |
|---|---|---|---|---|
| | ***ALTERNATE I (Selected)*** | **ALTERNATE II** | **ALTERNATE III** | **ALTERNATE IV** |
| **Residence/Business Relocations** | ***61/1*** | 27/0 | 29/0 | 40/0 |
| **Farm Soils** **Acres (Hectares)** | ***80 (32.5)*** | 85 (34.2) | 97 (39.2) | 78 (31.5) |
| **Wetlands** **Acres (Hectares)** | ***6.2 (2.5)*** | 5.8 (2.3) | 9.0 (3.7) | 8.3 (3.3) |
| **Floodplains** **Acres (Hectares)** | ***3.9 (1.6)*** | 0 (0) | 0 (0) | 0 (0) |
| **Potential Hazardous Waste Sites/UST's Within Project ROW** | ***0/1*** | 0/0 | 0/0 | 0/0 |
| **Stream Impacts** **Feet (Meters)** | ***405 (125)*** | 2,050 (625) | 3,370 (1,030) | 3,010 (920) |
| **Crosses Sleepy Creek** | ***No*** | No | Yes (Two crossings) | Yes (Two crossings) |
| **Bridges & Culverts** **Feet (Meters)** | ***9,400 (2,865)*** | 12,660 (3,860) | 13,920 (4,240) | 13,920 (4,240) |
| **National Register Historic Sites (listed and eligible)** | ***0*** | 0 | 0 | 0 |
| **Near Known Archaeological Sites** | ***2*** | 1 | 1 | 2 |
| **4 (f) Sites** | ***0*** | 0 | 0 | 0 |
| **Estimated Construction Cost** | ***$95,263,000*** | **$111,837,000** | **$116,149,000** | **$115,947,000** |

# SECTION I

## PURPOSE OF AND NEED FOR ACTION

The major north-south roadway traversing Morgan County and the Eastern Panhandle through the community of Berkeley Springs is US 522. The roadway is a two-lane highway that has variable shoulder widths and restricted passing areas. Segments of US 522 have high accident rates and within Berkeley Springs high levels of traffic congestion are present.

The West Virginia Division of Highways (WVDOH) is considering improvements and upgrading of US 522 in Morgan County. The improvements are intended to relieve traffic congestion in Berkeley Springs, reduce the accident rate on US 522 within West Virginia and increase capacity of the road in general. Several alternative actions were considered to upgrade the 18.74 mile (30.2 kilometer) segment from the Virginia state line through Morgan County, West Virginia to the Maryland state line (see Figure I-1). The WVDOH has identified Build Alternate I as the selected alternate for this project.

US 522 was divided into two sections (see Figure I-2) for the improvement studies. Section I begins at the Virginia state line and ends south of Berkeley Springs near Morgan County 13 (Winchester Grade Road). Section II begins at the ending point of Section I then continues northward through or to the east of Berkeley Springs. Section II will join the existing US 522 south of the bridge over the Potomac River at the Maryland state line.

Current traffic volumes were counted, future traffic volumes were estimated and performance was measured in terms of Levels of Service (LOS). Levels of Service of the roadway (Table I-3) and two key intersections (Table I-5) in Berkeley Springs were evaluated. Accident rates along US 522 were compared to similar roads elsewhere in the state (Table I-6). The linkage of US 522 with the surrounding highway system was also considered.

## 1.1 PROJECT SETTING

US 522 in Morgan County is classified as a principal arterial route. An arterial route provides the "high speed, high volume network for travel between major points in both rural and urban areas"[1]. The project begins at the Virginia state line and continues north to the Maryland state line. It generally parallels and lies within the valley east of Warm Spring Ridge. The terrain can be described as steep and mountainous to the west of US 522 and more open and flat in the valley east of the current roadway.

The existing pavement is generally 24 feet (7.3 meters) wide with one lane in each direction. Table I-1 lists the pavement widths and typical right-of-way limits. Shoulder widths vary from 8 feet (2.4 meters) to 10 feet (3 meters) along the existing roadway. Some sections of US 522 do have substantial vertical curves and short sight distances resulting in limited passing opportunities although the horizontal alignment is generally straight. Table I-1 also shows the right-of-way widths, which vary from 32 to 50 feet (9.8 meters to 15.2 meters) along the project. The current posted speed limit of US 522 is 55 miles per hour (88 kilometers per hour) with the exception of the section approaching and passing through Berkeley Springs. Here the speed limit is reduced to 25 miles per hour (40 kilometers per hour).

***TABLE I-1***
**US 522 Existing Pavement Widths and Right-of-Way Limits**

| Section | Pavement Width | | Length | | Right-of-Way Limits | |
|---|---|---|---|---|---|---|
| | Meters | (Feet) | KM | (Miles) | Meters | (Feet) |
| **SECTION I**<br>VA Line to Morgan Co. 13<br>0.0 to 18.4 kmpost<br>(0 to 11.43 milepost) | 7.3 | (24) | 18.4 | (11.43) | 9.8<br>(variable) | (32)<br>(variable) |
| **SECTION II**<br>Morgan Co. 13 to MD Line<br>18.4 to 30.2 kmpost<br>(11.43 to 18.74 milepost) | 7.3 | (24) | 11.8 | (7.31) | 15.2<br>(variable) | (50)<br>(variable) |

Source: WVDOH Straight Line Diagrams, US 522 Morgan County

Figure I-4 shows the Level of Service (LOS) for each section of existing US 522. US 522 is classified as having a rural section through Section I and an urban section through Section II. The roadway is generally uniform in the rural section, although shoulders are limited and there are many points of uncontrolled access. In the urban section the roadway is less

[1] AASHTO, A Policy on Geometric Design of Highways and Streets,1990.

uniform. The roadway varies in width, passes through an historic district, has parking on either or both sides, and has crossings for pedestrians.

Because US 522 is not access controlled, numerous conflicts are created due to driveway connections from individual residences and businesses along the route. The U.S. Silica Company, a major regional industry, is located on the north end of the project between Berkeley Springs and Hancock, Maryland. Major tourist centers, Cacapon State Park Resort south of Berkeley Springs and Berkeley Springs State Park in the heart of Berkeley Springs, are both adjacent to US 522. The Coolfont Resort, another major employer and tourist destination in Morgan County, lies just outside the study area on WV 9 north of Berkeley Springs.

As described in Section 3.1.1, Morgan County has undergone a tremendous population increase. For the next 20 years, the population is expected to continue to grow at a rate two to three times that of West Virginia as a whole. This increase in population will place further pressure upon the existing roadway network in Morgan County.

US 522 currently serves as the main north/south thoroughfare for Morgan County. It is an arterial highway for those traveling to and through Berkeley Springs, and for commercial trucks driving through West Virginia, Virginia, Maryland, and Pennsylvania. Rail lines are found at the U.S. Silica Company north to the CSX railroad along the Potomac River. A private airport is located near the Potomac River.

The 1999 Average Daily Traffic (ADT) volume along US 522 ranged from a high of 14,800 in Berkeley Springs to a low of 5,700 at the Virginia state line. Presently, all through traffic using US 522, including commercial trucks, must pass directly through Berkeley Springs causing traffic congestion. Table I-2 summarizes the current traffic volumes and truck percentages for the project.

***TABLE I-2***
**US 522 Traffic Volumes/Truck Percentages**

| | *1999 ADT* | | *2019 ADT (Projected)* | | *% TRUCKS* |
|---|---|---|---|---|---|
| **SECTION** | **HIGH** | **LOW** | **HIGH** | **LOW** | **(DHV)*** |
| **SECTION I**<br>VA Line to Morgan Co 13<br>0.0 to 18.4 km post<br>(0 to 11.43 milepost) | 10,000 | 5,700 | 16,300 | 9,300 | 14-24% |
| **SECTION II**<br>Morgan Co 13 to MD Line<br>18.4 to 30.2 km post<br>(11.43 to 18.74 mile post)<br>Milepost: 11.43 18.74 | 14,800 | 11,100 | 26,500 | 19,700 | 10-15% |

Source: WVDOH, Traffic Engineering Division, May 1999
* (DHV)-Design Hourly Volume

## PROJECT STATUS

### History

The need for improving US 522 has been discussed locally for more than two decades. The *Summary Report on the Eastern Panhandle Area Transportation Study,* completed in 1978, identified the following needed improvements for US 522**:**

1. The widening of US 522 between Berkeley Springs and the Virginia state line to a full 24 feet (7.3 meters), 12 feet (3.7 meters) each lane, and
2. A bypass for US 522 around Berkeley Springs to be constructed as a two-lane facility on four lanes of right-of-way, allowing for future expansion

The widening recommended in the study has been accomplished, however a bypass has not been provided. At the time of the 1978 study, the traffic volumes did not warrant a four-lane upgrade. As traffic volume has increased above current AASHTO (American Association of State Highway and Transportation Officials) and WVDOH standards, it has become necessary to propose this upgrade as a four lane highway.

Morgan County residents have been increasingly subjected to delays from escalating traffic volumes. Congestion from business related growth along US 522 south of Berkeley Springs has added to traffic delays. Residents have requested traffic improvements in Berkeley Springs and the routing of trucks away from Berkeley Springs.

### Current Projects and Planning

The West Virginia Division of Highways and the Region IX (Eastern Panhandle) Regional Planning and Development Council have expressed their concern and interest in improving US 522 in Morgan County. Improvements to US 522 are included in the West Virginia Transportation Improvement Program (TIP). A Preliminary Design Report has been completed to identify construction alternatives, and this Environmental Impact Statement (EIS) identifies and examines the environmental impacts of the Selected Alternate as well as Alternates II, III, and IV. An improved US 522 bypassing Berkeley Springs is a recommendation expressed in the Region IX (Eastern Panhandle) Regional Planning and Development Council's Five Year Plan. Their most recent comments can be found in *Section VIII: Comments and Coordination*.

A public meeting was held June 2, 1998 at Berkeley Springs High School. Over 700 citizens attended this meeting. Among those individuals who expressed a preference for a particular alternate, Alternate I was most often selected.

The preferred alternative, Alternate I, was next presented to the public at a Public Meeting on September 30, 1999 and a Public Hearing on October 14, 1999. Following the end of the public comment period on November 1, 1999, Alternate I was chosen to be the Selected Alternate for this project.

Further public input has been sought at three additional public meetings held at the request of the public and the Morgan County Commission. These meetings were held May 2, June 26 and August 17, 2000.

In addition to the studies for upgrading US 522 in Morgan County, studies are also underway to upgrade WV 9 from the Virginia state line west to Berkeley Springs. WV 9 is the primary east-west connector in the eastern panhandle, while US 522 is the primary north-south connector in Morgan County, forming a crossroads in Berkeley Springs.

## *1.3 TRAFFIC AND SAFETY CONCERNS*

### *Traffic Concerns*

Many local residents have expressed concern about safety, traffic delays and congestion in Berkeley Springs and along US 522. Vehicles entering Washington Street (US 522 in Berkeley Springs) are frequently delayed due to the volume of cars and trucks.

The traffic analysis presented in this report is based on traffic data provided by WVDOH, using existing (1999) and projected (2019) traffic volumes. Capacity analyses were performed using the procedures outlined in the 1994 *Highway Capacity Manual.* The capacity of an intersection or roadway segment is defined by Levels of Service (LOS) in categories ranging from A to F.

- **LOS A-** Delays are very low (less than 5.0 seconds per vehicle). Most vehicles do not stop at all.
- **LOS B** – Good progression but more vehicles stop than for LOS A.
- **LOS C** – Higher delays with individual cycle failures beginning to appear.
- **LOS D** – Influence of congestion becomes more noticeable with many vehicles stopping.
- **LOS E** – Lengthy delays with poor progression and high volume-to-capacity ratios. This level represents the threshold for determining acceptable or unacceptable operating conditions for the general public.
- **LOS F** – Unacceptable delays with most cycles failing.

LOS C is an accepted standard for rural roadways and roads in small towns. Traffic flow on roadway links at LOS D is considered stable but is becoming susceptible to congestion and unstable flow; therefore LOS D is an accepted standard for major urban areas. Any roadway link on US 522 with traffic volumes resulting in levels of service below LOS D, that is LOS E or F, would be considered to exceed the capacity at which the roadway can operate safely and satisfactorily.

### Levels of Service Provided by a Two-Lane Roadway

Table I-3 shows the level of service presently provided by the existing two-lane US 522 roadway. The segments are represented by existing and projected traffic volumes. The segments shown were defined by the Traffic and Safety Division of the West Virginia Department of Transportation and were based on straight-line diagrams of US 522.

The existing Level of Service provided on the two southernmost segments, from milepost 0.00 to

milepost 7.29 (beginning at the Virginia state line and ending at Tabor Road [Morgan County 38/7]), is currently marginal at LOS D. As the traffic increases to the north, the Level of Service of the segments between milepost 7.29 and 18.74 decreases to an unacceptable Level of Service E, which from the definition cited earlier, means that there are virtually no usable gaps in the traffic stream.

***TABLE I-3***
**US 522 TWO-LANE HIGHWAY**
**LEVEL OF SERVICE (LOS) CURRENT & PROJECTED**

| US 522 SEGMENTS | | LOS BASED ON TRAFFIC VOLUMES | |
|---|---|---|---|
| **MILEPOST** | **LOCATION** | **1999 TRAFFIC (existing 2 lanes)** | **YEAR 2019 TRAFFIC (existing 2 lanes)** |
| 0.00-4.20 (Section I) | VA state line to Cacapon State Park Entrance | D | E |
| 4.20-7.29 (Section I) | Cacapon State Park Entrance to Tabor Rd. (CR38/7) | D | E |
| 7.29-11.43 (Section I) | Tabor Rd (CR38/7) to Winchester Grade Rd. (CR13) | E | F |
| 11.43-13.37 (Section II) | Winchester Grade Rd. (CR13) to southern I/S of US522 & WV9 | E | F |
| 13.37-13.61 (Section II) | Southern I/S US522 & WV9 @ Fairfax St. (CR 9/9) | E | F |
| 13.61-13.79 (Section II) | Fairfax St. (CR 9/9) to northern I/S US522 & WV9 | E | F |
| 13.79-15.56 (Section II) | Northern I/S US522 to WV9 to Sand Mill Rd. (CR38/1) | E | F |
| 15.56-18.57 (Section II) | Sand Mill Rd.(CR38/1) to River Rd.(CR1) | E | F |
| 18.57-18.74 (Section II) | River Rd. (CR1) to MD state line | E | F |

Therefore, any vehicles entering US 522 at unsignalized intersections cause oncoming vehicles on US 522 to slow down or stop to admit the entering vehicle. This in turn slows traffic as a whole and increases the risk of rear-end collisions. The capacity analysis indicates that LOS E is present from Tabor Road (CR 38/7) all the way to the Maryland state line.

Table I-3 also shows the Level of Service that can be expected in the year 2019 if no improvements are made to US 522. Using the projected volumes for the year 2019, the Level of Service on all segments will be unsatisfactory, ranging from LOS E at the southernmost end

and decreasing to LOS F for the remainder of US 522 through West Virginia. The Level of Service at which US 522 can be expected to operate in the year 2019 if no improvements are made are shown schematically in Figure I-5.

The Levels of Service provided by the build alternatives at projected traffic volumes are shown schematically in Figure I-4.

## Levels of Service Provided by a Four-Lane Roadway and Bypass

Preliminary design plans for the four-lane roadway and bypass show US 522 divided into two sections. Section I is from milepost 0.00 to milepost 11.43 (kilometerpost 0.0-18.4) and Section II from milepost 11.43-18.74 (kilometerpost 18.4-30.2). Section II includes the bypass that would carry through traffic around the town of Berkeley Springs greatly reducing the in-city congestion. Local traffic through and within the town would continue to be served by the existing two-lane roadway.

Table I-4 indicates the Level of Service that can be expected on US 522 with the proposed improvements. Levels of Service will be improved to LOS A on both the southern and northern segments when the improvements are complete. At the same time, traffic through the center of Berkeley Springs and traffic from through trucks will be greatly reduced. This roadway and bypass will also improve the Level of Service at intersections.

**TABLE I-4**
**US 522 Four-Lane Highway**
***Projected* Level of Service for**
**Build Alternatives Sections I & II**

| US 522 Segments | | | 2019 Level of Service (LOS) |
|---|---|---|---|
| Section I | 0.0-18.4 kmpost | (0.00-11.43) milepost | A |
| Section II | 18.4-30.2 kmpost | (11.43-18.74) milepost | A |

Source: HCM Software, run May 1999, Wilbur Smith Associates.

## Intersections in Berkeley Springs

Currently all through traffic on US 522 in Morgan County must pass through Berkeley Springs. There are no adequate alternate routes or intersections for through traffic in the built-up areas. The levels of service at key intersections on Washington Street (US 522) in Berkeley Springs is relevant to the adequacy of the existing roadway.

Two intersections were examined to evaluate the current Levels of Service during peak hours for US 522 in Berkeley Springs. The signalized intersections of:

- Washington Street (US 522) and Dawson Street (WV 9 eastbound)
- Washington Street (US 522) and Union Street (WV 9 westbound)

were investigated because they are the major north-south and east-west roads in Berkeley Springs. Figure I-6 shows the location of these intersections. The results of the analyses for present year 1999 and projected year 2019 are shown in Table I-5.

Both of these intersections are operating with most turning movements at an unsatisfactory Level of Service under current traffic volumes. Without improvement and at the projected level of traffic anticipated in 2019, the Level of Service will be unsatisfactory.

***TABLE I-5***
**US 522**

| Level of Service at Intersections (No Build)Intersection of US 522 (Washington St.) and Rt. 9 East (Dawson St.) | | | |
|---|---|---|---|
| **Direction** | **Movement** | **1999 LOS** | **2019 LOS** |
| West Bound | Left, Right | * | * |
| North Bound | Through, Right | * | * |
| South Bound | Left, Through | * | * |
| Intersection Level of Service | | * | * |

| Intersection of US 522 (Washington St.) and Rt. 9 West (Union St.) | | | |
|---|---|---|---|
| **Direction** | **Movement** | **1999 LOS** | **2019 LOS** |
| East Bound | Left, Through, Right | E | * |
| West Bound | Left, Through, Right | E | * |
| North Bound | Left, Through, Right | E | * |
| South Bound | Left, Through, Right | C | * |
| Intersection Level of Service | | E | * |

Source*: WVDOH Turning Movement Data, May 1999*
Oversaturation and long delays present
[(g/C)*(V/c)=Volume to Capacity Ratio]
[(*) Denotes a level of service worse than 'F']

## Accident Rates

A traffic accident rate analysis was prepared for the overall project and broken down by the same segments used in the traffic analysis. However, a sixth segment from milepost 13.37 to 13.91 (kilometerpost 21.5 to 22.4) was broken out to illustrate the high accident rate within the town of Berkeley Springs. The results of the analysis are shown in Table I-6 for the period from January 1, 1997 to December 31, 1999 (3 years), presenting a statistical overview of actual accidents, fatalities, and injuries on US 522. There were a total of 288 accidents, resulting in 2 deaths and 153 injuries for this time period.

According to the *1999 West Virginia Accident Data Report*, the average rural primary route with two lanes over 22 feet (6.7 meters) wide had an accident rate of 176 per 100 million vehicle miles (HMVM) and the average accident rate for Urban Primary two-lane roadways was 294 per HMVM. The accident rate for US 522 shown in Table I-6 varies from a low of 60 accidents per HMVM to a high of 459 accidents per HMVM.

The segment from kilometerpost 21.5 to 22.4 (milepost 13.37-13.91) through Berkeley Springs, had an accident rate of 459 accidents per HMVM, substantially higher than the statewide rate for two-lane urban primary roadways. The segment from kilometer posts 16.7 to 21.5 (mileposts 10.42 to 13.36) encompassing the US 522/WV 9 intersection had an accident rate of 212 accidents per HMVM. This rate is higher than the statewide rate of 176 per HMVM for two-lane rural primary roadways. None of the other segments display an accident rate that exceeds the statewide rate.

***TABLE I-6***
**US 522**
**Accident Rate Summary**
**January 1997 to December 1999**

| Kilometer Posts | Milepost | Location | Length (km) | Length (mi) | Average Daily Traffic | Total Accidents | Deaths | Injuries | Accident Rate per HMVM* |
|---|---|---|---|---|---|---|---|---|---|
| 0 To 10.2 | 0.00 to 6.34 | 0 km (0mi) N. Greengate Rd. (CR 38/11) | 10.2 | 6.34 | 7,400 | 46 | 0 | 26 | 89 |
| 10.2 To 16.7 | 6.35 to 10.41 | 1 km (0.6 mi) N. Greengate Rd. (CR 38/11) | 6.5 | 4.07 | 10,000 | 55 | 0 | 36 | 123 |
| 16.7 To 21.5 | 10.42 to 13.36 | @ WV Rt. 9 | 4.7 | 2.95 | 14,152 | 97 | 1 | 45 | 212 |
| 21.5 To 22.4 | 13.37 to 13.91 | @ Berkley Springs Corp. Limits | 0.9 | 0.55 | 17,000 | 47 | 0 | 21 | 459 |
| 22.4 To 29.9 | 13.92 to 18.61 | @ B&O Railroad Bridge | 7.6 | 4.70 | 12,500 | 42 | 1 | 25 | 65 |
| 29.9 To 30.2 | 18.62 to 18.74 | @ Maryland State Line | 0.2 | 0.13 | 12,500 | 1 | 0 | 0 | 60 |
| **TOTAL PROJECT** | **0.00 TO 18.74** | **VA State Line To MD State Line** | **30.2** | **18.74** | **10,621** | **288** | **2** | **153** | **132** |

Source WV Division of Highways, Accident Reports, July 27, 2000 **100 Million Vehicle Miles* ***Mean Accident Rate*

The accident types for the accidents shown in Table I-6 have been summarized in Table I-7. From Table I-7, the highest percentage of accidents occurs from "rear ends" with 41.5%, followed by "access conflicts" at 12.1%, "sideswipe same direction" at 9.0% and "hit animal" at

8.3%. Rear end collisions and accidents occurring because of access conflicts are often the result of the existence of numerous driveways intersecting directly with the roadway. These types of accidents also often result when vehicles are waiting to make or are making a left turn from the main line roadway into a commercial or private driveway. Controlled access should reduce both these types of accidents.

***TABLE I-7***
**US 522**
**ACCIDENT TYPE (1997-1999)**

| TYPE OF ACCIDENT | TOTAL NUMBER ACCIDENTS | TOTAL PERCENTAGE ACCIDENTS |
|---|---|---|
| Rear End | 119 | 41.5% |
| Access Conflict | 35 | 12.1% |
| Hit Animal | 24 | 8.3% |
| Sideswipe Same Direction | 26 | 9.0% |
| Hit Fixed Object | 8 | 2.8% |
| Sideswipe Opposite Direction | 17 | 5.9% |
| Hit Parked Vehicle | 1 | 0.3% |
| Ran Off Road | 11 | 3.8% |
| Head-On | 10 | 3.5% |
| Hit Pedestrian | 1 | 0.3% |
| Overturned | 2 | 0.7% |
| Other or Unknown | 34 | 11.8% |
| **TOTAL** | **288** | **100%** |

Source: WVDOH Accident Reports, July 27, 2000

Head-on collisions, same direction sideswipes and opposite direction sideswipe type accidents may now occur because of reduced opportunities for passing on the existing roadway. The widening of US 522 to a four-lane divided roadway will decrease the potential for these types of accidents. The presence of left-turn lanes at intersections should also reduce rear-end collisions. Accidents resulting from hitting parked cars and pedestrians should also decline with the construction of a bypass.

## 1.4 HIGHWAY SYSTEM LINKAGE

The study area is connected at either end to primary and interstate highways. At the northern end US 522 connects with two interstates, I-68 and I-70. I-68 provides access westward to places such as Cumberland, Maryland and Morgantown, West Virginia. I-70 carries traffic to Pennsylvania and east / west to major metropolitan areas. US 522 at the southern end proceeds southeast toward Winchester, Virginia and on to the mid-Atlantic area via I-81 and the interstate system. Figure I-7 shows the highway system around and through Morgan County.

US 522 between Winchester, Virginia and Hancock, Maryland attracts large amounts of through traffic due to its relatively short, 44-mile length. When utilizing I-81 and I-70, one will travel a distance of 69 miles[3]. Commuters and travelers can decrease their travel distance by 25 miles when using US 522 instead of I-81 and I-70 between Winchester, Virginia and Hancock, Maryland.

The Virginia section of US 522 from Winchester to the West Virginia state line has been improved to a four lane, divided facility with reduced access. At Hancock, Maryland, US 522 over the Potomac River is a two-lane bridge. A connection to I-68 and I-70 is within close proximity and both are four-lane, fully controlled access highways.

Upgrading US 522 will improve the flow of traffic to the north and south of Berkeley Springs for traffic coming from Martinsburg via WV 9. WV 9, the major east-west route in the panhandle region, is currently being studied for upgrading between Berkeley Springs and the Virginia state line.

## 1.5 SUMMARY

[3] Source: Rand McNally “Route Planner” software. Rand McNally and Co., 1998.

US 522 is a two-lane rural arterial highway carrying an average of between 5,700 to 14,800 vehicles per day in 1999. By the year 2019, the traffic is projected to increase to between 9,300 and 26,500 vehicles per day. This highway is an important north-south route connecting traffic in Morgan County with other communities, highway-oriented businesses and the interstate system.

The current Level of Service is unacceptable in Berkeley Springs, and traffic volumes are anticipated to continually increase. Virginia has completed upgrading US 522 to the West Virginia state line. Without improvements, the Level of Service on US 522 for most segments in West Virginia is expected to deteriorate to LOS F by the year 2019.

Current and projected conditions indicate US 522 should be widened and an alternate route provided for through traffic to pass around Berkeley Springs. The widening will allow US 522 to operate more efficiently while the bypass will reduce congestion in Berkeley Springs.

# SECTION II
## ALTERNATIVES

This section of the Final Environmental Impact Statement (FEIS) provides a general summary of all the alternatives considered. The discussion includes both the No-Build and the Build Alternatives, as well as Transportation System Management (TSM) and Public Transportation Alternatives.

### 2.1 NO-BUILD ALTERNATIVE

The No-Build Alternative considers the existing US 522 and possible spot improvements. This alternative assumes that traffic will continue to increase based on traffic demand forecasts. This added volume will travel along the existing alignment and configuration. The No-Build Alternative does not meet the purpose and need of this project. This alternative will not resolve the congestion in Berkeley Springs or alleviate the inadequate Levels of Service. The No-Build Alternative provides a baseline condition for comparison and evaluation of the build alternatives.

Spot improvements would provide some relief. Such improvements will not resolve the existing congestion in Berkeley Springs and the Level of Service will continue to deteriorate.

### 2.2 TRANSPORTATION SYSTEM MANAGEMENT

Transportation System Management (TSM) improvements are management measures to increase the functionality of the existing roadway system. TSM measures include ridesharing, high occupancy vehicle lanes (HOV), bus service, adding turn lanes at intersections, synchronized timing for traffic lights and slip ramps in multiple lane roadways. TSM is most helpful in urban and highly developed transportation system areas.

Bus transit is one aspect of TSM. Public bus service in Morgan County does not exist and is limited by two major factors. First, there is no well-defined peak traffic time and secondly, a centralized employment center does not exist within the county. High Occupancy Vehicle (HOV) lanes are not a viable or needed feature. Turn lanes and timing of traffic lights are included in the No-Build improvements.

Ride sharing is another TSM technique that is used to carry a larger number of persons over a route in a reduced number of vehicles. Ride sharing, arranged by individuals and co-workers, may already exist in Morgan County on a limited and informal basis. However, there is no organized effort nor has there been an expressed interest or request to organize ride

sharing. There is no centralized employment center or a specific origin/destination location in the county where a more formal program could be of great benefit. In addition, traffic counts do not identify well-defined traffic peaks. As a result of the aforementioned factors, ride sharing does not appear to offer an opportunity to significantly reduce the number of vehicles on US 522. The TSM potential improvements to US 522 are very limited.

## 2.3 PUBLIC TRANSPORTATION

Public transportation alternatives include public transit on the roadway and other public transportation modes, such as air, water and rail.

***Roadway:*** As discussed in the TSM section, no public bus service in Morgan County.

***Air:*** The single airfield in Morgan County, Potomac Airport, is a privately owned facility. The county has an agreement to use this airfield for emergency medical and rescue service, but no passenger service is offered. Outside the county, airport services are available at regional airports in Cumberland, MD, 44 miles (70.8 kilometers); Hagerstown, MD, 32 miles (51.5 kilometers); and Martinsburg, 22 miles (35.4 kilometers). Also within approximately 2 hours travel time from Morgan County are three major airports: Dulles International, Ronald Reagan Washington National, and Baltimore-Washington International Airports.

***Water:*** The Potomac River presents an opportunity for water borne transportation, but currently no commercial traffic operates on the Potomac River. Recreation and sport fishing are the only water activities in the study area.

***Rail:*** The CSX Transportation System parallels the county border with Maryland and the Potomac River. The line has two or more tracks within Morgan County. The CSX lines are active and are included in the nation's strategic rail corridor network. A siding of CSX serves the US Silica Company north of Berkeley Springs. In addition to rail cargo, it carries the Amtrak Capitol Limited which runs daily passenger service between Cumberland, Maryland and Washington, DC. A station and stop at Hancock, WV was once operational, however this facility has been closed for a number of years. For passenger train service, county residents must travel to Martinsburg, WV.

## 2.4 BUILD ALTERNATIVES

In order to examine build alternatives and determine the suitability of an area as a potential

roadway location, general information about the type of road to be constructed is needed. Traffic demand forecasts are used to determine the type of road, design criteria (such as right of way width), design speed, and vertical and horizontal alignment. The year 2019 traffic demand was forecasted by the WVDOH based on preliminary traffic projections. Through these projections, it was determined that a four-lane divided roadway with limited access should be considered.

Engineering studies and preliminary design work identified a large number of possible roadway segments. The segments were combined into specific alternate alignments. These potential alternate alignments became the build alternatives and the basis for the collection and analysis of data related to environmental impacts.

As noted in the Purpose and Need section, the length of US 522 in Morgan County is divided into Sections I and II for identification of the initial build alternatives. Section I is from the Virginia state line to south of Berkeley Springs at Winchester Grade Road (Morgan County 13) a distance of approximately 18.5 kilometers (11.5 miles). Section II is the remaining 11.6 kilometers (7.2 miles) including the bypass around Berkeley Springs and the connection with existing US 522 south of the Maryland state line.

The Maryland state line is at the southern water's edge. Therefore, the Potomac River is in Maryland, and the bridge over the Potomac River is provided and maintained by Maryland. The West Virginia Department of Transportation has no jurisdiction regarding this bridge.

Short segments were planned along the length of US 522 to develop several alternate alignments. The segments were connected in different combinations to develop 23 alternate alignments in Section I and 13 alternate alignments in Section II. The segments and alternate alignments are shown on Figures II-1. The individual segments and alternate alignments are defined in Tables II-1 and II-2.

### *Development of the Alternative Alignments*

The preliminary alternate alignments were presented to the public at a Public Meeting held on August 11, 1992. As a result of comments received after this meeting, three segments were

added. These three added segments are designated as segments N, P, and R. In addition, the WVDOH later added five more segments east and separate from the existing US 522 roadway. These segments are T, W, X, Y, and Z. Segment $X_1$ was added to provide a link between Segments X and W in the vicinity of the Messner Farmstead site.

To aid in the selection of alternate alignments, information was collected early in the study concerning current and proposed residential, commercial, and agricultural land use; plans for infrastructure improvements and expansion; population projections; and economic characteristics. Information related to natural systems such as floodplain limits, types of soils, and biotic community locations were also obtained.

***TABLE II - 1***
**Description of Segments**

| | |
|---|---|
| **A** | Segment in Sections II and I southbound, two lanes on existing US 522. The two northbound lanes are east of existing US 522. Near Berkeley Springs, the segment is on a new bypass alignment east of the town and west of the hospital. The alignment returns to the existing US 522 alignment south of the US Silica Company, and continues to the north end of the project on the existing US 522 alignment. |
| **B** | Segment in Section I with the two proposed northbound lanes on existing US 522, with two southbound lanes west of the existing roadway. The segment extends to the north end of Section I. |
| **C** | Segment in Section II immediately east of the hospital, east of the US Silica Company. This segment joins Segment A near the north end of the study area. |
| **D** | Segment in Section II east of the hospital connecting to Segment A or C south of the US Silica Company. |
| **$E_1$** | Segment in Section I east around the Fish Hatchery and onto Segment A. |
| **$E_2$** | Segment in Section I east around the Fish Hatchery and onto Segment B. |
| **F** | Segment in Section II east of the hospital and west of Fairview Drive to Segment C east of US Silica Company. |
| **$G_1$** | Segment in Section I east of US 522 between Luther Mitchell Road and Mesner Road on to Segment A. |
| **$G_2$** | Segment in Section I west of US 522 between Mesner Road and north to the end of Section I. |
| **$H_1$** | Segment in Section I east of US 522 between Mt. Tabor Road and Mesner Road connecting Segment A to Segment $G_2$, J or back to Segment A. |
| **$H_2$** | Segment in Section I east of US 522 between Mt. Tabor Road and Mesner Road connecting Segment B to Segment B. |
| **J** | Segment in Section I east of US 522 between the Fish Hatchery and the end of Section I connecting Segment E to Segment M. |

**K** Segment in Section I west of US 522 between Segment E, and Segment J south of Cacapon State Park.

**M** Segment in Section I east of US 522 between Mesner Road and north end of Section I connecting Segment G or J to Segment F.

**N** Segment in Section II east of Fairview Drive to US 522 north of US Silica.

**P** Segment in Sections I and II east of US 522 at Mesner Road and connecting Segment R to Segment N near Johnson Mill Road.

**R** Segment in Section I west of US 522 near Rock Gap Road to Tabor Road and connecting with Segment P.

**T** Segment in Section I east of US 522 connecting Segment P to Segment W.

**W** Segment in Sections I and II from Virginia to Maryland east of US 522 but west of Sleepy Creek.

**X** Segment in Sections I and II from Virginia to Segment Z or Segment W east of Sleepy Creek and the eastern most alternate.

**$X_1$** Segment in Section I connecting Segment X with Segment W immediately north of the Messner Farmstead.

**Y** Segment in Section II from Segment W or Z to Segment N.

**Z** Segment in Section II from Segment X to Segment Y.

Segments were connected in different combinations to define the alternate alignments also referred to as alternatives. The following table defines the alternate alignments in terms of the several segments.

***TABLE II - 2***
**ALTERNATE ALIGNMENTS IN TERMS OF SEGMENTS**

| SECTION I | SEGMENT COMBINATIONS |
|---|---|

| | | |
|---|---|---|
| **No–Build Alternative** | | Existing US 522 with planned improvements. |
| **Build Alternatives** | 1 | A |
| | 2 | $E_1$, A |
| | 3 | A, $G_1$, A |
| | 4 | A, $G_1$, $G_2$ |
| | 5 | A, $H_1$, A |
| | 6 | $E_1$, A, $G_1$, A |
| | 7 | $E_1$, A, $G_1$, $G_2$ |
| | 8 | B |
| | 9 | $E_2$, B |
| | 10 | B, $G_1$, B |
| | 11 | B, $G_1$, $G_2$ |
| | 12 | B, $H_2$, B |
| | 13 | $E_2$, B, $G_1$, B |
| | 14 | $E_2$, B, $G_1$, $G_2$ |
| | 15 | $E_1$, J, $G_2$ |
| | 16 | $E_1$, K, J, $G_2$ |
| | 17 | $E_1$, J, M |
| | 18 | $E_1$, K, J, M |
| | 19A | E, J, R, P |
| | 19B | E, J, P |
| | 1E | W |
| | 2E | X |
| | 3E | $E_1$, J, P, T, W |
| | 8E | W, X, $X_1$, W |
| | 9E | X, $X_1$, W |

***TABLE II - 2 (continued)***
**ALTERNATE ALIGNMENTS IN TERMS OF SEGMENTS**

| SECTION II | | SEGMENT COMBINATIONS |
|---|---|---|
| **No–Build Alternative** | | Existing US 522 and planned changes through Berkeley Springs. |
| **Build Alternatives** | 20 | A |
| | 21 | A, C, A |
| | 22 | D, A |
| | 23 | D, C, A |
| | 24 | D, F, C, A |
| | 25 | F, C, A |
| | 26 | F, D, A |
| | 27 | F, D, C, A |
| | 28 | N, A |
| | 4E | W |
| | 5E | X, W |
| | 6E | W, Y, N, A |
| | 7E | X, Z, Y, N, A |

## Roadway Design Description

The typical section of the proposed roadway is described in Table II-3 and diagramed in Figures II-2 and II-3.

***TABLE II – 3***
**Roadway Design Criteria**

| DESIGN FACTORS | RECOMMENDED STANDARDS |
|---|---|
| Speeds | • Operating<br>80-90 kph (50-55 mph) desirable<br>70-80 kph (45-50 mph) minimum<br>• Design<br>100 kph (65 mph)<br>• Ramps<br>60 kph (35 mph) desirable<br>40 kph (25 mph) minimum |
| Pavement Widths | • Roadway<br>3.6 m (12') standard lane width<br>• Interchange turning lanes<br>3.6 m (12'), plus widening for curvature (AASHTO standards)<br>• Ramps<br>Single Lane 4.8 m (16') minimum |
| Shoulder Widths | • Roadway section<br>3.6 m (12') outside (3.0 m [10'] paved)<br>1.8 m (6') inside (1.2 m [3'] paved)<br>• Ramps<br>3.6 m (12') left (3.0 m [10'] paved)<br>3.6 m (12') right (3.0 m; [10'] paved) |
| Median Widths | • Roadway section—14m (46') |
| Vertical Alignment | • Rates of grade:<br>Expressway—6% maximum; ramps—7% maximum<br>• Stopping sight distance—AASHTO standards<br>• Length of crest and sag vertical curves—AASHTO standards |
| Horizontal Alignment | • Degree of curve:<br>Freeway—3.5° Desirable , 7.5° Maximum<br>Ramps—7.5° Maximum |
| Cross Slopes | • Freeway and ramps—slopes downward at 0.02 meters per meter (¼" per foot)<br>• Embankment Slopes—WVDOH Roadway Standards |

*m meters*
*kph kilometers per hour*

## Roadway Cost Estimate

Estimated construction costs for each of the alternatives are presented in Table II-4. Right-of-

way costs and the estimated costs of relocating residences and businesses are not included. Table II-4 is a summary of the cost of engineering, clearing, drainage and roadway construction for each alternative.

***TABLE II - 4***
**ESTIMATED CONSTRUCTION COST**

| ***SECTION I*** | | ***SECTION II*** | |
|---|---|---|---|
| ***ALTERNATE*** | ***COST*** | ***ALTERNATE*** | ***COST*** |
| ***1*** | $ 43,561,000 | ***20*** | $ 38,235,000 |
| ***2*** | $ 43,580,000 | ***21*** | $ 45,577,000 |
| ***3*** | $ 44,386,000 | ***22*** | $ 37,032,000 |
| ***4*** | $ 45,052,000 | ***23*** | $ 44,243,000 |
| ***5*** | $ 44,070,000 | ***24*** | $ 43,717,000 |
| ***6*** | $ 44,406,000 | ***25*** | $ 45,145,000 |
| ***7*** | $ 45,069,000 | ***26*** | $ 38,514,000 |
| ***8*** | $ 43,854,000 | ***27*** | $ 45,723,000 |
| ***9*** | $ 43,854,000 | ***28*** | $ 43,033,000 |
| ***10*** | $ 44,702,000 | ***4E*** | $ 58,550,000 |
| ***11*** | $ 45,556,000 | ***5E*** | $ 61,410,000 |
| ***12*** | $ 44,277,000 | ***6E*** | $ 43,928,000 |
| ***13*** | $ 44,647,000 | ***7E*** | $ 43,038,000 |
| ***14*** | $ 45,504,000 | | |
| ***15*** | $ 46,903,000 | | |
| ***16*** | $ 47,398,000 | | |
| ***17*** | $ 49,540,000 | | |
| ***18*** | $ 49,957,000 | | |
| ***19A*** | $ 51,463,000 | | |
| ***19B*** | $ 53,591,000 | | |
| ***1E*** | $ 66,609,000 | | |
| ***2E*** | $ 73,111,000 | | |
| ***3E*** | $ 63,089,000 | | |
| ***8E*** | $ 67,909,000 | | |
| ***9E*** | $ 72,019,000 | | |

### *Reduction of Alternative Alignments*

A comparison of the relative impacts of the alternatives was performed to eliminate alternatives that have unacceptable impacts, and thus to select a limited number of remaining alternatives that are deemed to best meet the purpose and need of the project while having the least significant environmental impacts. An Alternatives Reduction Report was prepared in January 1998 which evaluated the various impacts of each build alternate, and recommended alignments to be carried forward for further consideration.

In performing this analysis, the following impact categories were considered to be most important in differentiating between the various alternatives.

- Section 4(f)/106 Sites
- Displacements
- Wetlands
- Archaeological Site Potential
- Potential Hazardous Waste Sites

Based on a comparison of the anticipated impacts, several on the Build Alternatives were eliminated from further consideration. A comparison of the anticipated impacts of each alternative alignment, and the justification for eliminating each individual Build Alternative is provided in Table II-5 for Section I alternatives and in Table II-6 for Section II alternatives. Build Alternatives recommended to be retained for further study, analysis and consideration are shown shaded in the following tables.

A total of four Section I and three Section II Build Alternatives were recommended to be retained for further study. These combine to form four different alignments, as described further in the document and illustrated on Figures II-4. The estimated environmental impacts of each of these alignment alternatives are provided in Table II-7.

Each of the four remaining alternative alignments are proposed as four lane limited access highways or new alignment. In each case, existing US 522 will be retained for local traffic. The four alternatives are further described below:

### *ALTERNATIVE I [SELECTED]*

This is the westernmost of all retained and recommended alignments. The selected alternative is generally parallel to and east of existing US 522 for approximately 10 miles (16 kilometers). For the majority of this length, the new alignment is within 500 feet (150 meters) of the existing roadway. In the vicinity of the Ridge Historic District, the alignment extends farther away from the existing road to avoid impacts to this Section 4(f) property and the adjacent fish hatchery. By remaining east of the existing roadway in this area, impacts to the Cacapon State Park and Gate House and Morgan County Park are also avoided. Within this portion of the alignment, several small wetland areas are impacted along Breakneck Run and several other small streams. Special attention has been given to avoiding Sleepy Creek. This waterway will not be impacted with the use of this alternate.

Farther north, the alignment continues east of existing US 522 between Messner Road and the north end of Section I. Approximately 1,000 feet north of the Morgan County Park the selected alternative veers to the east to avoid a residential community. The alternative returns to the original alignment approximately 2,500 feet south of Winchester Grade Road (Morgan County 13). This portion of the preferred alternative parallels existing US 522 for approximately 3.57 miles (5.75 kilometers) and is characterized by few displacements and minimal wetland impacts. Immediately south of the Town of Berkeley Springs, the alignment shifts further east of existing US 522, avoiding the downtown area.

North of Berkeley Springs, the alignment remains east of existing US 522 and extends around the U. S. Silica Company mining and processing facilities. Immediately north of those facilities, the alignment joins with the existing roadway, and continues to the Maryland state line.

Advantages of Alternate I include:

- No involvement with Section 4(f) properties,
- Does not impact any historic properties,
- Requires less bridges and culverts than other alternatives,
- Does not cross Sleepy Creek,
- Far less stream impacts than other alternatives, and
- Alternate I is the most cost effective alternate (saves between $16 and $21 million).

### *ALTERNATIVE II*

This alternative is a more central alignment than the other alternatives recommended for further study. South of Berkeley Springs, this alignment generally varies from 0.4 mile to 1 mile (0.5 kilometer to 1.5 kilometer) east of the existing US 522 alignment. As the alignment approaches Berkeley Springs, it is 1.5 to 2 miles (2.5 to 3 kilometers) east of the existing roadway. Immediately north of the U. S. Silica plant, the alignment shifts to the west, joins with the existing roadway, and continues to the Maryland state line.

This alternative traverses a relatively undeveloped portion of the county, and as such, has comparatively few displacements. Most of the displacements occur where the alignment crosses an existing east-west roadway.

*Disadvantages*

- Impact on rural setting outside of existing transportation corridor
- Impacts 9.3 acres of wetland
- Significantly higher stream impacts than Selected Alternate
- Requires significantly more bridge construction than the Selected Alternate
- $16 million more expensive than the Selected Alternate

### *ALTERNATIVE III*

This alternative represents the easternmost alignment recommended to be retained for further study. Near the south end of the project, this alignment curves eastward from the Alternative II alignment. After crossing Sleepy Creek, it generally parallels the stream alignment just outside the eastern floodplain limits for about 5.3 miles (8.5 kilometers). By staying east of Sleepy Creek in this area, impacts to the Dawson Farmstead (a Section 4(f) property) are avoided.

After crossing Sleepy Creek a second time, the alignment continues north and passes immediately east of the Messner Farmstead, a Section 4(f) site. North of Berkeley Springs, the alignment curves west, joins with existing US 522, and continues to the Maryland state line.

*Disadvantages*

- Impact on rural setting outside of existing transportation corridor
- Largest amount of stream impacts of alternatives carried forward
- Requires significantly more bridge construction than the Selected Alternate
- Two crossings of Sleepy Creek
- $21 million more expensive than the Selected Alternate

## *ALTERNATIVE IV*

This alignment is a combination of Alternatives II and III. This alternative is the same as Alternative III for the southern half of the project to near the Messner Farmstead. North of that area, the alignment follows Alternate II.

*Disadvantages*

- Impacts on rural setting outside of existing transportation corridor
- Second largest amount of stream impacts of alternatives carried forward
- Requires significantly more bridge construction than the Selected Alternate
- Two crossings of Sleepy Creek
- $20 million more expensive than the Selected Alternative

***PREFERRED & SELECTED ALTERNATIVE DESIGNATION***

Following the reduction of the original build alternatives to the four currently retained, a public

meeting was held on June 2, 1998 in Berkeley Springs, West Virginia. Over 700 citizens attended this meeting. The four retained build alternatives were presented to the public at this meeting and public input was received.

This input, along with relevant environmental and engineering factors, was used in September 1998 to select Alternate I as the preferred alternative. The Draft Environmental Impact Statement (DEIS) was published in August 1999 and identified Alternate I as the preferred alternative. A public meeting was held on September 30, 1999 and a public hearing was held on October 14, 1999. The total attendance for these two meetings was approximately 430 citizens. Alternate I was presented to the public at this meeting and public comments were again requested.

These comments were analyzed and Alternate I was chosen as the Selected Alternative. In addition to selecting this alternate, a small design shift was incorporated to avoid impacts to a residential community to the east of exiting US 522 between Morgan County Routes 522/3 and 38/11. A commitment has been made to do everything possible to avoid direct impacts to any business within the Morgan County Industrial Park.

The advantages of Alternate I are summarized below:

- No involvement with Section 4(f) properties,
- Does not impact any historic properties,
- Requires less bridges and culverts than other alternatives,
- Does not cross Sleepy Creek,
- Far less stream impacts than other alternatives, and
- Alternate I is the most cost effective alternate (saves between $16 and $21 million).

# SECTION III
## AFFECTED ENVIRONMENT

This section describes the existing social, economic and environmental setting in Morgan County, West Virginia with emphasis on the roadway study area. This inventory of the affected environment is the basis for assessing the environmental impacts of each US 522 build alternative. The environmental consequences of the proposed action are discussed in Section IV.

### 3.1 SOCIAL

Morgan County is one of several counties that comprise West Virginia's eastern panhandle. It lies about 100 miles northwest of the Baltimore-Washington metropolitan area and 150 miles southeast of Pittsburgh, Pennsylvania. The county is bordered by the Potomac River on the north and west, Sleepy Creek Mountain on the east, and the Virginia state line and Hampshire County, West Virginia on the south.

The warm water springs at Berkeley Springs have long been a focal point of the area. The springs have served as a resting and gathering point to Native Americans, frontier settlers and soldiers in the past. Today, the waters of Berkeley Springs are a tourist attraction drawing visitors to the county. The settlement and the economy throughout the county has been shaped by the springs, the natural beauty of the forests, mountains and valleys, and the variety of geology.

The rugged slopes, silty soils and remoteness of the area have kept the population sparse. Berkeley Springs has grown to surround the incorporated Town of Bath and the early accommodations near the springs. Berkeley Springs, including the Town of Bath, is the most populated area of the county. Outside the Town of Bath and the urban area of Berkeley Springs, settlement throughout the county is essentially small farms, single family homes and recreation or weekend cottages, with small businesses and light industries clustered along the roadways.

#### 3.1.1 Population Characteristics

From 1985 to 1990, there was an 18.9 percent increase in Morgan County's population, while there was a 7.4 percent decrease in West Virginia's population. Throughout the 1990s, Morgan County's population growth rate has continued to exceed that of the state as a whole. This trend is projected to continue well into the next century. Population trends and projections in Morgan County and West Virginia for the years 1990-2020 are shown in Table III-1. By the year 2020, Morgan County's population is projected to grow another 44 percent over the 1990 levels.

***TABLE III - 1***
**COMPARATIVE POPULATION TRENDS**
**Morgan County and West Virginia**

| | Morgan County | | West Virginia | |
|---|---|---|---|---|
| **Year** | **Population** | **Percent Change** | **Population** | **Percent Change** |
| 1990 | 12,128 | | 1,793,477 | |
| 1991 | 12,439 | +2.6 | 1,798,866 | +0.3 |
| 1992 | 12,773 | +2.7 | 1,807,041 | +0.5 |
| 1993 | 12,862 | +0.7 | 1,818,466 | +0.6 |
| 1994 | 12,953 | +0.7 | 1,823,623 | +0.3 |
| 1995 | 13,182 | +1.8 | 1,828,140 | +0.2 |
| 1996 | 13,354 | +1.3 | 1,820,407 | -0.4 |
| 1997 | 13,477 | +0.9 | 1,815,787 | -0.3 |
| 2000* | 14,134 | +4.9 | 1,852,535 | +2.0 |
| 2010* | 15,904 | +12.5 | 1,927,379 | +4.0 |
| 2020* | 17,515 | +10.1 | 2,015,853 | +4.6 |

*West Virginia Development Office, Charleston, WV*
*West Virginia University Regional Research Institute "West Virginia: Population Estimates by County, 1990-1997."* http://www.wvu.edu/~regional/PopWeb/POP-ESTIMATE.htm *(1/18/2000)*
*****Projected-West Virginia University Regional Research Institute "Population Projection Summary by County: Using Short Term Migration Averages."* http://www.wvu.edu/~regional/PopWeb/POP_SUMMARY/som9095.htm *(1/18/2000)*

The racial distribution of whites and minorities for Morgan County and for West Virginia is shown in Table III-2. The population in Morgan County was 98.8 percent white in 1980 and 1990, while the white population of West Virginia was slightly lower at 96.2 percent in 1980 and 1990. Much of the non-white population in Morgan County resides outside the US 522 study area

***TABLE III - 2***
**POPULATION DISTRIBUTION BY RACE**
**Morgan County and West Virginia**

| | Morgan County | | West Virginia | |
|---|---|---|---|---|
| **1980** | **White** | **Non-White** | **White** | **Non-White** |
| Number | 10,583 | 128 | 1,874,751 | 74,893 |
| Percent | 98.8 | 1.2 | 96.2 | 3.8 |
| 1990 | | | | |
| Number | 11,985 | 143 | 1,725,523 | 67,954 |
| Percent | 98.8 | 1.2 | 96.2 | 3.8 |

*West Virginia Bureau of Employment Programs. "West Virginia Population by Race, by County: Census:1980 and 1990."* http://www.state.wv.us/bep/lmi/API/S3.htm *(1/18/2000).*

The population age distribution within Morgan County and West Virginia is similar. Table III-3 shows the population age distribution from the 1990 census for Morgan County and 1998 census estimates for West Virginia. One of the highest percentages shown for both Morgan County and the state is the 35-44 year range. However, Morgan County has a larger share of people over 45 than the statewide distribution. Forty percent of the Morgan County population is over 45 while 34 percent of the statewide population is over 45. In addition, 28.6 percent of the Morgan County population is over 55 while 21.1 percent of the West Virginia and U.S. populations are over 55.

***TABLE III - 3***
**POPULATION AGE DISTRIBUTION**

| POPULATION AGE DISTRIBUTION | | | | |
|---|---|---|---|---|
| | Morgan County 1990 | | West Virginia 1998 | |
| **Age** | **Number** | **Percent** | **Number** | **Percent** |
| 0 - 14 | 2,298 | 18.9 | 325,000 | 21.5 |
| 15 - 19 | 776 | 6.4 | 135,000 | 7.2 |
| 20 - 24 | 718 | 5.9 | 127,000 | 6.5 |
| 25 - 34 | 1,713 | 14.1 | 229,000 | 14.4 |
| 35 - 44 | 1,766 | 14.6 | 275,000 | 16.5 |
| 45 - 54 | 1,383 | 11.4 | 259,000 | 12.8 |
| 55 - 64 | 1,435 | 11.8 | 186,000 | 8.4 |
| 65+ | 2,039 | 16.8 | 274,000 | 12.7 |
| **TOTAL** | **12,128** | **100.0** | **1,810,000** | **100.0** |

*Source: West Virginia Bureau of Employment Programs. "County Profiles: Morgan County."* http://www.state.wv.us/bep/lmi/cntyprof/cp99Morg.HTM *(1/18/2000).*
*Lego, Brian. "West Virginia: A 20th Century Perspective on Population Change." Morgantown, West Virginia: West Virginia University, Bureau of Business and Economic Research, December 1999.*

### 3.1.2 Neighborhoods and Subdivisions

Morgan County is essentially rural. The county has two incorporated areas. One, the Town of Bath, is in the study area along US 522 and is included within the urban area of Berkeley Springs. The other incorporated area, Paw Paw, is located in western Morgan County near the border with Hampshire County. Geographically, Paw Paw is far removed from the study area. Since the majority of the study area is rural, many of the neighborhoods that could be impacted are small, scattered clusters of homes along US 522.

The Berkeley Springs urban area extends from Winchester Grade Road (Morgan County 13) north to the end of the project at the Potomac River. The alternate alignments that bypass Berkeley Springs go through more sparsely settled countryside.

### 3.1.2.1 Neighborhoods

Several residential neighborhoods are located along US 522 within the study area. These areas are described below:

- Several residences located at US 522 and Fish Hatchery Road (Morgan County 38/10).
- Three residences located on the east side of US 522 near Berkeley Coach Works and the access road to the Colonial Village subdivision.
- Colonial Village subdivision and four residences located on the west side of US 522.
- Several residences located south of Allemong Road (Morgan County 38/9) on the east side of US 522.
- Several residences located on the east side of US 522 from Winchester Grade Road (Morgan County 13) to Michael Manor Road, renamed as Sugar Hollow Road (Morgan County 38/14).
- Continuous residential development in the area north of Winchester Grade Road (Morgan County 13) along US 522 into Berkeley Springs.
- A new residential subdivision, Cacapon South, across from the entrance to Cacapon State Park .
- Several residences, located on Shirley Drive (Morgan County 522/3), comprise the planned community called Shirley Farms.

### 3.1.2.2 Subdivisions

There are numerous approved subdivisions in Morgan County. Each has several parcels or lots for development or are currently under development. Many are partially settled with year-round or weekend homes.

### 3.1.2.3 Schools

Morgan County operates a single school district under the direction of the Morgan County School Board. There are four (4) schools located within the study area. North Berkeley Elementary School for kindergarten through first grade had a 1999-2000 enrollment of 253 students. Widmyer Elementary School had a 1999-2000 enrollment of 533 students and serves second through fifth grade. Warm Springs Middle School serves grades six through eight with a 1999-2000 enrollment of 520 students. Berkeley Springs High School for grades nine through twelve had a 1999-2000 enrollment of 595 students. The entire study area is included within the boundaries for each school.

### 3.1.2.4 Churches and Cemeteries

Approximately 20 churches, many with cemeteries, are within the study area. Ten of the churches are located directly within the Town of Bath. The remaining churches are scattered throughout the study area.

#### 3.1.2.5 Fire Department and Rescue Services

There is one (1) fire department and one (1) rescue service within the study area. The Berkeley Springs Fire Department and Rescue Service are both located in the Town of Bath. Their service areas include the entire study area.

#### 3.1.2.6 Parks and Recreational Facilities

Several parks and recreational facilities are located within Morgan County. Within the study area the following parks and recreational facilities are found:

- Cacapon State Park, built in the 1930's, has cabins, a 50-room lodge, a trout stocked lake, tennis courts, horseback riding trails, miles of hiking trails, and an 18-hole championship golf course.
- Berkeley Springs State Park, the oldest in the nation, was built around the famous warm springs in the center of town. The state-run spa uses the mineral water in baths and an outdoor swimming pool.
- Morgan County Park is a small community recreational facility located off US 522 near Quarry Road (Morgan County 38/6). It is a 16-acre site, which includes four (4) ball fields and a picnic area.
- Dave Henry Memorial Park is a recreation facility on Biser Street in Berkeley Springs. The facility includes 2 tennis courts and a basketball court.
- Harmison Field is a little league baseball field between College Avenue and Dawson Street in Berkeley Springs.

In addition to the above parks and recreation facilities, there is a playground near North Berkeley Elementary School, and a playground, soccer field and a running track near Widmyer Elementary School.

#### 3.1.2.7 Utilities

Allegheny Power provides electrical power throughout Morgan County.

There is a municipal water system in Berkeley Springs. The system serves the Berkeley Springs urban area and extends south along US 522. Plans are being made to extend the water system farther south. The other source of water is from individual wells.

Municipal sewer service is also provided in Berkeley Springs. The system area approximates the water system. Plans are being made to extend this service to the south of Berkeley Springs as well. Septic systems are used elsewhere throughout the county. Frequent failure of individual septic systems because of soil type and inadequate percolation into the ground has been a problem.

There is no natural gas service in the county.

#### 3.1.2.8 Communications

There are several communication facilities active in Morgan County:

- *The Morgan Messenger*, a weekly paper;
- WCST AM and FM, a radio station in Berkeley Springs;
- Television reception from Washington, D.C., Baltimore, MD, and Hagerstown, MD stations;
- Cable television service from Tri-State Cable TV and HBO; and
- Telephone service from Bell Atlantic Telephone Company of West Virginia and General Telephone Company.

## *3.2 ECONOMY*

Morgan County's economic activity is concentrated in services (including tourism), government (local, state, and federal), trade, manufacturing, farming, mining and miscellaneous industries. Early county economic activity was centered on farming, later it shifted to activities surrounding the springs. Today, government is the largest single source of employment income. Services of all types, including government, are the largest single category of employment in the county. Almost 30% of the families living in Morgan County are supported from earnings outside the county. Many of the economic changes in Morgan County are similar to state and national trends.

Table III-4 illustrates changes in employment categories from 1990 to 1998. Manufacturing grew from 290 jobs in 1990 to 320 in 1998. Construction, although fluctuating during individual years, has been relatively steady at about 100 jobs. Transportation and public utilities dropped significantly from a high of 160 positions in 1990 to only 60 in 1998. Services were the major increasing category, growing from 590 employees to 830 over the period.

**TABLE III – 4**
**NON-FARM PAYROLL EMPLOYMENT BY INDUSTRY**
**Morgan County**

| INDUSTRY CATEGORY | 1990 | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|
| **Manufacturing** | 290 | 370 | 370 | 270 | 320 |
| **Government** | 680 | 740 | 790 | 790 | 820 |
| **Mining** | 220 | 180 | 180 | 180 | 180 |
| **Construction** | 100 | 70 | 90 | 100 | 110 |
| **Transportation & Public Utilities** | 160 | 70 | 80 | 60 | 60 |
| **Trade (wholesale & retail)** | 460 | 530 | 550 | 540 | 560 |
| **Finance, Insurance, & Real Estate** | 110 | 120 | 120 | 120 | 120 |
| **Services** | 590 | 730 | 780 | 800 | 830 |
| **TOTAL** | **2,610** | **2,810** | **2,960** | **2,860** | **3,000** |

*West Virginia Bureau of Employment Programs. "County Profiles: Morgan County, Employment and Unemployment Statistics-Annual Averages1990-1998."* http://www.state.wv.us/bep/lmi/TABLE2/T2A9Morg.HTM *(1/18/2000).*

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Similar trends exist across West Virginia. The employment profile for the state of West Virginia, presented in Table III-5, shows that services made the greatest increases in the percentage of the work force. Trade made strong advances while manufacturing decreased and government remained fairly constant. The share of the work force providing government services in the state is less than the percent employed in government services in Morgan County.

***TABLE III – 5***
**NON-FARM PAYROLL EMPLOYMENT BY INDUSTRY**
**West Virginia**

| INDUSTRY CATEGORY | 1990 | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| **Manufacturing** | 87,500 | 82,400 | 81,900 | 81,600 | 82,400 |
| **Government** | 127,400 | 136,400 | 138,700 | 139,100 | 140,500 |
| **Mining** | 35,600 | 27,200 | 25,800 | 24,600 | 23,500 |
| **Construction** | 27,200 | 32,900 | 34,400 | 34,900 | 34,500 |
| **Transportation & Public Utilities** | 37,700 | 40,200 | 39,300 | 38,900 | 38,900 |
| **Trade (wholesale & retail)** | 145,100 | 158,000 | 160,300 | 161,700 | 163,200 |
| **Finance, Insurance, & Real Estate** | 24,900 | 26,900 | 27,300 | 28,200 | 28,600 |
| **Services** | 144,700 | 183,800 | 191,000 | 198,900 | 207,000 |
| **TOTAL NON-FARM PAYROLL** | **630,100** | **687,800** | **698,600** | **707,800** | **718,500** |

*West Virginia Bureau of Employment Programs. "County Profiles: West Virginia Employment and Unemployment Statistics-Annual Averages 1990-1998."* http://www.state.wv.us/bep/lmi/table2/T2A9WEST.HTM *(1/18/2000).*

The statistics presented in Tables III-4 and III-5 for Morgan County and West Virginia reveal some characteristics about the evolving economy. Morgan County is becoming more diverse with increasing employment in services and trade. For the state as a whole, the shift to services is similar to the trend across the United States. Mining has decreased in share of the work force and total numbers engaged.

Table III-6 shows that the work force in Morgan County has increased, as has the state work force. The unemployment rate in Morgan County is consistently well below the statewide rate.

***TABLE III – 6***
**ANNUAL AVERAGE CIVILIAN LABOR FORCE AND PERCENT UNEMPLOYED**

| | CIVILIAN LABOR FORCE | | UNEMPLOYMENT RATE | |
|---|---|---|---|---|
| **Year** | **Morgan County** | **West Virginia** | **Morgan County** | **West Virginia** |
| **1990** | 5,700 | 761,000 | 4.7% | 8.4% |
| **1995** | 5,890 | 785,000 | 5.8% | 7.9% |
| **1996** | 6,280 | 805,000 | 5.4% | 7.5% |
| **1997** | 5,980 | 804,000 | 5.2% | 6.9% |
| **1998** | 6,060 | 800,000 | 3.4% | 6.6% |

*West Virginia Bureau of Employment Programs. "County Profiles: Morgan County, Employment and Unemployment Statistics-Annual Averages 1990-1998."* http://www.state.wv.us/bep/lmi/TABLE2/T2A9Morg.HTM *(1/18/2000).*
*West Virginia Bureau of Employment Programs. "County Profiles: West Virginia, Employment and Unemployment Statistics-Annual Average 1990-1998."* http://www.state.wv.us/bep/lmi/table2/T2A9WEST.HTM *(1/18/2000).*

Income levels of Morgan County residents have changed little over the past ten years compared to other counties in West Virginia. The per capita personal income in 1979 was 21st among the 55 counties. In 1989, it was 23rd. The total personal income was 40th in the state in 1979 and 35th in 1989.

### 3.2.1 Employment Centers

Table III-7 lists the top ten employers located in Morgan County. Approximately 60% of the people in Morgan County work within the study area.

***TABLE III - 7***

**TOP TEN MAJOR EMPLOYERS WITHIN MORGAN COUNTY**

| NO. | EMPLOYER |
|---|---|
| 1 | Morgan County Board of Education |
| 2 | U.S. Silica Company |
| 3 | Coolfont Recreation, Inc. |
| 4 | Dayspring, Inc. |
| 5 | Tom Seely Furniture |
| 6 | Morgan County War Memorial Hospital |
| 7 | West Virginia Division of Natural Resources |
| 8 | The County Inn of Berkeley Springs |
| 9 | Citizens National Bank of Berkeley Springs |
| 10 | Food Lion, Inc. |

*West Virginia Bureau of Employment Programs. "The Largest Employers in Each West Virginia County-March 1999, Morgan County."* http://www.state.wv.us/scripts/bep/lmi/countytop10.cfm *(1/18/2000).*

### 3.2.2. Tourism

As evidenced by the list of major employers shown in Table III-7, tourism is an important and expanding sector of the Morgan County economy. Tourism primarily focuses on the mineral springs, the natural beauty and rich history of the area, and the growing reputation as an art town[1]. A number of public and private spas have developed around these mineral rich waters in Morgan County. In addition to the springs, other notable attractions include Berkeley Springs State Park, Cacapon Resort State Park, Coolfont Resort, and the Berkeley Castle. These sites draw tourist from throughout West Virginia and the East Coast.

## *3.3 ENVIRONMENT*

### 3.3.1 Land Use

[1] See John Villani, The 100 Best Small Art Towns in America: Discover Creative Communities, Fresh Air and Affordable Living (John Muir Publications, 1998).

The US 522 study area may be described in three land use sectors. The northern third of the area is primarily low density, single family residences and sand mining. The middle third of the area is composed primarily of commercial and multi-family developments of varying densities. The southern third of the area is mainly agricultural and low density, single family residences.

Land use planning in Morgan County is guided by the Comprehensive Development Plan that was adopted with the Comprehensive Plan in 1985 by the Morgan County Commission. The Comprehensive Development Plan is the primary plan for land use for Morgan County.

The development plan calls for commercial development along US 522 south of Berkeley Springs as far south as Tabor Road (Morgan County 38/7). Along with the commercial development, the plan provides moderate to high-density residential growth in the same area. Commercial development is also provided along Winchester Grade Road (Morgan County 13), east of US 522 in the study area.

Agricultural use exists throughout the study area in a randomly dispersed pattern and, as topography allows, with greater density in the south and less agricultural activity to the east of Berkeley Springs.

The county has developed one tract east of US 522 and just north of the community of Ridge for use as an industrial. Road, water and sewage facilities are provided. There is currently one occupant within the industrial park. The Morgan County Industrial Park was established using federal, state and county funds.

In addition to the Comprehensive Development Plan, the Morgan County Commissioners are considering adopting a zoning plan to further control and guide development within the county. A preliminary first draft Zoning Map for Morgan County has been compiled. Although not officially adopted, the information is used to identify land use planning subsequent to the 1985 Comprehensive Plan.

Future development in the study area is planned around existing population centers so that development can occur in the most cost-effective way while preserving rural open space, scenic areas and important agricultural land.

The Eastern Panhandle Regional Planning and Development Council has reviewed the planned US 522 improvements and has stated that the project is acceptable.

### 3.3.2 Transportation Resources

Transportation planning in Morgan County is focused primarily on roadways. A private airfield near the Potomac River and the river itself are considered secondary transportation resources.

Roadway planning is based on projected transportation needs and development in the county. The Morgan County Commission reviews and approves plans submitted by developers to ensure policy compliance. Development permits also require approval by the County Commissioners. County and state roads are planned and maintained by the West Virginia Department of Transportation, Division of Highways.

The principal roads in Morgan County are US 522, the primary north/south route and WV 9, the primary east/west route. Other roads in the area consist of county routes and private roads built by developers.

Within Berkeley Springs, there are sidewalks and crosswalks provided for pedestrians. Outside the town, there are hiking trails for recreational use. There are no bicycle lanes or trails provided within Morgan County, therefore bicycles must use the existing road system.

### 3.3.3 Cultural Resources

The National Register of Historic Places is a listing of historic and cultural resources. Historic and cultural resources can include districts, archaeological sites, buildings, structures and objects. Listed resources are generally at least fifty years old and possess historic and cultural significance and integrity.

The cultural resources review process involves three steps:

1) research and planning
2) field investigation
3) project impact assessment.

Research, planning and preliminary field investigations are completed during the Cultural Resource Survey phase of a project. The results of the Cultural Resource Survey are documented in a separate technical report available at the WVDOH.

#### 3.3.3.1 Archaeological Resources

Additional research and field investigation, conducted during 1995 and 1996, resulted in the development of an archaeological predictive model and a methodology for testing the model. In addition, a determination of eligibility and evaluation of impacts was made for each surveyed,

standing historic structure identified in the project area. These findings are available in a separate technical report. A Programmatic Agreement (PA) has been developed for further testing of archaeological resources. A copy of the agreement is included in Appendix B.

Prior to construction, a survey will be completed for archaeological resources. At the end of the archaeological survey, it will be determined if mitigation or further testing will be necessary.

Archaeological sites which may be present in the study area consist of open air (camp sites, villages, prehistoric quarries, etc.), closed (rockshelters), and early historic subsurface remains (old farmsteads, residences, mills, etc). Prehistoric cultures, artifacts of which may be extant, include the early occupants of the New World during the Paleo-Indian period, 12,000 to 9,000 years ago. These early people were hunter-gatherers. Beginning at 9,000 through 3,000 years ago, the Archaic culture prevailed. The Archaic culture emphasized hunting and gathering, but is characterized by a more extensive utilization of resources through well-developed exploitation strategies. Seasonal rounds are present. Incipient agriculture and a more developed society characterize the Woodland Period from 3,000 to 300 years ago. Historic Indians and early settlers characterize the contact period (300 to 200 years ago).

#### 3.3.3.2 Historic Resources

The mineral springs at Bath have long been visited for their reputed medicinal qualities. Tradition maintains that Native Americans often visited the springs from great distances, some from as far as Florida and the Great Lakes. It was also said to be a convenient place for inter-tribal conferences.

King Charles II originally granted the area that is encompassed by Morgan County to Lord Hopton in 1681. The area remained remote until the establishment of Morgan County in 1820. The new county was named for General Daniel Morgan, a Revolutionary War veteran who frequently visited the springs in Bath.

Morgan County saw no major battles during the Civil War, but several skirmishes took place in the area, and raiding parties were not uncommon. The county entered the war as part of Virginia. Upon the conclusion of the war, Morgan County was part of the newly formed state of West Virginia. By the end of the nineteenth century, with improved transportation created by the arrival of railroads, several small industries began to spring up. The tanning of leather was an important early industry in Morgan County. The industry provided employment and a market for the bark and hides collected by the local people. However, the offensive odors emitted during the tanning

process were incompatible with the resort business that had grown around the springs. By 1901, all local tanneries had shut down operations.

Sand mining became the principal industry in Morgan County when high-quality sand deposits were discovered around the turn of the century. Today the sand industry is the largest single private employer in the county.

Growing and canning tomatoes became an important source of seasonal income for a large part of the population. In the early part of the twentieth century, more than fifty different canning facilities were operating in Morgan County. The industry went into decline in the 1940's and 50's, and the final canning factory in the county closed in 1979.

The tourism and resort industry, once concentrated at the warm water springs in the Town of Bath, has continued to grow in Morgan County. Over time, the tourism and resort industry has spread to rural Morgan County with facilities like Cacapon State Park and Coolfont Resort. Currently there are many weekend cottages and seasonal homes throughout the county.

#### 3.3.3.3 Historic Architectural Resources

Seven (7) National Register of Historic Places properties are located in or adjacent to the project area. The most prominent National Register Property is Berkeley Springs State Park centered on the warm springs in the downtown Berkeley Springs area. Other National Register Properties include:

- The *Chesapeake and Ohio Canal National Historic Park,* located immediately north of the project area in Maryland, is an important historic transportation site.
- *Berkeley Castle,* of Medieval/Norman stone architecture, was built by Samuel Taylor Suit for his bride in 1885 and completed, by her, in the 1890's.
- *T.H.B. Dawson House* is a large, red brick residence in the Town of Bath, completed in 1880 by Thomas Hart Benton Dawson.
- The *John Herbert Quick House* also known as Coolfont, is a Colonial Revival mansion built in 1913 in the valley between Cacapon Mountain and Warm Spring Ridge, south of Berkeley Springs.
- The *Sloat-Horn-Russell House* is a two-story Second Empire Style residence on Fairfax Street in Berkeley Springs. The residence was constructed in 1879 by the Hunter family.
- The *Judge John W. Wright Cottage* is an Italianate residence in Berkeley Springs that was built in 1872.

Two historic properties that are not on the National Register, but are on record with the West Virginia Division of Culture and History, are the *Morgan County Courthouse* and the *Strother House.* The courthouse is a two story brick building in Berkeley Springs, built in 1907 and 1908. The Strother House, also in Berkeley Springs, has been razed.

In addition, a preliminary field survey identified 324 potential historic structures and 17 potentially historic cemeteries. As a result of consultation with the West Virginia Division of Culture and History, Historic Preservation Unit, seven individual sites or complexes and one potential historic district (Ridge Historic District) have been identified. Two other potential historic districts, North Berkeley Springs Historic District and Morgan County Hospital Historic District, were determined not to be eligible.

These eligible properties are:

1. Omps Postmaster's House (WSA site #19)
2. Omps Post Office and General Store (WSA site #20)
3. Bungalow (WSA site #73)
4. George Messner Farmstead (WSA site #49)
5. Portions of the Berkeley Orchard Company (WSA site #89)
6. Cacapon State Park Gatehouse, Sign and Rock Wall (WSA site #111)
7. Ward M. Dawson, Sr. Farmstead (WSA site #147)
8. Ridge Historic District (WSA)

### 3.3.4 Climatology

Morgan County has a semi-humid continental climate because of its relatively high, generally evenly distributed precipitation and its marked temperature contrasts between summer and winter. The divide of the Alleghenies, the main topographic barrier of the Appalachian Plateau, runs through Mineral County, west of Morgan County, and shelters Morgan County from prevailing storm systems that move west to east. This area also lies beyond the immediate effects of the Atlantic Ocean, due to its partial sheltering from the more humid coastal climate by the Blue Ridge and Appalachian Mountains (Natural Resources Conservation Service 1978). Annual precipitation is about 35 inches in eastern Morgan County with the heaviest precipitation occurring in spring and summer.

For the year, average daily maximum temperature is about 65°F, while the average monthly maximum temperatures range from 41°F in January to 87°F in July. The average daily minimum temperature for the year is about 40°F, while the average monthly minimum temperatures range from 20°F in January to 59°F in July.

### 3.3.5 Geology

The *West Virginia Geological Survey: Jefferson, Berkeley and Morgan Counties (1916)* was consulted for information on Morgan County geology. The Appalachian Mountain region is one of intense folding and faulting where the rocks have been crowded together in close asymmetrical folds with a general northeast, southwest trend at high angles of dip and are often overthrust with reverse dips.

The structure is further complicated by the larger folds being thrown into minor folds and these into lesser folds, one on top of the other. The complexity of structure increases from west to east.

At Cacapon Mountain, the rocks are raised into a well-defined anticlinal fold that is slightly asymmetrical. The western dips are greater than the eastern by about 10 to 15 degrees. The mountain is mostly capped by hard Medina White Sandstone which forms high cliffs with very picturesque scenery as at Prospect Rock and other points.

In portions of the ridge, the Clinton Shales and Sandstones have been preserved in narrow outcrops, but most of the crest and upper slopes are composed of hard White Medina Quartzose Sandstone. East of Cacapon Mountain is the Silurian Valley of Sir Johns Run to the Warm Spring Ridge, corresponding to Tonoloway Ridge on the western limb of the anticline. Within this area is the Oriskany Sandstone which is mined at the U.S. Silica facility in Berkeley Springs. The average thickness of the deposit is 300 feet (90 meters). The eastern dip of the sandstone near Berkeley Springs is about 50 degrees, but further south decreases to 40 and 35 degrees, thus

showing the less eastern slope of the anticline as compared with the greater western slope at Tonoloway. The height of the two ridges is about the same, 1000 to 1100 feet (305 to 335 meters) on Warm Spring Ridge. East of Warm Spring Ridge is a broad rather shallow syncline in the Devonian Shales which contains a minor anticline to the north bringing in an outcrop of the Hampshire rocks near the Potomac.

The upper rock formations in the US 522 study area are from the Hampshire Formation of the Devonian. The Hampshire is composed of red beds, red shales and sandstone mingled with those of green color, practically barren of fossils, and extending in almost unbroken lines from New York to southern West Virginia. The Hampshire is exposed in several sections in Morgan County. It is composed essentially of green and red sandstone and shales. An outcrop of the Hampshire beds is located on the west side of Sleepy Creek Mountain in a belt ranging from 1 to 1.24 miles (1.6 to 2 kilometers) wide.

### 3.3.6 Topography

The slopes in Morgan County are modest when compared to many counties in West Virginia. Just under half of the land area in Morgan County has a slope over twenty-five percent. Approximately twenty-one percent of Morgan County has a slope in the range of fifteen to twenty-five percent.

Morgan County is located in the physiographic region known as the Ridge and Valley Province. The county can be divided into two divisions: Mountain Area and Ridge Area. The Mountain Area, from Cacapon Mountain to the west, is a series of northeast-southwest trending mountains separated by narrow valleys. The mountain slopes are gashed by steep runs giving a very rough topography, which continues on to the west. The western limit of the Mountain Area of Morgan County is Cacapon Mountain, the highest mountain in the area. It begins southwest of Sir Johns Run on the Potomac as a ridge 591 feet (180 meters) high and rises in 4.0 miles (6.4 kilometers) to 1545 feet (471 meters) at Prospect Rock. The mountain reaches its highest point in the northern area, 2195 feet (669 meters), and 5.0 miles (8 kilometers) southwest of Prospect Rock. The steep slopes and compartments limit settlement and development of much of Morgan County.

The Ridge Area of Morgan County begins at Cacapon Mountain and extends east across a broad valley broken by parallel low ridges following the same course as the mountain. Sleepy Creek drains this area into both transverse and longitudinal valleys, as part of a trellis pattern drainage system.

Warm Spring Ridge extends from the south line of the County north to the Potomac River and beyond in Maryland. The ridge top is approximately level at 800 to 900 feet (245 to 275 meters) in elevation at the north and 1200 feet (365 meters) in elevation to the south. Slopes are steeper on the east than on the west. The valley between this ridge and Cacapon Mountain is drained to the north by Sir Johns Run and to the south and east to Sleepy Creek by Rock Gap Run.

At the south, Indian Run flowing north and east drains this valley to Sleepy Creek. The eastern slope of Warm Spring Ridge is drained by the north-flowing Warm Spring Run. The valley of Warm Spring Run to the north is bound on the east by Horse Ridge, a long level ridge at 800 feet (245 meters) in elevation.

### 3.3.7 Soils

The US 522 study area is composed of four major soil associations. Each soil association consists of an area with a distinctive, characteristic pattern of soil development having one or more major soils and at least one minor soil (Natural Resources Conservation Service, 1978). The major characteristics of each association are discussed below. Table III-8 presents a summary of these data. Most of the soils in the study area are derived from siltstone, shale, sandstone and limestone. Drainage is generally good due to the steep hills in the study area. The major soil associations are:

***Berks-Weikert:*** The soils of this association are shallow to moderately deep, well-drained soils on uplands. This association is found on low rolling foothills and lower mountain slopes, making up approximately 45 percent of the panhandle area of West Virginia. The association is composed of 53 percent Berks soils, 32 percent Weikert soils, and 15 percent less extensive soils. These soils have been developed for homesites, motels and other tourist accommodations along US 522 and WV 9 in Morgan County. Slope and limited depth to bedrock limit the use of this association for homesites, septic tank absorption fields, and roads and streets. The major soils of this association are from the Berks series and the Weikert series. Minor soils of this association are Pope, Phil, Atkins, Ernest, Brinkerton, Leydig, Buchanan, Allegheny, Monongahela, Tygart, Dekalb, Lehew, and Edom.

***Schaffenaker-Murrill-Opequon:*** The soils of this association are shallow, moderately deep to deep and well drained on foot slopes and uplands. This association is found on broad ridge tops, long benchy foot slopes, and some rolling hills in central Morgan County. This association makes up approximately 6 percent of the panhandle area of West Virginia. The association is composed of 19 percent Schaffenaker soils, 15 percent Murrill soils, 9 percent Opequon soils, and 57

percent of less extensive soils. Most of this association is wooded. Cacapon State Park is in this association. Steep slopes, limited depth to bedrock, stoniness, and rockiness are limitations for the use of this association for homesites, septic tank drainage fields, and roads and streets. The major soils of this association are from the Schaffenaker series, Murrill series, and Opequon series. The minor soils are from Leydig, Buchanan, Brinkerton, Clarksburg, Murrill, Berks, Edom, Dekalb and Lehew.

***Dekalb-Lehew-Schaffenaker:*** The Dekalb-Lehew-Schaffenaker association is comprised of moderately deep, well drained soils on uplands. This association is found on ridges in Morgan County which make up about 13 percent of the panhandle area of West Virginia. The association is composed of 28 percent Dekalb soils, 27 percent Lehew soils, 14 percent Schaffenaker soils, and 31 percent of less extensive soils. Most of this association is wooded. Steep slopes, limited depth to bedrock, stoniness, and rockiness limit the use of this association for homesites, septic tank drainage fields, and roads and streets. The major soils of this association are from the Dekalb series, Lehew series, and Schaffenaker series. The minor soils are from Andover, Brinkerton, Leydig, Buchanan, Berks, and Ramsey.

***Lehew-Berks-Dekalb:*** The soils of this association are moderately deep, well-drained soils that formed in acid material weathered from sandstone, siltstone and shale. This association found on rolling hills and mountains, mainly on very steep slopes, makes up about 17 percent of the panhandle area of West Virginia, and is composed of 47 percent Lehew soils, 38 percent Berks soils, 4 percent Dekalb soils and 11 percent less extensive soils. Steepness of slope and limited depth of bedrock limit the use of this association for homesites, septic tank absorption fields, and roads and streets. The major soils are from the Lehew series, Berks series, and Dekalb series. The minor soils are from Pope, Phil, and Atkins on flood plains; Leydig, Albrights, Buchanan, Andover, Ernest, Brinkerton, and Murrill are variant soils on the foot slopes; and Weikert and Calvin soils are in the areas of rubble land; and Lithic Udorthents are the rock outcrop complex on uplands.

## *TABLE III - 8*

## PHYSICAL AND CHEMICAL PROPERTIES OF MAJOR SOIL SERIES

| MAJOR SOIL SERIES | DEPTH FROM SURFACE (typical profile) (mm) | CLASSIFICATION DOMINANT USDA TEXTURE | PERME-ABILITY (mm/hr) | AVAILABLE WATER CAPACITY (mm/mm of soil) | RE-ACTION (pH) | SHRINK SWELL POTENTIAL | SOIL FEATURE AFFECTING HIGHWAY |
|---|---|---|---|---|---|---|---|
| **Berks** | 0 - 228<br>228 - 660<br>>660 | Channery silt loam<br>Very channery silt loam<br>Shale and siltstone | 50.8 - 152.4<br>50.8 - 152.4 | 0.08 - 0.12<br>0.06 - 0.10 | 4.5 - 5.5<br>4.5 - 5.5 | Low<br>Low | Rippable bedrock at depth of 0.6 - 0.9 m. |
| **Dekalb** | 0 – 203<br>203 - 610<br>610 - 686<br>>686 | Sandy loam<br>Channery sandy loam<br>Very channery sandy loam<br>Sandstone | 50.8 - 152.4<br>50.8 - 152.4<br>50.8 - 152.4 | 0.08 - 0.12<br>0.06 - 0.12<br>0.05 - 0.10 | 4.5 - 5.5<br>4.5 - 5.5<br>4.5 - 5.5 | Low<br>Low<br>Low | Bedrock at depth of 0.6 - 0.9 m. |
| **Lehew** | 0 – 152<br>152 - 813<br>>813 | Channery fine sandy loam, flaggy fine sandy loam<br>Very channery fine sandy loam, channery fine sandy loam.<br>Sandstone | 50.8 - 152.4<br>50.8 - 152.4 | 0.08 - 0.12<br>0.06 - 0.10 | 4.5 - 5.5<br>4.5 - 5.5 | Low<br>Low | Bedrock at depth of 0.6 - 0.9 m. |
| **Murrill** | 0 – 330<br>330-1092<br>1092 - 1524 | Loam, channery loam<br>Channery loam, channery sandy clay loam<br>Silty loam | 15.2 - 50.8<br>15.2 - 50.8<br>15.2 - 50.8 | 0.12 - 0.16<br>0.10 - 0.14<br>0.08 - 0.18 | 4.5 - 5.5<br>4.5 - 5.5<br>4.5 - 6.5 | Low<br>Low<br>High | Solution channel in underlying bedrock in places. |
| **Opequon** | 0 – 152<br>152 - 406<br>>406 | Silty clay loam, silty clay<br>Silty clay, clay<br>Limestone | 15.2 - 50.8<br>5.0 - 15.2 | 0.16 - 0.20<br>0.12 - 0.16 | 5.6 - 7.3<br>5.6 - 7.3 | Moderate<br>High | Bedrock at depth of 0.4-0.5 m.; rock outcrops. |
| **Schaffenaker** | 0 – 965<br>>965 | Loam sand<br>Sandstone | > 152.4 | 0.04 - 0.06 | <4.5-5.5 | Low | Bedrock at depth of 0.6-0.9 m.; stones. |
| **Weikert** | 0 – 127<br>127 - 330<br>>330 | Shaley silt loam<br>Very shaley silt loam<br>Shale | 50.8 - 152.4<br>50.8 - 152.4 | 0.08 - 0.14<br>0.04 - 0.08 | 4.5 - 5.5<br>4.5 - 5.5 | Low<br>Low | Rippable bedrock at depth of 0.3-0.5 m. |

Source: USDA Soil Conservation Service, *Soil Survey of Hampshire, Mineral, and Morgan Counties, West Virginia,* February, 1978.

### 3.3.8 Mineral Resources

The location of mineral resources within the study area was determined to assess the potential impact of roadway construction on the possible economic benefits derived from the exploitation of these resources. The location of mineral resources is dependent on soil types and geological composition. The *Berkeley County Comprehensive Plan* (1990), *Potomac Headwaters: Project Plan for Potomac Headwaters Resource Conservation and Development Region* (1974), and *West Virginia Geological Survey: Jefferson, Berkeley, and Morgan Counties* (1916) have described the mineral deposits within the study area. A summary of mineral resources as well as the development of these resources follows.

#### 3.3.8.1 Limestone

Limestone outcrops along the east side of Tonoloway Ridge and the upper west slope of Warm Spring Ridge. This limestone was once quarried and crushed at a small plant on the west slope of Warm Spring Ridge. It was considered to make good lime and also excellent road material. There are a number of places along Warm Spring Ridge where this stone can still be quarried.

#### 3.3.8.2 Sandstone

The most important glass-sand district in West Virginia is located near Berkeley Springs where Oriskany Sandstone is quarried. This sandstone outcrops on a number of ridges in Morgan County and is usually iron-stained, impure, and often quite hard; but on the Warm Spring Ridge it is a pure white friable sandstone especially adapted for use as glass-sand. The glass-sand quarries are large open cuts located on what is considered the best portion of the sandstone stratum and convenient to a plant site near the railroad. If the quarry can be located at a level above the plant, the gravity incline to the plant adds to the economy of the operation. Most of Berkeley Springs quarries are circular in outline. Radiating tracks feed to the outline track providing a series of short tracks that allow a large amount of sandstone to be processed at one time. Oriskany Sandstone is used as a basic raw material for glass containers, flat glass products, fiberglass, chemical products, special glass products, ceramic products, epoxy, silicon rubber, plastics, paints, and for other applications.

The glass-sand industry extends from Warm Spring Ridge about 0.75 miles (1.2 kilometers) south of the Potomac River to Berkeley Springs. At Berkeley Springs the overlying shales on the east or quarry-side of the ridge must be cut through to reach the sandstone. The quarry thus has a peculiar appearance from a distance. There is an open face of glistening white sandstone against the ridge reached by a narrow dark cut through shales. On the west slope of the ridge where there is one quarry, the sandstone is reached by a tunnel through the underlying Helderberg Limestone.

The sand is surface-mined near Berkeley Springs and processed by two former mining companies, Berkeley Springs Sand Company and Pennsylvania Glass Sand Company. Presently, the U.S. Silica Company , formerly the Pennsylvania Glass Sand Company, mines silica sand. The Berkeley Springs Sand Company plant was built within the town in 1891. The U.S. Silica Company has mining and processing sand activities located adjacent to existing US 522 north of Berkeley Springs. The quarry is located nearly halfway up the ridge and shows a face of rock 120 feet (37 meter) high. Mining yields ore, which is processed as silica sand and shipped via truck or railcar by the U.S. Silica Company (U.S. Silica 1991).

There is no development of the Oriskany Sandstone to the south of Berkeley Springs. The sandstone extends far to the southwest along this ridge to and beyond the Virginia state line. The sandstone is a friable rock much iron-stained in places, and mixed in the exposed surface portions with clay and soil as far back as Rock Gap, 8 miles (13 kilometers) south of Berkeley Springs.

### 3.3.9 Prime and Important Farmland

Morgan County has 22,148 acres [ac] (8,963 hectares [ha]) of designated important farmland. The designated farmlands are identified by the Department of Agriculture, Natural Resources Conservation Service (NRCS), and are based on designated soil types. Form AD-1006 was completed following approval of the selected alternative in accordance with directions received from the NRCS, formerly the Soil Conservation Service. The designated farmlands are sparsely scattered through the county including areas near the alignment of existing US 522 and especially to the east of US 522. The designated important farmlands are based upon soil survey maps. In the county, there is 5,670 ac (2,295 ha) of prime farmland, 1,250 ac (506 ha) of unique farmland other than prime, and 15,228 ac (6,163 ha) of additional farmland of statewide and local importance.

Most of the designated farmlands are along Sleepy Creek and its tributaries. The acreage of farmland that would be converted to roadway by the selected alternate will be determined and considered among in *Section IV: Environmental Consequences.*

### 3.3.10 Air Quality

The Federal Highway Administration (FHWA), in compliance with the Clean Air Act Amendments of 1990, has issued regulations requiring that highway projects must be consistent with the State Implementation Plan (SIP) to be eligible for US Government funding. The SIP, developed by the State Office of Air Quality, specifies the methods adopted by the State that will ensure the attainment and maintenance of ambient air quality in compliance with the National Ambient Air Quality Standards (NAAQS) that are given in Table III-9. The Clean Air Act established two types of national air quality standards. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation and buildings.

The US Environmental Protection Agency (EPA) is required by the Clean Air Act to set National Ambient Air Quality Standards for pollutants. The EPA Office of Air Quality Planning and Standards (OAQPS) has set National Ambient Air Quality Standards for six principal pollutants, which are called "criteria" pollutants. They are listed below. Units of measure for the standards are part per million (ppm), milligrams per cubic meter of air ($mg/m^3$), and micrograms per cubic meter of air ($\mu g/m^3$).

Morgan County and the project area have been designated in attainment/unclassifiable for all criteria pollutants. Therefore, the project is exempt from the requirements of the Federal Transportation Conformity Rule(s) [40 CFR 93]. The SIP, with regard to Morgan County, is concerned with maintaining attainment of all air quality standards.

***TABLE III – 9***
**National Primary and Secondary**
**AMBIENT AIR QUALITY STANDARDS***

| POLLUTANT | STANDARD VALUE | | STANDARD TYPE |
|---|---|---|---|
| CARBON MONOXIDE (CO) | | | |
| 8-hour Average | 9 ppm | (10mg/m$^3$)** | Primary |
| 1-hour Average | 35 ppm | (40 mg/m$^3$)** | Primary |
| NITROGEN DIOXIDE ($NO_2$) | | | |
| Annual Arithmetic Mean | 0.053 ppm | (100 $\mu$/m$^3$)** | Primary & Secondary |
| OZONE ($O_3$) | | | |
| 8-hour Average | 0.08 ppm | (157 $\mu$g/m$^3$)** | Primary & Secondary |
| 1-hour Average* | 0.12 ppm | (40 $\mu$g/m$^3$)** | Primary & Secondary |
| LEAD (Pb) | | | |
| Quarterly Average | | 1.5 $\mu$/m$^3$ | Primary & Secondary |
| PARTICULATE <10 Micrometers (PM-10) | | | |
| Annual Arithmetic Mean | | 50 $\mu$/m$^3$ | Primary & Secondary |
| 24-hour Average | | 150 $\mu$/m$^3$ | Primary & Secondary |
| PARTICULATE <2.5 Micrometers (PM-2.5) | | | |
| Annual Arithmetic Mean | | 15 $\mu$/m$^3$ | Primary & Secondary |
| 24-hour Average | | 65 $\mu$/m$^3$ | Primary & Secondary |
| SULFUR DIOXIDE ($SO_3$) | | | |
| Annual Arithmetic Mean | 0.03 ppm | (80 $\mu$/m$^{3)**}$ | Primary |
| 24-hour Average | 0.14 ppm | (365 $\mu$/m$^3$) | Primary |
| 3-hour Average | 0.50 ppm | (1300 $\mu$/m$^3$) | Secondary |

* The ozone 1-hour standard applies only to area that were designated non-attainment when the ozone 8-hour standard was adopted July 1997. This provision allows a smooth, legal, and practical transition to the 8-hour standard.

** Parenthetical value is an approximately equivalent concentration.

* A recent Federal Court decision has revised the NAAQS standards to the following: left the revised 8-hour ozone standard in place, but stated that it “cannot be enforced.”, vacated the revised coarse particle ($PM_{10}$) standards, but the old $PM_{10}$ standards still apply, and ruled that the $PM_{2.5}$ standard should remain in place. However, the Court will allow parties to apply for the standard to be vacated if “the presence of this standard threatens a more imminent harm”.

### 3.3.11 Noise

The sensitivity of an area to highway noise is a function of land use and noise level. Some types of land use are more sensitive than others, especially those associated with rest, relaxation, concentration, and communication. Examples of noise sensitive areas include residences, schools, churches, hospitals, libraries, public assembly halls, lodgings, and parks. Land uses, which are less sensitive to noise, include commercial, industrial and some types of agricultural uses.

Land use within the study area can be characterized as predominantly residential with emerging retail and employment centers. Settlement has occurred predominantly along the thoroughfares, with residential developments accessing these roads and commercial centers developing along the thoroughfare frontages. Pockets of developed land, rural housing, and agricultural land occur in the more southern portions of the study area.

Noise sensitive land uses such as schools, churches, cemeteries, and recreation areas are scattered throughout the study area.

The dominant existing noise sources within the study area are generated from roadways, construction activities, and occasional aircraft. *Section IV: Environmental Consequences* of this report discusses existing noise levels, and the anticipated impacts of construction activities.

### 3.3.12 Water Resources

The water resources within the study area are primarily first, second and third order streams draining to the Potomac River. Additionally, farm ponds and floodwater retarding dams are common in the study area.

#### 3.3.12.1 Watersheds, Watercourses, and Impoundments

The study corridor is contained within one major drainage basin, the Potomac River Basin. The watersheds and watercourses in the study area are described in general as follows:

***Warm Spring Run -*** This small watershed drains 29.3 square kilometers (11.3 square miles) north to the Potomac River between Warm Spring Ridge and Pious Ridge. Warm Springs Run water is bottled and used for medical and recreational purposes. The watershed has had problems with flooding which have been somewhat alleviated through the construction of eight water control dams. Data for these dams are given in Table III-10.

***TABLE III - 10***
**WARM SPRING RUN FLOODWATER RETARDING DAMS**

| SITE | PERM. POOL HA | PERM. POOL (AC) | MAX POOL HA | MAX POOL (AC) | DATE COMPLETED | COST OF CONSTR. | AMOUNT OF FLOOD CONTROL Kiloliters | AMOUNT OF FLOOD CONTROL Gallons |
|---|---|---|---|---|---|---|---|---|
| 1 | 0.2 | (0.4) | 0.8 | (1.9) | 1958 | $17,872 | 32,191 | 8,505,000 |
| 2 | 0.2 | (0.5) | 0.8 | (2.1) | 1956 | $17,473 | 21,953 | 5,800,000 |
| 3 | 0.6 | (1.4) | 2.5 | (6.1) | 1955 | $26,792 | 94,474 | 24,960,000 |
| 4 | 0.4 | (0.9) | 1.7 | (4.2) | 1961 | $36,621 | 49,356 | 13,040,000 |
| 5 | 0.4 | (0.9) | 1.9 | (4.8) | 1955 | $16,023 | 63,641 | 16,814,000 |
| 6 | 0.2 | (0.5) | 1.2 | (2.9) | 1958 | $13,980 | 27,256 | 7,201,000 |
| 7 | 0.2 | (0.4) | 0.7 | (1.7) | 1956 | $12,879 | 18,872 | 4,986,000 |
| 8 | 0.2 | (0.6) | 1.3 | (3.3) | 1957 | $17,872 | 35,518 | 9,384,000 |

***Sleepy Creek -*** This fairly large watershed stretches from the Potomac River in Morgan County, West Virginia to Frederick County, Virginia. Its drainage area in West Virginia is 144 square miles. Several small watersheds throughout the study area drain into Sleepy Creek. The tributaries in the study area consist of Big Run, Breakneck Run, Indian Run, Rock Gap Run, Yellow Spring Run, Swim Run, and several smaller unnamed tributaries. US 522 and the proposed alignments to improve US 522 cross these tributaries. The tributaries are fed by springs and surface runoff. Numerous small bodies of standing water are found in the watershed.

***Potomac River -*** The northern boundary of the study area is the Potomac River. It is formed by the confluence of two parent tributaries, the North Branch and the South Branch. The Potomac River Basin drains the northeastern portion of West Virginia, and parts of the surrounding states. The elevation of the Potomac River at its source is 540 feet (165 meters) with an average rate of fall of 2.4 feet per mile (0.46 m/km). The Potomac River Basin in West Virginia has a drainage area of 3,490 square miles (9,039 square kilometers), containing all of Pendleton, Grant, Hardy, Mineral, Hampshire, Morgan, Berkeley, and Jefferson Counties. The Potomac River forms the West Virginia boundary with Maryland in the eastern panhandle.

### 3.3.12.2 Floodways and Floodplains

Regulatory floodways and floodplains were identified in accordance with Executive Order 11988 Floodplain Management. The floodway areas for all creeks except Warm Spring Run, in the Town of Bath, were identified using Federal Emergency Management Administration (FEMA) Flood Hazard Boundary Maps for Morgan County, which indicate "Special Flood Hazard Zone A" areas. The Zone A classification denotes flood prone areas within the limits of a 100 year flood potential. For the Warm Spring Run area, in the Town of Bath, the Warm Spring Run Flood Plain Management Study, dated December 1991, was used to identify the limits of the 100 and 500 year floodplains.

Although all of Morgan County was incorporated into the Regular Program of the National Flood Insurance Program on July 1, 1987, the Federal Insurance Administration has not published Flood Insurance Rate Maps for any other area outside of the Town of Bath. A Flood Plain Management Study sponsored by the Town of Bath, the Morgan County Commissioners, and the Eastern Panhandle Soil Conservation District was published in December 1991. This study identifies the 100 year floodplain limits, various flood discharges, and elevations along the Warm Spring Run watershed (see Figure III-1 Composite Resource Inventory).

The floodplain consists of the floodway fringe and the floodway. Development is permitted within the floodway fringe, which is generally considered a part of the overbank area, provided various federal, state, and local ordinances and regulations are followed. The floodway is reserved for floodwater conveyance, and development within this area is prohibited. Crossing floodways with a roadway is permitted provided proper procedures and detailed studies are conducted to insure the crossing causes no adverse impacts. In cases where the proposed crossing may alter the characteristics of the floodway, (i.e. width, depth of flow, flow velocity, etc.), a request for a floodway modification must be submitted and approved by the local governing body and then approved by FEMA.

### 3.3.13 Water Quality

The entire study area drains into the Potomac River. From the study area and proceeding downstream in the Potomac River, the streams are the Warm Spring Run, Dry Run, and Sleepy Creek. Smaller streams in the study area drain into Sleepy Creek. These are Swim Run, Yellow Spring Run, Rock Gap Run, Indian Run, and Breakneck Run. Big Run is a smaller stream draining into Breakneck Run.

#### 3.3.13.1 Surface Water

In general, the water quality of Morgan County streams is good. There is no evidence of consistent water quality problems in the county. Water quality parameters evaluated included dissolved oxygen, pH (acid alkaline balance), temperature, and metals. There have been

occasional violations of state criterion for fecal coliform bacteria which is indicative of either human or animal wastes entering the streams from houses, septic systems, or agricultural activities. High quality streams provide fish, wildlife, and recreational resources. They are of vital concern to the West Virginia Department of Natural Resources in fulfilling its responsibility to all citizens to protect these valuable natural resources. The criteria for high quality stream designation is as follows:

(1) All streams which are stocked with trout or that contain native trout populations.
(2) Warm water streams over five miles in length with desirable fish populations and public utilization thereof.

Section 401 of the Clean Water Act requires that states adopt water quality standards for various use classifications to protect current and future uses of waters under state jurisdiction. Streams in West Virginia are classified under Title 46, Legislative Rule- Environmental Quality Board, Series 1-Requirements Governing Water Quality Standards to establish use categories and water quality standards. To determine the existing conditions of surface water quality in the study area, readily available sampling results of surface water were compared with WVDEP-OWR state standards for surface water quality. Table III-11 lists the water use categories for West Virginia.

**TABLE III-11**
**WEST VIRGINIA WATER USES CATEGORIES**

| Use Category | Use Identification | Use Description |
|---|---|---|
| A | Water supply, public | Streams used for public water consumption |
| B | Propagation and maintenance of fish and other aquatic life | Streams designated for propagation and maintenance of fish and other aquatic life |
| B1 | Warm water fisheries | Streams with populations of warm water aquatic life |
| B2 | Trout waters | Streams with year-round natural trout populations |
| B4 | Wetlands | Wetlands of the state not classified as a stream use |
| C | Water contact recreation | Streams for swimming, fishing, water skiing, and boating |
| D1 | Irrigation | Streams used for irrigation |
| D2 | Livestock watering | Streams used for livestock watering |
| D3 | Wildlife | Streams and wetlands used for wildlife |
| E1 | Water transport | Streams modified for water transport and having navigation aids |
| E2 | Cooling water | Stream segments having one or more users for industrial cooling |
| E3 | Power production | Streams 500 feet upstream of power plant intake to ½ mile downstream of the wastewater discharge |
| E4 | Industrial | Streams with one or more industrial users |

Source: Title 46, Legislative Rule- Environmental Quality Board, Series 1-Requirements Governing Water Quality Standards

All waters of the state have the minimum designation of Use B (Propagation and maintenance of fish and aquatic life) and Use C (Water contact recreation). Additionally, most surface waters in the study area are classified as being Use B and Use C. Table III-12, “Maximum Allowable Levels of Surface Water Parameters” lists the maximum allowable levels of water quality parameters for Use B1-Warm water fisheries and Use C-Water contact recreation.

***Table III-12***

## MAXIMUM ALLOWABLE LEVELS OF SURFACE WATER PARAMETERS

| Parameter | Use B1–Warm water fisheries | | Use C-Water contact recreation | |
|---|---|---|---|---|
| | Unit** | Level | Unit** | Level |
| Aluminum | ug/l | 750 | None | None |
| Ammonia | None | None | None | None |
| Antimony | None | None | ug/l | 4300 |
| Arsenic | None | None | ug/l | 50 |
| Trivalent Arsenic | None | 360 | None | None |
| Barium | None | None | None | None |
| Beryllium | ug/l | 130 | None | None |
| Cadmium | ug/l | Formula* | ug/l | Formula* |
| Chloride | mg/l | 860 | mg/l | 250 |
| Copper | ug/l | Formula* | ug/l | Formula* |
| Cyanide | ug/l | 22 | ug/l | 5.0 |
| Dissolved Oxygen | mg/l | 5 | mg/l | 5 |
| Fecal Coliform | None | None | colonies/100ml | 400 of all monthly samples |
| Fluoride | mg/l | 2.0 | mg/l | 2.0 |
| Hexavalent chromium | ug/l | 16 | None | None |
| Iron | None | None | None | None |
| Lead | ug/l | Formula* | None | Formula* |
| Manganese | None | None | None | None |
| Mercury in water | ug/l | 2.4 | ug/l | 0.15 |
| Methylmercury | None | None | None | None |
| Nickel | ug/l | Formula* | ug/l | 4600 |
| Nitrate | None | None | None | None |
| Nitrite | mg/l | 1.0 | None | None |
| Organics | None | None | None | None |
| Chlordane | ng/l | 2400 | ng/l | 0.46 |
| DDT | ng/l | 1100 | ng/l | 0.024 |
| Aldrin | ng/l | 3.0 | ng/l | 0.071 |
| Dieldrin | ng/l | 2500 | ng/l | 0.071 |

**Table III-12**
**MAXIMUM ALLOWABLE LEVELS OFSURFACE WATER PARAMETERS- cont'd**

| | Use B1-Warm Water | | Use C-Water Contact Recreation | |
|---|---|---|---|---|
| **Parameter** | **Unit**** | **Level** | **Unit**** | **Level** |
| Endrin | ng/l | 180 | ng/l | 2.3 |
| Toxaphene | ng/l | 730 | ng/l | 0.73 |
| PCB | None | None | ng/l | 0.045 |
| Methoxychlor | None | None | ug/l | 0.03 |
| Dioxin (2,3,7,8,-TCDD) | None | None | pg/l | 0.014 |
| Acrylonitrile | None | None | ug/l | 0.66 |
| Benzene | None | None | ug/l | 71 |
| 1,2-Dichlorobenzene | None | None | mg/l | 17 |
| 1,3-Dichlorobenzene | None | None | mg/l | 2.6 |
| 2,4-Dinitrotoluene | None | None | ug/l | 9.1 |
| Hexachlorobenzene | None | None | ng/l | 0.77 |
| Carbon tetrachloride | None | None | ug/l | 4.4 |
| Chloroform | ug/l | 28900 | ug/l | 470 |
| Halomethanes | None | None | ug/l | 15.7 |
| 1,2-Dichloroethane | None | None | ug/l | 99 |
| 1,1,1-Trichloroethane | None | None | None | None |
| 1,1,2,2-Tetrachloroethane | None | None | ug/l | 11 |
| 1,1-Dichloroethylene | None | None | ug/l | 3.2 |
| Trichloroethylene | None | None | ug/l | 81 |
| Tetrachloroethylene | None | None | ug/l | 8.85 |
| Toluene | None | None | mg/l | 200 |
| Polynuclear Aromatic Hydrocarbons (PAH) | None | None | ug/l | 0.031 |
| Phthalate esters | None | None | None | None |
| Vinyl chloride (chloroethene) | None | None | ug/l | 525 |
| Alpa-BHC (alpha-hexachlorocyclohexane) | None | None | ug/l | 0.013 |
| Beta-BHC (Beta-hexachlorocyclohexane) | None | None | ug/l | 0.046 |

**TABLE III-12**
**MAXIMUM ALLOWABLE LEVELS OF SURFACE WATER PARAMETERS – cont'd**

| Parameter | Use B1–Warm water fisheries | | Use C-Water contact recreation | |
|---|---|---|---|---|
| | Unit** | Level | Unit** | Level |
| Chlorobenzene | None | None | mg/l | 21 |
| Ethylbenzene | None | None | mg/l | 29 |
| Heptachlor | ng/l | 520 | ng/l | 0.21 |
| 2-methyl-4,6-dinitrophenol | None | None | ug/l | 765 |
| Fluoranthene | None | None | ug/l | 370 |
| PH | pH units | 6.0 (min)<br>9.0 (max) | ph units | 6.0 (min)<br>9.0 (max) |
| Phenol | ug/l | 10200 | None | None |
| Gross beta activity | pci/l | 1000 | pci/l | 1000 |
| Dissolved strontium-90 | pci/l | 10 | pci/l | 10 |
| Dissolved alpha emitters | pci/l | 3 | pci/l | 3 |
| Gross total alpha particle activity | See Legislative Rule | | | |
| Selenium | ug/l | 20 | None | None |
| Silver | ug/l | Formula* | None | None |
| Temperature | Degrees F | 5 (min)<br>87 (max)<br>May-Nov<br>5 (min)<br>73 (max)<br>Dec-April | None | None |
| Thallium | None | None | ug/l | 6.3 |
| Threshold Odor | None | None | threshold odor number | 8 at 104 degrees F |
| Total Residual Chlorine | ug/l | 19 | None | None |
| Total Recoverable Zinc | ug/l | Formula* | None | None |

* See Title 46, Legislative Rule- Environmental Quality Board, Series 1-Requirements Governing Water Quality Standards for the formula to determine the parameter level.

** There are no regulated maximum standards for constituents marked as "none" in the State Standard Maximum column.

Source: Title 46, Legislative Rule- Environmental Quality Board, Series 1-Requirements Governing Water Quality Standards.

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The West Virginia Division of Environmental Protection - OWR under the authority of the federal Clean Water Act, Section 303(d) and the U.S. Environmental Protection Agency (EPA) Water Quality Planning and Management Regulations, 40CFR Part 130.7, is required to develop and submit to EPA

on a biennial basis a list of water quality limited waters. A water quality limited water can be defined as a water body which, due to pollution impairment, fails to meet state water quality standards. No listed impaired streams occur in the study area.[2] Table III-13, "Surface Water Quality Sampling Results for Warm Spring Run - US Geological Survey - Morgan County, West Virginia - October 1989 to September 1990 - WVDEP-OWR", shows the observed levels of surface water quality parameters from that period were within the acceptable ranges listed in the Legislative Rule.

***TABLE III-13***
**SURFACE WATER QUALITY SAMPLING RESULTS FOR WARM SPRING RUN**
**US GEOLOGICAL SURVEY**
**MORGAN COUNTY, WEST VIRGINIA**
**OCTOBER 1989 TO SEPTEMBER 1990**

| Constituent | Observation (Range) | Unit | State Standard Limit – Use B1 | | State Standard Limit – Use C | |
|---|---|---|---|---|---|---|
| | | | Value | *Unit* | Value | Unit |
| Specific Conductance | 260 - 350 | us/cm | None | None | None | None |
| pH | 7.3 - 8.2 | units | 6.0 (min)<br>9.0 (max) | units | 6.0 (min)<br>9.0 (max) | units |
| Temperature (water) | 6 - 23 | degrees C | 5 (min)<br>87 (max)<br>May-Nov<br>5 (min)<br>73 (max)<br>Dec-April | degrees F | None | None |
| Dissolved Oxygen | 6 - 12 | mg/l | 5 (min) | mg/l | 5 (min) | mg/l |
| Dissolved Oxygen | 77.9 - 100.9 | % saturation | None | None | None | None |
| Sodium Dissolved | 6.5 - 14 | mg/l | None | None | None | None |
| Potassium Dissolved | 1.2 - 1.9 | mg/l | None | None | None | None |
| Chloride Total | 7 - 22 | mg/l | None | None | None | None |
| Fluoride Dissolved | .1 - .6 | mg/l | None | None | None | None |
| Arsenic Dissolved | 1 | ug/l | None | ug/l | 50 | ug/l |
| Barium Dissolved | 63 - 69 | ug/l | None | ug/l | None | ug/l |
| Beryllium Dissolved | 1 | ug/l | 130 | ug/l | None | ug/l |

[2]Supplement to the West Virginia 1998 303(d) list, Office of Water Resources, Division of Environmental Protection, Charleston, West Virginia.

**TABLE III-13**
**SURFACE WATER QUALITY SAMPLING RESULTS FOR WARM SPRING RUN**
**US GEOLOGICAL SURVEY**
**MORGAN COUNTY, WEST VIRGINIA**
**OCTOBER 1989 TO SEPTEMBER 1990 – cont'd**

| Constituent | Observation (Range) | Unit | State Standard Limit – Use B1 | State Standard Limit – Use C |
|---|---|---|---|---|
| | | | Value | *Unit* |
| Cadmium Dissolved | 1 | ug/l | Formula | ug/l |
| Chromium Dissolved | 5 | ug/l | 16 | ug/l |
| Colbolt Dissolved | 3 | ug/l | None | None |
| Copper Dissolved | 10 | ug/l | Formula | ug/l |
| Lead Dissolved | 10 | ug/l | Formula | ug/l |
| Molybdenum Dissolved | 10 | ug/l | None | None |
| Nickel Dissolved | 10 | ug/l | Formula | ug/l |
| Silver Dissolved | 10 | ug/l | None | None |
| Strontium Dissolved | 310 - 430 | ug/l | None | None |
| Vanadium Dissolved | 6 | ug/l | None | None |
| Zinc Dissolved | 3 - 8 | ug/l | None | None |
| Residue Total Filtrable (Dried at 180C) | 149 - 192 | mg/l | None | None |

High quality streams provide "significant and even irreplaceable fish, wildlife, and recreational resources". Morgan County contains six high-quality streams and one river designated by the WV Department of Natural Resources[3]. They are: Meadow Branch, Middle Fork of Sleepy Creek, Rock Gap Run, Rockwell Run, Sir Johns Run and Sleepy Creek. The Cacapon River and tributaries are also designated in Morgan County. Within the study area, two high-quality streams are present, Sleepy Creek and Rock Gap Run, part of the Potomac River system. The Preferred Alternate crosses Rock Gap Run along Rock Gap Road (Morgan County 38/6). Stream characteristics were observed at several locations in the study area as reported in Table III-14.

[3]Potesta, R.R. 1986. *West Virginia High Quality Streams*, Fifth Edition, Wildlife Resources Division, Department of Natural Resources, 45pp.

## TABLE III - 14
## STREAM CHARACTERISTICS OBSERVED AT PROPOSED CROSSING LOCATIONS FOR THE US 522 PROJECT

| Characteristics | CREEK LOCATION | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Breakneck Run near Fish Hatchery Road (SR 38/10) | | Rock Gap Run near Rock Gap Road (SR 38/6) and US 522 Intersection | | Indian Run near Cacapon State Park Entrance and US 522 Intersection | | Warm Spring Run at Sand Mine Road (SR 38/1) Crossing | |
| | meter | feet | meter | Feet | meter | feet | meter | feet |
| Channel Width | 1.2 | (4) | 4.6 | (15) | 6.1 | (20) | 6.1 | (20) |
| Water Depth | 0.2 | (0.5) | 0.3 | (1) | 0.2 | (0.5) | 0.2 | (0.5) |
| Current | Strong | | Sluggish | | Strong | | Moderate | |
| Water Color | Clear | | Clear | | Clear | | Clear | |
| Substrate | gravel, quartz sand, boulder | | gravel, sand | | gravel, sand, boulder | | sand | |
| Water Odor | None | | None | | None | | None | |
| Aquatic Vascular Plants | Elodea | | None | | None | | None | |
| Aquatic Invertebrates | crayfish*<br>water beetle<br>snail | | crayfish*<br>water strider*<br>caddisfly<br>stonefly | | water strider*<br>caddisfly<br>alderfly*<br>stonefly | | crayfish*<br>water strider*<br>stonefly<br>mayfly<br>water penny* | |

*GENERA: CRAYFISH (*Procambarus spp.*); alderfly (*Sialis spp*.); water strider (*Gerris spp.*); water penny (*Psephenus spp.*)

The WVDEP-OWR provided lists and discharge data for domestic and industrial point source dischargers. There are nine domestic point source dischargers and six industrial point source discharger within the study area and are identified in Table III-15.

***TABLE III - 15***
**PERMITTED POINT SOURCE DISCHARGERS[4]**

| DOMESTIC | | | | | | |
|---|---|---|---|---|---|---|
| | | EFFLUENT | | | TKN | |
| **FACILITY** | **STREAM** | **MID** | **(MGD)** | **BOD5 #/day** | **kg/day** | **lbs/day** |
| McCumbee Mobile Home Park | Rock Gap Run | 0.06 | (0.0150) | 3.75 | 1.0 | 2.25 |
| Cacapon State Park | Indian Run | 0.09 | (0.0250) | 6.26 | 1.7 | 3.75 |
| Warm Springs, PSD | Warm Spring Run | 1.5 | (0.4000) | 33.36 | 4.8 | 10.68 |
| Valley View Nursing Home | Sleepy Creek | 0.1 | (0.0350) | 8.76 | 2.4 | 5.25 |
| Skyline Mobile Home Park | Swim Run | 0.6 | (0.1525) | 6.36 | 10.4 | 22.89 |
| TRI Lake Mobile Home Park | Sleepy Creek | 0.3 | (0.0750) | 18.77 | 5.1 | 11.26 |
| East, West VA Housing | Big Run | 0.03 | (0.0075) | 1.88 | 0.5 | 1.13 |
| Valley Dale Subdivision | Indian Run | 0.2 | (0.0480) | 12.01 | 3.3 | 7.21 |
| Charles B. Ullom | Sleepy Creek | 0.02 | (0.0040) | 1.00 | 0.3 | 0.60 |

MLD: million liters per day
lbs: pounds
BOD5: 5-day biochemical oxygen demand
kg: kilograms
MGD: million gallons per day
TKN: Total Kjedahl Nitrogen

[4] Source: WV Division of Environmental Protection, Charleston, WV

***TABLE III-15***
**PERMITTED POINT SOURCE DISCHARGERS – cont'd**

| INDUSTRIAL | | | | | | | |
|---|---|---|---|---|---|---|---|
| FLOW | | | | | | | |
| **Facility** | **Stream** | **MDL** | **MGD** | **MAX. TSS MG/L** | **OIL AND GREASE MG/L** | **MAX BOD MG/L** | **pH** |
| DBM Enterprises | Warm Spring Run / Potomac River | 0.009 | 0.0025 | 60 | 15 | 60 | 6.0 to 9.0 |
| MDG Companies | Indian Run / Sleepy Creek / Potomac River | N/A | N/A | N/A | N/A | N/A | N/A |
| High's Dairy Store* | Unnamed Tributary to Warm Spring Run | N/A | N/A | N/A | N/A | N/A | N/A |
| Westvaco Berkeley Springs Woodyard | Warm Spring Run / Potomac River | N/A | N/A | 604 | 3.34 | 37.5 | 6.75 to 8.35 |
| Tom Seely Furniture | Unnamed Tributary Sleepy Creek / Potomac River | N/A | N/A | 30 | N/A | 28.78 | 6.0 to 9.0 |
| TH Compton, Inc. | Upper Tributary of Sleepy Creek | N/A | N/A | 60 | 15 | 10 | 6.0 to 9.0 |

* High's Dairy Store is a listed point source discharger which is no longer operational. The building has been removed from the property.

**MLD:** million liters per day
**lbs:** pounds
**BOD5:** 5-day biochemical oxygen demand
**kg**: kilograms
**MGD**: million gallons per day
**TKN:** Total Kjedahl Nitrogen

Warm Springs Point Source Discharge (PSD) is the largest permitted domestic point source discharger within the study area, with an effluent of 0.4 million gallons/day (1.5 million liters/day). This source creates a 5-day biochemical oxygen demand (BOD) of 33.4 lbs./day (15.1 kg/day) and Total Nitrogen of 10.7 lbs./day (4.8 kg/day). *'BOD'*$_5$ stands for five day Biochemical Oxygen Demand and is the most widely used parameter for measuring organic pollution. This determination involves the measurement of the dissolved oxygen used by microorganisms in the biochemical oxidation of organic matter. Waste loads entering the Potomac River are shown in Table III-16. The wasteload from Warm Spring Run entering the Potomac River has a BOD of 2.7 lbs/day (1.2 kg/day) and Total Nitrogen of 0.4 lbs/day (0.17 kg/day). A majority of the point source dischargers are located within the Warm Spring Run and Sleepy Creek watersheds.

***TABLE III - 16***
**WASTELOADS ENTERING POTOMAC RIVER**

| | BOD | | TKN | |
|---|---|---|---|---|
| **STREAM** | **Kg/day** | **(lbs/day)** | **kg/day** | **(lbs/day)** |
| Warm Spring Run | 1.2 | 2.67 | 0.17 | 0.37 |
| Sleepy Creek | 0.004 | 0.01 | 0.0005 | 0.01 |

### 3.3.13.2 Groundwater

The rural population of the project area uses many individual wells for drinking water. No large impoundments are present in the project area. Springs, wells and flowing water normally provide potable and industrial water along existing US 522. Small ponds are numerous and associated with flood control, livestock use or crop watering. There are no sole-source aquifers within the study area. A sole-source aquifer is an aquifer that is designated by Section 1424(e) of the Safe Drinking Water Act as the principal source of drinking water for an area. In addition, the 1986 amendments to the Safe Drinking Water Act protects areas containing drinking water wells. Each state has its own wellhead protection program. The West Virginia Department of Health and Human Resources provided the location of wellhead protection areas in the study area (See Agency letter dated February 15, 2000 in *Section VIII: Comments and Coordination*). The Department of Health does not identify individual private wells and springs.

The WV Department of Health and Human Services located ten wellhead protection areas within 2000 feet of the Preferred Alternate. Additionally, the program protects the Warm Spring Ridge area, which is the source for the Berkeley Springs Municipal Water Supply. The District is not the primary water source for the citizens of the town, as most citizens are on private wells. The Berkeley Springs are located in the study area, but are outside of the area of the Preferred Alternate.

The most frequent groundwater quality problem in Morgan County is high mineral content. Groundwater beneath the ridges has a lower concentration of dissolved minerals than groundwater beneath valleys because the ridges are mainly recharge areas and the valleys are mainly discharge
areas. A well on a ridge draws relatively pure groundwater near the beginning of its flow path. A well in a valley draws comparatively impure groundwater which is near the end of its flow path, has been exposed to bedrock longer, and has picked up dissolved minerals along the way. Higher water quality is to be found among the ridges west of Cacapon Mountain than in the Sleepy Creek Valley to the east. In the area east of Cacapon Mountain, excessive iron content and hardness characterize the groundwater.

Groundwater availability is reflected in well yields from one to 760 liters per minute (200 gallons per minute) in areas with predominantly limestone and sandstone bedrock. The remaining areas of the county report lower well yields of 0 to 265 liters per minute (0 to 70 gallons per minute) in areas that are mostly underlain by shale. Maintaining pure groundwater is important for the nearly 70% of Morgan County residents who rely on groundwater for drinking and domestic use. It is also important for industry and particularly for those enterprises, which rely on pure spring water such as the water bottling companies in Berkeley Springs, the Ridge State Fish Hatchery, and the baths of Berkeley Springs State Park.

### 3.3.13.3 Groundwater Quality

To determine the existing conditions of groundwater quality in the study area, readily available groundwater sampling results were compared with West Virginia state standards for groundwater quality. Title 46, Legislative Rule - Environmental Quality Board, Series 12 - Requirements Governing Groundwater Standards establishes minimum standards for the purity and quality of groundwater located within the State of West Virginia. Table III-17, "West Virginia Purity and Quality Standards for Groundwater" lists the maximum level of constituent concentrations allowed by this Legislative Rule.

***TABLE III-17***
**WEST VIRGINIA PURITY AND QUALITY STANDARDS FOR GROUNDWATER**

| Constituent | Not to Exceed (mg/l except where noted) |
|---|---|
| Alachlor | 0.002 |
| Antimony | 0.006 |
| Asbestos | 7 million fibers per liter |
| Atrazine | 0.003 |
| Barium | 2.0 |
| Benzene | 0.005 |
| Benzo (a) pyrene (PAH) | 0.0002 |
| Beryllium | 0.004 |
| Cadmium | 0.005 |
| Carbofuran | 0.004 |
| Carbon tetrachloride | 0.005 |
| Chlordane | 0.002 |
| Chromium (total) | 0.1 |
| Cyanide | 0.2 |
| 2, 4-D | 0.07 |
| Dalapon | 0.2 |
| Di(2-ethylhexyl) adipate | 0.4 |
| Di (2-ethylhexyl) phthalate | 0.006 |
| Dibromochloropropane (DBCP) | 0.0002 |
| Dichlorobenzene p- | 0.075 |
| Dichlorobenzene o- | 0.6 |
| Dichlorobenzene m- | 0.6 |
| Dichloroethane (1,2) | 0.005 |
| Dichloroethylene (1,1-) | 0.007 |

***TABLE III-17***
**WEST VIRGINIA PURITY AND QUALITY STANDARDS FOR GROUNDWATER – cont'd**

| Constituent | Not to Exceed (mg/l except where noted) |
|---|---|
| Dichloroethylene (cis-1,2-) | 0.07 |
| Dichloroethylene (trans-1,2-) | 0.1 |
| Dichloromethane | 0.005 |
| Dichloropropane (1,2-) | 0.005 |
| Dinoseb | 0.007 |
| Diquat | 0.02 |
| Endothall | 0.1 |
| Endrin | 0.002 |
| Ethylbenzene | 0.7 |
| Ethylene dibromide (EDB) | 0.00005 |
| Fluoride | 4.0 |
| Glyphosphate | 0.7 |
| Heptachlor | 0.0004 |
| Heptachlor epoxide | 0.0002 |
| Hexachlorocyclopentadiene | 0.05 |
| Lead | 0.015 |
| Lindane | 0.0002 |
| Mercury (inorganic) | 0.002 |
| Methoxychlor | 0.04 |
| Monochlorobenzene | 0.1 |
| Nickel | 0.1 |
| Nitrate (as N) | 10.0 |
| Nitrite (as N) | 1.0 |
| Total Nitrate and Nitrite (both as N) | 10.0 |
| Oxamyl (Vydate) | 0.2 |
| Pentachlorophenol | 0.001 |
| Picloram | 0.5 |

***TABLE III-17***
**WEST VIRGINIA PURITY AND QUALITY STANDARDS FOR GROUNDWATER – cont'd**

| Constituent | Not to Exceed (mg/l except where noted) |
|---|---|
| Polychlorinated biphenyls | 0.0005 |
| Selenium | 0.05 |
| Simazine | 0.004 |
| Styrene | 0.1 |
| 2,3,7,8- TCDD (Dioxin) | 0.000000005 |
| Tetrachlorethylene | 0.005 |
| Thallium | 0.002 |
| Toluene | 1.0 |
| Toxaphene | 0.003 |
| 2,4,5,- TP (Silvex) | 0.05 |
| Trichlorobenzene (1,2,4-) | 0.07 |
| Trichloroethane (1,1,1-) | 0.2 |
| Trichloroethane (1,1,2-) | 0.005 |
| Trichloroethylene | 0.005 |
| Vinyl Chloride | 0.002 |
| Xylenes (total) | 10.0 |
| Beta particle and photon activity | 4 millirems |
| Gross alpha particle activity | 15 picocuries/l |
| Combined Radium 226 and 228 | 5 picocuries/l |

SOURCE: TITLE 46, LEGISLATIVE RULE - ENVIRONMENTAL QUALITY BOARD, SERIES 12 - REQUIREMENTS GOVERNING GROUNDWATER STANDARDS.

Table III-18, "Groundwater Quality Sampling Results for Berkeley Springs, Morgan County, West Virginia" shows the observed levels of groundwater constituents from the "Berkeley Springs" at the well head in Berkeley Springs Park located in downtown Berkeley Springs, WV. Data were from regular monitoring conducted by the WV Office of Water Resources at the spring. The Berkeley Springs discharge approximately 3,860 liters/minute (1,020 gallons/min.)[4]. The discharge from Berkeley Springs enters Warm Spring Run which ultimately empties into the Potomac River. The table illustrates that the concentrations of parameters observed did not exceed the allowable levels for instances where there was a maximum listed in the Legislative Rule. Note the high water temperatures for Berkeley Springs (range = 22 to 25 °C), exhibits that the water discharging from the springs moves up from a depth of nearly 700 m of warm underlying rocks and remains warm at the ground surface. Water quality data from the Ridge Hatchery Spring exhibit average mineral content (calcium 22 mg/l, magnesium 4.4 mg/l, silica 4.9 mg/l, sodium 0.7 mg/l, potassium 0.7 mg/l, fluoride 0.1 mg/l, sulfate 13 mg/l and chloride 1 mg/l), and well oxygenated waters (9.9 mg/l at 10 °C).

**TABLE III-18**
**GROUNDWATER QUALITY SAMPLING RESULTS FROM BERKELEY SPRINGS**
**(MARCH 1993 TO MAY 1995)**
**WEST VIRGINIA OFFICE OF WATER RESOURCES, BERKELEY SPRINGS, WEST VIRGINIA**

| Constituent | Observation Range | Unit | State Standard Maximum* | Unit |
|---|---|---|---|---|
| Specific Conductance | 287 - 318 | us/cm | None | None |
| Water Temperature | 22 - 25 | °C | None | None |
| pH | 6.5 - 7.4 | units | None | None |
| Residue: Total Filterable | 140 - 193 | mg/l | None | None |
| Dissolved Oxygen | 40 - 123.5 | % saturation | None | None |
| Hardness as CACO3 | 142 - 344 | mg/l | None | None |
| Magnesium, dissolved | 5 - 5 | mg/l | None | None |
| Sulfate | 8 - 19 | mg/l | None | None |
| Chloride | 2 - 7 | mg/l | None | None |
| Fluoride | .03 - .1 | mg/l | 4.0 | mg/l |
| Nitrite + nitrate | .1 - .15 | mg/l | 10.0 | mg/l |
| Dissolved Nitrogen (Ammonia) | 0 - .002 | mg/l | None | None |
| Total Nitrogen (Ammonia) | .05 - .16 | mg/l | None | None |
| Total Phosphorus | .026 - .037 | mg/l | None | None |
| Total Iron | 20 - 175 | ug/l | None | None |
| Total Aluminum | 50 - 105 | ug/l | None | None |
| Total Manganese | 5 - 5 | ug/l | None | None |
| Carbon, Total Organic | 1 - 1 | mg/l | None | None |

Table III-19, "Groundwater Quality Sampling Results from Wells in the Study Area:

*Source: West Virginia Division of Environmental Protection, Charleston, WV.

*Records of Wells, Springs, and Streams in the Potomac River Basin*, *West Virginia Geological and Economic Survey*, 1975, shows the levels of groundwater constituents observed for eighteen wells located within the US 522 study area. The table illustrates that the concentrations of parameters observed did not exceed the allowable levels where there was a maximum listed in the Legislative Rule. Upon reviewing the available data on groundwater quality, it does not appear that widespread groundwater contamination is present within the study area.

***TABLE III-19***
**GROUNDWATER QUALITY SAMPLING RESULTS IN THE STUDY AREA:**
***RECORDS OF WELLS, SPRINGS, AND STREAMS IN THE POTOMAC RIVER BASIN*, *WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY*, 1975.**

| No. | 19-1-1[5] | 19-1-2 | 19-1-4 | 19-1-5 | 19-1-6 | 19-2-4 | 19-5-2 | 19-5-4 | 19-5-9 | 19-5-10 | 19-5-11 | 19-5-12 | 19-5-13 | 19-6-5 | 19-6-6 | 19-6-8 | 19-6-11 | 19-6-12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Use of Water[6] | P | H | H | H | H | | | P | H | H | H | H | H | H | S | H | H | U |
| Water Depth (ft) | | 12 | 30 | 6 | | | | 10 | 38 | 39 | 40 | 34 | 37 | | | 5 | | 3 |
| Yield (gpm) | 1017 | 10 | 15 | 20 | 10 | | | >15 | 60 | 30 | >30 | >20 | >30 | | | | | 35 |
| Iron (mg/l) | <.1 | 1 | 1 | 3 | >1 | | | 2 | 1 | | | | | | | | | |
| Chloride (mg/l) | 2 | <8 | <24 | <8 | <8 | | | <8 | <8 | | | | | | | | | <8 |
| Hardness (mg/l) | <153 | 289 | 136 | <272 | 51 | | | 136 | 102 | | | | | | | | | 272 |
| Temp. (ºC) | 23 | | | | | 13 | | | | | | | | | | | | 13 |
| pH | 7 | 8 | 7 | 7 | 6 | | | | 7 | | | | | | | | | 7 |
| Specific Con-ductance us/cm | 291 | | 340 | 510 | 103 | | | 295 | 221 | | | | | | | | | 500 |
| Topo.[7] | V | T | T | T | S | V | S | S | H | H | H | S | H | S | H | S | V | V |

## 3.3.14 Natural Resources

### 3.3.14.1 Plant Communities

[5]Note: No. 19-1-1 is the Berkeley Springs.
[6] Use of Water: H = Domestic; N = Industrial; P = Public Supply; U = Unused.
[7]Topography: H = Hilltop; S = Hillside; V = Valley Flat; T = Terrace.

At the turn of the century the dominant forest type present in the project area consisted of an oak-chestnut association with several pines as additional species. Beginning in 1900 and diagnosed in 1904, a Chinese chestnut introduction in New York resulted in a blight that spread nationwide and had reached Harlan, Kentucky by 1935. This blight eliminated the chestnut tree throughout its range, which was in most parts, the dominant species present. The blight shifted the dominant forest types in this region to oak or oak-hickory associations.

Natural habitats are lands in an undisturbed or relatively natural condition, including pine forests, hardwood forests, mixed pine and hardwood forests, aquatic habitats, and wetlands. Natural habitats occur throughout West Virginia and the study area, although they frequently occur as highly fragmented tracts of land interspersed with man-dominated habitats. Plant species exhibit much diversity in Morgan County.

Six distinct plant community types occur within the immediate area of the alternatives. Specific communities exhibited slight variation dependent upon location and physical characteristics of the site (soils, topography, human uses, etc.). Communities encountered include the following: agricultural lands, maintained areas, evergreen forest land, deciduous forest land, mixed evergreen and deciduous forest land and wetlands. Agricultural lands are used for cropland, orchards and pasture. Maintained areas are land used for residential, transportation, and utilities. Deciduous forest land is a mixed northern hardwood forest dominated by a variety of deciduous tree species, including oaks (*Quercus* spp.), hickory (*Carya* spp.), and numerous other large woody plants occurring in mixed assemblages. Evergreen forest land includes various pines (*Pinus strobus*, *Pinus rigida*, etc.). Wetlands include forested wetlands, emergent wetlands, wet depressions and ponds satisfying the requirements established by the U.S. Army Corps of Engineers (USACE) and Environmental Protection Agency for regulation under the Clean Water Act and by Corps of Engineers procedures.

**Deciduous Forest Land**
The dominant plant community along the Preferred Alternate is deciduous forest land. Deciduous forest land is a mixed northern hardwood forest dominated by a variety of deciduous tree species, including white oak (*Quercus alba*), post oak (Quercus stellata), hickory (*Carya* spp.), tulip tree or yellow poplar (*Liriodendron tulipifera*), American beech (*Fagus grandifolia*), black gum (*Nyssa sylvatica*), and elm (*Ulmus americana*). The understory includes the following: flowering dogwood (*Cornus florida*), red bud (*Cercis canadensis*) and sassafras (*Sassafras albidum*). The vine/herb layer included poison ivy (*Toxicodendron radicans*), grape (*Vitis* spp.), greenbrier (*Smilax* spp.), Virginia creeper (*Parthenocissus quinquefolia*), and trumpet creeper (*Campsis radicans*).

**Evergreen Forest Land**
Pine forests are not widespread within the study area. The evergreen forest species include white pine (*Pinus strobus*), short leaf pine (*Pinus echinata*), pitch pine (*Pinus rigida*), Virginia pine (*Pinus virginiana*) and Scotch Pine (*Pinus sylvestris*). Common understory species include witch hazel (*Hamamelis virginiana*), cucumber tree (*Magnolia acuminata*), and serviceberry (*Amelanchie*r spp.). Because they have needles all year, pine forests provide important winter habitat for many birds and mammals, although their overall importance as habitat to wildlife is generally less than the more diverse hardwood and mixed pine and hardwood forests.

**Mixed Evergreen and Deciduous Forest Land**
A small portion of the forested land is covered by mixed forests consisting of the pine and hardwood species.

**Wetlands**
Wetland types encountered in the study area forested wetlands (*Platanus occidentalis*, *Acer negundo*, *Acer rubrum*), emergent wetlands (*Typha* spp., *Carex* spp.), scrub-shrub, wet depressions and ponds (*Phragmites* spp., *Carex* spp., *Typha* spp., *Sphagnum* spp.).

**Maintained Areas**
Most of the maintained areas are lands used for residential, roads and utilities. Residential and commercial development is concentrated along existing US 522 and in Berkeley Springs, WV. Utility corridors (powerline right-of-ways) are distributed primarily along existing roadways.

**Agricultural land**

This land is used to grow a variety of plant crops including apples, corn, soybeans, tomatoes, oats, and hay. Much of the agricultural land in the study area is also used as pasture for cattle, horses, and other livestock. Most farms in the area are relatively small (40 ha [100 acres] or less). The southern portion of the study area has more agricultural use.

### 3.3.14.2 Wetlands in the Study Area

Federal regulations define wetlands in 33 Code of Federal Regulations 328.3(b) as *"those areas that are inundated or saturated by surface or groundwater at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."* Activities affecting wetlands and other "waters of the United States" are regulated by the U.S. Army - Corps of Engineers pursuant to Section 404 of the Clean Water Act of 1977 and Section 10 of the Rivers and Harbors Act of 1899. Large expanses of wetlands within the study area are not common due to the steep and hilly terrain. Therefore, wetlands in the study area are mostly associated with streams and small impoundments. The boundaries of wetlands and other "waters of the United States" identified during the field investigation were sketched on project mapping, but were not flagged with surveyor's ribbon in the field.

To determine the potential extent of wetlands present in the study area prior to field investigations, the U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) maps for the following quadrangles,

- Hancock, WV/MD/PA,
- Stotlers Crossroads, WV,
- Great Cacapon, WV,
- Ridge, WV,

and the *Soil Survey of Hampshire, Mineral, and Morgan Counties, West Virginia* (U.S. Department of Agriculture, 1978) were reviewed. The system used to classify wetlands in *Classification of Wetlands and Deepwater Habitats of the United States*. (Cowardin, et. al., 1979) was used to describe wetlands on the NWI mapping, and the wetlands identified in the study area were classified using this system. The Cowardin Classification uses a hierarchical approach, categorizing wetlands based on their system type, dominant cover type, a subclass descriptor, and water regime modifiers. The NWI maps indicated the presence of the following wetland types in the study area:

***Palustrine scrub-shrub (PSS***) wetlands includes areas dominated by woody vegetation less than 20 feet (6 m) tall. The species includes tree shrubs, young trees and trees and shrubs that are small or stunted. Shrub swamps and shrub thickets are examples of PSS wetlands.

Although PSS wetlands are indicated on the NWI mapping, field surveys showed they were forested wetlands.

***Palustrine Open Water (POW)*** wetlands are primarily ponds and lakes of undetermined water depths. Field surveys showed that the POW wetlands were shallow ponds dominated by emergent vegetation and were classified as PEM wetlands.

***Palustrine Emergent (PEM***) wetlands are characterized by erect rooted herbaceous plants. Vegetation is present for most of the growing season. Emergent wetlands include marsh, meadow, fen, prairie pothole, and sloughs.

***Upper Perennial Riverine (R3***) wetlands areas are generally located high in the watershed usually along streams where the gradient is steep and water velocity is rapid. The substrate consists of rock, cobble, or gravel and sand. Wetland development can be restricted to the stream channel. Although R3 wetlands were indicated on the NWI mapping, field surveys showed they were forested wetlands associated with Sleepy Creek and were inventoried as PFO wetlands.

***Palustrine Forested (PFO)*** wetlands are dominated by an overstory of woody trees with an understory of shrubs and tree saplings, woody vines and an herb layer. Bottomland forests are comprised of pines, hardwoods or a hardwood/pine mix.

***Palustrine Unconsolidated Bottom (PUB)*** wetland areas are characterized by the lack of large stable surfaces for plant and animal attachment. PUB wetlands include wetlands and deepwater habitats with at least 25 percent cover of particles smaller than stones and a vegetative cover less than 30 percent. PUB wetlands are found in riverine and marine systems. Field surveys showed the PUB wetlands were wet depressions and ponds. Acreage totals for PUB wetlands were included under PEM wetlands.

The Palustrine wetlands in the study area are either non-tidal wetlands dominated by vegetation or numerous pools of standing water which are not dominated by vegetation, but are less than 20 acres (8.1 hectares) in size and less than 6 feet (1.8 meters) deep. Other wetland areas in the study are either seasonally or temporarily saturated and have emergent persistent vegetation or are forested with broad-leaved deciduous trees. The numerous pools of standing water within the study area are either permanent or semi-permanent pools that have either been excavated or impounded. Three wetlands associated with Sleepy Creek, Warm Spring Run and Rock Gap Run, proposed to be crossed by the build alternatives, are heavily forested, and are

of moderately large size that provide a high capacity for pollution removal and habitat for numerous amphibians, fish, and mammals.

Overall, most of the wetlands in the study area provide limited aquatic and wildlife habitat or pollutant removal effectiveness due to small size and lack of open water.

### 3.3.14.3 Fish and Wildlife

Fish and wildlife are an important ecological, economical, and recreational resource for West Virginia. A wide range of terrestrial wildlife resources are present within the forested areas which dominates the study area. The mixed northern hardwood forest dominates, but is fragmented within the alternatives by roads, residential and commercial areas. Although wildlife species that occur in the study area will utilize each of the major habitat types during various seasons and life history stages, some habitat affinities can be identified on the basis of food, shelter, or other requirements.

Hardwood forests provide excellent habitat for a wide range of wildlife species. Nesting bird species include wood thrush (*Hylocichla mustelina*) and tufted titmouse (*Parus bicolor*). Other common bird species include American crow (*Corvus brachyrhynchos*), American woodcock (*Philohela minor*), quail (*Colinus virginianus*), downy woodpecker (*Picoides pubesecens*), cardinal (*Cardinalis cardinalis*), blue jay (*Cyanocitta cristata*), saw-whet owls (Aegolius acadicus), black vultures (*Coragyps atratus*), great horned owl (*Ambloplities rupestris*) and northern flicker (*Colaptes auratus*). Birds common in the residential and commercial areas include brown-headed cowbird (*Molothrus ater*), song sparrow (*Melospiza melodia*), common grackle (*Quiscalus quiscula*) and mourning dove (*Zenaida macroura*).

Aquatic habitats support populations of fish, amphibians, and benthic macroinvertebrates. Fish species such as largemouth bass (*Micropterus salmoides*), bluegill and other sunfishes (*Lepomis* spp.), catfish (*Ictalurus* spp.), carp and minnows (*Cyprinus* spp.) occur in the study area. The WV Division of Natural Resources, Wildlife Resources Section provided fishery data from Sleepy Creek (Table III-20). Game fish species are common in Sleepy Creek. Game fish species include largemouth bass, smallmouth bass (*Micropterus dolomieui*), rock bass (*Ambloplites rupestris*), and sunfish. Minnows, darters, sculpin and the rough fish species northern hog sucker (*Hypentelium nigricans*) and creek chubsucker (*Erimyzon oblongus*) are also common. No native or stocked trout populations are present in creeks crossed by PA[8]. The WV Department of Natural Resources stocks the nearby Cacapon Park Lake in Cacapon

[8]Source: R.R. Potesta. 1986. West Virginia High Quality Streams. Wildlife Resources Division - Department of Natural Resources. 45pp., Fifth Edition.

State Park with trout once in February and every two weeks of March through May[9]. Stream surveys revealed mayflies, stoneflies and midges were common (Tables III-14 & III-20).

***TABLE III-20***
**FISHERY AND BENTHIC MACROINVERTEBRATE DATA FOR SLEEPY CREEK IN THE STUDY AREA, MORGAN COUNTY, WEST VIRGINIA.**[10]

| Sampling Date | Species Type | Sleepy Creek | | |
|---|---|---|---|---|
| 10/01/62 | Fish | greenside darter (8)[11]<br>Etheostoma sp.<br>green sunfish (25)<br>redbreast sunfish<br>rock bass (18) | smallmouth bass (10)<br>spotfin shiner (11)<br>central stoneroller (13)<br>river chub (4) | Cottus sp. (2)<br>creek chubsucker (2)<br>golden redhorse (5)<br>northern hog sucker (2) |
| 6/01/63<br>9/01/63 | Fish | darter<br>chain pickerel (4)<br>redbreast sunfish (10)<br>rock bass (12) | smallmouth bass (76)<br>Notropis sp.<br>central stoneroller<br>cutlips minnow | river chub (39)<br>yellow bullhead (2)<br>creek chubsucker<br>northern hog sucker |
| 8/01/68<br>9/01/68 | Fish | greenside darter (6)<br>longear sunfish (24)<br>bullgill (2)<br>smallmouth bass (15)<br>largemouth bass (3)<br>rock bass (28) | redbreast sunfish (36)<br>chain pickerel (6)<br>rosyface shiner (5)<br>bluntnose minnow (13)<br>spotfin shiner<br>cutlips minnow (4) | fallfish (5)<br>mottled sculpin (2)<br>yellow bullhead (2)<br>pumpkinseed (4)<br>creek chubsucker (5)<br>northern hog sucker |
| 10/01/78 | Fish | greenside darter (8)<br>Etheostoma sp.<br>green sunfish (25)<br>redbreast sunfish<br>rock bass (18)<br>smallmouth bass (10) | spotfin shiner (11)<br>central stoneroller (13)<br>river chub (4)<br>Cottus sp. (2)<br>creek chubsucker (2)<br>golden redhorse (5)<br>northern hog sucker (2) | |
| 10/19/93[12] | Benthic macro-invertebrates | mayflies (abundant)<br>midge flies (common) | | |

Amphibians occurring in the study area include American toad (*Bufo americanus*), green frog (*Rana clamitans*) and bullfrog (*Rana catesbania*). Common reptiles include snapping turtle (Chelydra serpentina) and water snakes (Natrix spp.).

Mammals such as white tail deer (*Odocoilieus virginianus*), eastern cottontail (*Sylvilagus floridanus*), gray squirrel (*Scurius carolinensis*), fox squirrel (*Sciurus niger*), Virginia opossum (*Didelphis virginiana*), eastern chipmunk (*Tamias striatus*), woodchuck (*Marmota monax*),

[9]Source: *West Virginia Trout Fishing Guide.* 1989. WV Department of Natural Resources, Division of Wildlife Resources, 40pp.
[10]Source: WVDNR - Wildlife Resources. Section.
[11]Abundance's for fish collected greater than one specimen are provided in parentheses.
[12]Note: Benthic macroinvertebrates for date 10/19/1993 were collected during this study.

striped skunk (*Mephitis mephitis*), red fox (*Vulpes vulpes*), wild turkey (*Meleágris gallopávo*) and raccoon (*Procyon lotor*) utilize hardwood forests and mixed pine and hardwood forests, but will also use pine forest habitats. Mammals common to agricultural lands include eastern cottontail rabbit and various species of mice (*Peromyscus* spp.), voles (*Microtus* spp.) and shrews (*Sorex* spp.).

White tail deer and wild turkey are game species for which harvest data are available for Morgan County (Table III-21). White-tailed deer prefer forested lands and rangelands, but will enter maintained lands to feed and have been reported along roadways in the study area. Wild turkey prefer forested areas for nesting and cover. Morgan County is not considered prime black bear habitat for hunting. One black bear was harvested during non-seasonal periods for 1996 and 1997. The harvest of wild turkey and white tail deer have generally increased over the last ten years. The hunting mortality between 1988 and 1998 have risen from 1277 to 2249 and from 61 to 110 for white tail deer and wild turkey, respectively. Many of the wildlife species found within the alternatives will utilize man-dominated habitats, especially residential areas where they can find a reliable source of food (often provided specifically to attract wildlife) as well as water and shelter. The close juxtaposition of residential areas and forested land, especially near Berkeley Springs, provides habitat for passerine birds and other animals that are tolerant of humans.

**TABLE III-21**
**HUNTER HARVEST OF WILDLIFE**
**FOR MORGAN COUNTY, WEST VIRGINIA.**[13]

| WHITE TAIL DEER HARVEST | | | | | |
|---|---|---|---|---|---|
| Year | Buck | Bow | Antlerless | Muzzle loader | Total |
| 1998 | 795 | 207 | 1,131 | 116 | 2,249 |
| 1997 | 1,277 | 341 | 1,058 | 267 | 2,943 |
| 1996 | 1,164 | 244 | 888 | 180 | 2,476 |
| 1995 | 1,272 | 224 | 690 | 182 | 2,368 |
| 1994 | 1,072 | 212 | 563 | 151 | 1,998 |
| 1993 | 1,023 | 195 | 660 | 159 | 2,037 |
| 1992 | 1,030 | 194 | 624 | 154 | 2,002 |
| 1991 | 938 | 212 | 578 | 158 | 1,886 |
| 1990 | 1,109 | 641 | 165 | 86 | 2,001 |
| 1989 | 1,002 | 106 | 410 | 61 | 1,579 |
| 1988 | 916 | 95 | 223 | 43 | 1,277 |

| WILD TURKEY HARVEST | |
|---|---|
| YEAR | TOTAL |
| 1998 | 110 |
| 1997 | 71 |
| 1996 | 103 |
| 1995 | 88 |
| 1994 | 112 |
| 1993 | 67 |
| 1992 | 64 |
| 1991 | 68 |
| 1990 | 94 |
| 1989 | 66 |
| 1988 | 61 |

### 3.3.14.4 Protected Species

The Endangered Species Act of 1973 was more comprehensive than previous Federal Statutes and applied to all plants and animals that were either endangered or threatened. Section 7 of the Endangered Species Act of 1973, as amended (1978, 1979, 1982, 1988 and 1994 Amendments), requires each Federal agency to ensure that "any action authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any Endangered or Threatened species or result in the destruction or adverse modification of critical habitat of such species ..." To make such a determination for the proposed action, activities included the following steps:

[13]Source: WVDNR - Wildlife Resources Section.

1. determination of direct involvement with a federally listed species through examination of records or known sightings,
2. an examination of federal species lists to determine correlation's between existing habitat and the habitat preferences of the listed federal species, and
3. a field survey with emphasis on those areas meeting the habitat requirements of listed federal species.

The U.S. Fish and Wildlife Service (USFWS) is the primary federal environmental regulatory agency responsible for enforcing the Endangered Species Act and is assisted by state regulatory agencies. The USFWS lists plant and animal species as threatened or endangered and designates habitat that is vital to the maintenance of threatened or endangered species populations as critical habitat. These designations provide protection from disturbance resulting from federally funded, licensed, or permitted development projects.

The USFWS maintains additional categories which do not provide legal protection, but should be considered during the planning process for any federal project. The proposed endangered and proposed threatened designation includes species that are currently in the process of being formally considered as endangered or threatened. There are four additional categories informally called federal candidate categories. Candidate designation includes taxa under consideration for official listing for which there is sufficient information to support listing. Federal species of concern (FSC) are species which may or may not be listed in the future (formerly C2 species). Taxa threatened due to similarity of appearance (T(S/A)) with other rare species are listed to protect these species. An experimental (EXP) designation for a species are treated as threatened on public lands for consultation purposes, and as a proposed species for listing on private lands.

The West Virginia Department of Natural Resources, Natural Heritage Program (WVNHP) maintains information on federally listed threatened and endangered species. WVNHP also maintains information on state listed species which provide the status of the populations within the state, but this is not a legal designation. Since West Virginia does not have its own state legislation to protect threatened or endangered species, it relies upon federal legislation to protect these resources.

Information was obtained through consultation with the U.S. Fish and Wildlife Service (see letter dated August 7, 1992) and the WVNHP (see letters dated August 18, 1992 and October 6, 1993). The WVNHP listed the following twenty three (23) State Protected Rare Species which occur in Morgan County, West Virginia:

Northern Cricket Frog .....(*Acris crepitans crepitans*)
Wood Turtle ..... (*Clemmys insculpta*)
Black Vulture .....(*Coragyps atratus*)

Whorled Tickseed ..... (*Coreopsis verticillata*)
Corn Snake ..... (*Elaphe guttata guttata*)
Gerardia .....(*Gerardia auriculata*)
Kidneyleaf MudPlantain .....(*Heteranthera reniformis*)
HalberdLeafed Mallow .....(*Hibiscus militaris*)
Shale Barren Evening Primrose .....(*Oenothera argillicola*)
Smooth Cliffbrake ..... (*Pellaea glabella*)
Spotted Pondweed ..... (*Potamogeton pulcher*)
Redbelly Turtle .....(*Pseudemys rubriventris*)
Harperella ..... (*Ptilimnium nodosum*)
Basil MountainMint ..... (*Pycnanthemum clinopodioides*)
Eastern Mole ..... (*Scalopus aquaticus*)
Pussytoes Ragwort .....(*Senecio antennariifolius*)
Allegheny Cave Amphipod .....(*Stygobromus allegheniensis*)
Appalachian Cottontail .....(*Sylvilagus obscurus*)
Steele's MeadowRue ..... (*Thalictrum steeleanum*)
Narrow-Leaved Blue Curls ..... (*Trichostema setaceum*)
Kates Mountain Clover .....(*Trifolium virginicum*)
Atlantic ThreeTooth Land Snail .....(*Triodopsis juxtidens*)
Squaw Huckleberry .....(*Vaccinium caesium*)

An assessment was conducted to provide information on the status of the Federal Endangered and Threatened Species and potential habitat in the study area. The results of these investigations indicated that two species the Federal Endangered Species *Harperella* (*Ptilimnium nodosum*) and northeastern bulrush (Scirpus ancistrochaetus) have been identified northeast of the US 522 study area. During a field survey no *Harperella* plants were found within the project area. The USFWS has agreed that construction of the project is unlikely to adversely affect Harperella and does not require any further Section 7 Consultation under the Endangered Species Act (see September 13, 2000 letter in Section VIII: Comments and Coordination). The results of this study have been submitted to the USFWS.

There are numerous small, ponds and wet spots which may provide adequate habitat for the northeastern bulrush along the build alternatives. Field studies along ponds and wet spots showed northeastern bulrush were not present along the build alternatives.

The Indiana bat (*Myotis sodalis*) is a federally listed endangered species, which may be present during the summer in the study area. There is no known hibernaculum in Morgan County for the Indiana Myotis. The WVDOH has prepared a summer/maternity habitat survey for the Indiana Myotis and has committed to performing Potential Roosting Tree (PRT) removal. The USFWS has agreed to the commitments set forth in the WVDOH study and believes that construction of the project is unlikely to adversely affect the Indiana Myotis (see September 13,2000 letter in Section VIII: Comments and Coordination). The USFWS does not require

further Section 7 consultation under the Endangered Species Act for impacts to the Indiana Myotis.

The West Virginia Natural Heritage Program stated that "State Protected Species that could occur in the project area include the northern cricket frog, wood turtle, Redbelly turtle, eastern mole, and several plants." The WV State Protected species *Gerardia* is known from a historic record within Berkeley Springs outside of the build alternatives.

### 3.3.15 Potential Hazardous Materials & Underground Storage Tanks

The disruption of hazardous waste sites during roadway construction can sometimes have a detrimental effect on surface waters, groundwater, soils, vegetation and human health and welfare. Therefore, potential hazardous waste sites in the US 522 corridor have been evaluated and are reported in this section.

The U.S. Environmental Protection Agency (EPA) has broadly defined hazardous waste as any waste material, or combination of waste materials, which pose a hazard to human health, welfare, or the environment. Hazardous wastes are characterized as either reactive, toxic, infectious, explosive, flammable, corrosive, or radioactive. Examples of hazardous waste sites include landfills, dumps, lagoons, salvage areas and storage tanks.

Hazardous waste sites are regulated by the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLA (42 USC 9601, *et seq.*, as amended by the Superfund Amendments and Reauthorization Act of 1986 ["SARA"], P.L. 99-499), was enacted to promote the cleanup of abandoned hazardous waste sites. The basic circumstances triggering the application of Superfund are the "release or threatened release" of hazardous waste into the environment. A release is very broadly defined and includes any spilling, leaking, leaching, escaping or disposal of hazardous waste into the environment.

RCRA (42 USC 6901 *et. seq.*), was enacted in 1976 as a regulatory scheme governing solid and hazardous waste activities from waste generation to waste disposal. While CERCLA primarily focuses on abandoned hazardous waste sites, RCRA primarily focuses on ongoing hazardous waste management. Generators, transporters, treatment, and disposal facilities are all regulated under RCRA, and all hazardous wastes are tracked from "cradle to grave," or from generation to disposal, through a system including identification numbers for waste handlers and waste manifest requirements. The following sources were used to identify known or potential hazardous waste sites in the US 522 corridor area:

- US EPA;

- Division of Environmental Protection, West Virginia Bureau of Environment;
- Morgan County Economic Development Authority;
- West Virginia State Police;
- U.S. Silica Company; and
- Field reconnaissance and topographic maps of the corridor project area.

Information provided from these sources was used to identify potential hazardous waste site locations within the US 522 study area. This investigation also included a site walkover of possible hazardous waste sites by an Occupational Safety and Health Administration (OSHA) trained person experienced in the identification of actual or potential hazardous waste sites. The findings are relevant to the dates of the site work and should not be relied upon to represent site conditions on other dates. This investigation did not include asbestos inspection, radon testing, or soil or groundwater sampling and analysis. When possible, site specific data were collected. In other cases, the precise waste site location, the nature of the waste material, or the actual existence of hazardous waste material could not be determined. Therefore, a characterization of each potential waste site was not always obtainable.

The results of the hazardous waste site survey for the US 522 project are summarized in Table III-22. For each identified site, Table III-22 provides the regulatory identification number, if any, site name/location, site description and site status. Potential hazardous waste sites and UST's that were within the proposed ROW or within 200 feet (61 meters) of the proposed ROW to the US 522 project were considered. Sites that were within 200 feet (61 meters) of the proposed ROW were included to satisfy potential secondary impacts to the project. However, this does not mean that all or any of these sites will be on or near the selected alignment. As shown in Table III-22, there were a total of forty-nine (49) identified potential hazardous waste sites and UST's located within the study corridor. Included within the study corridor were also UST and LUST sites.

Based on available information, there were two municipal dumps within the proposed study corridor. One dumpsite was located off Michael Manor Road near the "Palmer Pond" Flood Control Dam. This land is described in the Morgan County Book of Deeds as containing 2.2 acres (0.9 hectares) more or less. The site was used until the Town of Bath leased property from U.S. Silica in 1967 for an alternative dumpsite. The dump site on the U.S. Silica property was leased to the Town of Bath from 1967 through May, 1975 (see U.S. Silica letter dated October 12, 1992 in *Section VIII: Comments and Coordination*). This town dump was located east of the BS&P branch of the Baltimore and Ohio Railroad, to the north of Berkeley Springs, and south of the plant and office of U.S. Silica Company. Subsequently, domestic refuge has been transported

to the Morgan County landfill, which is outside the US 522 corridor. In addition to these two confirmed dumpsites, there were areas along existing roadways where domestic debris had been dumped. The dumping of trash and other domestic debris appeared haphazard. The rural setting of this project makes location and characterization of each domestic trash pile impractical.

The T.H. Compton facility is within the US 522 corridor and is on the West Virginia CERCLA list (dated June 20, 1992 and February 16, 1993). CERCLA properties are unconfirmed sites, which are not on the National Priority List. The West Virginia Waste Management Section of the Department of Natural Resources revealed discovery of the site which indicates an inquiry has been made concerning hazardous waste operations at the T.H. Compton site. The T. H. Compton facility is currently not in use and the property is for sale. No other action has been reported for this site.

Twelve (12) sites in Morgan County are on the RCRA list (dated May 13, 1992 and July 20, 1993) as hazardous waste are either within the proposed ROW or within 200 feet (61 meters) of the proposed ROW (Table III-22). These sites included Seely Pine Furniture, Inc., T.H. Compton, Inc., Largents Truck & Implement Center, WV Division of Highways, U.S. Silica Co. Berkeley Plant, U.S. Silica Co. Corporate Facility, Herbs Auto Sales, Inc., Valley Tire & Repair, Dawson's Hardware, Lawyer Mtr. Co., Sunshine Dry Cleaners & Laundry, and Waugh's Mobil Homes. The potential exists that hazardous waste generated at these facilities may be transported for disposal along the proposed roadway improvements.

***TABLE III – 22***
**HAZARDOUS WASTE SITES & UNDERGROUND STORAGE TANKS**

| Regulatory Number | Map No. | Site Name/Location | Site Description | Site Status |
|---|---|---|---|---|
| | 1 | Dawson's(?) Service Station<br>Route 522 South<br>Berkeley Springs, WV | Abandoned Service Station | AUST (?) |
| 3 304155 | 2 | Colonial Village Ind., Inc. | Current Flea Market | AUST (?) |

| | | | | |
|---|---|---|---|---|
| | | Rt. 1, Box 355<br>Berkeley Springs, WV | | |
| | 3 | Former Service Station (?)<br>Route 522 South<br>Berkeley Springs, WV | Abandoned tanks (?)<br>Business was Beverage Tractor & Equipment | AUST (?) |
| *(Closed)* | 4 | English Muffin Restaurant<br>Route 522 South<br>Berkeley Springs, WV | Abandoned tanks (?) | AUST (?) |
| 3 304152 | 5 | Lewis Country Store<br>Rt. 1, Box 296<br>Berkeley Springs, WV | UST's for fuel | UST |
| | 6 | Adult Bookstore (?)<br>Route 522 South<br>Berkeley Springs, WV | Abandoned tanks (?) | AUST (?) |
| | 7 | Millers (?) Service Station<br>Route 522 South<br>Berkeley Springs, WV | Abandoned Service Station (?) | AUST (?) |
| 3 304153<br>WVD003080876 | 8 | Seely Pine Furniture, Inc.<br>Route 522 South<br>P.O. Box 70<br>Berkeley Springs, WV | UST's for business;<br>Waste Generator | UST<br>RCRA |
| 3 302968<br>WVD001823319<br>*(Closed)* | 9 | T.H. Compton, Inc.<br>P.O. Box 634<br>Berkeley Springs, WV | UST's for business;<br>Prelim. Assessment;<br>Waste Generator | UST<br>CERCLAS<br>RCRA |
| 3-307159 | 10 | Bob's Mobil Station<br>Route 522<br>Berkeley Springs, WV | UST's for fuel | UST |
| 3 304150 | 11 | Eddies Tire Service, Inc.<br>Route 1, Box 25<br>Berkeley Springs, WV | UST's for fuel | UST |
| 3 306834<br>*(Closed)* | 12 | High's Dairy Store<br>Rt. 522 South<br>Berkeley Springs, WV | Abandoned tanks<br>Business was C. R. Wise & Sons | LUST |
| | 13 | Barker Auto Sales<br>Route 522<br>Berkeley Springs, WV | Abandoned tanks (?) | AUST (?) |

***TABLE III - 22* (continued)**
**HAZARDOUS WASTE SITES & UNDERGROUND STORAGE TANKS**

| Regulatory Number | Map No. | Site Name/Location | Site Description | Site Status |
|---|---|---|---|---|
| 3 304125 | 14 | Berkeley Springs WV State Police<br>Route #3, Box 44<br>Berkeley Springs, WV | UST's for fuel | UST |

| | | | | |
|---|---|---|---|---|
| 3 301958 | 15 | Berkeley Springs Chevron #3<br>Rt. 522<br>Berkeley Springs, WV | UST's for fuel | UST |
| 3 304170 | 16 | Southern Belle Truck Stop<br>Rt. 1, Box 4 C Route 522<br>Berkeley Springs, WV | UST's for fuel | UST |
| 3 304161<br>WVD981740715 | 17 | Largents Truck & Implement Cen.<br>169 Valley Road<br>Berkeley Springs, WV | UST's for fuel<br>Waste Generator | LUST<br>RCRA |
| 3 304176<br>WVD988769121 | 18 | WV Div. of Highways<br>Morgan Co. Headquarters<br>167 Valley Road<br>Berkeley Springs, WV | UST's for fuel<br>Waste Generator | UST<br>RCRA |
| | 19 | Former Town Dump<br>(Near flood control dam near Michael Manor Road) | Former sanitary landfill for municipal refuse disposal | Waste Dump |
| | 20 | Former Town Dump<br>U.S. Silica Co. property | Former sanitary landfill for municipal refuse disposal | Waste Dump |
| 3 307146 | 21 | Yost Building Supply<br>Rt. 4 Box 63<br>Berkeley Springs, WV | UST's for fuel | UST |
| WVD008936841 | 22 | U.S. Silica Co.<br>U.S. Rt. 522<br>Berkeley Plant<br>Berkeley Springs, WV | Waste Generator | RCRA |
| WVD981945223 | 23 | U.S. Silica Co.<br>U.S. Rt. 522<br>Corporate Facility<br>Berkeley Springs, WV | Waste Generator | RCRA |
| WVD988784591 | 24 | Herbs Auto Sales, Inc.<br>Rt. 522 South<br>Berkeley Springs, WV | Waste Generator | RCRA |
| | 25 | Ruppenthal (?)<br>Rt. 9<br>Berkeley Springs, WV | Possible former Service Station | AUST (?) |
| WVD988784500 | 26 | Valley Tire & Repair<br>Rt. 1, Box 154<br>Berkeley Springs, WV | Waste Generator | RCRA |

***TABLE III - 22 (continued)***
**HAZARDOUS WASTE SITES & UNDERGROUND STORAGE TANKS**

| Regulatory Number | Map No. | Site Name/Location | Site Description | Site Status |
|---|---|---|---|---|
| | 27 | Werdebaugh (?) Service Station<br>Rt. 522 South<br>Berkeley Springs, WV | Possible former Service Station | AUST (?) |
| | 28 | National Guard C 130E Crash Site<br>Rt. 2<br>Berkeley Springs, WV | Crash Site for National Guard Airplane | Airplane fuel |
| | 29 | Warm Springs Garage<br>US 522<br>Berkeley Springs, WV | Possible former Service Station | AUST (?) |
| 3 304151 | 30 | Breeden's Mini Market<br>1205 S. Washington St.<br>US 522<br>Berkeley Springs, WV | UST's for fuel | LUST |
| 3 307769 | 31 | Morgan County Board of Education<br>US 522<br>Berkeley Springs, WV | UST's for fuel | LUST |
| WVD988792107<br>3 304149 | 32 | Dawson's Hardware<br>605 S. Washington Street<br>US 522<br>Berkeley Springs, WV | UST's for fuel | UST |
| 3 304123 | 33 | Bell Atlantic Network Services<br>510 S. Washington Street<br>US 522<br>Berkeley Springs, WV | Waste Generator | RCRA |
| 3 304173 | 34 | Sheetz Inc., Store #126<br>500 S. Washington Street<br>US 522<br>Berkeley Springs, WV | UST's for fuel | UST |
| 3 304157 | 35 | Roy's Service Station<br>404 S. Washington Street<br>US 522<br>Berkeley Springs, WV | UST's for fuel | LUST |
| 3 304169 | 36 | Potomac Edison Company<br>305 N. Washington Street<br>US 522<br>Berkeley Springs, WV | UST's for fuel | LUST |
| | 37 | Barker's Exxon<br>US 522<br>Berkeley Springs, WV | UST's for fuel | UST |
| 3-304159 | 38 | Highway Express<br>US 522<br>Berkeley Springs, WV | UST's for fuel | UST |
| WVD988784567 | 39 | Lawyer Mtr. Co.<br>606 S. Washington Street<br>Berkeley Springs, WV | Waste Generator | RCRA |

**TABLE III - 22 (continued)**
**HAZARDOUS WASTE SITES & UNDERGROUND STORAGE TANKS**

| Regulatory Number | Map No. | Site Name/Location | Site Description | Site Status |
|---|---|---|---|---|
| WVD981730435 | 40 | Sunshine Dry Cleaners & Laundry<br>203 N. Mercer Street<br>Berkeley Springs, WV | Waste Generator | RCRA |
| | 41 | Residence<br>Intersection Rt. 9 & Rt. 15<br>Berkeley Springs, WV | Possible former Service Station | AUST (?) |
| | 42 | Stone House Restaurant<br>US 522<br>Berkeley Springs, WV | Possible former Service Station | AUST (?) |
| 3 304165 | 43 | Iva P. Michael<br>Intersection Rt. 9 & SR 9/8<br>Berkeley Springs, WV | Possible Former Service Station | UST |
| | 44 | Rakins Mobil Homes Sales<br>Route 9<br>Berkeley Springs, WV | UST's for fuel | AUST (?) |
| 3 307230 | 45 | Vernon Close Property<br>313 Wilkes Street<br>Berkeley Springs, WV | UST's for fuel | LUST |
| 0 | 46 | Waugh's Mobil Homes<br>US 522 South<br>Berkeley Springs, WV | Waste Generator | RCRA |
| 3 306254 | 47 | WV Div. of Tourism & Parks<br>Cacapon State Park<br>Berkeley Springs, WV | UST's for fuel | LUST |
| | 48 | Mountain State Motel<br>US 522<br>Berkeley Springs, WV | Possible Former Service Station | AUST (?) |
| | 49 | Blue Flame Gas Service<br>Valley Road<br>Berkeley Springs, WV | UST's for fuel | UST |

*CERCLA* Comprehensive Environmental Response, Compensation and Liability Act
*RCRA* Resource Conservation Recovery Act
*UST* Underground Storage Tank
*AUST* Abandoned Underground Storage Tank
*LUST* Leaking Underground Storage Tank

Service stations and other facilities that store and dispense gasoline are generally not considered significant hazardous waste sites. However, underground storage tanks (UST) used for the storage of petroleum products are regulated as hazardous material sites. Therefore, service stations and other facilities that store and dispense gasoline that were within the proposed ROW or within 200 feet (61 meters) of the proposed ROW to the US 522 project have been identified. Sixteen (16) facilities, which store and dispense gasoline in UST's are listed in Table III-22. The West Virginia Waste Management Section, Department of Commerce, Labor & Environmental Resources provided a list of registered UST's for Morgan County (dated September 3, 1992 and May 26, 1993). These sites included Lewis Country Store, Seely Pine Furniture, Inc., T. H. Compton, Inc. (now closed), Bob's Mobil Station, Eddies Tire Service, Inc., WV State Police (Morgan County Detachment), Berkeley Springs Chevron #3, Southern Belle Truck Stop, WV

Division of Highways, Yost Building Supply, Bell Atlantic Network Services, Sheetz, Inc. Store #126, Barker's Exxon, Highway Express, Inc., Blue Flame Gas Service, and Iva P. Michael Property.

There were eight (8) sites which were listed on the West Virginia Waste Management Section, Department of Commerce, Labor & Environmental Resources leaking underground storage tank (LUST) list (dated March 20, 1992 and October 13, 1993) along the US 522 Corridor. These LUST sites included High's Dairy Store (now closed), Breeden's Mini Market, Morgan County Board of Education, Roy's Service Station, Vernon Close Property, Cacapon State Park, and Potomac Edison Company (all located along existing US 522) and Largents Truck & Implement Center (located on Valley Road). Additionally, there were fourteen (14) sites identified by field reviews which may have abandoned underground storage tanks (AUST?) that were within the proposed ROW or within 200 feet (61 meters) of the proposed ROW (Table III-22).

On October 7, 1992, a National Guard C-130E turbo-prop airplane from Martinsburg, West Virginia crashed into a house near Morgan County 2. The Morning Herald of Hagerstown, Maryland reported the aircraft caused a fire which burned the house and a nearby pickup truck, melted the vinyl siding on a neighbor's house, and left wreckage and fuel oil strewn for more than one hundred meters down a sloping hillside toward the proposed ROW for one alignment.

One wastewater treatment facility is known to exist within the proposed ROW. The Berkeley Springs Wastewater facility is located near US 522 north of Berkeley Springs. Wastewater treatment plants are normally not regulated as hazardous waste sites. However, wastewater treatment plants are known to use and discharge potentially hazardous materials and, therefore, the facility location has been noted.

This survey of potential hazardous waste sites may not be conclusive. Illegal dump sites and abandoned service stations and AUST's are difficult to locate because there is seldom enough surface evidence to determine their existence. In addition, illegal dumping practices usually proceed unnoticed and therefore, undocumented. Therefore, potential hazardous waste sites may extend beyond those identified in this survey of the study corridor.

### 3.3.16 Wild and Scenic Rivers

There are no designated national wild and scenic rivers in the study area.

# SECTION IV

## ENVIRONMENTAL CONSEQUENCES

This section describes the environmental consequences of each build alternative including Alternate I (selected). The discussions are organized by impact, with descriptions of the investigation methodology, the impacts for each build alternative that have been carried forward and possible mitigation actions, if needed.

### 4.1 LAND USE

The roadway improvements that are being considered require additional right-of-way (ROW) and each of the alternative alignment impacts present land uses. The approximate acres impacted by category of land use varies widely. The westernmost alignment, Alternate I (selected), is the only alignment that impacts commercial and industrial property. All four alternate alignments have impacts to residential property, with Alternate IV having the greatest impacts. The land required for each build alternative categorized by present use is shown in Table IV-1.

***TABLE IV - 1***
**LAND USE IMPACTS**
In Hectares (ha) [Acres (ac)]

| Alternative | | Residential | Commercial | Industrial | Agricultural | Other | Total |
|---|---|---|---|---|---|---|---|
| **I** | ha | 38.1 | 6.2 | 8.8 | 0.0 | 3.0 | **56.1** |
| ***Selected*** | (ac) | (94.1) | (15.3) | (21.7) | (0.0) | (7.4) | **(138.5)** |
| **II** | ha | 35.6 | 0.0 | 0.0 | 0.0 | 3.8 | **39.4** |
| | (ac) | (88.0) | (0.0) | (0.0) | (0.0) | (9.4) | **(97.4)** |
| **III** | ha | 36.6 | 0.0 | 0.0 | 0.0 | 2.4 | **39.0** |
| | (ac) | (90.5) | (0.0) | (0.0) | (0.0) | (5.9) | **(96.4)** |
| **IV** | ha | 40.9 | 0.0 | 0.0 | 0.0 | 2.2 | **43.1** |
| | (ac) | (101.1) | (0.0) | (0.0) | (0.0) | (5.4) | **(106.5)** |

Land use conflicts in Morgan County result from residential development, commercial and light industry needs, seasonal homes, and a desire to preserve agricultural lands. Agriculture is a valued, long standing tradition in Morgan County. Many residents are reluctant to convert land currently supporting agriculture to other purposes.

Morgan County adopted a Comprehensive Plan in 1985 and is considering adopting a Zoning Plan to further control development. This project meets the existing or expected traffic demands based on local land use patterns. The land use plans in the Comprehensive Plan and the proposed Zoning Plan are similar. Both provide residential, commercial, and industrial development along US 522 south of Berkeley Springs. The draft-zoning map includes the Morgan County Industrial Park near the community of Ridge. The proposed project is compatible with existing and expected traffic demands based on Morgan County land use plans. (See letter from Eastern Panhandle Regional Planning and Development Council, March 22, 2000 in Section VIII: Comments and Coordination).

## *4.2 IMPACTS ON FARMLAND*

### 4.2.1 Methodology

Each build alternate identified for study has been added to the project Geographic Information System and overlain on a map of the designated types of farmland in Morgan County. The amount of farmland that would be converted to roadway has been measured and is shown in the following table for each alternative. The types of farmland have been defined and mapped by the Department of Agriculture, Natural Resources Conservation Service. The Federal Farmland Protection Policy Act (FPPA) of 1981 was enacted to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses.

Prime farmland soils have the best combination of physical properties (e.g., slope, depth, drainage, soil structure, texture, percent fines, etc.) and chemical properties (e.g., alkalinity, nutrient content, available soil moisture, etc.) for producing feed, forage, fiber, and oil-seed crops. Prime farmland soils generally have sufficient soil quality, growing season and moisture supply needed to economically produce sustained high yields of crops when managed according to acceptable farming methods. Prime farmland soils can be farmed continuously or nearly continuously without degrading the environment and produce favorable yields with lower net energy expenditure when compared to other soils.

Soil designated as farmlands of statewide importance contain land that is also of importance for the production of food, fiber, feed, forage and oil-seed crops. These lands are nearly as important as prime farmland soils since they can economically produce high crop yields, but require more management conservation practices than are required for prime farmland. These management conservation practices include erosion control and runoff reduction practices (e.g., strip cropping, contour farming, cover cropping, grass crops, and drainage diversions) and drainage practices (e.g., surface field drains, surface main and lateral drains, subsurface drains, diversions and sod waterways).

Soils classified as farmland of local importance are lands not identified as either prime farmland or farmland of statewide importance, but are capable of producing food, feed, fiber and forage.

Besides soil characteristics, there are additional considerations that are evaluated in the FPPA Farmland Conversion Impact Rating Form AD 1006 process, which is used to assess and

compare the effects of proposed project alternatives. The types of land use in and around the area, percentage of active farmland, size of the farm units, on-farm investments, availability and effect upon farm support services, and the compatibility of a proposed project with agricultural use are some of these considerations.

### 4.2.2 Impacts

Morgan County is among the top counties in West Virginia in area of quality farmland. With plans to improve a major through highway, some farmland may be converted to roadway. Table IV-2 reports the farmland impact for each alternative being carried forward. The selected alternate impacts far less farmland than the three other alternates due to its proximity to the existing built up area. Alternate III has the greatest total estimated impacts on farmlands, compared to the other alternatives being carried forward. The impact of this alternative on Prime, Unique, and State and Local Importance Farmlands totals over 39 hectares (96 acres), compared to total impacts ranging from 2.0 to 34.2 hectares (5.0 to 84.4 acres) for the other alternatives. This is largely due to the impacts of Alternate III on State and Local Importance Farmlands.

***TABLE IV - 2***
**FARMLAND IMPACTS**
In Hectares (ha) [Acres (ac)]

| ALTERNATIVE ALIGNMENT | | Prime | Unique | State & Local Importance | Total |
|---|---|---|---|---|---|
| ***I Selected*** | ***ha (ac)*** | ***0.0 (0.0)*** | ***0.0 (0.0)*** | ***2.0 (5.0)*** | ***2.0 (5.0)*** |
| **II** | ha | 4.6 | 1.9 | 27.7 | **34.2** |
| | (ac) | (11.4) | (4.7) | (68.4) | **(84.5)** |
| **III** | ha | 4.3 | 0.6 | 34.3 | **39.2** |
| | (ac) | (10.6) | (1.5) | (84.8) | **(96.9)** |
| **IV** | ha | 3.9 | 1.9 | 25.7 | **31.5** |
| | (ac) | (9.6) | (4.7) | (63.5) | **(77.8)** |

### 4.2.3 Mitigation

Residents have expressed their desire to preserve farmland. A detailed analysis, including a Form AD-1006 has been completed to fully evaluate impacts to farmland. This form is found in *Section VIII: Comments and Coordination.* There will be opportunities to reduce impacts or avoid individual sites by realigning the roadway or other changes during final design.

## *4.3 SOCIAL IMPACTS*

### 4.3.1 Impacts

The community will be affected in two ways by the build alternatives; in the character of the municipal area and in the neighborhoods and subdivisions along the selected alignment. The build alternatives will remove most through traffic from the center of town and allow a less congested flow of traffic in Berkeley Springs. The neighborhoods in the town will have easier access to each other than they do now due to the alleviation of most of the traffic congestion. The effect of the bypass will be to permit commercial activities to continue and increase along US 522 south of town. Simultaneously, through traffic will be diverted from historic Berkeley Springs, allowing the community to retain its unique characteristics.

The overall effect of an improved US 522 on the cohesive qualities of the county will be positive. Through traffic will be removed from the areas of social, neighborhood and tourist activities, allowing an easier traffic flow in the center of Berkeley Springs.

An improved US 522 will provide the needed capacity to handle the anticipated increase in traffic volume on US 522. Through traffic can use the bypass and avoid delays and congestion in Berkeley Springs to the benefit of both through and local traffic. The intersection of US 522 and WV 9, where a grade-separated interchange is planned, may be developed by commercial interests because of ready access if current zoning permits such development.

Some subdivisions outside the Town of Bath will be divided by the highway, and although access will be provided, it may be less convenient than at present. Many public comment letters have been received from county residents expressing concern that the Berkeley Springs community not be divided by a thruway. Table IV-3 summarizes the distance of each alternative from the existing intersection of US 522 and WV 9. Existing roads are included for reference.

***TABLE IV - 3***
**BYPASS EAST OF BERKELEY SPRINGS**

| Build Alternative or Road | Distance from Intersection of US 522 & WV 9 |
|---|---|

| | Meters (m) | Feet (ft) |
|---|---|---|
| Ewing Street | 375 | (1,200) |
| Fulton Street | 800 | (2,600) |
| **Alternative I *(Selected)*** | **1,050** | **(3,500)** |
| Yost Road | 1,400 | (4,600) |
| Pious Road | 3,375 | (11,050) |
| **Alternative III** | **3,625** | **(11,900)** |
| **Alternatives II & IV** | **4,325** | **(14,200)** |

By routing through traffic around Berkeley Springs, pedestrians and bicyclists will have more ready access and ease of movement in the urban area. In addition, residents, tourists and visitors to Berkeley Springs will experience ease of movement within the town. The heavy volume of large trucks now passing through Berkeley Springs is especially incompatible with pedestrians and bicyclists.

The bypass will reduce traffic volumes near Widmyer Elementary School and Berkeley Springs High School. There will be some reduction in access to the schools due to the effect of the roadway separating some parts of the county from the schools in Berkeley Springs. Access roads and crossovers will be provided but not at the present level of access. While separating some parts of the county, travel to the schools will be much safer and easier due to the alleviation of most truck and through traffic.
The impact on churches and cemeteries will be similar to that on schools.

Access to Cacapon State Park, Berkeley Springs State Park, Morgan County Park and all other recreational facilities will be improved for out-of-county users. The result will be increased opportunities for use and growth for these facilities. The access to parks and recreation facilities for local residents will also be improved as a result of reduced traffic on local roads.

Access to the Morgan County War Memorial Hospital is maintained and a grade-separated interchange is planned at the proposed intersection of US 522 and WV 9.

### 4.3.2 Environmental Justice

Executive Order 12898, issued on February 11, 1994, requires Federal agencies to take appropriate steps to identify and avoid any disproportionately high and adverse environmental effects of Federal programs, policies and activities on minority and low-income populations.

Specifically, the Order requires Federal agencies to:

a. analyze the environmental effects of proposed actions on minority and low-income communities;
b. develop mitigation measures, whenever feasible, to address significant and adverse environmental effects on minority and low-income communities;
c. provide opportunities for the participation of minority and low-income communities in the NEPA process; and
d. ensure that minority and low-income communities have adequate access to public information relating to the proposed action.

While the US 522 study area is lightly populated, measures have been taken to identify disadvantaged groups that could be affected by the project. Town of Bath (Berkeley Springs) officials have identified areas of low income housing by using data from the 1990 census. The census data was analyzed and compiled for the Town of Bath and unincorporated areas along US 522. Additional data from subsequent analysis by West Virginia University is included. Table IV-4 identifies and compares the socioeconomic characteristics of the population in the study area and the state. Minorities represent a lower percentage of the population in Morgan County than in the state. Also the percentage of the population below the poverty level is lower than the statewide average.

No disadvantaged group will be disproportionately affected by the proposed project. There is low-income housing available in Berkeley Springs. There are also several mobile home/trailer communities along US 522. The largest minority community in the county is far removed from the study area.

***Table IV - 4***
**ENVIRONMENTAL JUSTICE**

| CHARACTERISTICS | MORGAN COUNTY | | WEST VIRGINIA | |
|---|---|---|---|---|
| | Number | % | Number | % |
| **POPULATION** | | | | |
| Total | 12,128 | - | 1,793,477 | - |
| Urban | 0 | 0.0 | 647,853 | 36.1 |

| | | | | |
|---|---|---|---|---|
| Rural | 12,128 | 100.0 | 1,145,624 | 63.9 |
| Minority | 135 | 1.1 | 67,954 | 3.8 |
| w/Mobility/Self-Care Limitation | 858 | 7.1 | 160,894 | 9.0 |
| Below Poverty Level | - | 11.0 | 345,093 | 19.2 |
| Elderly Below Poverty Level | - | 16.9 | | 16.7 |
| **INCOME** | | | | |
| Median Household Income | $24,372 | | $20,795 | |
| Per Capita Income | $11,420 | | $10,520 | |
| **HOUSING** | | | | |
| Owner Occupied Units | 3,927 | 58.1 | 354,331 | |
| Median Monthly Mortgage | $481 | | | |
| Renter Occupied Units | 804 | 11.9 | | |
| Median Monthly Rent | $310 | | | |
| Minority Occupied Units | 52 | 1.3 | | |
| Persons per Household | 2.6 | | | |

*Source: 1990 Census*

It is the policy of the West Virginia Department of Transportation to ensure that during implementation of state and federally assisted projects, comparable replacement housing will be available to anyone requiring relocation prior to construction. Replacement assistance and compensation will be offered to persons being relocated regardless of race, sex, color, religion, or national origin.

## *4.4 RELOCATIONS*

An important social impact on community cohesion is the required acquisition of land and relocation of homes and/or businesses caused by a new or improved roadway. Table IV-5 reports the number of residences, businesses, and non-profit structures that will be impacted by each alternative. The number of residential relocations range from a low of 27 for Alternate II, to a high of 61 for Alternate I (selected). Only Alternate I (selected) results in business relocations with one relocation.

***TABLE IV - 5***
**RELOCATION SUMMARY**

| Alternative | Residence | Business | Total |
|---|---|---|---|
| ***I*** ***(selected)*** | *61* | *1* | ***62*** |
| **II** | 27 | 0 | **27** |
| **III** | 29 | 0 | **29** |
| **IV** | 40 | 0 | **40** |

The centerline of each alternate was overlain onto project mapping at a scale of 1:6000 (1 inch = 500 feet) with a buffer of 200 feet to either side representing the anticipated right-of-way. Each structure within this buffer zone was identified and tabulated as a likely relocation impact. It is anticipated that during final design relocations will be minimized where practicable.

All of the build alternate alignments cause displacements, but the number varies widely. In general, the alternatives away from existing US 522 and farther to the east cause fewer displacements. None of the build alternates impact identified minority communities or minority populations. There are no Title VI impacts with this project (Civil Rights Restoration Act of 1987).

Each relocation will be guided by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646), as amended by the Uniform Relocation Act Amendments of 1987 (Public Law 100-17). The ease of homeowners and businesses to relocate in Morgan County depends on finding suitable housing in an appropriate price range.

There are a large number of available residential listings in Morgan County. Table IV-6 indicates the number of listings by price range (November 1993). This information, totaling over 200 listings, was obtained from the realtors in Morgan County.

***TABLE IV – 6***
**Available Housing Units**

| Price Range | Number of Residences |
|---|---|
| $ 0 - $ 70,000 | 84 |
| $ 70,000 - $ 80,000 | 25 |
| $ 80,000 - $ 100,000 | 32 |
| $ 100,000 - $ 120,000 | 15 |
| $ 120,000 - $ 140,000 | 12 |

| | |
|---|---|
| $ 140,000 + | 43 |

In addition to the house listings, there are numerous land listings and the opportunities to build are abundant. The WVDOH Right of Way Relocation staff concurs that based on their ongoing programs and available data, sufficient and varied housing is available to meet most relocation needs.

## *4.5 ECONOMIC IMPACTS*

### 4.5.1 Mineral Resources

The mining of minerals contributes to the economic life of Morgan County. Several abandoned limestone quarries remain from earlier mining activity. Currently, the mining and preparation of Oriskany sand represents a major employer in the county.

A search of historical records and interviews with persons knowledgeable of current and potential mineral resources in Morgan County has been made. Alternate alignments of US 522 that reduce or remove mineral processing opportunities have been identified.

None of the alternative alignments carried forward would directly impact the production and refining of sandstone mining activities at U.S. Silica Company. All of the build alternatives being carried forward intersect US 522 north of the U.S. Silica Company, and thus will not disrupt sand mining and processing.

All the build alternate alignments north of Berkeley Springs extend along or are east of US 522. The abandoned quarry sites are west of US 522 and south of Berkeley Springs and would not be disturbed.

### 4.5.2 Methodology

Impacts on taxes, businesses, and commercial centers of economic activity have been compared to develop the most likely economic impacts of improving US 522 in Morgan County. The experiences of other communities, which have been bypassed by road relocations, have been investigated in order to forecast the economic impacts on Berkeley Springs.

### 4.5.3 Impacts

Of the structures impacted, most will relocate into existing structures or build new structures and continue their businesses. Meanwhile, jobs will be generated to construct and support the construction of the new roadway. Therefore, the initial reduction in the tax base will likely be recovered and exceeded as the number of businesses and residences grows.

Other communities, similar in size to Berkeley Springs, have been "bypassed" by road improvements. The general experience of others is worth noting to anticipate potential economic impacts on Berkeley Springs.

Over 85 bypassed communities in Iowa were studied and reported in a Summary of Findings by the Iowa Department of Transportation. While the actual beneficial and adverse consequences of a highway bypass will be unique to each community, the following observations and inferences are supported by the study of communities in Iowa:

- The larger cities (populations greater than 2,000) will derive greater benefits than adverse impacts from a highway bypass.
- Service stations, small cafes, convenience stores, and motels are the most likely to experience some decrease in retail sales. However, many of these businesses find that the total volume of business from the through traveler today is smaller in comparison to overall sales than in the past when the motorists had to stop more often for gas.
- Service stations which do more than just sell gas experience little or no noticeable decrease in overall sales. Truck stops and motels, which cater to truck drivers, were identified as most likely to experience a significant decrease in business.
- Restaurants and cafes with a good local reputation draw a high percentage of their business from people who reside within a range of 8 km (5 miles) or so. Many cafes found that the bypass had minimal effect on their business.
- Customers find the bypassed business district to be a more comfortable and safer environment to shop in as a result of decreased conflicts with traffic.
- After the completion of a bypass, the communities overall feel the few adversities that result are minor in comparison with the benefits.
- Commercial property values along the bypassed highway have not decreased as a result of the bypass.
- The alternative to a small town bypass is to four-lane the existing highway through town. This alternate almost always results in as much local opposition as the bypass alternate. Improvement of the existing alignment through town often results in utility relocation and replacement costs, which are often cost prohibitive for small towns.
- Traffic congestion and accident rates improved dramatically along the bypassed highway route through town.

Many of these findings are applicable for the Berkeley Springs community where population, setting, and economic activity are comparable to towns in Iowa that were "bypassed".

### 4.5.4 Mitigation

Economic impacts may be beneficial (contribute to growth of businesses and activity) or harmful (reduce businesses and opportunities). Improved, safer, and more convenient access to commercial areas, tourist locations and employment centers will serve to mitigate for separating the town of Berkeley Springs from the new US 522.

## *4.6 AIR QUALITY IMPACTS*

### 4.6.1 Methodology

The air quality analysis method used to determine possible impacts resulting from the proposed realignment of US 522 follows guidelines presented in 23 CFR 770.

The Environmental Protection Agency (EPA) established the National Ambient Air Quality Standards (NAAQS) for the protection of public health and welfare. The NAAQS set criteria for six major air pollutants. Of the six pollutants, the FHWA requires the carbon monoxide (CO) concentration be evaluated in detail. The NAAQS for CO concentrations are:

(1) a maximum 1-hour concentration of 35 parts per million (ppm)

(2) a maximum 8-hour concentration of 9 ppm.

These standards are not to be exceeded more than once a year.

To determine if the NAAQS are exceeded along any of the proposed US 522 alignments, the CAL3QHC computer model was used to predict maximum "worst case" one-hour carbon monoxide concentrations at receptors located along the corridor. The computer model was used because it is difficult to monitor short-term maximum level CO concentrations at “worst case” conditions in the field. Input data needed for the CAL3QHC model includes roadway location coordinates, receptor location coordinates, height of receptor above the roadway, peak hour traffic volume, and CO emission rates. CO emission rates, generated by the MOBILE5A computer model, are based on vehicle type, vehicle travel speed, and year of analysis. Generally CO emission rates of vehicles decrease as speed increases. The one-hour CO concentrations calculated by CAL3QHC were based upon "worst case" conditions that included: 1 meter per second wind speed, mixing height of 305 m (1,000 feet), meteorological stability class F, and the use of a computer generated wind angle that produces the highest CO concentration at each receptor location. The "worst case" projected CO concentration levels included an assumed background CO concentration of 2 ppm.

### 4.6.2 Impacts

Existing (1995) and future (2015) "worst case" carbon monoxide concentrations were predicted for the proposed realignment using the CAL3QHC computer model. A summary of predicted existing and future "worst case" one hour CO concentrations for the various US 522 alternatives is provided in Table IV-7.

**Grouping of Alignments**

The US 522 corridor has been divided into six (6) areas for the air quality analysis study. Three (3) areas are in Section I of the project, which starts at the Virginia state line and ends south of Berkeley Springs. The other three (3) areas are located in Section II which begins north of Section I and continues through Berkeley Springs and ends at the Potomac River. The six areas are as follows:

***Area 1:*** Area 1 is located entirely within Section I. It includes the existing US 522 and Segments A and B where they are located in Section I. None of the Alternate Alignments carried forward are within Area 1.

***Area 2:*** Area 2 is also located entirely within Section I. It includes Area 1 and additional Segments E1, E2, J, K, R, G1, P, H2, M, and G2. Area 2 was chosen to predict a condition within Section I in which a combination of the above Segments would form the preferred alternate and the existing US 522 would carry local traffic. Area 2 represents an analysis condition for the southern portion of **Alternate I**.

***Area 3:*** Area 3 is also located entirely within Section I. It includes Area 1 and additional Segments W, X, $X_1$, and T. Area 3 was chosen to predict a condition within Section I in which a combination of segmentation lines W, X, $X_1$, and T would form the preferred alternative and the existing US 522 would carry local traffic. This represents an analysis for the southern portions of **Alternates II, III, and IV**.

***Area 4:*** Area 4 is located entirely within Section II. It includes the existing US 522 alignment as it passes through Berkeley Springs and Section II. None of the alternate build alignments carried forward represent this condition.

***Area 5:*** Area 5 is located entirely within Section II. It includes Area 4 and additional Segments A, C, D, F, M and P. Area 5 was chosen to predict a condition within Section II in which a combination of the above Segments would form the preferred alternate and the existing US 522 would carry local traffic. This analysis area represents the northern portion of **Alternate I**. The northern portion of this area represents the northern portions of **Alternates II, III, and IV**.

***Area 6: Area*** 6 is located entirely within Section II. It includes Area 4 and additional Segments N, W, X and Y. Area 6 predicts a condition within Section II in which a combination of Segments N, W, X, and Y would form the preferred alternate and the existing US 522 would carry local traffic through Berkeley Springs. The southern portion of this area represents the southern portions of **Alternates II, III, and IV** within Section II of the study area.

The alignments in each of the six areas described above are located in similar settings.

Thus, the air quality at receptors along one alignment in the area will be similar to the air quality at the other receptors located on the different alignments in the same area. In each area one complete alignment has been studied and the results have been applied to the other alignments in the area.

**Results**

As shown in Table IV-7 the projected "worst case" CO concentrations for all of the sites in an area are well below the NAAQS for one-hour CO concentration of 35 ppm. A separate eight-hour CO concentration analysis is not required for the study, because all of the projected one-hour concentration levels are also below the eight-hour CO concentration standard of 9 ppm.

For most receptors located within the six areas, the projected future (2015) carbon monoxide concentration was equal or less than the projected existing (1995) concentrations. This reduction is attributed to the fact that while traffic volume will increase substantially during this period, CO emission rates are expected to decrease. Improved traffic flow will result in decreased air pollution as vehicles move more rapidly and with less interruption through the study area.

### 4.6.3 Mitigation

Since the predicted "worst case" one hour concentrations are well below the National Ambient Air Quality Standards established by the EPA, no air quality mitigation is required for any of the proposed alignments in the US 522 area. In addition, the guidelines of 23 CFR 770 do not apply to the proposed realignment of US 522 because the State Air Quality Implementation Plan does not include transportation control measures for this region of West Virginia.

## *TABLE IV - 7*
**"WORST CASE" ONE-HOUR CARBON MONOXIDE CONCENTRATIONS**
(parts per million [ppm])

| Receptor Number | Location (See Figure 4-3A) | NAAQS (ppm)[1] | Existing 1995 Conditions (ppm) | | Predicted 2015 Carbon Monoxide Concentrations | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | NO BUILD | Area 1 | Area 2 | Area 3 | Area 4 | Area 5 |
| 1 | Existing US 522 & Fish Hatchery | 35 | 2.3 | 2.3 | 2.3 | 2.1 | 2.1 | N/A | N/A |
| 2 | Existing US 522 & Morgan Park | 35 | 2.6 | 2.6 | 2.6 | 2.3 | 2.3 | N/A | N/A |
| 3 | Winchester Grade Rd & near new alignments | 35 | N/A | N/A | N/A | 2.1 | N/A | N/A | N/A |
| 4 | Existing US 522 & Meyers Road | 35 | 3.4 | 4.4 | N/A | N/A | N/A | 4.4 | 3.4 |
| 5 | Existing WV & near new alignments | 35 | N/A | N/A | N/A | N/A | N/A | N/A | 2.1 |
| 6 | Fairfax Street & near new alignment | 35 | 2.1 | 2.3 | N/A | N/A | N/A | 2.3 | 2.1 |
| 7 | Existing US 522 & existing WV 9 | 35 | 3.8 | 4.9 | N/A | N/A | N/A | 4.9 | 3.6 |
| 8 | Cardinal Drive & near new alignments | 35 | N/A | N/A | N/A | N/A | N/A | N/A | 2.1 |
| 9 | CSX Transportation & near new alignments | 35 | 2.4 | 2.6 | N/A | N/A | N/A | 2.6 | 2.5 |
| 10 | Existing US 522 & River Road | 35 | 2.5 | 2.5 | N/A | N/A | N/A | 2.5 | 2.5 |
| 11 | Existing US 522 & Berkeley Springs Park | 35 | 3.3 | 4.1 | N/A | N/A | N/A | 4.1 | 3.3 |
| 12 | Existing US 522 & Business Section (Bath) | 35 | 3.5 | 4.5 | N/A | N/A | N/A | 4.5 | 3.5 |
| 13 | Oakland Road near new alignments | 35 | N/A | N/A | N/A | N/A | 2.2 | N/A | N/A |
| 14 | Sleep Creek 38/8 near new alignments | 35 | N/A | N/A | N/A | N/A | 2.1 | N/A | N/A |
| 15 | Fairview Drive & near new alignments | 35 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 16 | Ridersville & near new alignments | 35 | N/A | N/A | N/A | N/A | N/A | N/A | 2.0 |
| 17 | North of Allemong Road along Segment J | 35 | 2.1 | 2.1 | 2.1 | 2.3 | 2.0 | N/A | N/A |
| 18 | North of CR 13 along Segment M | 35 | N/A | N/A | N/A | N/A | N/A | N/A | 2.3 |
| 19 | North of CR 23 along Segments D & F | 35 | N/A | N/A | N/A | N/A | N/A | N/A | 2.3 |
| 20 | Segment A crossing of CSX Railroad | 35 | 2.2 | 2.4 | N/A | N/A | N/A | 2.4 | 2.3 |
| 21 | Southeast of Segment W near WV 9 | 35 | N/A | N/A | N/A | N/A | N/A | N/A | 2.0 |
| 22 | North of Sleepy Creek Road on Segment W | 35 | N/A | N/A | N/A | N/A | 2.1 | N/A | N/A |
| 23 | Northeast of Ridge near Segment W | 35 | N/A | N/A | N/A | N/A | 2.1 | N/A | N/A |

(1) National Ambient Air Quality Standards (NAAQS)
(2) Includes background predicted CO concentration of 2.0 ppm

## *4.7 NOISE IMPACTS*

### 4.7.1 Methodology

The analysis conducted to determine the possible noise impacts resulting from the proposed realignment of US 522 follows guidelines established by the Federal Highway Administration (FHWA) relative to environmental studies for Type I roadway improvement projects. Ambient (existing) field noise levels were monitored following the FHWA procedures described in Sound Procedures for Monitoring Highway Noise: Final Report (DP-45-1R). The noise analysis procedure used to project traffic noise was the STAMINA 2.0 computer model developed by the FHWA. STAMINA 2.0 can perform multiple model tests to determine noise levels for receptors using various traffic conditions.

### 4.7.2 Impact Assessment

STAMINA 2.0 was used to estimate both existing and future noise levels associated with the proposed alignments. Input data needed for the noise level analysis includes roadway coordinates, site location coordinates, traffic volumes, and vehicle speeds. Traffic volumes were obtained from the 1993 Purpose and Need Report. The Purpose and Need report has since been updated to reflect 1999 traffic volumes.

A good correlation exists between monitored and modeled existing noise levels (3 decibel [dBA] or under) at most of the 16 monitored site locations (see Table IV-8), although some sites experience a higher difference. The STAMINA 2.0 computer model does not take into account ambient noise sources other than vehicular traffic (such as airplanes, dogs barking, people talking, construction noise). These noise sources affect the overall monitored noise levels but cannot be modeled by STAMINA 2.0. In addition, a few monitored sites were located in rural areas where accurate traffic volume and vehicle speed data were not available. As a result, the STAMINA 2.0 computer model could not accurately predict ambient noise levels at a few of the monitored site locations.

***TABLE IV - 8***
**NOISE ANALYSIS SUMMARY**
(Leq Traffic Noise Levels)

| Receptor | Location (See Figure 4.3) | Field Monitored Existing Noise Level (dBA) | Modeled Existing Noise Level (dBA) (STAMINA 2.0) |
|---|---|---|---|
| 1 | Existing US 522 & Fish Hatchery | 67.9 | 68.1 |
| 2 | Existing US 522 & Morgan Park | 71.0 | 70.5 |
| 3 | Winchester Grade Road & near new alignments | 63.0 | 55.5 |
| 4 | Existing US 522 & Meyers Road | 68.3 | 66.7 |
| 5 | Existing WV 9 & near new alignments | 65.4 | 54.1 |
| 6 | Fairfax Street & near new alignments | 53.6 | 51.3 |
| 7 | Existing US 522 & Existing WV 9 | 66.9 | 67.0 |
| 8 | Cardinal Drive & near new alignments | 54.2 | 52.4 |
| 9 | CSX Transportation & near new alignments | 66.6 | 68.5 |
| 10 | Existing US 522 & River Road | 73.3 | 71.9 |
| 11 | Existing US 522 & Berkeley Springs Park | 67.3 | 66.1 |
| 12 | Existing US 522 & Business Section (Bath) | 70.7 | 66.9 |
| 13 | Oakland Road near new alignments | 51.4 | 47.1 |
| 14 | Sleepy Creek 38/8 near new alignments | 49.6 | 36.7 |
| 15 | Fairview Drive & new alignments | 54.8 | 53.4 |
| 16 | Ridersville & near new alignments | 65.7 | 31.3 |

Noting the possible errors from the preceding model of existing conditions, STAMINA was also used to produce two templates that predict noise levels to be produced by the projected traffic volumes in the year 2011. These templates were developed to be overlaid on the highway plan drawings of the proposed segments. One of the templates was produced using projected future traffic volume north of WV 9, and the other using projected future traffic volumes south of WV 9. The templates predict noise levels at varying vertical and horizontal distances from the centerline of the proposed highway segments. The vertical distance on the templates range from 30 meters (100 feet) below roadway level to 30 meters (100 feet) above roadway level. The horizontal distance on the templates range from 0 to 152 meters (500 feet) from the centerline of the proposed road. In addition, the templates were drawn to the same scale (1:2400 [1"=200']) as the plan drawings of the proposed segments. The templates were used to predict future noise levels for sites along the proposed segments in the US 522 corridor. These sites are locations where possible noise impacts result from the proposed alternatives

and was completed by first locating sites near the proposed segments on the plan drawings. The perpendicular horizontal and vertical distance from the roadway to the site was calculated, then the template was placed with the horizontal axis on the centerline of the highway lane closest to the site. Finally, at the appropriate calculated vertical distance, the noise level predicted at the site was read from the template. The noise impacts resulting from the projected noise levels were evaluated by the following impact criteria.

#### 4.7.2.1 Impact Criteria

The analysis performed for this study followed the FHWA guidelines for traffic generated noise impacts. The FHWA traffic generated noise impacts are defined as "impacts which occur when the predicted noise levels approach or exceed the noise abatement criteria or when the predicted traffic noise levels substantially exceeds the existing noise levels" (23 CFR Part 772).

The Federal Highway Administration Noise Abatement Criteria associated with the various land use activity categories are defined in Table IV-9.

***TABLE IV - 9***
**FHWA NOISE ABATEMENT CRITERIA**
Hourly A-Weighted Sound Level—Decibels (dBA)

| Activity Category | Leq(h) | Description of Activity Category |
|---|---|---|
| A | 57 (Exterior) | Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. |
| B | 67 (Exterior) | Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals. |
| C | 72 (Exterior) | Developed lands, properties, or activities not included in Categories A or B above. |
| D | —— | Undeveloped lands |
| E | 52 (Interior) | Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums. |

Source: WVDOH, DD-207: Noise Analysis and Abatement Guidelines (February 6, 1998).

In addition, WVDOH has developed the guidelines provided in Table IV-10 to determine when substantial noise increases occurs.

***TABLE IV – 10***
**DESIGN DIRECTIVE 207 (DD-207)**
**SUBJECTIVE DESCRIPTOR GUIDELINES**

| Noise Level Increase Over Existing (in dBA) | Subjective Descriptor |
|---|---|
| 16 or greater | Substantial Impact |

If the predicted noise level at a Category B receptor is 66 dBA or greater, or the increase in existing noise level is 16dBA or greater, noise abatement measures should be studied at that site. Thus, the focus of the noise analysis was to identify sites where either condition might occur and noise abatement measures should be studied.

#### 4.7.2.2 Noise Impact Assessment

Noise impact assessment sites (all residences, churches, motels, hotels, and hospitals) within 152 meters (500 feet) of the proposed segments were analyzed for noise impacts.

A total of 684 sites were analyzed using the above criteria. All the sites along the proposed highway segments are classified as Activity Category B of the FHWA Noise Abatement Criteria. Thus if the noise level at a site was predicted to be 67 dBA or greater, the FHWA Noise Abatement Criteria was met and noise abatement measures should be studied at the location. The remaining sites were analyzed for noise level increases. The increase in noise level was calculated by comparing the projected noise level to both the noise levels calculated by the existing condition STAMINA model, and the field monitored noise levels. If the noise level increase was 16 dBA or greater a “Substantial Impact” occurred and noise abatement measures should be studied at the location. Since a site with a noise level of 67 dBA or greater already met FHWA noise abatement criteria, it was not necessary to analyze for noise level increases.

#### 4.7.2.3 Results

The analysis indicated that there were sites that met the FHWA noise abatement criteria with noise levels (Leq) of 66 dBA or greater. Also, there were sites that had "Substantial Impact" noise impacts (16 dBA or greater noise level increase). The number of sites meeting these two criteria are tabulated for each Alignment Alternate in Table IV-11. The table shows the number of sites in each alternative that predict noise levels over 67 dBA and the numbers that are predicted to increase substantially.

***TABLE IV - 11***
**NOISE ANALYSIS**

| NUMBER OF SITES |
|---|

| ALTERNATE | Leq of 67 dB or Greater | SUBSTANTIAL IMPACT dB Increase of >15 dB | TOTAL IMPACTED SITES (1) |
|---|---|---|---|
| ***I (selected)*** | ***18*** | ***0*** | ***18*** |
| II | 3 | 1 | 4 |
| III | 3 | 1 | 4 |
| IV | 4 | 1 | 5 |

** (1)Total number of impacted sites is equal to the sum of the number of sites with an Leq of 66dB or greater, and the number of sites that have "Substantial Impacts" (a 16 dB increase or greater).

### 4.7.3 Mitigation

In accordance with WVDOH Noise Analysis and Abatement Guidelines (Design Directive-206) dated January 1998, noise abatement measures must be both reasonable and feasible. Feasibility deals primarily with engineering considerations (e.g., can a barrier be built given the topography of the location; can a substantial noise reduction be achieved given certain access, drainage, snow, safety or maintenance requirements; are other noise sources present in the area, etc.) Reasonableness is a more subjective criterion than feasibility. It implies that common sense and good judgement were applied in arriving at a decision.

Reasonableness criteria shall include, but not be limited to, the following:

- *Amount of noise reduction provided*
  Noise abatement measures will not be implemented unless noise levels can be attenuated a minimum of 7 dBA

- *Residences should include all dwelling units, i.e., owner occupied, rental units, mobile homes, etc*.
  When counting residences to determine reasonableness, all “benefited” residences should be included, regardless of whether or not they were identified as impacted. Each unit in a multi-family building should be counted as one residence in determining both impacts and benefits.
  The threshold of noise reduction that determines a “benefited” residence is 5 dBA.
- *Cost of abatement*
  An acceptable cost/residence index should be $15,000/residence or less.

- *Views of affected residents*.
  During the environmental analysis phase of project development, the reasonableness and feasibility of noise abatement measures will be considered. The views of the public, including potentially affected residents, shall be determined through the normal NEPA public involvement process. If, during final design, noise abatement measures such as the construction of noise barriers are considered to be reasonable

  and feasible, the views of affected residents will be a part of the decision making process.
- *Design-year noise levels*
  WVDOH will give greater consideration to residential areas where traffic noise levels are

expected to be greater than 70 dBA, or where increases greater than 20 dBA over existing noise levels are anticipated.

A noise analysis was completed on the selected alignment, Alternate I, using the FHWA's Traffic Noise Model (TNM) 1.0a. This noise model is a second-generation computer simulation that predicts highway traffic noise levels and performs barrier wall analyses. This program replaces FHWA's prior pair of computer programs for noise, STAMINA 2.0/OPTIMA.

For abatement measures for US 522, existing STAMINA 2.0 data files (*.dat) from Alternate I were imported into the TNM program. The noise analysis met noise abatement criteria only for Receptor 10, which is near the end of the project. A $La_{eq}$(h) noise level of 72.7 dBa exceeded the criterion of 67 dBa (for land use category B).

A barrier wall analysis was done to mitigate the noise level effects from US 522 traffic volumes based on Design Year 2011. Table IV-12 below summarizes the results of the barrier wall. Unit cost for the wall is estimated at $20/foot$^2$.

***TABLE IV - 12***
**BARRIER WALL SUMMARY**

| Receptor Number | Segment Length | Barrier Height | Number Sections | Total Length | Area (sq. ft.) | Cost (sq. ft.) | Total Cost |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| 10 | 70' | 12' | 3 | 210' | 2520 | $20 | $50,400 |

In accordance with DD-206, the barrier wall studied for Receptor Number 10 is unacceptable. DD-206 defines an acceptable noise abatement cost as $15,000 or less per affected residence. The projected cost to abate noise impacts to Receptor Number 10 is $50,400, therefore no barrier wall will be constructed at this location.

## *4.8 WATER QUALITY*

### 4.8.1 Surface Water

#### 4.8.1.1 Methodology

The surface water assessment followed the guidance of FHWA Technical Advisory T6640.8A[1]. The assessment identified streams, rivers, ponds and lakes within the study area. The assessment focused on the intermittent and perennial streams and ponds for the Build Alternatives. Specific water quality data was available for Warm Spring Run and the Ridge Hatchery Spring. Water quality is generally good in the study area and is detailed in *Section III: Affected Environment.*

Main streams, tributaries and ponds along the build alternatives were obtained from USGS 7.5 minute map series available on CD-ROM and digitized into a GIS database. Field surveys were initiated to inventory streams and ponds during summers of 1993 and 1994 and winter 2000. Additional information on streams was obtained from the WVDEP-OWR and the USGS. This information included a listing of West Virginia's High Quality Streams (HQS), trout waters in West Virginia, and impacted streams in the state.

Impacts to surface waters of the study area were quantified in terms of number of crossings and linear feet of stream channel crossed by bridges and culverts. Measures to minimize or mitigate for these potential impacts will be recommended in conjunction with the procedures in the WVDOH *Erosion and Sediment Control Manual*, dated November 1, 1993.

### 4.8.1.2 Impacts

Impacts to surface waters of the study area were quantified in terms of number of crossings and linear feet of stream channel crossed by bridges and culverts. The alternates with the least amount of impacts to surface water resources are those that avoid stream crossings altogether, or cross at right angles to the stream valley. The Selected Alternate avoids stream crossings as much as possible, and crosses stream channels at right angles as much as practicable. This configuration of the Selected Alternate results in the least amount of surface water impacts, impacting 2.99 km of stream channel. Table IV-13 lists the length of stream impact by alternate.

***TABLE IV - 13***
**IMPACTS TO SURFACE WATER QUALITY**

| Alternate | Channel Change | Culvert | Bridge | Stream Crossing | Total |
|---|---|---|---|---|---|
| I | m | 2,865 | | 125 | 2.99 km |

[1]U.S. Department of Transportation, Federal Highway Administration, *Guidance for preparing and Processing Environmental and Section 4 (f) Documents*. Technical Advisory T 6640.8A, October 30, 1987.

| | | | | | | |
|---|---|---|---|---|---|---|
| **Preferred** | **(ft)** | | **(9,400)** | | **(405)** | **(1.86 mi.)** |
| **II** | m | | 3,860 | | 625 | **4.48 km** |
| | (ft) | | (12,660) | | (2,050) | **(2.79 mi.)** |
| **III** | m | 495 | 4,175 | 65 | 535 | **5.27 km** |
| | (ft) | (1,620) | (13,700) | (220) | (1,750) | **(3.27 mi.)** |
| **IV** | m | 495 | 4,270 | 65 | 425 | **5.26 km** |
| | (ft) | (1,620) | (14,000) | (220) | (1,390) | **(3.26 mi.)** |

One High Quality Stream, Rock Gap Run, will be directly impacted by the Selected Alternate and Build Alternative II. The Build Alternatives III and IV will cross Sleepy Creek, another High Quality Stream, at two locations. The West Virginia Department of Natural Resources, Wildlife Resources Division monitors stream disturbances. Because High Quality Streams provide significant and even irreplaceable fish, wildlife, and recreational resources they are of vital concern to the WVDNR in fulfilling its responsibility to all citizens of the state to protect these valuable natural resources. The WVDNR and the WVDOT have entered into a Memorandum of Agreement on December 3, 1981, which recognizes “the need for effective management and protection of West Virginia’s natural resources, WVDOT and WVDNR agree that cooperative and coordinate efforts will be employed for the protection of the environment”. This agreement insures that the two agencies work closely when High Quality Streams may be impacted throughout the planning, design and construction phase of the project. To minimize impacts to Rock Gap Run, a bridge is proposed over the stream.

Impacts to surface water quality can occur through the runoff of pollutants in highway drainage to receiving water bodies. Typical pollutants that can be carried with highway runoff include particulates, fuels and oils, metals, de-icing salts, pesticides, herbicides, and fertilizers. Additionally, during construction of the selected alternate, exposed ground surfaces create the potential for increased sediment runoff through erosion. The magnitude of impacts from erosion during construction corresponds with the steepness of the existing ground surface, the land area proposed to be disturbed, and the proximity to receiving waterbodies. The magnitude of impacts from highway runoff after construction corresponds with the post-construction impervious area and the proximity of receiving waterbodies. Accordingly, the Selected Alternate would result in the least amount of impacts because the proposed alternate traverses moderately sloping terrain, and the alternate has the lowest quantity of stream crossings.

The potential impacts of sedimentation to receiving water bodies will be minimized through the use of sediment and erosion control practices during construction. The potential impacts to

surface water quality from highway runoff will be reduced through the use of stormwater management Best Management Practices (BMP's). Additionally, vegetated roadway swales can treat pollutants carried by highway runoff prior to being discharged to receiving waterbodies.

The West Virginia Department of Health and Human Resources, Bureau of Health stated that the Berkeley Springs could be minimally impacted by the project. However, the Berkeley Springs is not the primary water source in the study area and impacts from any of the alternates on those public water supply intakes are not anticipated to be significant.

More potential impacts are associated with the operation and maintenance of the highway including:

- Increased runoff flow volumes associated with the conversion of land uses.
- Increased temperature of runoff associated with devegetation of part of the watershed.
- Runoff pollutants associated with vehicle operations.
- Runoff pollutants associated with roadway deicing salts.
- Runoff pollutants associated with toxins and sediments from routine maintenance activities.

Tributary streams are of value and disturbances to them may adversely affect the main stream. Tributaries of major trout streams may contain native trout populations that will be severely impacted by any disturbances. However, the Selected Alternate has no tributaries that discharge to trout waters. The Ridge Fish Hatchery is especially sensitive to water quality. The water source is a spring located several hundred meters west of US 522 that flows under the current US 522 to the ponds area. The West Virginia Division of Natural

Resources has expressed their preference that actions introducing sediment into the water supply be avoided if at all possible.

Stream alterations should be considered only in the absence of any viable alternative. Trout stocking policy dictates that streams or sections of streams where human activities have resulted in deleterious alterations must be removed from the stocking list.

In summary, the Selected Alternate and Build Alternative II will cross Rock Gap Run, a WV High Quality Stream, at one crossing. The Build Alternatives III and IV will cross Sleepy Creek, another High Quality Stream, at two locations. There are no National Resource Waters, Wild and Scenic Rivers or rivers under study for designation to the National Wild and Scenic Rivers System in the study area.

#### 4.8.1.3 Mitigation

The general approach to reducing impacts to the surface water resources within the study area is to avoid and minimize impacts to the greatest extent possible, then to compensate for any unavoidable impacts.

In order to minimize potential construction and operational impacts to water quality and the aquatic biota, the following mitigation items will be implemented.

- Promptly revegetate all disturbed areas to prevent accelerated erosion.
- Construct all cofferdams, causeways, and temporary crossings from large clean rock fill material with filter fabric installed on the downstream side to trap sediments.
- Minimize the need for in-stream work by heavy equipment.
- Develop project sequencing to facilitate in-stream work during periods of seasonal low flow.
- Designate equipment fueling and service areas away from aquatic habitats to minimize the potential for accidental spillage of petrochemicals.
- Minimize the amount of vegetative clearing and impervious surface within the right-of- way to reduce runoff volume and thermal increases.
- Minimize the diversion of surface water flow within the cleared portion of the right-of-way to reduce thermal increases.
- Design and construct all stormwater management facilities to prevent or minimize runoff resulting in erosion and sedimentation.
- Consider the use of vegetated stormwater management basins and wide flat drainage ditches to reduce sediment and toxicant loading in highway runoff.
- Reduce the amount of aquatic habitat (and riparian vegetation) which would be disturbed by minimizing the linear distance of streams impacted at each crossing.
- Design and construct culvert structures, which would promote the reestablishment of benthic habitat within the culvert.
- Design and implement an Erosion and Sedimentation Control Plan, which would prevent sediment deposition to aquatic habitats.

### 4.8.2 Groundwater

The groundwater source for Warm Spring Run which is used to supply the Berkeley Springs Municipal Water System, as well as for recreational purposes in the Town of Bath, originates from the Warm Spring Ridge. This ridge is located immediately west of Berkeley Springs and would not be crossed by any of the build alternative alignments.

Based on correspondence with the WV Department of Health and Human Services there are twelve public water systems along US 522 that may be impacted by this project, depending upon the selected alternative (see letter dated February 15, 2000 in *Section VIII: Comments and Coordination*):

- Springs at Berkeley Springs (Well Head Protection Area established);

- Cacapon State Park (distant from the alternatives and probably not impacted);
- Tri Lake Campground (distant from the alternatives and probably not impacted);
- US Silica (not community system);
- Vanguard Products Corporation (not community system);
- McCumbee Mobile Home Park (community system within 61 meters [200 feet] of alternatives);
- Canberra Mobile Home Park (community system within 61 meters [200 feet] of alternatives);
- Skyline Village Mobile Home Park (community system within 61 meters [200 feet] of alternatives);
- Apple Orchard Acres (potentially impacted);
- Mother's Inn (potentially impacted);
- Southern Belle Truck Stop (potentially impacted);
- Coolfont Recreation (distant from the alternatives and probably not impacted).

Since the Selected Alternate is not on the existing US 522 roadway, it is not anticipated that any of the water systems along the highway will be impacted. The groundwater source that feeds Ridge Fish Hatchery would be severely impacted by segments A and B. The hatchery requires a low temperature and clear water for successful operation. The construction, existence, and the use of build alternatives between the spring and the ponds may reduce the quality of the water to the hatchery. Partly because of these potential impacts, none of the Selected Alternate alignments utilize segments A or B in the vicinity of the fish hatchery.

A Well Head Protection Plan will be developed in conjunction with the Department of Health and Human Resources during the final design stage of the project if it is determined that the selected alternative would impact one or more of the major groundwater sources in the study area.

## *4.9 PERMITS*

Federal and state regulations require that various environmental permits be acquired prior to the construction of the US 522 roadway. The following permits will be required with the selection of the Selected Alternate.

### 4.9.1 Federal Permits

- Section 404 of the Clean Water Act

### 4.9.2 State Permits

- Section 401 of the Clean Water Act (Water Quality Certification)

- National Pollutant Discharge Elimination System (NPDES)

Necessary permits will be obtained in compliance with the integrated NEPA/404 process. For wetland impact permits, all of the pertinent technical information that has been generated for the NEPA studies will be incorporated into the permit packages. This is consistent with FHWA guidance on the coordination of NEPA studies and federal permit processing

## *4.10 IMPACT ON WETLANDS*

### 4.10.1 Methodology

Following the review of available information, wetlands in the study area were identified by field investigation using the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987). The manual outlines a three-parameter approach to delineating wetlands. All three parameters (hydrophytic vegetation, hydric soils, and hydrology) must be evident for the area to be considered a wetland, unless the site has been disturbed or is considered a problem area. Wetlands that were identified and classified in the study area were plotted on project mapping to determine impact areas and to minimize impacts during the planning of the highway alternatives.

Vegetation in the study area was identified by using appropriate taxonomic keys and field guides. The wetland indicator status for each species identified was determined from *The National List of Plant Species that Occur in Wetlands: Northeast (Region 1)*[2]. This publication assigns indicator statuses to the approximately 6,000 species of plants that commonly occur in wetlands and uplands of the Northeastern United States. A species assigned an indicator status of UPL (upland) nearly always appears in upland habitats. A species assigned an indicator status of FACU (facultative upland) typically appears in uplands two thirds of the time and in wetlands one third of the time. A FAC (facultative) indicator status indicates that the subject plant is equally likely to occur in wetlands or uplands. A species assigned an indicator status of FACW (facultative wetland) will typically be found in wetlands about two thirds of the time, while appearing in uplands about one third of the time. A species assigned an indicator status of OBL (obligate) is usually found in wetlands. Greater than 50% facultative, facultative wetland, or obligate species must be present for the area to be considered a wetland.

Wetland soils are primarily restricted along streams and drainageways within the study area. Within the study area, the soil survey maps show Atkins silt loam (At), Buchanan channery loam (BuB), Philo silt loam (Ph), and Fluvaguents (FA) soils listed as hydric in *Hydric Soils of the United States*. Because hydric soils are soils that have developed under sufficiently wet conditions to support the growth of wetland vegetation, reviewing the soil survey prior to field investigations provided additional indications of the potential locations of wetlands.

Indicators of hydric soils include the presence of histosols, histic epipedons, sulfidic odor, aquic moisture regimes, reducing conditions, gleyed or low-chroma soil colors, concretions, and high organic content or organic streaking in sandy soil. Additionally, an indicator of the presence of hydric soils is if the mapped soil series for the site is listed on local or national hydric soils lists. Primary wetland hydrology indicators include the presence of inundation of the site, saturation of the site in the upper 12 inches of the soil, evidence of drift marks, sediment deposits, or drainage patterns. Secondary wetland hydrology indicators include evidence of water-stained leaves and oxidized root channels in the upper 12 inches of the soil. Also, the FAC neutral test and local soil survey data can be used to provide secondary indicators of wetland hydrology.

Each potential wetland identified in the NWI mapping and during the walk-over of each alternative was investigated and is included in the following discussion of impacts.
With regard to the Waters of the United States resources present, stream crossing were highly

[2]Reed, P.B. 1988. *National List of Plant Species that Occur in Wetlands: Northeast (Region 1).* U.S. Fish and Wildlife Service, Biological Report 88(26.1), 113 pp.

variable due to the changing elevation along the build alternatives. In some cases, it was not possible to obtain landowner permission to observe small impoundments and tributary streams. For those resources, topographic mapping or views from adjacent property or public right-of-way were used to estimate the extent of the resource.

### 4.10.2 Impacts

Table IV-14A tabulates the total of wetlands encountered for the build alternatives by wetland category.

**TABLE IV-14A**
***WETLANDS ENCOUNTERED WITHIN BUILD ALTERNATIVES***

| WETLAND NUMBER | WETLAND CATEGORY | HECTARES | ACRES |
|---|---|---|---|
| WET-1 | PFO | 0.74 | 1.83 |
| WET-2 | PEM | 0.05 | 0.13 |
| WET-3 | PFO | 0.12 | 0.30 |
| WET-4 | PFO | 0.65 | 1.60 |
| WET-5* | PEM/PFO | 0.06 | 0.15 |
| WET-6 | PEM | 0.03 | 0.07 |
| WET-7 | PFO | 0.49 | 1.20 |
| WET-8 | PFO | 0.17 | 0.41 |
| WET-9 | S/S | 0.08 | 0.19 |
| WET-10 | PFO | 0.05 | 0.13 |

| | | | |
|---|---|---|---|
| WET-11 | PFO | 0.03 | 0.08 |
| WET-12** | PFO-S/S | 0.03 | 0.08 |
| WET-13 | PFO | 0.14 | 0.34 |
| WET-14 | PEM | 0.02 | 0.06 |
| WET-15 | PFO | 2.08 | 5.14 |
| WET-16 | PFO | 0.74 | 1.84 |
| WET-17 | PFO | 0.21 | 0.53 |
| WET-18 | PFO | 0.30 | 0.74 |
| **S/S SUBTOTAL** | | **0.66** | **1.62** |
| **PFO SUBTOTAL** | | **6.36** | **15.72** |
| **PEM SUBTOTAL** | | **0.16** | **0.41** |
| **WETLAND TOTAL** | | **7.18** | **17.75** |

*Note: WET-5 is an open water (OW) impoundment with PEM and adjacent PFO wetlands.
**Note: WET-12 is a contiguous wetland comprised of equal areas of S/S and PFO wetland categories.

Table IV-14B shows in detail, the amount of wetland that will be impacted by the build alternatives:

- Alternate I (selected) will impact 6.69 acres (2.70 hectares),
- Alternate II will impact 5.78 acres (2.34 hectares),
- Alternate III will impact 9.01 acres (3.64 hectares) and
- Alternate IV will impact 8.27 acres (3.34 hectares).

Alternatives II, III and IV directly impact a large wetland system at site WET 13, along Breakneck Run. Alternate I is located west of WET 13. Initially, WET 13 forms as an emergent wetland area, which expands into a larger forested wetland. This area provides wildlife habitat and flood flow alternation functions. Also, Alternates II, III and IV either cross Sleepy Creek or are adjacent to Sleepy Creek. Downstream within Sleepy Creek is a significant population of Harperella, a federally endangered plant species. Selected Alternate I will have no direct crossing of Sleepy Creek and lies the furthest distance away from Sleepy Creek than any of the other build alternatives. Alternate I will also have the least impact to the downstream populations of Harperella than any of the build alternatives.

The most prevalent categories of wetlands that will be impacted by the various alternatives are Forested Palustrine. Many of the Palustrine Emergent Wetlands impacted are formed from impounded creeks.

Table IV-14C tabulates the Waters of the Untied States impacted by the build alternatives. Regulated Waters of the United States encountered included deep ponds (less than 6 ft deep)

and creeks (large enough to have an ordinary high water mark line on the bank of the creek) crossed by the build alternatives. Selected Alternate I has the greatest impacts to Waters of the United States primarily because more regulated ponds are crossed by the alignment.

The projected impacts to Water of the United States resources for the build alternatives, presented as the surface area of direct impact by the roadway improvements, represented a worst-case scenario. When the wetlands receive a more formal evaluation and jurisdictional delineation there maybe a reduction in the magnitude of the wetlands impacts due to refinement of the roadway design and the greater degree of detail.

**TABLE IV-14C**
***WATERS OF THE UNITED STATES***

| ALTERNATE ALIGNMENTS | POW | | STREAM | | TOTAL | |
|---|---|---|---|---|---|---|
| | Acres | Hectares | Acres | Hectares | Acres | Hectares |
| **Selected Alternate I** | *7.09* | *2.87* | *1.74* | *0.70* | ***8.83*** | ***3.57*** |
| **Alternate II** | 1.52 | 0.62 | 0.73 | 0.29 | ***2.25*** | ***0.91*** |
| **Alternate III** | 2.61 | 1.05 | 0.64 | 0.26 | ***3.25*** | ***1.31*** |
| **Alternate IV** | 1.92 | 0.78 | 0.69 | 0.28 | ***2.61*** | ***1.06*** |

### 4.10.3 Mitigation

Wetlands and other "waters of the United States" are regulated under Section 401 and 404 of the Clean Water Act. Impacts to these resources require a Section 404 permit from the U.S. Army Corps of Engineers (COE) for the discharge of dredged or fill material into waters of the United States, including wetlands. In accordance with the guidelines detailed in Section 404 b (1) of the Clean Water Act and Executive Order 11990, wetland mitigation includes, in order of priority, the avoidance of wetland impacts, the minimization of wetland impacts, and the replacement of impacted wetlands. Avoidance and minimization of impacts is an ongoing process throughout alternative selection and design. An analysis of the alternatives developed for the Environmental Impact Statement, and other alternatives considered will be required to demonstrate that the selected alternate avoids wetland impacts to the greatest extent practicable. These minimization measures include the use of bridges for wetland crossings, the reduction of roadway width where wetlands occur, the use of 2:1 slopes adjacent to wetlands, and construction of retaining walls. Mitigation measures to compensate for unavoidable wetland impacts include wetland enhancement, restoration, or creation. Following completion

of final design, wetland impacts will be mitigated at no less than 1.5:1 replacement to impact ratio in accordance with the December 1, 1998 WVDOH/FHWA Stewardship Agreement and the goals outlined in the Presidential Executive Order 11990-Protection of Wetlands.

## *4.11 IMPACTS ON FLOODPLAINS*

The floodplains of many of the streams within the project area perform floodflow alteration and improve water quality. Some of these streams also perform groundwater recharge to some degree.

The transverse encroachments (where the proposed alternative crosses a stream, including culverts and channel relocations) will be designed to ensure that these facilities will be of sufficient capacity to accommodate the design year storm. All structures will be designed to accommodate the design year storm, no impacts on natural or beneficial floodplain values are anticipated due to any transverse encroachments. When a structure traverses a waterway, it will not restrict flow capacity, nor will it restrict flow access to their respective floodplain.

Longitudinal impacts resulting from the placement of fill within the floodplain may adversely impact the natural and beneficial floodplain values. Channel changes or flow easements may be required to minimize the risks of flooding for any longitudinal encroachments.

### 4.11.1 Methodology

The Federal Emergency Management Agency (FEMA) maps depicting the National Flood Insurance Program in Morgan County was used. Specifically the Flood Hazard Boundary Map,

Morgan County, West Virginia, and the Warm Spring Run Flood Plain Management Study were used to map the floodplains. The proposed alignments were overlaid on the floodplain areas and the encroachment was noted, described, and measured.

### 4.11.2 Impacts

The Zone A, Special Flood Hazard Area (100-year floodplain equivalent) for the streams in the study area, closely parallels the streams and is adjacent to the stream banks. The streams include Sleepy Creek, Big Run, Breakneck Run, Indian Run, Rock Gap Run, Yellow Spring Run, and Swim Run.

The 100-year floodplain along Warm Spring Run, as identified in the Warm Spring Run Floodplain Management Study, is more extensive and lies close to existing US 522 south of Berkeley Springs. Figure IV-5 shows the 100-year floodplain for Warm Spring Run. Only

Alternative I (selected) encroaches on the floodplain. Table IV-15 summarizes the type and amount of encroachment that Alternative I (selected) creates on the 100-year floodplain of the Warm Spring Run.

***TABLE IV - 15***
**FLOODPLAIN ENCROACHMENT—WARM SPRING RUN**

| Alternative Alignment | Impact to Floodplain | Type of Crossing | Size of Crossing | Length of Crossing | Floodplain Encroachment |
|---|---|---|---|---|---|
| **Selected** | Crosses | Box Culvert | 6.1m X 2.4 m (20’ X 8’) | 168 m(550’) | 1.6 ha(3.9 ac) |

The remaining three alternative alignments do not encroach upon the floodplain of the Warm Spring Run. However, all the alternatives cross one or more of the small Sleepy Creek tributaries, and Alternatives III and IV each bridge Sleepy Creek twice.

### 4.11.3 Mitigation

Detailed hydraulic studies and design procedures will be used to minimize the potential impact of each stream crossing. The best management practices will be applied such as an evaluation of realigning the roadway and using bridges in place of box culverts. All the floodplain modifications, including detailed hydraulic studies, will be required prior to permits being issued.

Preventative measures in the WVDOH Erosion and Sediment Control Manual will be required to minimize impacts during construction. Construction will be limited to the minimum essential in the floodplain. The WVDOH commits to raising the flood elevation by no more than one foot. Materials used in the streams will be clean and meet required standards prior to use. Notice

will be given to the West Virginia Department of Natural Resources prior to construction so that procedures are reviewed and maintained.

The roadway embankments will be seeded to mitigate impacts to the natural and beneficial floodplain values. In addition, efforts will be taken during final design to minimize encroachment on the 100-year floodplains.

Approval by DNR and the U.S. Army Corps of Engineers will be required for each floodplain encroachment. This approval will be requested during final design.

Any construction within the floodplains will be in compliance with Executive Order 11988, Floodplain Management, dated May 24, 1977; FEMA regulations; and all federal, state, and local regulations. The WVDOH will also coordinate with FEMA during final design to provide FEMA with the information needed for map revisions.

Alignments that require activity in the floodplain will be carefully considered. Any alignment that encroaches will be considered only when there is no other practicable alternative.

## *4.12 IMPACTS ON THREATENED AND ENDANGERED SPECIES AND NATURAL RESOURCES*

The study area is rich in natural resources including park land, beaver pond, wetlands, and warm springs.

The natural resources include the ground cover over the study area and the important contribution it makes to the wildlife habitat. A study was made of the right of way that is required for each alternative to identify the ground cover. The study included a field investigation and walk-over of each alternative to develop the information presented in Table IV-16. The results of this ground cover study indicates that the western-most alignment (Alternative I *Selected*) impacts a considerably smaller area of forest than the other alternatives.
Forest and agricultural land represent the largest areas of natural resource acreage impacted. Once an alignment is selected, the final engineering design will attempt to reduce impacts on the natural resources including forests, farms, water systems, and unique geological formations. This can be accomplished by reducing cut and fill areas, making minor changes to the direction of the alignment, using sediment and erosion control measures, and enforcing proper construction and maintenance procedures.

***TABLE IV - 16***
**GROUND COVER**
Hectares (ha) (Acres [ac])

| Alternate | | Pasture or Grassland | Deciduous Forest | Mixed Forest | Pine or Evergreen | Abandoned Lands or Roads |
|---|---|---|---|---|---|---|
| **I** ***Selected*** | Ha | 82.0 | 116.0 | 0.30 | 8.0 | 7.8 |
| | (ac) | (202.6) | (286.6) | (0.74) | (19.8) | (19.3) |
| **II** | ha | 73.3 | 46.2 | 217.6 | 0.3 | 13.1 |
| | (ac) | (181.1) | (114.2) | (537.7) | (0.7) | (32.4) |
| **III** | ha | 87.2 | 64.8 | 182.6 | 0.0 | 11.9 |
| | (ac) | (215.5) | (160.1) | (451.2) | (0.0) | (29.4) |
| **IV** | ha | 77.4 | 62.0 | 189.8 | 0.0 | 11.3 |
| | (ac) | (191.2) | (153.2) | (469.0) | (0.0) | (27.9) |

The forests and grasslands support a large population of deer and other smaller animals and birds. Minimizing the removal of forests and reducing the amount of exposed ground during construction will help maintain the natural habitat for the existing populations of animals and will help maintain the biomass and diversity.

This section also describes the investigation of the impacts the alternatives may have on Threatened and Endangered Species, on critical habitats, and natural resources. This analysis was performed in compliance with Section 7(c) of the Endangered Species Act of 1973 (as amended). State and federal agencies were contracted for their lists of rare, threatened, or endangered species which may be located in the study area.

Based on correspondence with the U.S. Fish and Wildlife Service and the West Virginia Natural Heritage Program, the federal endangered species Harperella *(Ptilimnium nodosum)* has been identified in Sleepy Creek which is in the study area, but outside the ROW limits of the selected alternates. There is no record of other federally designated species listed as threatened or endangered within the study area. Field surveys for threatened and endangered species were conducted during August and September 1992, October 1993 and July 2000.

- *Indiana Myotis* (*Myotis sodalis*) — The Indiana Myotis is a medium sized bat with a small foot. It is approximately 76 mm (3 inches) long, tail of 38 mm (1.5 inches), wingspread of 254 mm (10 inches) and weighs 4.3 grams (0.15 ounces). The Indiana Myotis is a nocturnal insectivore. The species is colonial and hibernates in caves in Kentucky and Missouri. It disperses as small groups in summer to cavernous limestone areas of the

eastern United States. Like all insectivorous bats, it is valuable in insect control and deposits guano, a rich source of nitrogen.

The West Virginia Natural Heritage Program has no records of this species along the proposed alternatives. The Indiana Myotis, is a federally listed endangered species, which may be present during the summer in the study area. There is no known hibernaculum in Morgan County for the Indiana Myotis. A summer/maternity habitat survey has been performed and submitted to the USFWS for review. This survey indicates that ample PRT's would remain in the study area following construction of the Selected Alternate. The WVDOH has committed to performing Potential Roosting Tree (PRT) removal at the discretion of the USFWS. The USFWS has agreed to the commitment set forth in the WVDOH study and believes that construction of the project is unlikely to adversely affect the Indiana Myotis (see September 13, 2000 letter in Section VIII: Comments and Coordination). Furthermore, the USFWS does not require further Section 7 consultation under the Endangered Species Act.

*Harperella* (*Ptilimnium nodosum*) — Harperella (sometimes known as Bishop's weed) is a very slender and weak stemmed, sparsely branched annual herb of the carrot family (*Apiaceae*), growing to 0.9 meter (3 feet) in height and sometimes rooting at the nodes. The plant is glabrous and has hollow, cylindrical, threadlike leaves, the lower ones to 305 mm (12 inches) in length, the upper rapidly decreasing in size along the stem. Basal and lower stem leaves usually produce bulblets in their axils in the autumn. Very small white flowers are borne in terminal compound umbels in late summer. Each individual umbel of a cluster contains three and eight flowers on small stalks.

Harperella occurs on rocky shoals and sandbars in small streams and stream margins of Maryland, West Virginia, North Carolina, South Carolina, Georgia and Alabama. In West Virginia it occurs along Sleepy Creek and the Cacapon River in Morgan County (Harmon and McDonald 1990) and along Back Creek in Berkeley County. Within right-of-ways for the US 522 alternatives, the West Virginia Natural Heritage Program has no record of Harperella. The WVDOH along with the WVDNR and USFWS conducted a field survey within the project corridor to ascertain if Harperella was present. No Harperella was located during field investigations.

Harperella has been identified within the US 522 study area in Sleepy Creek, but outside of possible alternative ROW limits. Harperella is known from six locations within Sleepy Creek downstream of the study alternatives. The U.S. Fish and Wildlife Service stated in an October 2, 1990 letter that "ninety-two subpopulations are known along the lower 33

kilometers (20.5 miles) of Sleepy Creek from Smith Crossroads to its confluence with the Potomac River".

A Harperella field survey was performed and a report was submitted to the USFWS. No Harperella were found within the project APE. The USFWS (see September 13,2000 letter in Section VIII: Comments and Coordination) has agreed that construction of the project is unlikely to adversely affect Harperella and that no further Section 7 consultation under the Endangered Species Act is required.

- *Northeastern Bulrush* (*Scirpus ancistrochaetus*)—Northeastern Bulrush is a tall (0.75 to 1.2 meter [30 to 47 inches] in height), leafy perennial sedge. Flowering culms (stems) are produced from short, woody, underground rhizomes. The lower leaves are 40 to 60 times as long as wide; the uppermost leaves are 30 to 50 times as long as wide. A distinctive field characteristic that aids in separating this species from other bulrushes is the arching rays of the inflorescence. Northeastern Bulrush flowers from mid June to July, and sets fruit between July and September (Federal Register 50 CFR Part 17; Vol. 56, No. 88; May 7, 1991).

  The Northeastern Bulrush is found at the unshaded water's edge of acidic to circumneutral natural ponds, wet depressions or shallow sinkholes. These wetlands, generally less than 0.4 hectare (one acre) in size, occur in groups of three to four depressions, appear to occur primarily in low-lying areas in hilly country and have seasonally variable water levels, ranging from inundation to desiccation. In West Virginia, Northeastern Bulrush is known from two sites near Hedgesville.

  The West Virginia Natural Heritage Program has no records of Northeastern Bulrush along the proposed US 522 alternatives. Field studies along ponds and wet spots did not indicate the presence of northeastern bulrush along the build alternatives.

The West Virginia Natural Heritage Program reported state protected rare species that "could occur in the project area include the Northern Cricket Frog, Wood Turtle, Redbelly Turtle, Eastern Mole and several plant species." The Northern Cricket Frog (*Acris crepitans crepitans*) is found in habitat near or in large, sluggish creeks, rivers, impoundments, and ponds with either emergent vegetative cover or cover along the shore. The Wood Turtle (*Clemmys insculpta*) is found in or near rivers, marshes, meadows and woods. The Redbelly Turtle (*Pseudemys rubriventris*) is found in deep ponds, lakes, streams in swift or slow waters. The Eastern Mole (*Scalopus aquaticus*) is found on moist, well drained, sandy or loam soils of meadows, old fields, lawns, gardens, and open woods.

Other state protected rare species listed for Morgan County may be located within the study area. Many of the broad habitat types described above for the state protected rare species occur within the proposed US 522 corridor. Potential fragmentation of the above habitat types may occur along alternatives east of existing US 522. These alternatives would require the removal of suitable habitat for several state protected rare species.

Secondary and cumulative impacts to listed Federal Endangered Species were examined within the US 522 study area. Two listed plant species, Harperella and Northeastern Bulrush, may occur in the study area. The habitat of Northeastern Bulrush is found at the unshaded water's edge of acidic to circumneutral natural ponds, wet depressions, or shallow sinkholes. Natural ponds and sinkhole ponds were not found in the study area. The possible occurrence of Northeastern Bulrush was examined within wet depressions and ponds within the proposed ROW along the alternatives. Secondary impacts of this project on Northeastern Bulrush are not anticipated because no populations of the species are found downstream of the build alternatives.

Six Harperella subpopulations were located within the study area by consultation with the West Virginia Natural Heritage Program. Three of these Harperella subpopulations were located downstream of Smith Crossroads. Two Harperella subpopulations were located north of the Highlands Ridge Road crossing. One subpopulation was located near WV 8. Additional Harperella subpopulations were reported east of the study area toward the Potomac River. The locations of the six Harperella subpopulations known in the study area are noted on Table IV-17. These subpopulations lie in Sleepy Creek beginning downstream of Smith Crossroads. Harperella subpopulations are located to the east of Alternatives II, III, and IV. Alternative III lies approximately 1,500 m (5,000 feet) from a known Harperella subpopulation in Sleepy Creek.

***TABLE IV-17***
**DISTANCE OF HARPERELLA DOWNSTREAM FROM ALTERNATIVES**

| Harperella | Alternatives II & IV | | Alternative III | |
|---|---|---|---|---|
| | M | (ft) | M | (ft) |
| Sub-Population 1 | 2,400 | (7,800) | 1,500 | (5,000) |
| Sub-Population 2 | 2,450 | (8,000) | 1,750 | (5,800) |
| Sub-Population 3 | 2,650 | (8,700) | 1,900 | (6,200) |
| Sub-Population 4 | 2,600 | (8,500) | 2,250 | (7,400) |
| Sub-Population 5 | 2,450 | (8,000) | 1,800 | (5,900) |
| Sub-Population 6 | 2,950 | (9,600) | 2,300 | (7,600) |

Alternatives III and IV each will require two crossings of Sleepy Creek. One crossing will be a bridge over Sleepy Creek east of Fish Hatchery Road and the other will be near Morgan County

38/8. At these proposed Sleepy Creek crossings there are no known Harperella subpopulations and none were observed during field surveys. Sleepy Creek is a small, shallow creek near Fish Hatchery Road. The substrate is composed of sand and pebbles. Sleepy Creek is approximately 15 meters (50 feet) wide near CR 38/8 and has a rock and boulder substrate. Harperella was not observed in these shallow reaches of Sleepy Creek during field investigations. Nevertheless, all appropriate measures should be taken to minimize disruption to channel bank areas of Sleepy Creek.

To minimize secondary impacts on Harperella due to sedimentation, construction operations in Sleepy Creek should be restricted to those areas where absolutely necessary or those areas which must be entered for construction of temporary or permanent structures. The disturbed areas in Sleepy Creek should be minimized and the time of disturbance kept as short as possible. When construction operations have resulted in damage to the channel or banks of the creek, the banks should be reestablished as quickly as possible using vegetative or non-vegetative measures. These measures will minimize sedimentation, which could affect established downstream Harperella subpopulations.

## *4.13 CULTURAL RESOURCES IMPACTS*

A cultural resource survey (including an investigation of state and local records, a literature search and preliminary field examination) was conducted to identify and evaluate known historic, architectural, and archaeological resources within the project area. This survey can be divided into two distinct parts. The first is a historic resource survey, which includes a literature search and an investigation of state and local records. A field survey was completed and concurrence has been obtained from the WVDCH on the eligibility of all structures within the project area. Historic boundaries for each of these properties have been submitted. The second part, the archaeological survey, involved an investigation of state and local records and a literature search. Preliminary field investigations were performed and an archaeological predictive model was prepared. A windshield survey to identify archaeologically sensitive areas, a literature review, and two predictive models (historic and prehistoric resources) were prepared in a Phase IA report conducted for WVDOH and accepted by WVSHPO (see letter in Section VIII: Comments and Coordination).

In accordance with the approved programmatic agreement, further archaeological field investigations will be conducted to identify and document cultural resources (see Appendix B). The following discussion includes currently known cultural resources discovered through the survey.

The Phase IA literature review and predictive model study has been submitted and accepted by the WVSHPO. A Phase IB field survey will be conducted in accordance with the Secretary of the Interior's Standards and Guidelines for Identification (48 FR 44720-23) and the West Virginia Division of Culture and History (WVDCH) guidelines (WVDCH 1991).

Phase IB consists of the complete pedestrian survey of the project corridor and will consist of a

survey crew of field technicians who will traverse the terrain within the proposed project boundaries and examine the ground for evidence of archaeological sites. When ground surface visibility is too poor to identify archaeological evidence, shovel test probes will be excavated at 10m to 15m intervals. These probes will meet the following standards: excavated to the top of the B-Horizon where the ground is not too wet to dig, where slopes are less than 20% and where the ground has not been extensively altered by prior construction or landscaping. All probes will be screened to collect artifacts for laboratory identification and analysis. Records will be kept of all probes, describing soil conditions, artifact content, location and depth excavated.

If an archaeological site is discovered, procedures will be implemented to collect the data needed to complete the state survey forms. Other variables will also be recorded as appropriate for the evaluation of the predictive models as specified in the Phase IA study (Fenton, Beverly and Stetar 1996). These include slope, aspect, elevation, proximity to water, landform, distance to nearest site, vegetation, and a general description of the surrounding terrain. A special form will be drawn up to record this additional data. Site limits will be determined within the right of way, and site depth, stratigraphy and cultural integrity where possible. All artifacts demonstrably over 50 years of age will be analyzed to determine site function and chronology where feasible. Any subsurface features observed will be minimally sampled to determine chronological placement, function, integrity and amount of disturbance. The results of the Phase IB survey will be presented in a report describing the fieldwork, the methodology employed, the results, pertinent maps, photographs, completed West Virginia Archaeological site forms, and recommendations and scope(s) of work for Phase II investigations, as necessary.

WVDOH will evaluate the archaeological sites identified during the Phase I survey in accordance with 36CFR 800.4(c). If the WVDOH and WVDCH agree that a site is not eligible for the National Register of Historic Places (NRHP) no further investigation of the site will be conducted. If the site is considered potentially eligible for nomination to the NRHP, a Phase II evaluation may be conducted for the site, if unavoidable.

The Phase II evaluation will consist of an intensive archaeological investigation including but not limited to: additional shovel testing, controlled surface collection, determination of site limits, hand excavated test units of 1m X 1m size, excavated to sterile deposits and screened through ¼ inch wire mesh screen. Deep testing may be necessary to recover information from deeply buried cultural deposits. Artifacts, site stratigraphy and integrity will be described and analyzed. The results will be presented in a Phase II evaluation report in conformance with the WVDCH

specifications (WVDCH 1991). As a result of these evaluations, a recommendation that a site is either eligible or not eligible for the National Register, should be possible.

If the WVDOH and WVDCH agree that a site is eligible for the NRHP for the information it contains, it will be avoided where practical, and if impractical, a plan for data recovery will be developed by joint consultation between the WVDOH and WVDCH. The data recovery plan will be consistent with the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation (48 CFR 44734-37).

Previously recorded sites within the project corridor will be visited and notes made as to their current condition. New data concerning their environmental settings will be recorded on special forms designed for this purpose, and updated state survey forms will be prepared. Copies of these forms will be transmitted with the final report.

### 4.13.1 Historical Resources

The Area of Potential Effects from the planned improvements to US 522 extends 305 meters (1,000 feet) to either side of each proposed alternative. A comparison of the locations of National Register eligible and listed sites to the proposed alignments indicates that none of the proposed alignments directly impacts any of these sites.

- The *Chesapeake and Ohio Canal National Historic Park,* located immediately north of the project area in Maryland, is an important historic transportation site.
- *Berkeley Castle,* of Medieval/Norman stone architecture, was built by Samuel Taylor Suit for his bride in 1885 and completed, by her, in the 1890's.
- *T.H.B. Dawson House* is a large red brick residence in the Town of Bath completed in 1880 by Thomas Hart Benton Dawson.
- The *John Herbert Quick House* also known as Coolfont is a Colonial Revival mansion built in 1913 in the valley between Cacapon Mountain and Warm Spring Ridge south of Berkeley Springs.
- The *Sloat-Horn-Russell House* is a two-story Second Empire Style residence on Fairfax Street in Berkeley Springs. The Hunter family constructed the residence in 1879.
- The *Judge John W. Wright Cottage* is an Italianate residence in Berkeley Springs that was built in 1872.

Several sites have been determined to be eligible for the National Register by the WVDCH since the completion of the Historic Structures survey in 1997. These properties are as follows:

1. **Omps Postmaster/store-owner Residence** (WSA19) along with the Post Office and store was the nucleus of the Omps community. It is a relatively unaltered 19th century I-house that served as a residence from at least 1896, and possibly 1887, until 1973. This property is considered eligible to the National Register under Criterion A. The Omps postmaster/store owner residence is locally significant for its role in the development of the community.

2. **Omps Post Office and General Store** (WSA20) along with the residence of the postmaster/store owner, was considered the nucleus of the crossroads community of Omps. This building has been expanded and a new façade is present as well. The post office was closed in 1973, however the store continues to operate. The WVDCH has determined this property to be eligible to the National Register under Criterion A. This property is locally significant for its role in the development of the Omps community.

3. **A Bungalow-style residence** (WSA73) is located to the west of Berkeley Springs in the community of Ridersville. The property consists of a bungalow, garage and outbuilding. The construction of the residence is circa 1932. According the WVDCH, this dwelling is a fusion of the bungalow style and ornamental concrete block construction. The home entails such distinctive decorative detailing as corner quioning and stone-face treatment of the concrete blocks. It is considered eligible to the National Register under Criterion C for its architectural significance.

4. **George Messner Farmstead** (WSA49) is considered one of the largest surviving farmsteads within the project area. The property consists of nine buildings including the dwelling. It has been determined that this property meets National Register eligibility under Criterion C. The main house of the farmstead is one of the most intact examples of I-houses in the project area.

5. **Ward M. Dawson, Sr. Farmstead** (WSA147) is a property that consists of five structures. This farmstead has served in various capacities since its construction circa1915. Some examples of functions served include mill, cannery and the County's first John Deere dealership. The property has been found to be eligible to the National Register under Criterion A for its association with early commercial agriculture by the WVDCH.

6. **Portions of the Berkeley Orchard Company** (WSA89) are considered eligible under Criterion A by the WVDCH as a potential Multiple Property thematic listing based on its association with early commercial agriculture in Morgan County. This property once grew peaches, had a tomato canning facility and served as a poultry farm.

7. **Ridge Historic District** (WSA) is an area located to the south of Berkeley Springs on US 522. It has been determined through consultation with the WVDCH that this potential district retains sufficient integrity to qualify as an eligible historic district. This area meets the National Register Criterion C for architecture.

8. **Cacapon State Park Gatehouse, Sign, and Rock Wall** (WSA111) are located approximately four miles north of the Virginia state line on US 522. The Camp Morgan Civilian Conservation Corps (CCC) constructed the structures during the 1930s. The property has been found to be eligible to the National Register under Criterion C for its stonework, architecture and construction methods used by the CCC.

Implementation of the proposed build improvements will provide a positive impact to the National Register listed historic properties in the Town of Bath. Under the No-Build Alternate, all traffic would continue to pass through the town resulting in a direct impact to these properties through the increase of non-compatible elements: noise and air pollution, roadway vibrations, etc. Under the build alternatives, much of the traffic would be on a by-pass to the

east. The removal of traffic from downtown Berkeley Springs is viewed as a beneficial impact; reducing congestion, noise, air pollution and providing improved access to the parks and historic properties. Thus, implementation of the proposed improvements is compatible with Morgan County's goal to promote tourism. Impacts to historic properties within the project area are summarized in the following table IV-18 Summary of Historic Property Impacts.

***TABLE IV-18***
**SUMMARY OF HISTORIC PROPERTY IMPACTS**

| WSA # | NAME OF PROPERTY | DIRECT IMPACT | SECTION 106 EFFECT |
|---|---|---|---|
| 19 | Omps Postmaster's Residence | No | No Effect |
| 20 | Omps Post Office and General Store | No | No Adverse Effect |
| 111 | Cacapon State Park Gatehouse, Sign and Rock Wall | No | No Adverse Effect |
| N/A | Ridge Historic District | No | No Adverse Effect |
| 73 | Bungalow | No | No Effect |
| 49 | George Messner Farmstead | No | No Effect |
| 147 | Ward M. Dawson, Sr. Farmstead | No | No Effect |
| 89 | Portions of the Berkeley Orchard Company | No | No Effect |

** as per SHPO letter of August 2, 1999*

### 4.13.2 Archaeological Resources

An examination of the site files of the Historical Preservation Unit (HPU) in Charleston indicates that four (4) recorded sites are in the vicinity of the proposed improvements. These sites are: 46MN59, 46MN100, 46MN101 and 46MN103. All of these sites are outside the project area.

***Selected Alternate I***

- boundaries do not encompass sites 46MN100 and 46Mn101.
- passes approximately 1,000 feet from site 46Mn103.
- site 46MN59 lies on a ridgetop, west of existing US 522 and will not be impacted by the selected alternate.

*Alternate II*

- passes near site 46MN101. The site is not within the project limits of this alternate

*Alternate III*

- passes near site 46MN100. The site is not within the project limits of this alternate

*Alternate IV*

- passes near sites 46MN100 and 46MN101. Neither of these sites are within the project limits of this alternate.
-

Some earlier studied alignments passed through or near site 46MN59, but have been eliminated from further study.

In addition, the various alignments pass through areas of topographic and physiographic conditions that were highly favored by prehistoric groups and are thus high potential areas for archaeological sites. Four segments (A, $B_1$, $B_2$ and E) contain more than 50% in high probability zones. Portions of Segments A and/or E are contained in each of the Alternatives being carried forward. Two segments (K and D) contain more than 50% in moderate probability zones. Segment D is within Alternative I. Segments $G_1$, $H_1$, $H_2$, C, Z, Y, P, T, F, and N contain more than 50% in low probability zones. Each of the alternatives carried forward contains one or more of these segments. The final impacts of the project on archaeological resources will be determined by further archaeological surveys to be conducted for the selected alternative.

Should this survey result in the identification of potentially significant archaeological sites, a determination of effect will be evaluated for each site. For those sites satisfying the criteria for a determination of adverse effect, options will be evaluated to avoid, minimize or mitigate any

adverse impacts. Avoidance options include selection of another alignment or realignment of the alternative to avoid the site. For archaeological sites, mitigation of an adverse effect can be realized through completion of an approved data recovery program developed in consultation with the West Virginia Division of Culture and History and the Advisory Council on Historic Preservation.

The Draft Environmental Impact Statement (DEIS) summarized the findings of the Phase IA archaeological literature search and predictive modeling study presented in Fenton, Beverly, and Stetar (1996) for the alternates under consideration. The study identified the kinds of archaeological resources currently documented or likely to be present within the various proposed alternates. The following additional comments focus on Selected Alternate I.

Additionally, these comments address concerns expressed in the responses to the DEIS previously submitted.

The proposed undertaking is likely to effect an unknown number of archaeological sites within the right of way of Alternate I. Three phases of site discovery (Phase I), evaluation (Phase II) and mitigation (Phase III) will be undertaken.

***TABLE IV-19***
**IMPACTS TO KNOWN ARCHAEOLOGICAL SITES PER ALTERNATE**

| | Known Archaeological Sites | | | |
|---|---|---|---|---|
| | Site 46Mn103 | Site 46Mn59 | Site 46Mn101 | Site 46Mn100 |
| **Alternate I (Selected)** | Outside project APE | Outside project APE | Outside project APE | Outside project APE |
| **Alternate II** | Alt eliminated/ No effect | Alt eliminated/ No effect | Pass near / alt eliminated | Alt eliminated/ no effect |
| **Alternate III** | No effect | Alt eliminated | No effect | Pass near |
| **Alternate IV** | No effect | Alt. eliminated | Pass near | Pass near |

The first phase, Phase I, will be site discovery using the field techniques described above. The resulting Phase IB report will identify potentially eligible sites, and potentially ineligible sites and be submitted by WVDOH and WVDCH for review and comments. Those sites that are jointly agreed to be potentially eligible and cannot be avoided will be further evaluated by Phase II

testing, the nature of which will be decided jointly by the WVDCH and WVDOH.

The results of Phase II testing at each site will be presented in a Phase II report, which will contain a detailed analysis of cultural components identified at each site, their data content, integrity and potential for nomination to the NRHP, under appropriate criteria.

Any potentially eligible sites that are shown by Phase II testing to be eligible for the NRHP and that cannot be avoided, will be recommended for Phase III mitigation. Phase III will be initiated with the joint preparation of a data recovery plan for each eligible site. Such plans will detail the research issues, field and laboratory methods and the expected scientific data contribution that the site will make to the national and regional scientific community.

Following the completion of field and laboratory investigations, a draft report describing the study will be submitted by WVDOH to WVDCH for comments and review. Requested changes to this draft report will be made in the final report of investigations. The final report will be submitted by the WVDOH to WVDCH for concurrence. Once an agreement has been reached, WVDOH will forward one or more copies of the mitigation reports to FHWA for their compliance and review. These procedures will enable the FHWA to ensure its Record of Decision (ROD) includes mitigation of impacts to archaeological resources on Selected Alternate I.

## *4.14 HAZARDOUS WASTE SITES & UNDERGROUND STORAGE TANKS*

A survey of potential hazardous waste sites and underground storage tanks (USTs) was conducted within the study area and is discussed in Section III. Potential known or suspected hazardous waste sites and USTs located within the corridor are described in Appendix B. The survey provides baseline information useful in determining whether or not the proposed alternative will result in adverse environmental effects due to roadway construction. In this section, each alternative has been evaluated from the standpoint of potential hazardous waste site and UST involvement.

Forty-nine hazardous waste sites and USTs are within the proposed ROW or within 61 meters (200 feet) of the proposed ROW of all the alternatives that were originally studied. These sites included:

### *POTENTIAL HAZARDOUS WASTE SITES*

- Resource Conservation and Recovery Act (RCRA) facilities

- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) site
- Two town waste dumps
- Fuel spill at the National Guard airplane crash site

***UNDERGROUND STORAGE TANKS***

- Registered underground storage tanks (USTs)
- Abandoned underground storage tanks (AUSTs)
- Possible abandoned underground storage tanks (AUSTs [?])
- Leaking underground storage tanks (LUSTs)

Following the publication of the DEIS, the hazardous waste and UST survey was further refined. The centerline for each project alternative was overlain on project mapping at 1:600 scale (1 inch = 500 ft.) showing all surveyed hazardous waste sites and UST's. A 200 ft. buffer on each side was projected from the centerline of each build alternate carried forward. All hazardous waste sites and UST's within this buffer zone were then identified and tabulated.

The sites for each alternative are identified by category (UST, AUST/AUST(?), RCRA, CERCLA, LUST, Waste Dump, or Spill Site) in Table IV-20.

***TABLE IV - 20***
**POTENTIAL HAZARDOUS WASTE SITES ALONG EACH ALTERNATIVE**

| ALTERNATE | RCRA | CERCLA | WASTE DUMP | SPILL SITE | NO. SITES |
|---|---|---|---|---|---|
| **No Build** | 11 | 1 | 0 | 0 | **12** |
| **I** ***Selected*** | 0 | 0 | 0 | 0 | **0** |
| **II** | 0 | 0 | 0 | 0 | **0** |
| **III** | 0 | 0 | 0 | 0 | **0** |
| **IV** | 0 | 0 | 0 | 0 | **0** |

***TABLE IV-20 (continued)***
**UNDERGROUND STORAGE TANKS**

**ALONG EACH ALTERNATE**

| ALTERNATE | UST | AUST<br>AUST (?) | LUST | NUMBER OF SITES |
|---|---|---|---|---|
| No Build | 14 | 11 | 8 | 33 |
| **I<br>Selected** | **0** | **1** | **0** | **1** |
| II | 0 | 0 | 0 | 0 |
| III | 0 | 0 | 0 | 0 |
| IV | 0 | 0 | 0 | 0 |

The following five sites within the US 522 project study area had more than one hazardous waste category:

- T.H. Compton (now closed) has a UST registration, is on the CERCLA list, and is on the RCRA generator list;
- Seely Pine Furniture, Inc. has a UST registration and is on the RCRA generator list;
- Largents Truck & Implement Center is on the LUST list and is on the RCRA generator list;
- WV Division of Highways has a UST registration and is on the RCRA generator list; and
- Dawson's Hardware has a UST registration and is on the RCRA generator list.

Descriptions of the 49 potential hazardous waste sites and UST locations are presented in Appendix A.

### 4.14.1 Subsequent Investigation and Mitigation

Hazardous waste sites and USTs will be avoided during final design whenever possible. Those sites and USTs that are not able to be avoided will require further background research and field inspection to determine the extent of contamination or precise location of the UST (in accordance with the WVDOH Guidelines for Identifying and Dealing with Hazardous Waste on Highway Project (1989). A remediation plan will then be developed in coordination with the WVDEP.

## *4.15 VISUAL IMPACTS*

### 4.15.1 Methodology

It is important to construct a roadway which is visually integrated into the surrounding environment. Visual impacts are evaluated two ways. The view of topography and surrounding countryside was assessed from the roadway. In addition, the visual impact of a new roadway was assessed from fixed and existing sensitive locations such as houses, businesses and other farms.

### 4.15.2 Impacts

For analysis of visual impacts, the study area was divided into three areas. In the south, the easternmost alignments tend to run parallel to and in narrow valleys. There, the visual setting from each alignment is very picturesque and pastoral through dispersed farms, pasture land and wooded hillsides. The valley of Sleepy Creek contains widely scattered and settled farms

and seasonal homes. The surrounding visual scene will be very pleasing from the roadway. The view of the new roadway will be disruptive from the farmhouses and homes. The number of residential developments and houses increase in the center section. The new roadway will cross over ridges and valleys into the next ridge system. Therefore, the visual settings from each alignment will be more panoramic. The view from the new roadway will be dramatic, pastoral, and rural. The view of the new roadway from surrounding sensitive locations will be less favorable.

In the north, the density of homes is considerably less and the differences in elevation of valleys and ridges are greater. The new roadway will continue to provide a panoramic rural scene.

Alignments along and near the existing US 522, such as Alternative I (selected), are less disruptive to the rural pastoral and remote qualities of Morgan County. At the same time, the view from the new roadway along the existing US 522 is less attractive than from the more eastern alignments.

### 4.15.3 Mitigation

Several mitigation measures would minimize the negative visual impacts described above. In those locations where negative visual impacts are unavoidable mitigation measures will be considered. These measures include, but are not limited to, vegetative screening, landscaping and the application of design features that are attuned to a rural environment such as the project area.

In all three sections, the use of wide medians is effective in minimizing visual discontinuity. One way is to landscape the medians using native vegetation, shrubs, and trees to improve the quality of the viewshed both from the roadway and to the roadway. In addition, landscaping allows for faster revegetation and reducing the chances of erosion problems. All areas disturbed by construction will be revegetated.

If additional right-of-way is available and affordable, landscaping the right-of-way areas is a second means to mitigate visual impacts. Wildflowers and vegetation provide a pleasing visual scene and would be beneficial in all three sections.

## 4.16 ENERGY

Vehicle energy efficiency is related to the highway design characteristics and highway traffic conditions. Highway design characteristics that affect energy efficiency are:

- Vertical profile
- Horizontal alignment
- Surface of roadway
- Width and level of traffic
- Access points
- Intersections
- Length of segment

The improved roadway project will be two lanes in each direction, 3.7 meters (12 feet) wide, with a design speed of 96 kilometers per hour (kph) (60 mph). The existing roadway is one lane 3.7 meters (12 feet) wide in each direction with a design speed of 64 kph (40 mph). The average

daily traffic (ADT) is approximately 10,000 (1995) and is projected to be over 20,000 by the year 2015. As described in Section II, the level of service (LOS) will decrease as the traffic volume increases and delays increase on the existing roadway.

Construction of the new roadway will require an energy expenditure that the no build alternative avoids. However, the new roadway will provide operational savings of energy and in time will exceed the initial construction energy investment. The no-build will operate at increasingly higher energy costs as the traffic becomes more dense and the level of service diminishes.

## *4.17 CONSTRUCTION IMPACTS*

Construction impacts consisting of traffic diversions, increased noise, dust and air pollution, and new erosion and sediment hazards will occur during construction of the build alternatives. Present activities will be interrupted. The alignments close to the existing US 522 roadway will be more disruptive because there will be more connections and crossings of the existing roadway. The surrounding roadway network is not sufficiently developed to provide easy detours. The easternmost alignments will be less disruptive because US 522 can continue without interruption during construction of the new roadway.

The contractor will be required to maintain traffic by use of temporary roadways and detours. Traffic control signs and warning devices will be used during construction in accordance with the FHWA Manual for Uniform Traffic Control Devices and the WVDOH standards and directives.

Noise from construction equipment and construction activities can result in a temporary increase in the noise levels. Construction in the vicinity of residences will be restricted during normal

sleeping hours (10:00 p.m. to 6:00 a.m.). The contractor will be required to use construction equipment with operable mufflers.

Each alignment includes several stream crossings. It will be imperative to reduce, and eliminate, if possible, erosion and sedimentation along the streams. The control measures in the WVDOH standard, *Erosion and Sediment Control Manual*, will be required of the contractor. In addition, notice to the WV Division of Natural Resources will be required prior to work that results in erosion and sedimentation in streams. Sleepy Creek is a high quality stream in West Virginia. Several smaller streams to be crossed, flow into Sleepy Creek. Sediment in any of these streams can be harmful to the plant and fish systems in Sleepy Creek.

Air pollution from equipment exhaust and from dust during clearing and grading activities will also be kept to a minimum. Methods to reduce dust will be employed in accordance with the WVDOH Standards and Specifications.

## *4.18 RELATIONSHIP OF LOCAL SHORT TERM USES VS. LONG TERM PRODUCTIVITY*

All the proposed build alternatives will have short-term impacts resulting in temporary inconvenience to motorists. The inconvenience will be offset by the benefits derived from a safer, better-designed, and higher capacity roadway. The local short-term use of resources in the proposed action is consistent with the long-term goals and growth in productivity in Morgan County and in the eastern panhandle of West Virginia.

## 4.19 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Construction of the proposed project will require natural, physical, human, and fiscal resources. Land used in the construction of the project will be an irreversible commitment while the land is used for a highway. However, if the highway is not needed or a greater need arises, the land can be converted to another use. There is no reason to believe such a conversion will ever be necessary or desirable.

In the build alternatives, fuel, labor, and construction materials will be expended. Also, large amounts of labor and natural resources will be used in the fabrication and preparation of construction materials. These materials are not retrievable. However, they are not in short supply nor will their use in this project have an adverse impact on their availability. Construction will require state and federal funds, which will not be retrievable.

Commitment of these resources will benefit residents in the immediate area, the state, and the region by the improved quality of the transportation system. Benefits include improved access, safety, travel time, and traffic circulation in Berkeley Springs.

## *4.20 SECONDARY AND CUMULATIVE IMPACTS*

In response to a request by the United States Environmental Protection Agency (EPA), the WVDOH has prepared and circulated a separate technical report entitled "Regional Secondary and Cumulative Impact Analysis Report." This report, prepared by Skelly and Loy, Inc., in February 1996, provides a detailed discussion of secondary and cumulative effects in Morgan, Jefferson, and Berkeley Counties that might result from proposed improvements to WV Route 9 and US 522. Pertinent sections of this report are summarized below. A more detailed examination of these issues can be found in the full technical report.

### 4.20.1 Introduction and Definitions

Federal agencies, such as the Federal Highway Administration, are directed by the National Environmental Policy Act (NEPA) to assess the consequences of proposed activities. These consequences include both direct and indirect impacts to the natural and human environment.

Direct impacts are those impacts that have a direct and immediate causal relationship to the proposed action. Examples of direct impacts include the placement of fill material in a stream, wetland, or the relocation of a business or residence. These impacts are readily identifiable and measurable.

Secondary impacts are those impacts that occur later in time or are removed from the project vicinity. Examples of secondary impacts include increases in residential development as a result of an improved transportation network. This development could affect farmlands, wetlands, and other areas of environmental concern.

Cumulative impacts are those that result from the incremental effects of other past, present, and reasonably foreseeable future actions. Often these impacts take the form of the gradual degradation of an environmental resource. In these examples, often no single project has a significant impact on the resource but when several projects are taken in aggregate, the impact is significant.

### 4.20.2 Methodology

The “Regional Secondary and Cumulative Impact Analysis” was prepared using existing and past environmental and census data layered on a map of the three subject counties and analyzed using Geographic Information System (GIS) software. Existing growth and development patters were analyzed and future, no-build development was extrapolated from these patterns.

Next, growth patterns were examined and redesigned in light of each of the proposed highway improvements. These impacts were compared to the no-build projections to determine the secondary impacts of each project.

Lastly, the aggregate impact of the WV9 and US522 improvements was examined to determine cumulative impacts from these projects.

### 4.20.3 Secondary and Cumulative Impacts

The study found that the expected industrial growth would not greatly exceed that found in existing industrial parks. Commercial development will be primarily in areas near residential development. Residential development is divided into low- and hi-density development. Hi-density development is expected to be predominantly near existing population centers while low-density residential development will be dispersed throughout the study area.

The US 522 project area is expected to have the least secondary impacts of the projects

studied due to the lack of projected development locations found within the watersheds. Secondary impacts attributed to the incremental difference between the no-build and build scenarios are not considered substantial. Cumulative impacts for the US 522 study area are not expected to be significant. Pursuant to the provisions of 40 CFR 1502.1, these materials are incorporated by reference into the FEIS. The FHWA will make these materials available for inspection by interested parties.

# SECTION V

## SECTION 4(f) DISCUSSION

### 5.1 Introduction

This Section 4(f) statement, issued by the Federal Highway Administration (FHWA), is required by Section 4(f) of the Department of Transportation Act of 1966 (49 USC 303(c)). The Act declares it a national policy that special effort be made to preserve the natural beauty of the countryside, public parks and recreational lands, wildlife and waterfowl refuges, and historic sites. Section 4(f) permits the Secretary of Transportation to approve a project that requires the use of publicly-owned land from a park, recreation area, or wildlife refuge, or any land from a historic site of national, state or local significance only if the following determinations have been made: "there is no prudent and feasible alternative to the use of such land, and all possible planning has been undertaken to minimize harm to the Section 4(f) lands resulting from such use."

According to 23 CFR § 771.135 (p)(1) and (2) a "use" occurs when:

- Land is permanently incorporated into a transportation facility,
- There is a temporary occupancy of land that is adverse in terms of the statute's preservationist purposes, or
- There is a constructive use of land.

A "constructive use" occurs when:

- The transportation project does not incorporate land from a Section 4(f) resource, but the project's proximity impacts are severe enough to affect the projected activities, features or attributes that qualify the resource for Section 4(f) protection are substantially impaired.

"Substantial impairment" occurs when:

- The protected activities, features or attributes of the resource are substantially diminished.

## 5.2 Section 4(f) Resources

### Public Parks

There are three public parks within the project area:

- Cacapon State Park lies west of US 522, and has its entrance on US 522;
- Morgan County Park lies to the west and abuts US 522; and
- Berkeley Springs State Park is within Berkeley Springs.

The Selected Alternate does not impact any of these parks. If the No-build Alternate had been selected, Berkeley Springs State Park would have continued to be adversely affected by the traffic, noise, and dust on US 522 adjacent to the park.

There are also several schools in the project area that have athletic fields/facilities that are accessible to the public. None of these properties will be impacted, either directly or through constructive use, by the selected alternative.

***Wildlife Refuges -*** There are no wildlife refuges within the project area.

***Cultural Resources: -*** There are seven (7) historic properties which have been determined eligible for listing on the National Register of Historic Places through consultation with the West Virginia Division of Culture and History. These properties are as follows:

**Eligible Historic Sites:**

*Omps Postmaster's Residence* (WSA #19): The property is a late 19th Century three bay I-house with a central chimney. The residence also has a large two story rear addition. This house has served as the Postmaster's residence since the late 1800s.

*Omps Post Office and General Store* (WSA #20): This building has served as the Omps Post Office/General Store since the late 1800s. It still serves as a general store to the community of Omps, however the Post Office was closed in 1973. A new façade has been added to this building in recent years.

*Bungalow* (WSA #73): The residence was constructed in the early 1900s and is a fusion of the Bungalow-style and ornamental concrete block construction. It represents a relatively unaltered example of this dwelling style while retaining a high degree of historic integrity.

*George Messner Farmstead* (WSA #49) is considered one of the largest surviving farmsteads within the project area. The property consists of nine buildings including the dwelling. The main house of the farmstead is one of the most intact examples of I-houses in the project area.

*Ward M. Dawson, Sr. Farmstead* (WSA #147) is a property that consists of five structures. This farmstead has served in various capacities since it's

construction circa 1915. Some examples of functions served include mill, cannery and the County's first John Deere dealership. The property has been found significant for its association with early commercial agriculture.

*Portions of the Berkeley Orchard Company* (WSA #89) are considered eligible by the WVDCH as a potential Multiple Property thematic listing based on its association with early commercial agriculture in Morgan County. This property once grew peaches, had a tomato canning facility and served as a poultry farm.

*Ridge Historic District* (WSA) is an area located to the south of Berkeley Springs on US 522. Through consultation with the WVDCH, it has been determined that this potential district retains sufficient integrity to qualify as an eligible historic district.

The above listed resources are referenced from the ***Historic Structures Survey Report*** prepared for this project, along with comments received from the West Virginia Division of Culture and History.

Several National Register of Historic Places listed sites are located near the project area. None of the sites will be impacted during the project. The sites are as follows:

- The **John Herbert Quick House** lies 2,600 feet (800 meters) west of all the alignments and is separated from the alignment by Warm Spring Ridge. This property is also known as Coolfont.
- The **Chesapeake and Ohio Canal National Historic Park** is located on the north side of the Potomac River in Maryland and lies outside the project area.
- **Berkeley Springs State Park** is located at South Washington and Fairfax Streets within the community of Berkeley Springs (Town of Bath)
- Also known as "Berkeley Castle", the **Samuel Taylor Suit House** lies on West Virginia Route 9 near Berkeley Springs (Town of Bath)
- The **T.H.B. Dawson House** is located at 300 South Green Street within the community of Berkeley Springs (Town of Bath)
- The **Sloat-Horn-Russell House** can be found at 415 Fairfax Street in Berkeley Springs (Town of Bath)
- The **Judge John E. Wright Cottage** is located within the community of Berkeley Springs (Town of Bath) at 305 South Green Street.

The Selected Alternate will not use land from historic sites on or eligible for the NRHP, either directly or constructively.

A Programmatic Agreement has been developed for the Phase 1B Archaeology testing to be conducted along the Selected Alternate. Phase IB consists of the complete pedestrian survey

of the project corridor. This survey will consist of a crew of field technicians who will traverse the terrain within the proposed project boundaries and examine the ground for evidence of archaeological sites. When ground surface visibility is too poor to identify archaeological evidence, shovel test probes will be excavated at 33 to 49 foot (10m to 15m) intervals. These probes will go down to a depth that will allow exposure of the B-Horizon. The probes will occur where the ground is not too wet to dig, where slopes are less than 20% and where the ground has not been extensively altered by prior construction or landscaping. All probes will be screened to collect artifacts for laboratory identification and analysis. Records will be kept of all probes, describing soil conditions, artifact content, location and depth excavated.

A copy of this agreement is attached in Appendix B.

### *5.3 Discussion*

The various alternatives being considered for the US 522 Improvement Project have been developed so as to minimize impacts to natural resources, public parks, and significant cultural resources. The Selected Alternate is not comprised of any segments that have a Section 4(f) impact on the identified cultural resources sites.

**TABLE V-1**
**EFFECTS SUMMARY MATRIX**

| WSA # | ELIGIBLE PROPERTY | SECTION 106 IMPACT |
|---|---|---|
| 19 | Omps Postmaster's House | No Effect |
| 20 | Omps Post Office and General Store | No Adverse Effect |
| 39 | M.U. Michael and Company Cannery* | No Longer Considered Eligible |
| 111 | Cacapon State Park Gatehouse, Sign and Rock Wall | No Adverse Effect |
| N/A | Ridge Historic District | No Adverse Effect |

***** Previously identified as the Sleepy Creek Canning Company

The No-Build alternative will not affect any of the 4(f) properties. However, the No-Build will not accommodate the projected increase in traffic along US 522, nor will it relieve congestion within Berkeley Springs. The No-Build alternative will result in continued and increased noise,

vibration, dust and the hazard of heavy traffic in the vicinity of Berkeley Springs State Park, located in the center of Berkeley Springs.

Berkeley Springs State Park will benefit from the Selected Alternate because it provides a bypass to the east of Berkeley Springs. Figures S-1 and S-2 depict the study area and the historic resources that are considered eligible for listing on the National Register of Historic Places. The figures also illustrate the several segment lines that are combined to form alternative alignments for the improved US 522 Build Alternatives. The figures demonstrate that while certain studied segments may impact a site, in each case, the Selected Alternate avoids impacts to the site.

Thus, there will be no Section 4(f) use of public parks and recreation areas, wildlife refuges, or historic sites for any of the four build alternatives.

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| | |
|---|---|
| | M.U.P., Urban Planning, University of Kansas<br>Ph.D., Geography, University of Kansas<br>1 year of experience |
| **C. Doug Rice**<br>Highway Planner | B.S., Marketing Management, Morris Harvey College<br>36 years of experience |
| **Margaret L. Matthews**<br>Senior CADD/Designer | 21 years of experience |
| **Doug Casto**<br>Senior CADD/Designer | 14 years of experience |

## Ecological Consultants

| | |
|---|---|
| **George J. Pesacreta, Ph.D.**<br>Natural Resources Scientist | B.A., Biology, State University of New York<br>M.S., Zoology, State University of New York |

Ph.D., Zoology / Forestry, N. C. State University
20 years of experience

## Endangered Species

### *R.D. Zande and Associates, Inc.*

**Robert F. Madej, M.A.**
Ecological Project Manager

B.S., Zoology, Ohio State University
M.A, Ecology, Evolution and Behavior, Indiana University

| | |
|---|---|
| | 8 years of experience |
| **Irala Jo Hargis**<br>Environmental Biologist | B.S., Wildlife Management, Murray State University<br>10 years of experience |
| **Ryan Slack**<br>Environmental Biologist | B.S., Wildlife Management, Purdue University<br>7 years of experience |
| **Brooke Bostick**<br>Biological Technician | B.S., Natural Resources, Ohio State University<br>2 years experience |
| **Jeffery Hemphill**<br>Environmental Biologist | B.S., Forest Resource Management, Ohio State University<br>3 years of experience |
| **Kathleen Dunlap**<br>Biological Technician | B.S., pending, Ohio State University<br>3 years experience |
| **Mark Danus**<br>Biological Technician | B.S. pending, Towson State University<br>3 years experience |

# SECTION VIII

## COMMENTS AND COORDINATION

The WVDOH conducted a public meeting and public hearing following the issuance of the DEIS on September 30, 1999 and October 14, 1999. The DEIS was distributed on September 16, 1999 to the attached resource agencies as well as several public locations within the study area (i.e. Mayor's Office, Post Office, etc.). The public comment period ended November 1, 1999.

Over 400 citizens attended these two meetings and over 100 public comments were received. The Morgan County Citizens Coalition (MCCC) and several citizens provided numerous comments regarding the DEIS. A summary matrix of substantive public comments follows in this section

Further public meetings were held on May 2, June 26, and August 17, 2000. These meetings were initiated at the request of the Morgan County Commission and due to increasing citizen interest and concern.

Resource agency replies received are listed below and copies of these letters are included in this appendix. Responses to agency concerns are also attached.

1).. West Virginia State Historic Preservation Office ..... September 10, 1999

2) West Virginia Division of Environmental Protection-
Office of Air Quality ..... September 21, 1999

3) Natural Resource Conservation Service ..... October 25, 1999

4) West Virginia Division of Natural Resources-
Wildlife Resources Section ..... October 29, 1999

5) US Department of the Interior ..... November 4, 1999

6) US Department of Commerce ..... November 5, 1999

7) West Virginia Division of Health and Human Resources ..... November 12, 1999

8) United States Fish and Wildlife Service ..... April 11, 2000

9) United States Environmental Protection Agency ..... April 24, 2000

## SUMMARY OF PUBLIC COMMENTS AND RESPONSES

Listed below are substantive issues raised in citizen comments received during the DEIS public comment period ending November 1, 1999. Other substantive comments are included that have been received since the end of the aforementioned comment period. These issues can be generally divided into three categories: Environmental Concerns, Socio-Economic Concerns, and Alternatives.

### ENVIRONMENTAL COMMENTS

| Comment | Response |
|---|---|
| EC-1 - Concerns were expressed from residents along the proposed alignment that noise impacts would result from highway relocation. | Throughout the design process noise impacts have been assessed. This practice will continue through final design. Unavoidable noise impacts will be dealt with in accordance with the FHWA Noise Abatement Criteria and the WVDOH Noise Analysis and Abatement Guidelines as detailed in section 4.7 of the FEIS. |
| EC-2 – Concerns were expressed about impacts to wildlife within the study area. | Avoidance of impacts to wildlife and habitat areas has been ongoing throughout project development and will continue through final design. Unavoidable impacts will be mitigated in accordance with state and federal regulations as detailed in Section 4.12 of the FEIS. |
| EC-3 – Several citizens commented that the proposed improvements would impact the rural setting/quality of life now found in Morgan County. | In order to minimize impacts to the rural setting in Morgan County the selected roadway is situated within 500 feet of the existing US 522 for much of its length. The reduction of through traffic on the streets of Berkeley Springs will reduce congestion in the downtown area. |
| EC-4 – Concerns were expressed about the relatively large number of hazardous waste sites and Underground Storage Tanks shown as potentially impacted in the DEIS. | During the DEIS phase of the environmental study all Underground Storage Tanks and Hazardous Waste Sites within 500 feet of each alternative were identified and shown as potential impacts. Revised tables in Section 4.14 of the FEIS show only those sites located within the right of way of the selected alternative. |
| EC-5 – Several citizens expressed concerns about water quality impacts within the study area. | Avoidance of impacts to the sensitive water quality within the project study area has been ongoing throughout project development and will continue through final design. Unavoidable impacts will be mitigated in accordance with state and federal regulations as detailed in Section 4.8 of the FEIS. |

| | |
|---|---|
| EC-6 – Concerns were expressed about impacts to the sensitive Sleepy Creek Watershed | The selected alternate (Alternate I) has the least impact on the Sleepy Creek watershed of any of the four retained alternates. |

## *SOCIO-ECONOMIC COMMENTS*

| Comment | Response |
|---|---|
| SC-1 – Numerous citizens requested that the proposed highway not impact the Shirley Farms Subdivision. | The selected alternative has been realigned in the vicinity of the Shirley Farms Subdivision. The subdivision is no longer directly impacted by the selected alternative. |
| SC-2 – Several citizens expressed general concerns about the number of business and residential relocations. | Every effort will continue to be made to minimize the relocations necessary for construction. For those landowners that are affected, the WVDOH will compensate property owners at fair market value for property acquired in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended. |
| SC-3 – Concerns were expressed about the impact of the project on the businesses within Berkeley Springs and the impact of the roadway on the town's economy. | The US 522 Improvements will lead to less congestion in the town of Berkeley Springs. The new roadway will be signed to guide tourists to the unique amenities and accommodations of Berkeley Springs. |
| SC-4 – Several citizens expressed concerns about possible secondary development resulting from the highway. | Secondary development in the study area has been studied in detail in the February 1996 report, "Regional Secondary and Cumulative Impact Analysis Report," and is summarized in Section 4.20 of the FEIS. |
| SC-5 -- Comments were received expressing concern that the DEIS did not give enough emphasis to the tourism industry in Morgan County. | The document has been revised to more explicitly emphasize the importance of the tourism industry in Morgan County. (See Section III: Affected Environment, 3.2.2 Tourism) |
| SC-6 – Concerns were expressed that the Selected Alternate impacts Lippert Industries in the Morgan County Industrial Park. | The WVDOH is committed to exploring all possible options to avoid impacts to active businesses in the Morgan County Industrial Park during the final design process. |

## *ALTERNATIVES*

| Comment | Response |
|---|---|
| AI-1 – Numerous citizens expressed support for a "Berkeley Springs Bypass" project only. | The Berkeley Springs Bypass section of the proposed roadway is anticipated to be among the first segments to be constructed. However, as shown in sections 1.1 to 1.3 of the FEIS, current and future traffic, safety, and Level of Service analyses show that improvements to the entirety of US 522 in Morgan County are warranted. |
| AI-2 – A number of citizens expressed an interest in having through truck traffic banned from Berkeley Springs. | WVDOH policy prohibits the banning of any traffic that otherwise meets size and weight restrictions. |
| AI-3 – Several citizens expressed concern that the new four-lane roadway would flow onto the existing two-lane bridge over the Potomac into Maryland. | The State of Maryland currently has no plans for the construction of a four-lane bridge across the Potomac River at Hancock, Maryland. A safe four to two-lane transition will be provided as part of the US 522 Improvements in West Virginia. |
| AI-4 – Concerns were expressed about the safety of the "at-grade" crossings planned for many of the intersections on the new roadway. | Adequate site distance and signing will be provided at each at-grade crossing (as per current WVDOH and AASHTO standards). |
| AI-5 – Concerns were expressed that the new roadway would be too close to the middle school and hospital. | The new roadway will provide improved and safer access to the Warm Springs Middle School and Morgan County War Memorial Hospital while avoiding any direct impact to these two properties. Special care will be taken in designing access to these properties to ensure the highest level of safety possible. |
| AI-6 – Requests were made that an "Improved Roadway Alternative" on existing alignment be studied. | Two lines, Segments A & B, were originally studied which would have used the existing two-lane roadway as either the two northbound or the two southbound lanes. These alternatives were not carried forward due to excessive impacts to Historic properties, Section 4(f) sites, and residential and business relocations. |

## *MISCELLANEOUS COMMENTS*

| Comment | Response |
|---|---|
| MC-1 – Concerns have been expressed about "excessive" delays in starting construction of the new highway. | Acknowledged |
| MC-2 – Concern was expressed that the DEIS uses "Berkeley Springs" to refer to the entire urban area and does not differentiate between Berkeley Springs and the Town of Bath. | While we are aware of the two distinct entities, (Berkeley Springs & Town of Bath) the WVDOH has in general, referred to the entire area as Berkeley Springs within the document. The most recent WV Blue Book lists two municipalities within Morgan County: Berkeley Springs and Paw Paw. |
| MC-3 – Comments were received questioning the process through which traffic counts and projections are performed. | WVDOH traffic counts, estimates and projections are performed using generally accepted traffic engineering methodologies. |
| MC-4 – Concerns were expressed that the accident rate data used in Section I: Purpose and Need were outdated and failed to differentiate the urban section within Berkeley Springs from the rest of US 522 | Older accident data has been replaced with the most recent, 1997-1999 data and the urban section of Berkeley Springs is now compared to urban rather than rural accident rates |
| MC-5 – Questions were raised about the accuracy of travel distance and time savings for trucks/through traffic using US 522 as a shortcut between Winchester, VA and Hancock, MD. | In order to assure the accuracy of these numbers, both routes were ran through commercially available "Trip Planner" software. The distance saved by using US 522 is 25 miles. |
| MC-6 – Pass through traffic will increase if upgraded to a four lane. Expect to be a major truck route, volumes of trucks will increase. | Traffic projections show that the traffic along US 522 will continue to increase regardless of whether a new road is constructed. A new four-lane roadway would allow through traffic to bypass Berkeley Springs and local traffic would have the option to use either route. |
| MC-7 – Upgrading of US 522 will move people and commerce into the area. An upgraded 522 will carry the increased traffic as well as alleviate congestion, thus saving lives. | Current population trends project that by the year 2020, Morgan County's population will grow another 44% over the current population (1990 level) of 12,128. |
| MC-8 – Informal polls have been conducted regarding the proposed project and the results indicate that 85-90% of those polled are in favor of the proposed project. | Acknowledged.<br>This is an informal poll and was in no way affiliated with the WVDOH. |
| MC-9 – When the upgrade of US 522 is completed, new businesses that locate to the area will contribute thousands of dollars back into the local economy. | Acknowledged. |
| MC-10 – Completion of US 522 will aid in the | Acknowledged. |

| | |
|---|---|
| expansion of public sewer and water to more citizens in Morgan County. | |
| MC-11 – How will the existing infrastructure maintain an ever increasing population base in this area? | As shown in Section I: Purpose and Need, the Levels of Service of the various roadway sections will continue to deteriorate without new roadway construction. By constructing a new roadway, the LOS will be maintained and will be capable of accommodating anticipated increases in traffic numbers. |
| MC-12 – How much additional work can be done on the selected alternative prior to the Record of Decision | In accordance with WVDOH DD-200, approved by the FHWA in March 1998, preliminary final design work (up to 60% of final) may be completed prior to full environmental clearance. |

## SUMMARY OF RESOURCE AGENCY COMMENTS AND WVDOH RESPONSES

### *WVSHPO*
### *September 10, 1999*

| COMMENT | TOPIC | CONCERN | DOH RESPONSE |
|---|---|---|---|
| WVSHPO-1 | Architectural Resources | Document accurately reflects SHPO effects determination | Acknowledged |
| WVSHPO-2 | Archaeological Resources | Will respond with additional comments upon receipt of Phase I survey report of Preferred [selected] Alternate. | See Programmatic Agreement Appendix B |

### *WVDEP-Air*
### *September 21, 1999*

| COMMENT | TOPIC | CONCERN | DOH RESPONSE |
|---|---|---|---|
| DEP-Air-1 | Attainment | Morgan County is currently in attainment/unclassifiable for all criteria pollutants | Acknowledged |
| DEP-Air-2 | NAAQS Update | New NAAQS standards for ozone and particulate matter make Table III-9 outdated | Table III-9 has been updated with latest NAAQS standards. |
| DEP-Air-3 | Federal Court Decision | A brief summary of recent Federal Court ruling on NAAQS should be added to Table III-9 | A brief summary of the recent Federal Court ruling has been added to Table III-9 as a footnote |

### *NRCS*
### *October 25, 1999*

| COMMENT | TOPIC | CONCERN | DOH RESPONSE |
|---|---|---|---|
| NRCS-1 | Floodways and floodplains | Long term impacts of increased storm run-off from constructing impervious surfaces and drainage conveyance systems was not considered | These impacts are discussed in Section 4.8.1.2 and mitigation measures are discussed in Section 4.8.1.3 |
| NRCS-2 | Watersheds, watercourses, and impoundments | The selected alternative would potentially impact three flood control projects within the study area. | The WVDOH has coordinated with the NRCS to determine the functional boundaries of their flood control dams. The WVDOH will continue to work closely with the NRCS throughout final design to ensure their concerns are met. |
| NRCS-3 | Floodplains | NRCS desires a broader “watershed” approach to impacts and mitigation. | The WVDOH will consider the cumulative impacts of the project when developing mitigation measures for this project. |

### *DNR-Wildlife*
### *October 29, 1999*

| COMMENT | TOPIC | CONCERN | DOH RESPONSE |
|---|---|---|---|
| DNR-WL-1 | Surface Water | Document should reflect that there are seven high quality streams in Morgan County. Only one HQS is in the project area (Sleepy Creek). | The document has been revised to reflect this information |
| DNR-WL-2 | Inventory of Species | Numerous species occurring in Morgan County were not included in the species list. | The list of species in Table III-16 is not intended to be a full listing but intended to be a listing of example species. The specific list has been revised to include the species requested. |
| DNR-WL-3 | Water Quality Mitigation | DNR is pleased that the WVDOH is developing a plan for stream enhancements. | Acknowledged |
| DNR-WL-4 | Water Quality Impacts | DNR remains concerned about possible impacts to the Ridge State Fish Hatchery. DNR will work with WVDOH to minimize these impacts. | Acknowledged |
| DNR-WL-5 | Floodplains | DNR is concerned about stream crossing designs. | Section 4.1 discusses that structures traversing a waterway will not restrict flow access or flow capacity. |
| DNR-WL-6 | Selected Alternate | DNR concurs | Acknowledged |

### *USDOI*
### *November 4, 1999*

| COMMENT | TOPIC | CONCERN | DOH RESPONSE |
|---|---|---|---|
| DOI-1 | Selected Alternate | USDOI concurs | Acknowledged |

### *USDOC*
### *November 5, 1999*

| COMMENT | TOPIC | CONCERN | DOH RESPONSE |
|---|---|---|---|
| DOC-1 | Industrial Park | The preferred alternate as presented impacts the Morgan County Industrial Park near Ridge, WV. This park was constructed using Economic development Administration funds. DOC requests that the alignment be altered to avoid the industrial park. | The WVDOH will work closely with the Morgan County Commission to realign the roadway as much as practicable to avoid adverse impacts to the industrial park and its current tenant. The WVDOH will endeavor to purchase adjacent land to mitigate for any loses the industrial park might suffer. |

### *WVDHHR*
### *November 12, 1999*

| COMMENT | TOPIC | CONCERN | DOH RESPONSE |
|---|---|---|---|
| DHHR-1 | Septic System and Well Abandonment | DHHR is concerned that the DOH will follow established, DHHR procedures to property abandon any septic system or well encountered | WVDOH will follow all DHHR regulations and WV Department of Health rules concerning the abandonment of wells and septic systems. |

### *USFWS*
### *April 11, 2000*

| COMMENT | TOPIC | CONCERN | DOH RESPONSE |
|---|---|---|---|
| FWS-1 | Indiana Bat | Potential summer roosting habitat for the Indian Bat occurs in the project area. | The WVDOH is committed to performing either Potential Roosting Tree (PRT) removal or mist net surveys in accordance with FWS guidelines. |
| FWS-2 | Harperella | Harperella could be present along the banks of tributaries of Sleepy Creek in the project area. | The WVDOH will perform a Harperella survey at any stream crossings or where riverine emergent wetland habitat will be impacted in the project area. If any is found, the WVDOH will prepare a Biological Assessment to determine the impact of the project on Harperella. |

***USEPA***
***April 24, 2000***

| COMMENT | TOPIC | CONCERN | DOH RESPONSE |
|---|---|---|---|
| EPA-1 | Preferred Alternate | EPA agrees with the selection of Alternate I as the preferred alternative. | Acknowledged |
| EPA-2 | Floodplain, stream, and wetland impacts | EPA feels additional avoidance and minimization measure should be considered to reduce impacts to these resources. | WVDOH will continue to explore additional avoidance and minimization measures throughout the final design. |
| EPA-3 | Wetlands | EPA would like the FEIS to provide a better description of the wetlands potentially impacted by Alternate I. | More detailed descriptions of all wetlands potentially impacted by Alternates I, II, III and IV have been added to the FEIS. |
| EPA-4 | Potomac River Bridge | EPA is concerned that the proposed project would require eventual replacement of Maryland's Potomac River Bridge as a secondary impact. | This project is not intended to increase traffic volumes on US 522. Instead, it is a reaction to a projected increase in traffic whether the road is built or not. Thus, this project is not expected to place any additional traffic on the Potomac River Bridge than would occur via the No-Build Alternate. |
| EPA-5 | Alternative Descriptions | Table II-1 should clearly state which segments use a portion of the existing US 522. | As stated in Table II-1, only Segments A & B would use the existing 2 lanes of US 522 as either the north or south bound lanes of the proposed roadway. These segments are no longer under consideration. |
| EPA-6 | Alternate I Descriptions | Alternate I should clearly state that the facility being proposed is a four-lane, limited access roadway on new alignment and that existing US 522 would be used for local traffic. | The text has been corrected accordingly. |

**SUMMARY OF EARLY PUBLIC COMMENTS**

The WVDOH conducted a public information meeting on June 2, 1998 at Berkeley Springs High School in Berkeley Springs, West Virginia. Four alternatives (I, II, III, and IV) were shown and comments were requested. Public comments were accepted until July 3, 1998. Over 700 citizens attended the meeting.

Representatives from WVDOH conducted the meeting and provided information through displays and "one on one" discussions with attendees. The public was invited to comment at the meetings either verbally or in writing. Comment sheets were provided for sending comments to WVDOH in Charleston, WV. Over 80 comment sheets were received by the WVDOH during the comment period. Since that time a number of additional comment letters have been received.

Each letter and comment sheet has been added to the official record of the project and all substantive issues have been given consideration in the alternative selection process.

**Public Comments:**

The public comments suggested the following issues be given consideration:

- Move ahead as quickly as possible
- Construct Berkeley Springs Bypass section first
- General opposition to any four lane improvements
- Concerns were expressed about the impact upon the rural nature of the project area
- Concerns were expressed about the relative age of the mapping used in the study due to the growth of subdivisions in the area
- Concerns were expressed about the impacts to the Village Square and Cacapon South subdivisions which were constructed after the aerial photography was flown
- All alternatives must still cross a two-lane bridge into Maryland
- Concerns were expressed about impacts to the local tax base due to relocations
- Several citizens expressed concerns about impacts to water quality within the Sleepy Creek watershed
- Individuals suggested the solution to existing traffic problems would be to enforce the existing speed limits and install truck weigh stations on US 522
- Concern was expressed that the no-build was not adequately presented in the public meeting
- Alternative I was the favorite route of the majority of individuals who expressed a preference with Alternative II as the second most favored

- Concerns were expressed about having the new roadway too close to Berkeley Springs (would not allow growth) and having the roadway too far away (keeping traffic near existing businesses and the hospital)
- Concerns were expressed about the potential of Alternative I impacting the Berkeley Springs Industrial Park
- Concerns were expressed that Alternative I impacts planned water and sewer improvements in Berkeley Springs

## *AGENCY COMMENT LETTERS*

| FROM | DATE |
|---|---|
| State of West Virginia<br>Department of Commerce, Labor, and Environmental Resources<br>Division of Natural Resources<br>Operations Center<br>PO Box 67<br>Elkins, WV 26241 | July 27, 1992<br>August 18, 1992<br>October 6, 1993 |
| Eastern Panhandle Regional Planning and Development Council-Region 9<br>121 West King Street<br>Martinsburg, WV 25401 | July 29, 1992<br>March 22, 2000 |
| US Department of Interior<br>Fish and Wildlife Service<br>West Virginia Field Office<br>694 Beverly Pike<br>Elkins, WV 26241 | August 7, 1992<br>May 23, 2000<br>April 11, 2000<br>September 13, 2000 |
| State of West Virginia<br>Department of Commerce, Labor and Environmental Resources<br>State Capitol Complex<br>Building 3, Room 812<br>1900 Kanawha Boulevard, East<br>Charleston, WV 25305-0664 | August 26, 1992 |
| Department of the Army<br>Baltimore District<br>Corps of Engineers<br>PO Box 1715<br>Baltimore, MD 21203-1715 | October 2, 1992 |
| Department of the Army<br>Pittsburgh District<br>Corps of Engineers<br>1000 Liberty Avenue<br>Pittsburgh, PA 15222 | September 8, 2000 |
| U. S. Silica Company<br>PO Box 182<br>Berkeley Springs, WV 25411 | October 12, 1992 |
| US Department of Agriculture<br>Natural Resource Conservation Service<br>(formerly Soil Conservation Service)<br>500 East Main Street<br>Romney, WV 26757 | November 16, 1993 |

| | |
|---|---|
| US Department of Agriculture<br>Natural Resource Conservation Service<br>75 High Street, Room 301<br>Morgantown, WV 26505 | October 25, 1999 |
| US Department of Agriculture<br>Natural Resources Conservation Service<br>1430-S Edwin Miller Boulevard<br>Martinsburg, WV 25401 | January 28, 2000<br>March 20, 2000 |
| United States Department of Commerce<br>Economic Development Administration<br>Washington, DC 20230 | November 5, 1999 |
| United States Department of Interior<br>Office of the Secretary<br>Washington, DC 20240 | November 4, 1999 |
| United States Environmental Protection Agency<br>Region III<br>1650 Arch Street<br>Philadelphia, PA 19103-2028 | April 24, 2000 |
| West Virginia Division of Culture and History<br>The Cultural Center<br>1900 Kanawha Boulevard, East<br>Charleston, WV 25305-0300 | September 28, 1995<br>February 5, 1998<br>January 19, 1999<br>April 2, 1999<br>June 8, 1999<br>August 2, 1999<br>September 10, 1999<br>November 30, 1999<br>January 13, 2000 |
| West Virginia Division of Environmental Protection<br>Office of Air Quality<br>1558 Washington Street, East<br>Charleston, WV 25311 | September 21, 1999 |
| West Virginia Department of Health and Human Resources<br>Office of Environmental Health Services<br>Kearneysville District Office<br>44 Wiltshire Road<br>Kearneysville, WV 25430 | November 12, 1999<br>February 15, 2000 |
| West Virginia Division of Natural Resources<br>Wildlife Resources Section<br>Capitol Complex<br>Building 3, Room 812<br>1900 Kanawha Boulevard, East<br>Charleston, WV 25305-0664 | October 29, 1999 |

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US Department of Interior Room 2340-MIB
1849 C Street, Northwest
Washington, DC 20240

**Mr. Jeff Towner**
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Elkins, West Virginia 26241-1278

**Ms. Pearl Young**
US Environmental Protection Agency
Office of Federal Activities, NEPA Compliance Division
EIS Filing, Room 7241
Ariel Rios Building, South Oval Office
1200 Pennsylvania Avenue, Northwest
Washington, DC 20044
(202) 260-2090

# RECORD OF DECISION

BERKELEY SPRINGS

## US 522

Virginia State Line to Maryland State Line
Morgan County, West Virginia

State Project U233-522-0.02 (02)
Federal Project STP-0522 (007)

WVDOT DIVISION OF HIGHWAYS

# AUGUST 2001

**US 522**
**Virginia State Line to Maryland State Line**
**Morgan County, West Virginia**

**Federal Project STP-0522(007)**
**State Project U233-522-0.02(02)**
**FHWA-WV-EIS-99-03-F**

# RECORD OF DECISION

**AUGUST 2001**

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# FEDERAL HIGHWAY ADMINISTRATION
# RECORD OF DECISION (ROD)

## US 522: Virginia State Line to Maryland State Line
## Morgan County, West Virginia
## FHWA-WV-EIS-99-03-F
## State Project U233-522-0.02 (02)
## Federal Project: STP-0522 (007)

## I. DECISION / PREFERRED ALTERNATIVE

This Record of Decision (ROD) approves the selection of the Preferred Alternative for the US 522 Improvements Project as described in the Final Environmental Impact Statement (FEIS) issued in September 2000. The Preferred Alternative is a four-lane, divided, limited-access highway, 18.7 miles (30.2 kilometers) in length, extending from the Virginia state line north to the Maryland state line through Morgan County, West Virginia. The Preferred Alternative, Alternate I, is generally parallel to and east of existing US 522 for approximately 10 miles (16 kilometers). For the majority of this length, the new alignment is within 500 feet (150 meters) of the existing US 522. In the vicinity of the Ridge Historic District, the alignment extends farther away from the existing road to avoid impacts to this Section 4(f) property and the adjacent fish hatchery. By remaining east of the existing roadway in this area, impacts to the Cacapon State Park and Gatehouse and Morgan County Park (Section 4(f) properties) are also avoided. Within this portion of the alignment, several small wetland areas are impacted along Breakneck Run and other small streams. Special attention has been given to avoiding Sleepy Creek. This waterway will not be directly impacted by this alignment.

Farther north, the alignment continues east of existing US 522 between Messner Road (Morgan County 38/5) and Winchester Grade Road (Morgan County 13). Approximately 1,000 feet (300 meters) north of the Morgan County Park the alignment veers to the east to avoid a residential community and returns to its original course approximately 2,500 feet (760 meters) south of Winchester Grade Road (Morgan County 13). This portion of the alignment parallels existing US 522 for approximately 3.6 miles (5.8 kilometers) and is characterized by few displacements and minimal wetland impacts. Immediately south of Berkeley Springs, the alignment shifts further east of existing US 522, avoiding the historic downtown area.

North of Berkeley Springs, the alignment remains east of existing US 522 and extends around the U.S. Silica mining and processing facilities. Immediately north of those facilities, the alignment joins with the existing US 522, and continues to the Maryland state line.

This decision is based on studies completed for the *Draft Environmental Impact Statement* (August 1999), the *Final Environmental Impact Statement* (September 2000); the associated technical reports; and input from federal, state, and local resource agencies, business representatives, and the general public.

The Preferred Alternative was developed to avoid impacts to National Register eligible and listed properties in the study area; to minimize impacts to wetlands and streams; and to avoid excessive residential and business relocations.

# II. ALTERNATIVES CONSIDERED

## A. Overview of Alternatives

The FEIS explores a full range of alternatives to meet the project needs, including the No-Build, Transportation System Management (TSM), Public Transportation, and four-lane Build Alternatives. A total of 38 four-lane Build Alternatives were originally studied. After a thorough analysis, this number was reduced to four Build Alternatives. The reasoning and rationale supporting this decision can be found in the *February 1998 Alternatives Reduction Report.* The remaining Build Alternatives were designated as Alternatives I, II, III and IV.

The No-Build Alternative fails to meet the project purpose and need. However, this alternative was carried forward for detailed analysis and comparative purposes as required by the Council on Environmental Quality (CEQ) regulations (40 CFR 1502.14(d)).

The TSM and Public Transportation Alternatives were not carried forward for detailed study. These alternatives were eliminated based on their inability to meet the project purpose and need.

TSM Alternatives are most helpful in urban transportation settings with a population of over 200,000 (FHWA Technical Advisory [T 6640.8A] October 30, 1987). Components of TSM include ridesharing, high occupancy vehicle (HOV) lanes, bus service, adding turn lanes at intersections, synchronized timing for traffic lights and slip ramps in multiple lane roadways. It is important to note that TSM-type measures and upgrades to existing US 522 (e.g., resurfacing, addition of turn lanes, intersection improvements, etc.) will continue to be implemented by the WVDOH. However, these improvements will not significantly increase the roadway's capacity. The improvements will reduce roadway deficiencies and will improve safety conditions on existing WV 9 for motorists who continue to use that roadway. These improvements are independent of the proposed project and will be made as part of WVDOH's ongoing, statewide road improvement and maintenance program. Since the TSM Alternatives would not address the identified purpose and need, they were eliminated from further consideration.

As with TSM Alternatives, Public Transportation Alternatives are generally considered reasonable and feasible in areas with a population of over 200,000. For this project, the Public Transportation Alternatives considered were bus service, air passenger service, water transportation along the Potomac River, and passenger train service. Each of these options was examined and found to be inadequate to meet the project purpose and need. Recently, discussions have been held regarding the possible reopening of the Hancock, West Virginia, train station which was once a stop on the Amtrak Capitol Limited line. If implemented, this would have no positive impact on the existing conditions on US 522. To the contrary, reopening of commuter rail could place additional pressures on the already deficient US 522. Therefore, the Public Transportation Alternatives were eliminated from further consideration.

All of the remaining Build Alternatives - I, II, III, IV - were found to meet the project purpose and need, and were carried forward for detailed study. The following discussion describes each of the Build Alternatives as well as the No-Build Alternative evaluated in the FEIS. A more in-depth discussion and analysis of the Build Alternatives is presented in the FEIS in Section II: Alternatives and in Section IV: Environmental Consequences. The rationale for the selection of Alternative I is summarized in Section G of this document.

## B. No-Build Alternative

This alternative involves taking no action and would require the continued use of the existing US 522 roadway. The capacity issues, safety concerns and roadway deficiencies associated with the existing roadway would not be corrected. There would be no residential or business displacements and no taxable land would be converted to transportation use with the No-Build Alternative. However, the capacity of the roadway could not be improved sufficiently to carry the existing or design year traffic at an adequate level of service. The combination of the inability to adequately improve capacity and the inability to correct roadway deficiencies would result in a continuing deterioration of safety and increasing potential for more accidents.

## C. Alternative I (Selected)

This is the westernmost of all retained and recommended alignments (see Figure I in Appendix E). The Selected Alternate is generally parallel to and east of existing US 522 for approximately 10 miles (16 kilometers). For the majority of this length, the new alignment is within 500 feet (150 meters) of the existing roadway. In the vicinity of the Ridge Historic District, the alignment extends farther away from the existing road to avoid impacts to this historic resource and the adjacent fish hatchery. Farther north, the alignment continues east of existing US 522 between Messner Road and the north end of Section I. Approximately 1,000 feet (300 meters) north of the Morgan County Park the selected alternative veers to the east to avoid a residential community. The alternative returns to the original alignment approximately 2,500 feet (850 meters) south of Winchester Grade Road (Morgan County 13). This portion of Alternative I parallels existing US 522 for approximately 3.57 miles (5.75 kilometers). Immediately south of Berkeley Springs (Town of Bath), the alignment shifts to the east, thus avoiding impacts to the downtown area. North of Berkeley Springs (Town of Bath), the alignment remains east of existing US 522 and extends around the U.S. Silica Company mining and processing facilities. Immediately, north of those facilities, the alignment joins with the existing roadway and continues to the Maryland state line.

Alternative I would require 53 residential displacements and two commercial relocations. The impact of this alternative on Prime, Unique, and State and Local Importance Farmlands would be 5.0 acres (2.0 Hectares). Alternative I would impact 6.2 acres (2.5 Hectares) of wetlands. Surface water impacts would involve 405 feet (125 meters) of stream relocation. Alternative I would no have impacts to National Register eligible historic or archaeological sites and is estimated to cost $95,263,000 to construct.

## D. Alternative II

This alternative is a more central alignment than the other alternatives studied (see Figure I). South of Berkeley Springs, it generally varies from 0.4 miles to 1 mile (0.5 km to 1.5 km) east of the existing US 522 roadway. As the proposed alignment approaches Berkeley Springs, it is 1.5 to 2 miles (2.5 km to 3 km) east of the existing roadway. Immediately north of the U.S. Silica Plant, the alignment shifts northwest to join the existing roadway and continues to the Maryland state line.

Alternative II would require 42 residential displacements and one commercial relocation. The impact of this alternative on Prime, Unique, and State and Local Importance Farmlands would be 84.5 acres (34.2 Hectares). Alternative II would impact 5.8 acres (2.3 Hectares) of wetlands. Surface water impacts would involve 2,050 (625 meters) of stream relocation. Alternative II would no have impacts to national register eligible historic or archaeological sites and is estimated to cost $111,837,000 to construct.

## E. Alternative III

This alternative represents one of the two easternmost alignments recommended to be retained for further study. Near the south end of the project, this alignment curves eastward from the Alternative II alignment. After crossing Sleepy Creek, it generally parallels the stream alignment just outside the eastern floodplain limits for about 5.3 miles (8.5 kilometers). By staying east of Sleepy Creek in this area, impacts to the Dawson Farmstead (a Section 4(f) property) are avoided.

After crossing Sleepy Creek a second time, the alignment continues north and passes immediately east of the Messner Farmstead (a Section 4(f) site). North of Berkeley Springs (Town of Bath), the alignment curves west, joins with existing US 522, and continues to the Maryland state line.

Alternative III would require 44 residential displacements. The impact of this alternative on Prime, Unique, and State and Local Importance Farmlands would be 96.9 acres (39.2 Hectares). Alternative III would impact 9.0 acres (3.7 Hectares) of wetlands. Surface water impacts would involve 3,370 feet (1,030 meters) of stream relocation and require two crossings of Sleepy Creek. Alternative III would no have impacts to national register eligible historic or archaeological sites and would is estimated to cost $116,149,000 to construct.

## F. Alternative IV

This alignment is a combination of Alternatives II and III. This alternative is the same as Alternative III for the southern half of the project to near the Messner Farmstead. North of that area, the alignment follows Alternate II.

Alternative IV would require 40 residential displacements and one commercial displacement. The impact of this alternative on Prime, Unique, and State and Local Importance Farmlands would be 77.8 acres (31.5 Hectares). Alternative IV would impact 8.3 acres (3.3 Hectares) of wetlands. Surface water impacts would involve 3,010 feet (920 meters) of stream relocation and require two crossings of Sleepy Creek. Alternative IV would no have impacts to national register eligible historic or archaeological sites and would is estimated to cost $115,947,000 to construct.

## G. Rationale for Selection of Alternative I

After the close of the comment period for the FEIS, the FHWA and the WVDOH evaluated the advantages and disadvantages of each of the Build Alternatives and the No-Build Alternative considered in the FEIS. Based upon the resource agencies' recommendations, the public responses received during the comment period, and the environmental and engineering analysis of the alternatives, the FHWA and WVDOH chose Alternative I, with mitigation measures incorporated, as the Selected Alternate for the US 522 Improvement Project. Selected Alternative I is the environmentally preferred alternative. The FHWA and WVDOH based this decision on the fact that Alternate I has the least overall impact of any of the Build Alternatives on the human and natural environment. In particular, the FHWA and WVDOH considered the following factors:

- *Endangered Species.* Alternate I avoid impacts to the Federally endangered plant species, Harperella, found in the lower reaches of Sleepy Creek.
- *Wetlands.* The Selected Alternative (Alternative I) impacts fewer Palustrine Emergent and Scrub Shrub wetlands (0.54 acres or 0.22 Hectares) than the next lowest alternative (Alternative II) with a total impact of 1.43 acres (0.58 Hectares).
- *Farmland.* Alternative I has the least impact on Prime, Unique, and State and Local Importance Farmlands.
- *Community Cohesion.* Alternative I closely parallels existing US 522 for the majority of the corridor. The alignment shifts eastward to avoid residential subdivisions and to avoid Berkeley Springs (Town of Bath). Alternate I will provide for superior access to the existing transportation system, concentrate secondary development within the existing corridor and have the least impact to the more rural portions of the study area.
- *Construction Cost.* Alternate I is the most cost effective alternative. It will save between $16 and $21 million dollars in comparison to other studied build alternatives.
- *Rural Setting.* Alternate I has the least impact upon the overall rural setting in Morgan county. Maintaining the existing rural qualities of the area is achieved by placing the alternative as close to the existing roadway as possible and feasible.
- *Streams.* Alternative I has only 405 ft (125 meters) of stream impacts compared to the next lowest alternative (Alternative II) which has 2,050 ft (625 meters) of stream impacts

  *Sleepy Creek.* Alternative I, along with Alternative II, do not require any crossing or impacts to Sleepy Creek. Sleepy Creek is listed as a West Virginia High Quality Stream and as such, is protected by West Virginia law. A high quality stream is defined as those waterways that provide significant and irreplaceable fish, wildlife and recreational resources.
- *Bridges & Culverts.* Alternative I requires approximately 9,400 feet (2,865 meters) of culverts and bridges. Alternative II is second with 12,660 feet (3,860 meters). Lower bridge and culvert costs are reflected in lower maintenance costs in future years.

## *TABLE 1*

| COMPARISON OF BUILD ALTERNATIVES | | | | |
|---|---|---|---|---|
| | ALTERNATE I *(Selected)* | ALTERNATE II | ALTERNATE III | ALTERNATE IV |
| **Residence/Business Relocations** | ***53/2*** | 42/1 | 44/0 | 40/1 |
| **Farm Soils** **Acres (Hectares)** | ***80 (32.5)*** | 85 (34.2) | 97 (39.2) | 78 (31.5) |
| **Wetlands** **Acres (Hectares)** | ***6.2 (2.5)*** | 5.8 (2.3) | 9.0 (3.7) | 8.3 (3.3) |
| **Floodplains** **Acres (Hectares)** | ***3.9 (1.6)*** | 0 (0) | 0 (0) | 0 (0) |
| **Potential Hazardous Waste Sites/UST's Within Project ROW** | ***0/1*** | 0/0 | 0/0 | 0/0 |
| **Stream Impacts** **Feet (Meters)** | ***405 (125)*** | 2,050 (625) | 3,370 (1,030) | 3,010 (920) |
| **Crosses Sleepy Creek** | ***No*** | No | Yes (Two crossings) | Yes (Two crossings) |
| **Bridges & Culverts** **Feet (Meters)** | ***9,400 (2,865)*** | 12,660 (3,860) | 13,920 (4,240) | 13,920 (4,240) |
| **National Register Historic Sites (listed and eligible)** | ***0*** | 0 | 0 | 0 |
| **Near Known Archaeological Sites** | ***2*** | 1 | 1 | 2 |
| **4 (f) Sites** | ***0*** | 0 | 0 | 0 |
| **Estimated Construction Cost** | ***$95,263,000*** | **$111,837,000** | **$116,149,000** | **$115,947,000** |

## III. SECTION 106 PROCESS / SECTION 4(f) ISSUES

### A. Section 106 Process

Section 106 of the National Historic Preservation Act of 1966, as amended, requires that all Federal agencies identify and take into account the effects of their actions on historic resources that are included on or eligible for listing on the National Register of Historic Places. The FEIS identified eight resources listed on or eligible to be listed on the National Register of Historic Places and four previously recorded archaeological resources within the study area for the Preferred Alternate. The West Virginia State Historic Preservation Office has reviewed the determinations of effect for these resources for the Preferred Alternative and has concurred with the effect determinations presented in Table 2.

**TABLE 2**
**SUMMARY OF HISTORIC PROPERTY IMPACTS**

| WSA # | NAME OF PROPERTY | DIRECT IMPACT | SECTION 106 EFFECT |
|---|---|---|---|
| 19 | Omps Postmaster's Residence | No | No Effect |
| 20 | Omps Post Office and General Store | No | No Adverse Effect |
| 111 | Cacapon State Park Gatehouse, Sign and Rock Wall | No | No Adverse Effect |
| N/A | Ridge Historic District | No | No Adverse Effect |
| 73 | Bungalow | No | No Effect |
| 49 | George Messner Farmstead | No | No Effect |
| 147 | Ward M. Dawson, Sr. Farmstead | No | No Effect |
| 89 | Portions of the Berkeley Orchard Company | No | No Effect |

** as per SHPO letter of August 2, 1999*

A Phase Ia archaeological literature search and predictive modeling study was prepared in 1996 for the alternates under consideration. The study identified the kinds of archaeological resources currently documented or likely to be present within the various proposed alternates. Four recorded sites were found to be within the vicinity of one or more of the proposed build alternates. These sites are shown in Table 3 along with the impact that the Preferred Alternate is likely to have on each site.

**TABLE 3**
**IMPACTS TO KNOWN ARCHAEOLOGICAL SITES**

| ***KNOWN ARCHAEOLOGICAL SITES*** | | | | |
|---|---|---|---|---|
| | *Site 46Mn103* | *Site 46Mn59* | *Site 46Mn101* | *Site 46Mn100* |
| **Alternate I (Preferred)** | Outside project APE* | Outside project APE* | Outside project APE* | Outside project APE* |

*Area of Potential Effect (APE) is the geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist," [36 CFR 800.2(c)]. It is not necessary to know that the area in question contains historic properties, or even to suspect that such properties exist, in order to determine the area of potential effects. The area of potential effects in not always a contiguous area; there may be multiple alternative project sites or multiple areas in which changes are anticipated.

The proposed undertaking may also effect an unknown number of previously unrecorded archaeological sites within the right of way of Alternate I. Further archaeological investigations will be completed in accordance with the appropriate sections of the February 2000 Programmatic Agreement (Appendix A).

A listing of all reports generated for Section 106 compliance studies for this project are provided in Appendix B of this ROD.

## B. Section 4(f) Issues

In accordance with Section 4(f) of the U.S. Department of Transportation Act (1966), the FHWA cannot approve any project that requires the use of any publicly owned land from a park, recreation area, wildlife or waterfowl refuge, or historic resource unless "there is no prudent and feasible alternative to the use of such land, and all possible planning has been undertaken to minimize harm to the Section 4(f) lands resulting from such use."

The evaluation of alternates included the identification of potential Section 4(f) resources located within the study area and the development of strategies to avoid and/or minimize impacts to these resources. The Preferred Alternative does not result in any direct or constructive use of Section 4(f) resources.

## C. Programmatic Agreement

The approved Programmatic Agreement (February 2000) is provided in Appendix B for reference.

## IV. PROJECT BACKGROUND AND HISTORY

The need for improving US 522 has been discussed locally for more than two decades. The *Summary Report on the Eastern Panhandle Area Transportation Study,* completed in 1978, identified the following needed improvements for US 522:

1. The widening of US 522 between Berkeley Springs and the Virginia state line to a full 24 feet (7.2 meters), 12 feet (3.6 meters) each lane, and
2. A bypass for US 522 around Berkeley Springs to be constructed as a two-lane facility on four lanes of right-of-way, allowing for future expansion

The widening recommended in the study has been accomplished, however a bypass has not been provided. At the time of the 1978 study, the traffic volumes did not warrant a four-lane upgrade. As traffic volumes have increased above current AASHTO (American Association of State Highway and Transportation Officials) and WVDOH standards, it has become necessary to propose this upgrade as a four lane highway.

Morgan County residents have been increasingly subjected to delays from escalating traffic volumes. Congestion from business related growth along US 522 south of Berkeley Springs (Town of Bath) has added to traffic delays. Residents have requested traffic improvements in Berkeley Springs (Town of Bath) and the routing of trucks away from Berkeley Springs (Town of Bath).

The West Virginia Division of Highways and the Region IX (Eastern Panhandle) Regional Planning and Development Council have expressed their concern and interest in improving US 522 in Morgan County. Improvements to US 522 are included in the West Virginia Statewide Transportation Improvement Program (STIP). A Preliminary Design Report has been completed to identify construction alternatives, and the Environmental Impact Statement (EIS) identifies and examines the environmental impacts of the Selected Alternate as well as Alternates II, III, and IV. An improved US 522 bypassing Berkeley Springs (Town of Bath) is a recommendation expressed in the Region IX (Eastern Panhandle) Regional Planning and Development Council's Five Year Plan.

A public meeting was held on June 2, 1998 at Berkeley Springs High School. Over 700 citizens attended this meeting. Among those individuals who expressed a preference for a particular alternate, Alternate I was most often selected.

The Preferred Alternate, Alternate I, was next presented to the public at a Public Meeting on September 30, 1999 and a Public Hearing on October 14, 1999. Following the end of the public comment period on October 14, 1999, Alternate I was determined to be the Selected Alternate for this project.

Further public input has been sought at three additional public meetings held at the request of the public and the Morgan County Commission. These meetings were held on May 2, June 26 and August 17, 2000.

In addition to the studies for upgrading US 522 in Morgan County, studies are also underway to upgrade WV 9 from the Virginia state line west to Berkeley Springs (Town of Bath). WV 9 is the primary east-west connector in the eastern panhandle, while US 522 is the primary north-south connector in Morgan County, forming a crossroads in Berkeley Springs.

## V. MEASURES TO MINIMIZE HARM

All practicable measures to minimize harm have been incorporated into Alternative I. During final design and construction of the project, efforts will be made to continue to minimize and mitigate adverse effects to environmental, social, and cultural resources. Coordination with resource and regulatory agencies will also continue during final design and construction to further refine mitigation measures. The specific measures that have been incorporated into this project are listed in Appendix A of this ROD.

## VI. OTHER STATE AND FEDERAL ACTIONS REQUIRED

Other federal and state actions required to implement the proposed action include:

- Section 404 permit approval by the U.S. Army Corps of Engineers (Pittsburgh District) for stream and wetland encroachment required for roadway construction.
- Section 401 Water Quality Certification from the West Virginia Department of Environmental Protection.
- Further consultation with the West Virginia Division of Culture and History under the terms of the Programmatic Agreement.
- National Pollution Discharge Elimination System (NPDES) Permit from the West Virginia Department of Environmental Protection.

## VII. MONITORING AND ENFORCEMENT PROGRAM

A formal monitoring program has not been proposed. Coordination during design development, right-of-way acquisition, and construction will ensure that environmental commitments will be observed. This coordination will be implemented by inviting participation from resource agencies such as the West Virginia Division of Natural Resources, Department of Environmental Protection, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and U.S. Environmental Protection Agency.

## VIII. COMMENTS ON THE FINAL ENVIRONMENTAL IMPACT STATEMENT

### A. Availability of the FEIS for Public Review and Comment

The Notice of Availability of the FEIS was published in the Federal Register on October 20, 2000. Copies of the FEIS were distributed for review to the agencies listed in the Distribution List contained in the FEIS. Also, copies of the FEIS were send to the 17 individuals listed in the WVDOH internal mailing list. Copies of the FEIS were made available for public review on or before October 20, 2000 at the following locations:

- West Virginia Division of Highways - Charleston, WV
- West Virginia Division of Highways District Five Engineer's Office - Burlington, WV
- Morgan County Commission, Berkeley Springs, WV

The comment period for the FEIS extended from October 20, 2000 through December 15, 2000.

### B. Overview of Comments Received on the FEIS

During the required comment period, several comment letters were received. The letters came from a variety of sources and consisted of:

- 4 Federal agency letters,
- 2 state agency letters,
- 1 organization letter, and
- 3 individual/personal comment letters.

The following comments/categories reflect the eight most prevalent issues raised during the public involvement process. The comments generally can be categorized as follows:

1. in favor of the project,
2. does the need for a four-lane highway exist,
3. is traffic and accident data which supports the project purpose and need accurate,
4. concern over the four-lane to two-lane transition at the Maryland state line,
5. study a two-lane "community oriented bypass,"
6. the inherent safety of a four-lane highway,
7. banning interstate trucks from US 522, and
8. potential increases in flooding.

Responses to general comments in categories two through eight are provided in Appendix C of this ROD. [Point-by-point responses to individual comment letters are provided for in Appendix D].

Comments received from the Morgan County Citizens Coalition (MCCC), have been placed in a separate document as well as being provided within this ROD. As with the general comments, the MCCC comments have also been grouped into distinct categories. A response for each relevant MCCC category has been provided. Responses to each individual MCCC comments posed have been combined with other similar issues regarding the same topic. An in-depth, comprehensive comment has been provided that addresses

the general theme of the MCCC comment category. A complete copy of the MCCC 86-page comment letter regarding the FEIS is available for inspection, if desired.

## IX. CONCLUSION

For the reasons discussed in this ROD and consistent with the fulfillment of the identified purpose and need for this project, the Federal Highway Administration hereby approves the selection of Alternative I (with all incorporated mitigation measures) for the US 522 highway project from the Virginia state line to the Maryland state line.

8/31/01
DATE

Thomas J. Smith
Division Administrator

## LIST OF APPENDICES TO THE ROD

*Appendix A:* Mitigation Measures Incorporated into Project

*Appendix B*: Section 106 Programmatic Agreement

*Appendix C*: General Responses to Comments on the FEIS

*Appendix D:* Individual Responses to Comments on the FEIS

*Appendix E*: Figures and/or Referenced Materials

# *APPENDIX A*

## MITIGATION MEASURES INCORPORATED INTO PROJECT

## PROPOSED MITIGATION MEASURES

| AREA OF POTENTIAL IMPACT | PROPOSED MITIGATION MEASURES |
|---|---|
| **Archaeological Resources**<br><br>National Register Eligible Resources<br><br>No known eligible sites are located within the project area. | A Programmatic Agreement has been executed among FHWA, WVDCH, and the WVDOH that commits the WVDOH to a process that will fulfill the requirements of 36 CFR 800.<br>The WVDCH has concurred that this project will have no adverse effect on registered historic properties.<br>A Phase Ib archaeological field survey and, if warranted, Phase II testing will be performed within the construction limits of the selected alternate. Options for mitigation regarding archaeological resources are:<br>• Minor alignment shifts,<br>• Data recovery excavation.<br>Because mitigation programs reflect the particular character of the involved resources, they vary widely in nature, complexity and scope. Consequently, WVDOH will closely coordinate with the WVDCH and other concerned parties in their development and implementation, as warranted. |
| **Endangered Species**<br><br>Rare, Threatened, Endangered Species | The selected alternate does not result in impacts to any federally listed endangered or threatened species or critical habitat capable of supporting such species.<br>The federally listed endangered species, Harperella (Ptilimnium nodosum) is known to exist outside the project area approximately 2.8 miles downstream within the Sleepy Creek drainage.<br>In order to minimize impacts to the downstream sub-populations of Harperella within Sleepy Creek, the WVDOH will:<br>Sediment and erosion control:<br>• Site specific plans for minimizing erosion and sediment will be developed with sediment basins designed for the five-year storm (Q5) where practicable.<br>• In-stream work will be limited to low-flow periods.<br>Stream crossings:<br>• Equalizer pipes may be used in bridge approaches or other highway fills, which constrict flood plain areas.<br>• Any temporary stream crossings will consist of clean, non-erodable rock.<br>• Bridges/culverts will be designed to accommodate 50-year flood flows in a way, which will minimize impacts to the natural channel.<br>Stream Relocations:<br>• Natural stream channel design will be used on all relocated streams.<br>Secondary Impacts:<br>• Waste areas shall not be permitted in the 100-year flood plain of Sleepy Creek under any circumstances. |
| **Historic Properties** | The WVDCH has concurred that this project will have no adverse effect on registered historic properties |

| | |
|---|---|
| **Stream Encroachments**<br><br>Culverts:<br>9,400 ft<br>(2,865 m)<br><br>Stream Crossings:<br>405 ft<br>(125 m)<br><br>Channel Change:<br>0 ft<br>(0 m)<br><br>TOTAL<br>1.86 mi<br>(2.99 km) | The general approach to reducing impacts to the surface water resources within the study area is to avoid and minimize impacts to the greatest extend possible, then to compensate for any unavoidable impacts. The Selected Alternate crosses one stream designated as a high quality stream, Rock Gap Run.<br>The Selected Alternate is the alignment option with the lowest impact to streams in the study area. The following design and construction mitigation measure will be implemented, where warranted, during and after construction of the Selected Alternate.<br>• To minimize impacts to Rock Gap Run a bridge will be constructed to cross the stream.<br>• Promptly revegetate all disturbed areas to prevent accelerated erosion.<br>• Construct all cofferdams, causeways, and temporary crossings from large clean rock fill material with filter fabric installed on the downstream side to trap sediments.<br>• Minimize the need for in-stream work by heavy equipment.<br>• Develop project sequencing to facilitate in-stream work during periods of seasonal low flow.<br>• Designate equipment fueling and service areas away from aquatic habitats to minimize the potential for accidental spillage of petrochemicals.<br>• Minimize the amount of vegetative clearing and impervious surface within the right-of- way to reduce runoff volume and thermal increases.<br>• Minimize the diversion of surface water flow within the cleared portion of the right-of-way to reduce thermal increases.<br>• Design and construct all stormwater management facilities to prevent or minimize runoff resulting in erosion and sedimentation.<br>• Consider the use of vegetated stormwater management basins and wide flat drainage ditches to reduce sediment and toxicant loading in highway runoff.<br>• Reduce the amount of aquatic habitat (and riparian vegetation) which would be disturbed by minimizing the linear distance of streams impacted at each crossing.<br>• Design and construct culvert structures, which would promote the reestablishment of benthic habitat within the culvert.<br>• Design and implement an Erosion and Sedimentation Control Plan, which would prevent sediment deposition to aquatic habitats. |
| **Permit Requirements** | Construction requires application for and approval of state and Federal permits prior to groundbreaking. The following Federal and state permits are required to be issued prior to the commencement of construction activities:<br>• Federal – Section 404 Permit, Section 401 Permit, FEMA Approval, National Pollutant Discharge Elimination System.<br>• State – WV State Water Quality Certification, State Pollutant Discharge Elimination System. |

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| **Temporary Construction Impacts** | Construction activities for the Selected Alternate could affect the residences of the immediate study area and those traveling in the vicinity. The following measures should be implemented to mitigate the short-term effects from construction.<br><br>Air Quality:<br>• Minimize the area of exposed erodable earth,<br>• Stabilizing exposed earth as soon as possible,<br>• Applying water or stabilizing agents to the working and hauling areas,<br>• Covering, shielding, or stabilizing stockpiled material,<br>• Using covered haul trucks, and<br>• All open burning will be done in accordance with all applicable laws, ordinances and regulations, and will be subject to the regulations of the WVDEP-OAQ.<br><br>Noise:<br>• The contractor will be required to use construction equipment with operable mufflers, and<br>• The contractor will be prohibited from working in residential areas between 10 p.m. and 6 a.m.<br><br>Water Quality:<br>• The contractor will utilize the control measures specified in the WVDOH standard, Erosion and Sediment Control Manual.<br>• Any work, which would result in erosion or sedimentation of streams, must be proceeded by notice given to the WVDNR.<br>• All construction discharge will be adequately filtered prior to discharge into streams.<br>• The contractor will not establish any spoil disposal sites within or adjacent to any regulated water body.<br>• In the event the contractor dumps, discharges, or spills any contaminant which may affect water quality, they will be required to immediately notify all appropriate local, state, and federal agencies and will take immediate action to contain and remove the contaminant.<br><br>Maintenance and Control of Traffic:<br>• The contractor will be required to maintain traffic by use of temporary roadways and detours.<br>• Traffic control signs and warning devices will be used during construction in accordance with the FHWA Manual for Uniform Traffic Control Devices, West Virginia's Manual for Traffic Control for Streets and Highway Construction and Maintenance, and the WVDOH Standards and Directives.<br>• Access to residences and businesses impacted by the construction will be maintained through construction by scheduling, sequencing, temporary driveway construction and temporary connections.<br>• Local police and fire departments as well as other emergency service providers will be notified well in advance of any construction related activities to allow for prior planning with other providers, or to select alternate routes. |
| **Vegetation and Wildlife** | Vegetative plantings for the purpose of stabilization, erosion and sediment control and beautification will replace those indigenous vegetative species currently found within the right-of-way. |

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| **Noise Impacts**<br><br>18 Sensitive (Category B) Receptors | There are 18 sensitive receptors located in close proximity to the Selected Alternate that have been determine as likely to experience impacts in accordance with current FHWA and WVDOH policy.<br><br>Of the impacted receptors, none met WVDOH criteria for mitigation based on one or more of the following conditions:<br><br>• Receptors are isolated and do not typically warrant further consideration because of the prohibitive cost of protecting one site.<br>• Sensitive areas consist of only a few homes, which did not have acceptable cost per receptor rations. (According to current WVDOH policy, the acceptable cost per receptor (residence) is $15,000 or less).<br>• Dominant noise source is traffic traveling other streets and therefore barriers will provide a negligible effect (i.e., insufficient insertion loss).<br>• Receptors require direct access to local roadways.<br>• Surrounding businesses or other non-residential uses require visibility and public access.<br>• Construction of barriers would compromise safety (i.e., limiting sight distance), particularly where the proposed roadway and the local roads intersect at-grade.<br>• Receptors are likely to experience an increase of 3dBA or less which is generally undetectable by the typical human being.<br>• Additional right-of-way requirements needed for construction of earth barriers would result in greater impacts to nearby properties. |
| **Environmental Justice** | Presidential Executive Order 12898 (1994) states that disproportionately high and adverse human health or environmental effects to low-income and minority populations must be identified and taken into consideration for federal projects. Population data from the 1990 US Census show that Morgan County has a lower percentage of minorities and persons living below the poverty level than the statewide average.<br><br>Based upon the economic conditions and minority populations within the study area, the Selected Alternative will not have a disproportionately high impact to low-income or minority populations. Therefore, no mitigation measures are required. |
| **Wildlife Habitat** | Coordination will be undertaken with appropriate resource agencies to mitigate impacts to upland habitat through the application of innovative design features, including revegetation of excess excavation, reduction of clearing and grubbing limits, upland habitat acquisition based on habitat unit replacement and other measures. |
| **USTs / Hazardous Waste Sites**<br><br>1 possible AUST at the former Dawson's Service Station. | During construction, removal of USTs will follow the procedures of US Environmental Protection Agency (USEPA) and the West Virginia Department of Environmental Protection (WVDEP). These procedures may include removal and disposal of the tanks, testing of all media (air, soil, and water) for potential contamination, and appropriate clean up of any contamination found. Any additional sites (for example, buried waste, unknown USTs) found during construction will be assessed at the time of their discovery, and appropriate mitigation will take place. |

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| **Wetlands**<br><br>Palustrine Emergent – 0.35 acres (0.14 hectares)<br><br>Palustrine Scrub/Shrub – 0.19 acres (0.08 hectares)<br><br>Palustrine Forested – 4.70 acres (2.30 hectares)<br><br>Total Wetlands Impacted – 6.24 acres (2.52 hectares) | Presidential Executive Order 11990 entitled, "Protection of Wetlands", established a national policy to "avoid to the extent possible the long and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative." This project must also comply with the requirements of Section 404 of the Clean Water Act and Section 401, State Water Quality certification. The Section 404 Permit application is scheduled to be submitted to the Corps of Engineers in early 2001.<br><br>Eleven wetland areas will be impacted by the Selected Alternative for a total impact of 6.24 acres (2.52 hectares).<br><br>Avoidance and minimization of impacts will occur throughout the planning and design of this project. This can include reducing cut and fill and bridging wetlands. |
| **Floodplain Encroachments**<br>3.9 ac<br>(1.6 ha) | Floodplain Finding:<br><br>The floodplains finding are presented in accordance with Executive Order 11988. The construction of the Selected Alternate of this project will result in unavoidable encroachments on the 100-year floodplain. To the extent practicable, impacts to floodplains have been avoided or minimized. Based on the consideration of impacts and the ability to address the purpose of and need for the project, the Selected Alternate is the only reasonable and practicable alternative. The proposed action includes all practicable measure to minimize harm to floodplains, which may result from such use. Construction of the Selected Alternate will conform to applicable state and local floodplain protection standards.<br><br>Measures to minimize the types of base floodplain encroachments will be implemented where required. These measures will include the following as warranted:<br>• A detailed hydraulic analysis will be completed during future design to further refine the impact analysis;<br>• During the final design stage, the vertical alignment of the facility may be adjusted to provide minimum grading requirements. This technique will minimize the utilization of developed land an minimize the use of the floodplains and floodways;<br>• Control of stormwater runoff, during both the construction and operational phases, will be achieved by incorporation of stormwater management controls into the design plans. During final design stage, a stormwater management plan will be developed to retain additional floodwater discharges created by an increase in imperious land cover.<br>• The WVDOH commits to raising the flood elevation by no more than one foot.<br><br>The Selected Alternate is anticipated to impact one or more of the current, NRCS flood control impoundments within the project area.<br>• The WVDOH will work with the NRCS, the Town of Bath and other local stockholders to ensure that Final Design Plans mitigate all impacts to existing flood control impoundments. This will be done either through design shifts to avoid the impoundments, improvements made to the other existing impoundments, or through construction or purchase of new flood control structures. |

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| **Farmlands**<br><br>Total Farmland Soils<br>80 acres<br>(32.5 hectares) | A majority of the farmland soils found in the right-of-way of the Selected Alternative are not currently farmed. The Farmland Policy Protection Act states that if the site assessment value for any project alternative totals more than 160, then avoidance alternatives should be considered for the site. The Natural Resources Conservation Service scored the Selected Alternative a 13 out of 260 possible points. Therefore, no mitigation measures need be considered. |
| **Displacements**<br><br>Residences – 53<br>Businesses - 2 | Minimization of displacement impacts will be incorporated into the final highway design. Where avoidance is not possible, acquisition and relocation will proceed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970. The Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended, prescribes the procedures and provisions required for persons displaced as a result of federally assisted programs. In addition to providing payment of just compensation for property acquired, additional benefits are available to eligible displaced persons forced to relocate from their residence, business, or farm.<br><br>The WVDOH will institute a Last Resort Housing Program if comparable housing is not available or is not within the relocatees' financial means. These benefits would put the relocatees in the same ownership or tenancy status that they possessed prior to the displacement. All relocatees will be afforded the rights and protections as outlined in the WVDOH pamphlet, "Right of Way: A Guide for Owners and Tenants". |

# *APPENDIX B*

## SECTION 106 PROGRAMMATIC AGREEMENT

PROGRAMMATIC AGREEMENT

AMONG

THE FEDERAL HIGHWAY ADMINISTRATION,

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS,

AND

THE WEST VIRGINIA STATE HISTORIC PRESERVATION OFFICE

REGARDING IMPLEMENTATION OF THE US 522 UPGRADE PROJECT

MORGAN COUNTY, WEST VIRGINIA

WHEREAS, the Federal Highway Administration (FHWA), in conjunction with the West Virginia Department of Transportation, Division of Highways (WVDOH), proposes to construct the US 522 Upgrade as a four-lane, partially controlled access facility from the Virginia State Line to the Maryland State Line in Morgan County, West Virginia; and

WHEREAS, the FHWA, in consultation with the WVSHPO, has identified areas of archaeological sensitivity and determined that the US 522 Upgrade project may have an effect upon archaeological properties eligible for inclusion in the NRHP;

WHEREAS, the FHWA has determined that the US 522 Upgrade project will have no adverse effects on architectural resources eligible for inclusion in the National Register of Historic Places (NRHP), and has consulted with the West Virginia State Historic Preservation Officer (WVSHPO) pursuant to Section 800.14(b) of the regulations (36CFR Part 800) implementing Section 106 of the National Historic Preservation Act (16 U.S.C., 470f)

WHEREAS, WVDOH participated in the consultation and has been invited to concur in this Agreement; and

NOW, THEREFORE, FHWA and the WVSHPO agree that the project shall be administered in accordance with the following stipulations to satisfy the FHWA's Section 106 responsibility with regard to the project.

***Traffic and Accident Data (Comment 3)***
Traffic and accident data is used to evaluate the Purpose and Need for various roadway projects. The traffic data used to evaluate the capacity of the existing US 522 was derived from the most current traffic counts and the evaluation was based on industry accepted methodologies illustrated in the *1994 Highway Capacity Manual*. Similarly, the accident data used on this project is the most current accident data available from the WVDOH Traffic Engineering Division.

The results of the roadway capacity analysis indicate an unacceptable level of service for existing US 522. While the rural sections of US 522 exhibit lower accident rates than the statewide averages, two sections of the roadway, as illustrated in Table I-6 on page I-11 of the FEIS, exhibit rates significantly higher than the statewide averages for similar roadways

***Maryland State Line Transition (Comment 4)***
Concerns have been expressed by citizens about the safety of the existing US 522 bridge over the Potomac River into Maryland once a four lane US 522 is constructed. The proposed US 522 will be designed with adequate transition lanes to safely allow for the flow of traffic from the four-lane highway onto the existing 2-lane highway. This will be similar in manner to the transition from the four-lane US 522 in Virginia to the 2-lane system in West Virginia. The US 522 Improvements would not necessitate the upgrading of the bridge as traffic forecasts clearly show that the bridge will be over capacity regardless of whether the improvements are completed or not.

***Two Lane Bypass (Comment 5)***
A two-lane, community-oriented bypass is not supported by the project purpose and need as stated in the Final Environmental Impact Statement. US 522 is classified as a principal arterial highway and not as a local road. These arterials are expected to provide a high degree of mobility for longer trips and should provide a high operating speed and level of service.

A low speed community bypass does not meet the functional classification of US 522. US 522 is a continuous highway system serving major cities and communities. The results of highway capacity analysis indicates that a two-lane highway will operate at an unacceptable level of service, in addition the geometric constraints of two-lane highways prevent high degrees of mobility, vehicular turning movements and access road connectors.

***Safety of a Four Lane Highway (Comment 6)***
Concerns have been expressed about the safety afforded by a four-lane highway through Morgan County. Of particular concern is school bus usage of the highway and the safety of residents using at-grade crossings for access to the Town of Bath.

Four-lane roadways have been shown to provide a higher degree of safety for any given amount of traffic at a given speed. This is due to various elements of their design such as increased sight distances, partially controlled access, and better roadway geometrics based on a higher design speed.

The proposed US 522 roadway will incorporate a 46-foot median to accommodate tuning movements for school busses. Location of bus routes and stops will be considered and evaluated during the design process to provide safe operation for school buses. Special traffic

PROGRAMMATIC AGREEMENT

AMONG

THE FEDERAL HIGHWAY ADMINISTRATION,

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS,

AND

THE WEST VIRGINIA STATE HISTORIC PRESERVATION OFFICE

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# *APPENDIX C*

## GENERAL RESPONSES TO COMMENTS ON THE FEIS

# APPENDIX C:
# GENERAL RESPONSES TO COMMENTS ON THE FEIS

Comments on the FEIS for this project generally can be categorized as follows:

1. in favor of the project,
2. does the need for a four-lane highway exist,
3. is traffic and accident data which supports the project purpose and need accurate,
4. concern over the four-lane to two-lane transition at the Maryland state line,
5. study a two-lane "community oriented bypass,"
6. the inherent safety of a four-lane highway,
7. banning interstate trucks from US 522, and
8. potential increases in flooding.

General responses to comments in categories 2 through 8 are provided in this Appendix to the ROD. More detailed, point-by-point responses to individual comment letters are provided in Appendix D to the ROD.

***Purpose and Need (Comments 2, 3)***

The proposed improvements to US 522 are greatly needed. US 522 is classified as a two-lane principal arterial highway connecting the major cities of Hancock, MD and Winchester, VA. This facility is the most important highway in Morgan County.

Segments of US 522 in Morgan County operate at unacceptable levels of service. WVDOH traffic projections indicate that in the next 20 years traffic volumes on the roadway will double irrespective of any roadway improvements.

Without the proposed upgrade, the entire route in Morgan County would operate at an unacceptable level of service. The proposed improvements would provide the capacity necessary to handle present and future traffic volumes at an acceptable level of service.

Traffic flow on the section of US 522 through the Town of Bath is especially congested. Local and through traffic is impeded in its movement through town. This is inconsistent with the function of the Town of Bath as a historic tourist attraction. The US 522 Improvements would separate local and tourist traffic from through traffic that would be diverted onto the new roadway.

Two sections of US 522 in Morgan County exhibit higher accident rates than the statewide average for similar roadways. These segments are found within the Town of Bath and just to the south where US 522 intersects with WV 9. The proposed improvements would reduce traffic volumes in the congested areas allowing for the safer movement of traffic through the Town of Bath.

The existing roadway exhibits numerous design deficiencies for a roadway of its classification. There are restricted passing zones, inadequate site distances, unsafe access points, a lack of turn lanes for exits, variable shoulder widths, and mixed uses of the roadway such as metered parallel parking in the Town of Bath. The improved roadway would not exhibit these deficiencies and the existing roadway would function primarily as a local roadway with a lower traffic volume.

***Traffic and Accident Data (Comment 3)***
Traffic and accident data is used to evaluate the Purpose and Need for various roadway projects. The traffic data used to evaluate the capacity of the existing US 522 was derived from the most current traffic counts and the evaluation was based on industry accepted methodologies illustrated in the *1994 Highway Capacity Manual*. Similarly, the accident data used on this project is the most current accident data available from the WVDOH Traffic Engineering Division.

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A low speed community bypass does not meet the functional classification of US 522. US 522 is a continuous highway system serving major cities and communities. The results of highway capacity analysis indicates that a two-lane highway will operate at an unacceptable level of service, in addition the geometric constraints of two-lane highways prevent high degrees of mobility, vehicular turning movements and access road connectors.

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Concerns have been expressed about the safety afforded by a four-lane highway through Morgan County. Of particular concern is school bus usage of the highway and the safety of residents using at-grade crossings for access to the Town of Bath.

Four-lane roadways have been shown to provide a higher degree of safety for any given amount of traffic at a given speed. This is due to various elements of their design such as increased sight distances, partially controlled access, and better roadway geometrics based on a higher design speed.

The proposed US 522 roadway will incorporate a 46-foot median to accommodate tuning movements for school busses. Location of bus routes and stops will be considered and evaluated during the design process to provide safe operation for school buses. Special traffic

control measures will be employed to insure safe bus operation where required.

Vehicular movement at at-grade crossings will be provided with excellent site distances in order to make as safe a crossing as possible. Turning lanes will be provided to allow for adequate storage for vehicles where warranted and grade separated interchanges have also been considered.

***Potential Truck Ban (Comment 7)***

The banning of through truck traffic on existing US 522 is not considered to be a viable solution to the traffic problems in the project area. While not specifically prohibited by statute, it is long standing WVDOH policy not to restrict vehicular traffic which otherwise meets all established sizing and loading requirements. The completion of a four-lane bypass will substantially reduce the amount of through truck traffic in the Town of Bath.

***Increased Flooding Potential (Comment 8)***

All practical measures will be employed to minimize impacts to floodplains. Construction of the improved US 522 will conform to all applicable state and federal floodplain protection standards. Control of storm-water runoff during construction will be achieved by incorporating storm-water management practices into the final plans. Accepted principals of hydraulics and hydrology will be utilized to design storm-water facilities to reduce and control flooding. It is not the intent of the FEIS to provide detailed information for flood control plans. This Record of Decision (ROD) provides mitigation measures and commitments to flood control facilities and will be implemented in final construction plans. The *WVDOT Drainage Manual* and Federal Highway Administration (FHWA) drainage publications will be used as the basis for storm-water management and flood control.

Flood control dams will be designed and included in the final construction plans to control and regulate impacts of the highway's construction. The flood control analysis and design is part of the final construction plans.

***Public Involvement Process***

The WVDOH has a standard, established protocol for the public involvement process. The US 522 project has followed the protocol and consistently implemented a proactive public involvement process well beyond the requirements of the National Environmental Policy Act (NEPA) requirements. Since the issuance of the DEIS workshop public meetings / hearings were held on September 30 and October 14, 1999. The WVDOH has exceeded its standard

for public involvement on this project by holding three additional public meetings at the request of the MCCC on May 2, June 26, and August 17, 2000.

The five meetings ensured that environmental information was made available to public officials, agencies and citizens before any decisions were made. It is the West Virginia Department of Transportation's goal that decisions be made in the best overall interest and that other agencies and the public be involved early enough to influence project decisions. Numerous changes were made to the Selected Alternative as a direct result of information obtained from and requests by the public. Examples of these changes include the alignment shift around the Shirley Farms Subdivision and the shift to avoid crossing the existing roadway twice in the vicinity of Morgan CO 13 (Winchester Grade Road).

Citizens have criticized the WVDOH public meeting and public hearing format. The DOH has found the public information workshop to be the most effective tool to communicate with the public because it provides citizens an opportunity to have one on one conversations with DOH personnel and fosters the free exchange of information. However, in deference to the wishes of the public the DOH scheduled three additional public meetings on May 2, June 26, and August 17, 2000 in the traditional format of a formal presentation to an audience.

# *APPENDIX D*

## INDIVIDUAL RESPONSES TO COMMENTS ON THE FEIS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

DEC 21 2000

Mr. Thomas J. Smith
Division Administrator
Federal Highway Administration
Geary Plaza, Suite 200
700 Washington Street, East
Charleston, WV 25301

**RE: Final Environmental Impact Statement**
**US 522 Morgan County, WV**
**Virginia State Line to Maryland State Line**

Dear Mr. Smith:

1 In accordance with the National Environmental Policy Act (NEPA), Section 309 of the Clean Air Act, and the Clean Water Act Section 404, EPA has reviewed the above referenced project. Based upon our review, we maintain the concerns raised on the Draft Environmental Impact Statement. Our concerns focus on the potential for residential displacements, stream and wetland impacts. We suggest that you continue to modify Alternative 1 to avoid the wetland, stream, and community impacts.

1 Several of the issues that we raised on the DEIS remain a concern to us. For example, we believe that additional avoidance and minimization measures should be incorporated into the highway design to reduce flood plain encroachments, stream, and wetland impacts. In addition, we have serious concerns with the potential impacts at the Maryland terminus of the project.
2 EPA is concerned that the improvements proposed in the Morgan County portion of Rt. 522 will necessitate the improvements to both the Potomac River Crossing, and the Maryland portion of Rt. 522 leading to I-70 and 68. A discussion of the future plans for the remaining section of Rt. 522 between the terminus of this proposed project and I-70 and 68 should be provided.

Finally, EPA has received several letters from the Morgan County Citizens Coalition (MCCC). They have raised many interesting concerns with the traffic analysis, the proposed facility design and function, and the potential for flooding in the Town of Bath from increased
3 storm water runoff. We request you to address fully and respond to the issues raised by the MCCC in their December 13, 2000 Response to the FEIS for US 522 before the issuance of the Record of Decision. Please send us a copy of your response to the MCCC.

*Customer Service Hotline: 1-800-438-2474*

## WVDOH RESPONSE

1. WVDOH acknowledges EPA concerns about the potential for residential displacements, stream and wetland impacts. The WVDOH will continue to explore all possible avoidance, minimization and mitigation possibilities throughout final design work.

2. As the EPA is aware, the WVDOH has no jurisdiction over the US 522 bridge over the Potomac River into Maryland. The proposed US 522 improvements will not serve to force Maryland to replace or upgrade this structure. However, traffic LOS calculations performed for both the build and no-build scenarios show that regardless of whether the project is constructed, the 2-lane US5 22, including the Potomac River bridge, will operate at an unacceptable LOS.

3. Responses to specific MCCC concerns are addressed in Appendix D of this ROD.

Thank you for the opportunity to comment on this project. We hope to work with you to resolve both our concerns and the concerns of the MCCC. If you have any questions regarding our comments, please feel free to contact Ms. Denise M. Rigney at (215) 814-2726.

Sincerely,

Thomas Stenkamp
Deputy Director
Office of Environmental Programs

TOTAL P.03

**WVDOH RESPONSE**

Federal Emergency Management Agency
Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404

RECEIVED JAN 30 2001

JAN 26 2001

West Virginia Dept. of Transportation
Division of Highways
Building 5, Room 125
1900 Kanawha Blvd., E
Charleston, West Virginia 25305-0430
Attn: Randolph T. Epperly, Jr.,P.E.
Deputy State Highway Engineer

RE: Proposed Rte 522, Morgan County, WV

Dear Mr Epperly:

The Federal Emergency Management Agency (FEMA) is in receipt of the Final Environmental Impact Statement for U.S. 522 in Morgan County, West Virginia. The proposed Route for the new road intersects with various streams that have been mapped by FEMA as Zone A, an area subject to flooding during the 1% annual chance (100-year) flood without base flood elevations determined.

4 The National Flood Insurance Program (NFIP) is administered by FEMA and is designed to reduce flood losses through local floodplain management and provide flood insurance to property owners. The NFIP requires participating communities to adopt and enforce floodplain management ordinances with stipulations about modifications of the 100-year floodplain. As such, Morgan County has an ordinance requiring permits for all proposed construction within Zone A areas and also requiring that the flood carrying capacity of a relocated stream be maintained.

5 To prove that the flood carrying capacity of these streams will be maintained may require an engineering study and completion of the enclosed Conditional Letter of Map Revision Application. Please coordinate with Alma E. Perry, County Planner of Morgan County at (304) 258-8540 to assure that the project meets the requirements of their floodplain management ordinance.

## WVDOH RESPONSE

4. WVDOH will coordinate with FEMA during final design to ensure that the flood carrying capacity of all relocated streams are maintained.

5. WVODH will coordinate with the Morgan County Planning Office as requested during final design.

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| 6 | Sent By: WVDOH ENVIRONMENTAL ; 3045587298; Mar-5-01 2:38PM; Page 3/3<br><br>As this project involves an expenditure of Federal funds, it is subject to Executive Order 11988 which requires federal agencies to avoid the occupancy and development of floodplains when these is a practicable alternative. Each federal agency has promulgated regulations to comply with the Executive Order. These are administered by the involved federal agency.<br><br>If you have any questions or problems, please call me at 215-931-5669.<br><br>Sincerely,<br><br>Eugene Gruber, P.E.<br>Senior Engineer & Regional<br>Environmental Officer<br>Mitigation Division<br><br>Enclosure<br><br>cc: Community Coordinator<br>State Coordinator<br>FEMA Region 3 Community File<br>Chron File | **WVDOH RESPONSE**<br><br>6. WVDOH and FHWA will ensure that all regulations promulgated under Executive Order 11988 are complied with. |

WVDOH RESPONSE

United States Department of the Interior

FISH AND WILDLIFE SERVICE

West Virginia Field Office
694 Beverly Pike
Elkins, West Virginia 26241

October 27, 2000

RECEIVED
OCT 30 2000
ENGINEERING DIVISION
WV DOH

Mr. James E. Sothen, Director
Engineering Division
West Virginia Division of Highways
1900 Kanawha Boulevard East
Charleston, West Virginia 25305-0430

Dear Mr. Sothen:

In response to your September 29, 2000 request, the U.S. Fish and Wildlife Service (Service) has reviewed the mist net survey report prepared by the consultant, R.D. Zande & Associates, Inc. to determine the possible presence of the Indiana bat, Myotis sodalis in the vicinity of the proposed US 522 Transportation Improvement Project in Morgan County, West Virginia (State Project U233-522-0.02 (02), Federal Project STP-0522 (007)). The Service had previously responded by letter dated September 13, 2000, regarding our review of the Indiana bat summer habitat suitability assessment and potential roost tree survey prepared for the proposed project.

The West Virginia Division of Highways (WVDOH) originally had two options to avoid take of Indiana bats which may inhabit the project area. The first option was to assume Indiana bats were present in the project area and agree to remove potential roost trees (PRT's) during the time bats spend in hibernation, November 15 - March 31. This option included an evaluation of the area within two miles of the highway to determine if sufficient Indiana bat summer habitat would remain after the project is constructed. The second option was to conduct mist net surveys to determine presence of Indiana bats in the project area and if no Indiana bats were collected then clearing of potential summer habitat could occur outside of the hibernation season.

The WVDOH chose the first option and our letter of September 13, 2000, concurred with the findings that if clearing occurred during the hibernation period, there would be sufficient summer habitat to support Indiana bats upon their return from hibernation to the summer range. Therefore, we found that the project was not likely to adversely affect the Indiana bat and no further Section 7 consultation pursuant to the Endangered Species Act was necessary with the Service.

In addition to exercising the first Indiana bat option, the WVDOH has chosen to adopt the second option and conduct mist net surveys in the vicinity of the project. If no Indiana bats are collected in the mist net surveys, then clearing of potential summer roosting habitat could occur outside of the

| | | WVDOH RESPONSE |
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| 7 | hibernation period. Between July 11 and 29, 2000, 20 locations were mist netted in accordance with the Indiana Bat Recovery Team mist net guidelines. Ninety-eight bats representing 5 species were collected in the effort. No Indiana bats were collected. Therefore, the Service believes that clearing the construction area outside of the hibernation period is not likely to adversely affect the Indiana bat. This removes the original requirement outlined in our September 13, 2000, that clearing could only take place during the hibernation period. Should project plans change, or if additional information on listed and proposed species or species of concern becomes available, this determination may be reconsidered.<br><br>If you have any questions regarding these comments, please contact our Endangered Species Specialist, Mr. William A. Tolin, or myself, at (304)-636-6586 or at the letterhead address.<br><br>Sincerely,<br><br>Jeffrey K. Towner<br>Jeffrey K. Towner<br>Field Supervisor | 7. The WVDOH acknowledges that the project is not likely to adversely affect the Indiana Bat and that no further Section 7 consultation pursuant to the Endangered Species Act will be required. |

WEST VIRGINIA DIVISION OF
CULTURE AND HISTORY

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ENGINEERING DIVISION
WV DOH

October 31, 2000

Mr. James Sothen
Division of Highways
Building 5, Room 110
Capitol Complex
Charleston, WV 25305

RE: US 522 Upgrade
State Project U233-522-0.02(02)
FR#: 93-713-MN-13

Dear Mr. Sothen:

We have reviewed the Final Environmental Impact Statement (EIS) for the above mentioned project. As required by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties", we submit our comments.

8 Architectural Resources:
We concur with the language of the Final Environmental Impact Statement for architectural resources. Our effects evaluation determined that no architectural resources listed in or eligible for the National Register will be adversely effected due to the proposed undertaking.

9 Archaeological Resources:
We will provide comment and recommendations regarding effects to archaeological resources upon receipt of a completed survey report.

We appreciate the opportunity to be of service. If you have questions regarding our comments or the Section 106 process, please call Joanna Wilson, Senior Archaeologist, at (304) 558-0220 extension 146.

Sincerely,

Susan M. Pierce

Susan M. Pierce
Deputy State Historic Preservation Officer

SMP:jlw

THE CULTURAL CENTER • 1900 KANAWHA BOULEVARD, EAST • CHARLESTON, WEST VIRGINIA 25305-0300
TELEPHONE 304-558-0220 • FAX 304-558-2779 • TDD 304-558-3562
EEO/AA EMPLOYER

## WVDOH RESPONSE

8. WVDOH acknowledges that no National Register of Historic Places eligible or listed architectural resources will be adversely effected by the proposed project.

9. Acknowledged that WVSHPO will provide further comments on archaeological resources pursuant to the executed Programmatic Agreement found in Appendix B of the ROD.

| | | WVDOH RESPONSE |
|---|---|---|
| 10 | U.S. Department of Transportation **Federal Transit Administration**<br>REGION III Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia<br>1760 Market Street Suite 500 Philadelphia, PA 19103-4124 215-656-7100 215-656-7260 (fax)<br>OCT 20 2000<br><br>James E. Sothen, P.E.<br>Director, Engineering Division<br>Division of Highways<br>West Virginia Department of Transportation<br>1900 Kanawha Boulevard East, Building 5, Room 110<br>Charleston, West Virginia 25305-0430<br><br>RECEIVED OCT 23 2000 ENGINEERING DIVISION WV DOH<br><br>Re: Final Environmental Impact Statement<br>State Project U233-522-0.02(02)<br>Federal Project STP-0522(007)<br>US 522 Upgrade, Morgan County<br><br>Dear Mr. Sothen:<br><br>We have reviewed the subject document and have no comments to offer. We appreciate the opportunity to provide our input.<br><br>As an information item and as an update to your mailing list, effective July 2000, the Regional Administrator for this office is Ms. Susan E. Schruth.<br><br>Sincerely,<br>Michele Destra<br>Michele Destra<br>Director, Office of Planning and Program Development | 10. Acknowledged |

**Office of Air Quality**
7012 MacCorkle Ave., SE
Charleston, WV 25304
Phone: (304) 926-3647
Fax: (304) 926-3637

## West Virginia Division of Environmental Protection

Cecil H. Underwood
Governor

Michael C. Castle
Director

December 13, 2000

RECEIVED
DEC 14 2000
ENGINEERING DIVISION
WV DOH

Mr. James Sothen, Director
Engineering Division
WV Department of Transportation
Building 5 Room A-110
*via Inter-Dept. Mail*

Re: US 522 Upgrade
Final Environmental Impact Statement
State Project U233 522-0.02(02)
Federal Project: STP-0522(007)
Morgan County

Dear Mr. Sothen:

11 In response to your letter to Chief Kropp (10/6/2000) requesting comments on the above referenced Final Environmental Impact Statement, we offer the following. We appreciate this opportunity to comment on the US 522 Upgrade Project. Morgan County is currently designated attainment/unclassifiable for all criteria air pollutants.

As noted in our comments on the draft Environmental Impact Statement, the project is exempt from the requirements of the Federal Transportation Conformity Rule(s) [40 CFR 93], the related State Rule and our interagency Memorandum Of Understanding. However, USEPA is proceeding with designations under a new 8-hour ozone standard and Morgan County could potentially be designated as non-attainment depending on USEPA's criteria. Although there are no air quality data to indicate Morgan County fails to meet the revised standards, USEPA may consider other factors in making final designations. If the area is designated non-attainment, the project would become subject to the conformity requirements set forth in 40 CFR 93.

If you or your staff have any questions, please do not hesitate to contact me at 926-3731.

Sincerely,

James L. Mason
Technical Analyst

"To use all available resources to protect and restore West Virginia's environment in concert with the needs of present and future generations."

DEP West Virginia Division of Environmental Protection

## WVDOH RESPONSE

11. WVDOH acknowledges that Morgan County is currently designated attainment/unclassifiable for all criteria of air pollutants

Dear Jim Sottler, 10/17/00

I live in Berkeley Springs, Morgan Co. I want to comment on the proposed U.S.522 Rd. improvement. BUILD IT as soon as possible

Sincerely, Charles L. Franklin
Rt. 6 Box 11980
BS, W.V. 25411

## WVDOH RESPONSE

No response required.

**William H. Lawyer**
**36 River Ridge**
**PO Box 206**
**Gt Cacapon, WV 25422**

RECEIVED
DEC 13 2000
ENGINEERING DIVISION
WV DOH

Mr. James E. Sothen, Director
Engineering Division
WVDOT- Division of Highways
State Capitol Complex, Building 5
Charleston, WV 25304-0430

Dec. 9, 2000

Dear Mr. Sothen:

I would like to take this means of commending you and all members of your staff who have been involved in the long and thorough planning process to improve the very serious traffic conditions existing in Morgan County today. While the plan to four lane U.S. 522 and to provide a four lane bypass around Berkeley Springs remains under attack by a relatively few persons it is supported by a substantial majority of Morgan County residents and has received strong support by local elected officials.

It is recognized that a plan of this magnitude will generally encompass controversial issues with opposing opinions. However, I believe the patience and diligence the planners have demonstrated in examining the issues and alternatives suggested have resulted in an optimum plan to satisfy the requirements for badly needed improvements.

There is no question that growth in the future is as inevitable as growth in the past has been in Morgan County, which has been effectively managed by county government. This plan for highway improvement is critical not only for planning for the future but for providing for it. Providing this kind of improvement in the infrastructure should certainly enhance opportunities of attracting new business and light industry in the area. To oppose the plan in order to essentially preserve the area in it's present state is to essentially deprive the residents of potential economic opportunities which do not now exist.

Opposition will continue with threats to "keep battling the state's proposal" having been made. Opposing alternatives to the state's plan have been inconsistent, poorly substantiated and the latest having been put together by a person from a metropolitan area who has never, does not now and will probably never live in this area, but seems to be telling Morgan County what he thinks is best for them.

I must convey the concern I have for residents whose land will be acquired for this project and trust they will be treated fairly and equitably in the purchase of their property and in reimbursement for relocation expenses.

I wish you and your staff continued success in your efforts to bring the planning process and final approval phase of this project to a satisfactory conclusion with the land acquisition and construction phases beginning at the earliest opportune time.

Please accept my sincere best wishes for the coming Holiday Season.

Very truly yours,

W H Lawyer

cc: Charles S. Trump
Morgan County Commisioners

## WVDOH RESPONSE

No response required.

Donald E. Smith
101 Mable St.
Berkeley Spgs., WV 25411-1001

10/30/00

RECEIVED
NOV 02 2000
ENGINEERING DIVISION
WV DOH

Dear Mr. Sothen,

I am a resident of Berkeley Springs, living at the north end of the football field on the corner of Concord & Mable Street. We have been gone from home for the past 18 months. When we came home it was plain for me to see that a By-pass around Berkeley Springs is a must. What a chore to get onto Route 522 at any time — and especially in the evening: not only Friday evening but every evening.

Surely the people who oppose this by-pass aren't in town much, or often, when traffic is so bad.

I do a lot of traveling and I

## WVDOH RESPONSE

No response required.

know for a fact that anyone who wants to visit town or shop or whatever will do so — bypass or no bypass. They'll drive into town however they need to.

Please put our name on the list of persons in favor of a By-pass.

Thank you.

Sincerely,

Don + Rosemary Smith

**WVDOH RESPONSE**

DD
Please Handle
11-1-00

Rt3 Box 5626
Berkeley Springs, WV 25411
304-258-1263

October 22, 2000

WV Department of Transportation
Division of Highways
Morgan County Headquarters
167 Valley Rd
Berkeley Springs, WV. 25411

RECEIVED
NOV 01 2000
DIV. OF HIGHWAYS
OFFICE OF THE COMMISSIONER

To whom it may concern,

I would like to take this oppertunity as a concerned citizen of Morgan County to urge The Divison of Highways to Seriously Consider building the Rt 522 / Berkeley Springs bypass.

I can only see benifits of such a bypass, including relieving traffic congestion in Downtown Berkeley Springs. Expediting all traffic going threw Morgan County, reduction of pollution caused by Start and Stop driving.

The most important benifit, increased access to Morgan County would attract untold numbers of new manufacturing, warehousing, and distrubution facilities. Providing desperately needed quality jobs to the good people of -

SCANNED

## WVDOH RESPONSE

No response required.

Berkeley Springs and Morgan County. Not only would such employeers bring good jobs, they would appreciatively add to Morgan Counties revenue through Corperate taxes.

I can't imagine anybody who would not welcome this important progress, when a huge percentage of our working people have to commute to Maryland and Virginia for quality jobs.

Thank-you
Tammy Painter

Tammy Painter
258-5711

## WVDOH RESPONSE

No response required.

FEB. 28. 2001 1:47PM

# MORGAN COUNTY
## Citizens' Coalition

P.O. Box 900
Berkeley Springs, WV 25411
Web: http://www.orgonspider.com/mccc/ Telephone: (304) 258-4878 E-mail: mccwv@cgi.com

November 13, 2000

RECEIVED
NOV 20 2000
ENGINEERING DIVISION
WV DOH

Mr. Ben Hark
WV DOT Division of Highways
1900 Kanawha Blvd. E. Bldg. 5 Room A-430
Charleston, WV 25305-0430

Dear Mr. Hark:

This letter and enclosures present Morgan County Citizens' Coalition, Inc. (MCCC) initial response and position statement on State Project U233-522-0.02 (02), Federal Project STP-0522 (007), WV Department of Transportation, Division of Highways, US 522 Final Environmental Impact Statement (FEIS.) Additional MCCC comments on the FEIS will be sent at a later date.

MCCC is a non-profit organization with a rapidly growing membership of almost 600 and a mailing list of approximately 2,000 supporters in Morgan County, WV (population 14,200). Our brochure is enclosed.

**We clearly state here that we, as citizens of Morgan County, object to the WVDOH US 522 Project** because it proposes pass-through interstate regional highway expansion to the detriment of our local community and because it does not deal with existing local traffic problems. It will, in fact, make existing problems worse, increase risks of hazardous accidents, and devastate the quality of life in Morgan County. MCCC will present details of specific issues in FEIS comments at a later date.

**THE NEILY REPORT**

12 In order to obtain an unbiased analysis of traffic problems along US 522, Morgan County Citizens' Coalition asked expert Transportation Planner, Gerald Neily, to conduct a thorough traffic study of US 522 including analyzing the local traffic problems, congestion in the Town of Bath and regional traffic relationships. His report is attached. Mr. Neily reviewed the FEIS including assessment of methodology, traffic data analysis including projections and accidents and precisely explains the flaws, distortions and faulty conclusions drawn in the Purpose and Need Section of the FEIS.

He concludes that the proposed interstate highway connector will increase pass through traffic by 4,000 vehicles per day (1.2 million pass through vehicles per year), make our local traffic congestion worse and open the area to sprawl type development. He criticizes the WVDOH for focusing exclusively on a regional 4-lane high-speed interstate connector highway, with little attention to the impact of their proposal on local concerns, such as tourism, the primary industry in Morgan County.

Since most of the current traffic is local, Mr. Neily recommends a community-oriented bypass that will not invite additional pass through traffic into the area, improvement of the existing 522, and correction of specific problem areas. He also recommends re-instituting the weigh and safety inspection of trucks traveling through the area and diversion of truck traffic onto the community oriented bypass.



## WVDOH RESPONSE

12. Detailed responses to significant MCCC comments and the Neily Report are contained within this Appendix. These comments are also located within a separate document, which contains and focuses solely on MCCC concerns.

## MORGAN COUNTY CITIZENS' COALITION'S
## Recommended Alternative to the WVDOH proposed 522 interstate connector

Based on Mr. Neily's expert recommendations, the Morgan County Citizens' Coalition proposes a Berkeley Springs community bypass alternative as defined below, which was not considered in the FEIS. This proposed alternative would resolve local traffic problems and benefit the Berkeley Springs and Morgan County community without any of the destructive impacts of the DOH proposed alternative.

**1. Local planning –**
Since US 522 serves predominately local traffic, it should fulfill local needs and interests. This means US 522 should provide adequate access for traffic destined to Morgan County, not passing through, and with a minimum disruptive impact.

**2. A community oriented bypass that:**
- Really goes around the town and community and does not disrupt neighborhoods,
- Relieves local traffic congestion by providing an alternative community road,
- Does not attract additional pass through traffic,
- Provides a bypass route around the community for trucks,
- Does not pull business away from downtown.

**3. To accomplish these goals, a community-oriented bypass is designed to "low standard" meaning that it is:**
- Built for lower speeds of 30 to 45 mph,
- Built to topography so it conforms to the existing lay of the land,
- Built with one twelve-foot wide lane in each direction to accommodate trucks,
- Carefully placed to not attract "Sprawl" development or draw business from downtown.

**4. To deal with truck problems,**
- Re-establish the weigh and inspection station in Morgan County. This makes 522 less attractive to pass through trucks, increases safety by assuring vehicles are sound and checking hazardous materials.
- Divert trucks around the town on the community bypass.

**What 600 members of Morgan County Citizens' Coalition ask of you:**
Based on the recommendations of the Neily Report and citizen input, we ask that you:
1. Review the enclosed material carefully.
2. Reject and withdraw support of the WVDOH proposed 4-lane high-speed US 522 interstate connector highway from Hancock, MD to Winchester, VA.
3. Require that this project be redesigned to be beneficial to the community, quality of life, economy based in tourism and the environment of Morgan County.
4. Work with the citizens in the Morgan County community to manage growth and preserve this unique and historic regional retreat area.

We are dedicated to keeping Morgan County a great place to live, work, and visit. Please join us in this.

*Tom Brooks* *Alison Carter* *Patricia O'Grady* *Barbara Tutor*

***Executive Board,***
***Morgan County Citizens' Coalition***



## WVDOH RESPONSE

cc:
Atty. Andrea C. Ferster
110 Seventeenth St. N. W., 10th Floor
Washington, DC 20036

Atty. Stephen D. Annand
Cohen, Milstein, Hausfeld & Toll, PLLC
110 New York Ave., N.W. West Tower, Suite 500
Washington DC 20005-3964

See Distribution List

Enclosures:
The Neily Report
Morgan County Citizens' Coalition Brochure



## WVDOH RESPONSE

WVDOH ENVIRONMENTAL ; 3045587296; Nov-14-00 4:34PM; Page 5/6

HU DD / FYI

154762

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DAS

CH

CD

**Morgan County Commission**

P.O. Box 26
Berkeley Springs, West Virginia 25411
258-8540

-COMMISSIONERS-

THOMAS R. SWAIM
RT. 4, BOX 7470
BERKELEY SPRINGS
WV 25411
258-3109

PHILIP C. MAGGIO, JR.
P.O. BOX 246
GREAT CACAPON
WV 25422
258-6112

GLEN R. STOTLER
RT. 3, BOX 4648
BERKELEY SPRINGS
WV 25411
258-3548

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NOV 06 2000
ENGINEERING DIVISION
WV DOH

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State Highway Engineer

## RESOLUTION

WHEREAS; the Morgan County Commission supports the rights of all Morgan County citizens and landowners to be heard, and

WHEREAS; the Commission has taken great efforts to afford those with interests and concerns about the new 522 project opportunities to speak to West Virginia Highway Officials, and

WHEREAS; In West Virginia competition for Highway Funding is extreme. Many locations want and need roads, thus a united and concerted effort is important, and

WHEREAS; over the past year it has become apparent that traffic continues to increase along the 522 corridor and a bypass around the Town of Bath is and will be essential to the reasonable movement of traffic through Morgan County, and

WHEREAS; Morgan County's property owners located along and within the chosen route deserve to know the impact of this project on their private properties and their lives.

SCANNED

P.P. 03 (33)

1

## WVDOH RESPONSE

No response required.

**RESOLUTION/ 522 Bypass and Corridor/ September 8, 2000/ Contd: Page 2**

THEREFORE, BE IT RESOLVED, this 8th day of September, 2000 that the Commission re-confirms its support of the construction of a bypass around the Town of Bath and upgrade of the 522 corridor. The Commission further expects the Department of Highways to secure funding to complete this project in the most timely and efficient manner possible, and to continue to evaluate the safety concerns of the citizens of Morgan County.

Philip C. Maggio, Jr., President
Morgan County Commission

Glen R. Stotler,
Morgan County Commission

Thomas R. Swain,
Morgan County Commission



## WVDOH RESPONSE

No response required.

Richard J. Thomas
289 Little Creek Drive
Berkeley Springs, WV
25411

Copy Provided to WVDOH on 5/30/01 JGA

May 23, 2001

| A | I | Init | | A | I | Init | |
|---|---|---|---|---|---|---|---|
| | | | Administrator | | | | Admin Coordin/Sec |
| | | | Asst. Div Admin | | | | Admin Coordinator |
| | | | Operations Mgt Eng | | | | Financial Asst |
| | | | Financial Manager | | | | AE-1 Design |
| | | | Planning Eng | | | | AE-2 Operations |
| | | | Structures Eng | | | | AE-3 Materials |
| | | | ROW/Envir Eng | | | | Asst Struc/Rdwy Eng |
| | | | Safety/Traffic Eng | | | | Computer Specialist |
| | | | Rdwy/Tr Eng | | | | Structures Trainee |
| | | | Trans Specialist | | | | FMCSA |
| | | | Library | | | | FAX |

Mr. Thomas J. Smith
Division Administrator
Federal Highway Administration
Geary Plaza, Suite 200
700 Washington Street East
Charleston, WV 25301

Dear Mr. Smith,

I am writing in regard to the Final Environmental Impact Statement for the "Improved US 522."

My own home is not shown on the Final Environmental Impact Statement, nor are about 180 others.

When I protested at various meetings that my home was not shown on the maps, Mr. Wilbur Smith, himself, said it was too costly for him to consult tax maps or records of building permits issued, and that these sources of information would not be consulted by him in planning the construction.

State Officials insisted that these deficiencies would be corrected by aerial photography before the Final Environmental Impact Statement would be issued.

It has been issued, and my home is still not there on the relevant FEIS map.

The attached maps illustrate serious deficiencies in the FEIS for "Improved US 522".

These maps show the route of "Improved US 522" as depicted in the FEIS.

## WVDOH RESPONSE

The WVDOH sent a team of surveyors to the project area in June 2001 to reevaluate all four alternatives. The chart below shows the numbers presented in the April 2001 FEIS, the results of the updated survey and any differences that resulted.

| ALTERNATIVES | I | | II | | III | | IV | |
|---|---|---|---|---|---|---|---|---|
| | R | B | R | B | R | B | R | B |
| ***Impacts in FEIS April 2001*** | 61 | 1 | 27 | 0 | 29 | 0 | 40 | 0 |
| ***June 2001 Updated survey*** | 53 | 2 | 42 | 1 | 44 | 0 | 40 | 1 |
| ***Variations in FEIS to June 2001 Survey*** | -8 | +1 | +15 | +1 | +15 | 0 | 0 | +1 |

R = Residential Number B = Business Number

The original alternative comparisons in the FEIS remain valid.

All tables in the ROD have been revised and updated accordingly to reflect the most recent data.

I will describe how the current FEIS is inaccurate and unsatisfactory.

I have used mapping software on CD ROM which allows both drawing on the map, and marking a location by placing a symbol by entering coordinates latitude and longitude.

I have drawn the centerline of the planned route of "Improved US 522" to the best of my ability. Using the information in the FEIS, I then drew the 400 foot corridor of "Alternate I" to the best of my ability, shading it gray.

Using the 11 maps provided in the FEIS, I found all the buildings which are shown anywhere near the proposed path of "Alternate I". I then placed an "x" in the mapping software for each home near the corridor of the planned route which is shown in the FEIS.

Thus, an "X" signifies the location of a home acknowledged to exist by the State of West Virginia.

The red circles, on the other hand, represent the location of homes not acknowledged to be present, BUT WHICH ARE IN FACT THERE.

These red circles are drawn to scale and represent the 50 foot diameter of the average home. These homes were found and located on my maps by the following method: First, I drove many hours throughout the County taking my trusty GPS Receiver with me. The Magellan Company reports it is accurate within 50 feet. Then when I came upon a home not shown in the FEIS maps, but which was near the planned route, I drove as close as possible to the home. I then pressed the "landmark" button on the receiver, recording the longitude and latitude of the home. I was able to store up to 100 such landmarks at a time. I then read out the coordinates for each landmark, entered them into a notebook and double checked them. Each landmark is recorded to the hundredth of a minute.

I then instructed the mapping program to make a red circle of the required diameter at the location specified by the coordinates for each landmark.

I repeated this process until I was satisfied that I had found nearly all the homes in the vicinity of the planned route and that they had been entered into the software database.

**WVDOH RESPONSE**

WVDOH RESPONSE

Whenever I found that I had taken the coordinates of a home acknowledged to be present by its presence on the FEIS map, I eliminated that landmark from my data. The red circles represent only homes which are not shown on the FEIS but which are in fact THERE.

As a cursory inspection will show, the closer a home is to the planned route of "Improved US 522", the less likely it is to be shown on the FEIS maps. This is particularly true in the Berkeley Springs vicinity. I have found that the State acknowledges about 146 homes as existing within 1000 feet of the centerline of the planned route.

I have found that there are about another 180 homes not shown on the FEIS maps but which are within 1000 feet of the planned final alignment.

All told, this makes about 326 homes within 1000 feet of the centerline of Alternate I.

I have provided this information to the State of West Virginia, and received a reply which dismissed my work.

Alternate I is being pushed to the local citizens as the "Berkeley Springs Bypass". A more accurate name for it would be "The Morgan County Throughway".

I am hoping you will dismiss this "Final Environmental Impact Statement" as absolutely unrepresentative of the conditions which actually exist in the regions chosen by the State through which the State hopes to push this unnecessarily destructive "Truck Magnet".

Because of the impact of this planned highway on so many homes, it passes through suburban conditions throughout much of its path. It does not pass through the rural conditions which are described in the FEIS, and is thereby totally inaccurate and invalid.

Yours Truly,

Richard J. Thomas

Richard J. Thomas, Ph.D.

| MCCC Comment 1: | WVDOH Response 1: |
|---|---|
| US 522 is a local road and alternatives considered should be focused on local needs. | US 522 is not considered a local road. By WVDOH standards, US 522 is classified as a two-lane principal arterial highway connecting the major cities of Hancock, MD and Winchester, VA. This class of facility serves significant intra-area travel, such as between central business districts and outlying residential areas, between major inner-city communities, and between major suburban centers. In small urban areas, the importance of these facilities may be derived primarily from the services provided to through travel. In urbanized areas, their importance also derives from service to rurally oriented traffic, but equally or even more importantly, from service for major circulation movements within these urbanized areas. |
| **MCCC Comment 2:**<br>The MCCC proposed a community oriented bypass alternative based on the following principles: | **WVDOH Response 2:** |
| A. Local Planning<br>The MCCC maintains that US 522 serves predominantly local traffic and therefore should fulfill local needs and interests. | A. US 522 is classified as a two-lane principal arterial highway and is therefore not a local road. The proposed improvements will allow the existing US 522 to serve the Town of Bath and community of Berkeley Springs as a local road while the new roadway takes on the function of the principal arterial highway in the project area. |
| B. True community oriented bypass that:<br>• Lies further away from the town and community and does not disrupt neighborhoods or make inconvenient access to the town for those living east of the bypass,<br>• Relieves local traffic congestion by providing an alternative community road,<br>• Does not attract additional pass through traffic,<br>• Provides a bypass route around the community for trucks, and<br>• Does not pull business from downtown. | B. The proposed US 522 is located in close proximity to the existing roadway system in order to serve the community and provide convenient access points to the town with minimum impacts to adjacent properties. The further the proposed US 522 is located away from local businesses and residences the longer access connectors would be required which would increase construction impacts. The proposed US 522 relocation will provide a roadway system that allows a free flow of traffic around the Town of Bath with convenient access facilities for the community. |

| | |
|---|---|
| C. Designed to a "low standard", meaning:<br>• Built for lower speeds of 30 to 45 MPH,<br>• Built to topography so it conforms to the existing lay of the land,<br>• Built with one twelve-foot wide lane in each direction to accommodate trucks,<br>• Carefully placed so as not to attract "sprawl" type development or draw business from downtown. | C. US 522 is classified as a two-lane principal arterial highway and not a local road. Arterials are expected to provide a high degree of mobility for longer trips. Therefore, they should provide a high operating speed and level of service. Since access to abutting property is not their major function, some degree of access control is desirable to enhance mobility. Local roads and streets have relative short trip lengths, and because property access is their main function, there is little need for mobility or high operating speeds. This functional concept is an integral part of any transportation facility upgrade. Highway planners must keep in mind the overall purpose that a highway is intended to serve. This concept is consistent with a systematic approach to highway planning and design.<br><br>The first step in the planning and design process is to define the function that the facility is to serve. The level of service required to fulfill this function for the anticipated volume and composition of traffic provides a rational basis for the selection of design speed and geometric criteria within the ranges of values available to the highway planners. The use of functional classification as a design type should appropriately integrate the highway planning and design process.<br><br>A low speed community bypass does not meet the functional classification of US 522. US 522 is a continuous highway system serving major cities and communities in several states. The results of highway capacity analysis indicates that a two-lane highway will operate at an unacceptable level of service, in addition, geometric constraints of two-lane highways prevents high degrees of mobility, vehicular turning movements and access road connectors. |
| D. Deals with truck concerns:<br>• Reestablishes the truck weigh and inspection station in Morgan County, and<br>• Diverts trucks around the town on the community bypass. | D. Reestablishing a truck weigh and inspection station in Morgan County would not prevent trucks that meet size and weight restrictions from using US 522. The proposed US 522 with high degree of mobility and access control will provide an attractive alternative route for truck traffic, which is less disruptive to the community. |

| MCCC Comment 3: | WVDOH Response 3: |
|---|---|
| The MCCC maintain that construction of the improved US 522 would increase pass through traffic by approximately 4,000 vehicles per day and will make local traffic worse due to overflow from the new highway, and would open the area to sprawl type development. | The existing US 522 in West Virginia is classified as two-lane principal arterial highway connecting the major cities of Hancock, MD and Winchester, VA. This segment of highway is identified as unusually significant in terms of the nature and composition of travel it serves. It is likely that the number of vehicles using US 522 will increase due to the overall population growth of the area. However, in the event that a new facility is constructed, these additional vehicles, especially pass through traffic, would travel primarily upon the new roadway, leaving the existing US 522 for local traffic. |
| **MCCC Comment 4:**<br>The MCCC criticized the analysis contained in the FEIS in terms of the:<br>• Traffic data used to justify the project, and<br>• Methods of evaluation.<br><br>Specifically, the MCCC claim that:<br>A. US 522 is a safe road. The overall accident rate for the rural portions remains substantially lower than the rural statewide average.<br><br>B. The proposed US 522 project could increase accidents due to more horizontal and vertical curves than currently exist. That higher speeds could increase the severity of accidents, and that there is no guarantee that the new US 522 would be safer than the existing one.<br><br>C. Traffic on US 522 in Morgan County is not growing significantly. | **WVDOH Response 4:**<br>The traffic data used to evaluate the capacity of the existing US 522 was derived from the most recently available traffic counts and the evaluation was based on industry accepted methodologies illustrated in the 1994 *Highway Capacity Manual*. The following are provided in response to specific comments A through F.<br><br>A. The WVDOH acknowledges that the rural sections of US 522 exhibit lower accident rates than the statewide averages. However, two sections of the roadway, as illustrated in Table I-6 on page I-11 of the FEIS, exhibit rates significantly higher than the statewide averages for similar roadways.<br><br>B. The proposed US 522 will carry a larger traffic load, safer than the existing 2-lane US 522. The proposed roadway will serve as a 4-lane divided highway, similar in design to a section of the same highway in Virginia. The proposed roadway will be designed to provide the highest level of safety possible. Adequate left turn lanes will be provided in the median for vehicle storage facilities and intersections will be designed with safe turning radii. Traffic signals will be provided as warranted by the *Manual for Uniform Traffic Control Devices*.<br><br>C. The traffic growth calculations provided by the MCCC's consultant's report have no scientific value and were developed using a straight-line interpolation method. The West Virginia Department of Transportation, Planning and Research Department, which provided the numbers used in the FEIS, employs a statewide, Federal and industry accepted methodology to examine traffic growth. |

| | |
|---|---|
| D. The state's twenty-year traffic projections for increases in traffic on US 522 do not appear to have any basis in reality, as long as the existing two-lane roadway remains the main route. | D. The State's twenty-year traffic projection is based on statewide and industry accepted methodologies. |
| E. US 522 has adequate capacity to accommodate existing traffic. | E. The results of the capacity analysis indicate an unacceptable level of service for existing US 522. These analyses are available from the WVDOH. |
| F. Delays in the town are dependent largely on traffic signal timing. | F. Delays within the town of Bath are due to a variety of reasons including: high traffic volumes, existing inadequate geometric conditions, inadequate tuning radii, inadequate number of travel lanes and shoulders, and frequent left turning movements. |
| **MCCC Comment 5:**<br>The MCCC objects to the US 522 improvements as planned due to the following reasons: | **WVDOH Response 5:** |
| A. Possible Impacts to Community Safety | *A. Community safety* is the highest consideration will be given to the community safety in designing this highway project. |
| • School Buses | *School Busses:*<br>The requirements of school bus safety will be considered in the development of highway plans for the US 522 project. Information will be gathered during the design and planning process on the routing of the busses. The proposed US 522 roadway will incorporate a 44-foot median, which would accommodate school bus. Location of bus routes and stops will be considered and evaluated during the design process to provide safe operation for school buses. Traffic control measures will be employed to insure safe bus operation where required. |
| • Hazardous Materials | *Hazardous Materials:*<br>Trucks carrying hazardous materials currently use the existing US 522 facility traveling through the Town of Bath. The proposed highway will help to divert the flow of trucks carrying hazardous materials away from the Town of Bath. |
| • Existing Local Traffic | *Existing Local Traffic:*<br>Through traffic will be diverted onto the new four-lane, partial access controlled facility, thus reducing the flow of traffic on existing US 522. The existing US 522 will be used primarily for local traffic only with a reduced traffic volume. The existing US 522 will adequately handle this reduction in traffic and congestion will be greatly alleviated. |

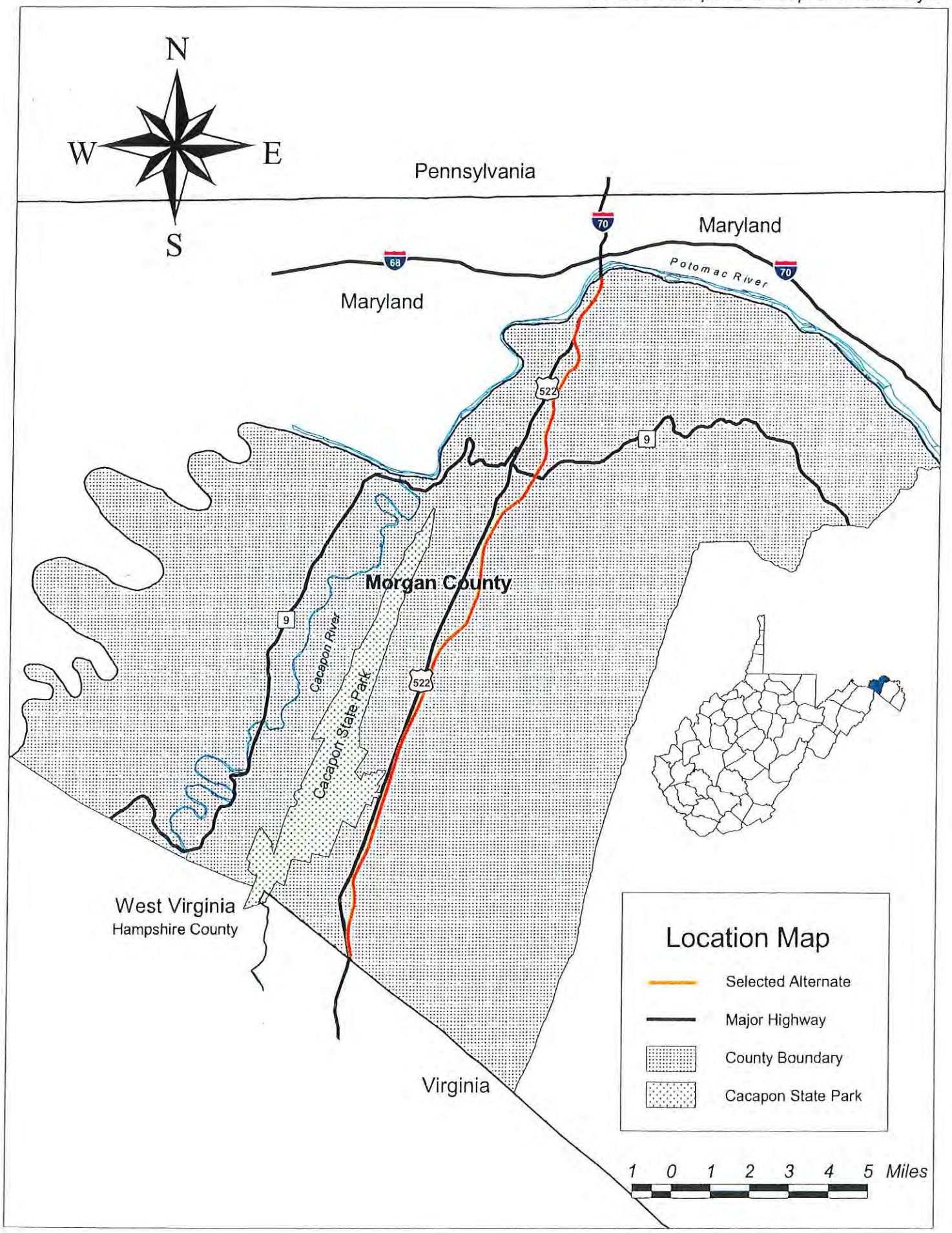
| | |
|---|---|
| B. An MCCC Estimated Increase of over 1.2 million vehicles a year passing through Morgan County | *B. An MCCC Estimated Increase of over 1.2 million Vehicles a Year Passing Through Morgan County* |
| • Regional Solution | *Regional Solution:*<br>Existing US 522 through Morgan County serves as a shortcut between I-68, I-70, and I-81. The current roadway is inadequate from the standpoint of geometric conditions, lane and shoulder widths, and sight distance. There are no scientific measures to verify the 1.2 million vehicles a year increase in traffic volumes suggested by the MCCC. The proposed facility is designed to accommodate the traffic volumes as projected by the WVDOT, Planning and Research Department. |
| C. Congestion and Safety Concerns at the Potomac River Bridge into Maryland | *C. Congestion and Safety Concerns at the Potomac River Bridge into Maryland* |
| • Bottleneck | *Bottleneck:*<br>The proposed US 522 will be a 4-lane partial access controlled facility. Its classification will be as a principal arterial roadway. The existing US 522 will then serve as a 2-lane local road. The upgrade of WV 9 is a separate project. The MCCC's report's frequent mention of twelve (12) lanes of highway leading to two is misleading. Each highway facility must be evaluated based on the function it serves. The proposed US 522 will be designed with adequate transition lanes to safely allow for the flow of traffic onto the existing 2-lane highway and bridge in a similar manner to the transition from a four-lane US 522 in Virginia to a 2-lane system in West Virginia. |
| • EPA concerns about possible impacts to the Potomac River | *EPA Concerns About Possible Impacts to the Potomac River:*<br>The US 522 bridge over the Potomac River lies entirely within the jurisdiction of the State of Maryland. If it becomes necessary to replace that bridge in the future, the State of Maryland will be required to comply with all applicable environmental regulations at that time. Moreover, the traffic analysis from the existing US 522 in West Virginia suggests that the LOS on the Potomac River Bridge will approach failure in the design year regardless of whether the improved US 522 is constructed. |
| D. Potential Impacts on Quality of Life | *D. Impact on Quality of Life:* |
| • Environmental, Tourism, Arts, Farming and Local Businesses | The proposed US 522 will be an environmentally friendly highway with pleasing aesthetics and a grass median similar to US 522 in Virginia. The safe movement of vehicles on a 4-lane highway facility with safe and direct access to highly visible tourist attractions in the county should increase and enhance the tourism industry within the Town of Bath and the community of Berkeley Springs. |

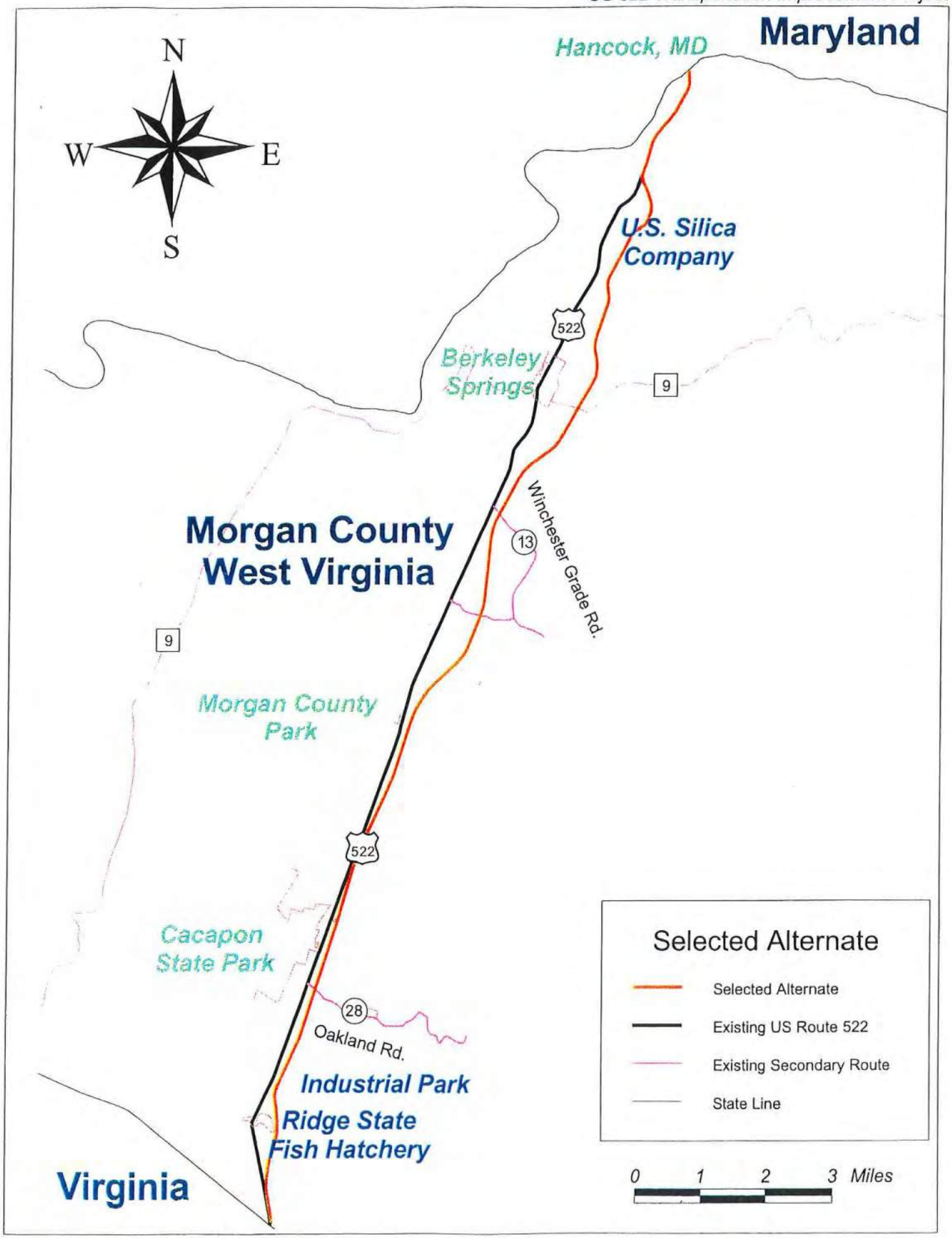
| | |
|---|---|
| E. Possible Flooding Impacts | *E. Potential for Increased Flooding in the Town of Bath*<br>All practical measures will be employed to minimize impacts to floodplains. Construction of the improved US 522 will conform to all applicable state and federal floodplain protection standards. Control of storm-water runoff during construction will be achieved by incorporating storm-water management practices into the final plans. Accepted principals of hydraulics and hydrology will be utilized to design storm-water facilities to reduce and control flooding. It is not the intent of the FEIS to provide detailed information for flood control plans. This Record of Decision (ROD) provides mitigation measures and commitments to flood control facilities and will be implemented in final construction plans. The *WVDOT Drainage Manual* and Federal Highway Administration (FHWA) drainage publications will be used as the basis for storm-water management and flood control.<br>Flood control dams will be designed and included in the final construction plans to control and regulate impacts of the highway's construction. The flood control analysis and design is part of the final construction plans. |
| **MCCC Comment 6:**<br>The MCCC feels the WVDOH showed a lack of serious consideration for public involvement and input | **WVDOH Response 6:**<br>The WVDOH has a standard established protocol for the public involvement process. The project has followed the protocols and consistently implemented a proactive public involvement process well beyond the requirements of the National Environmental Policy Act (NEPA) requirements. Since the issuance of the DEIS workshop public meetings / hearings were held on September 30 and November 1, 1999. The WVDOH has exceeded its standard for public involvement on this project by holding three additional public meetings at the request of the MCCC on May 2, June 26, and August 17, 2000.<br>These meetings ensured that environmental information was made available to public officials, agencies and citizens before any decisions were made. It is the West Virginia Department of Transportation's goal that decisions be made in the best overall interest and that other agencies and the public be involved early enough to influence project decisions. Numerous changes were made to the Selected Alternative as a direct result of information obtained from and requests by the public. Examples of these changes include the alignment shift around the Shirley Farms Subdivision and the shift to avoid crossing the existing roadway twice in the vicinity of Morgan CO 13 (Winchester Grade Road). |

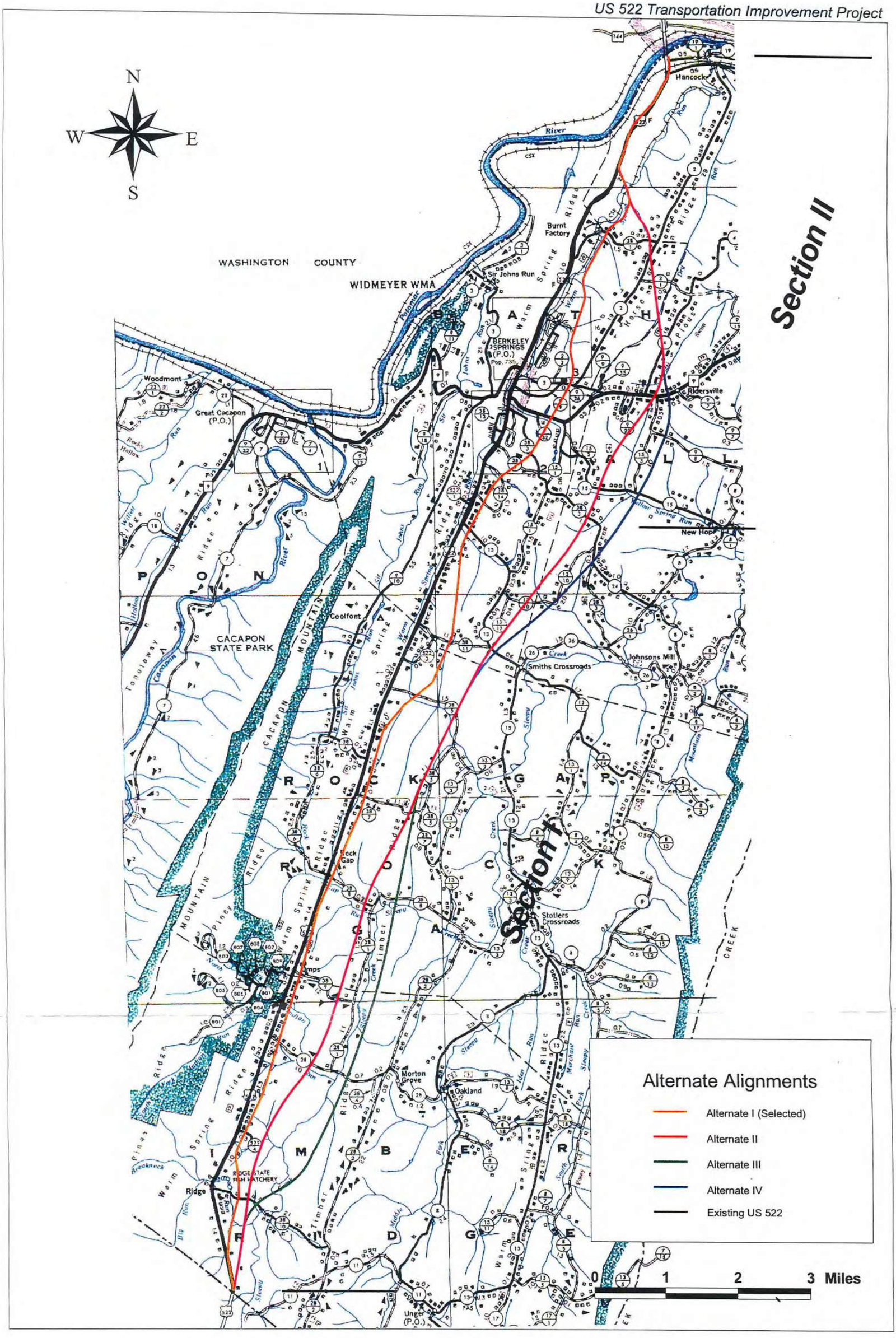
| | |
|---|---|
| **MCCC Comment 7:**<br>MCCC believes there is Insufficient Storm-water Management in FEIS | **WVDOH Response 7:**<br>Storm-water management and erosion control is a function of final design activities and will be included in the final construction plans. The *WVDOT Drainage Manual*, *Erosion and Sediment Control Manual,* and appropriate FHWA publications will be utilized to ensure that the best management practices in storm-water management are utilized. |
| **MCCC Comment 8:**<br>MCCC is unhappy with the WVDOH Public Involvement Format | **WVDOH Response 8:**<br>MCCC criticized the WVDOH public meeting and public hearing format used. The WVDOH has found the public information workshop to be the most effective tool to communicate with the public. This format provides citizens an opportunity to have one on one conversation with WVDOH personnel and fosters the free exchange of information. However, in deference to the wishes of the MCCC the DOH scheduled three additional public meetings on May 2, June 26, and August 17, 2000 in the traditional formal presentation format they preferred. |
| **MCCC Comment 9:**<br>MCCC objects to WVDOH Traffic Analyses Methodology | **WVDOH Response 9:**<br>The WVDOT has adopted the *Highway Capacity Manual, Special Report 209, Third Edition* for evaluation and traffic analysis. All methodologies used comply with the above publication. |

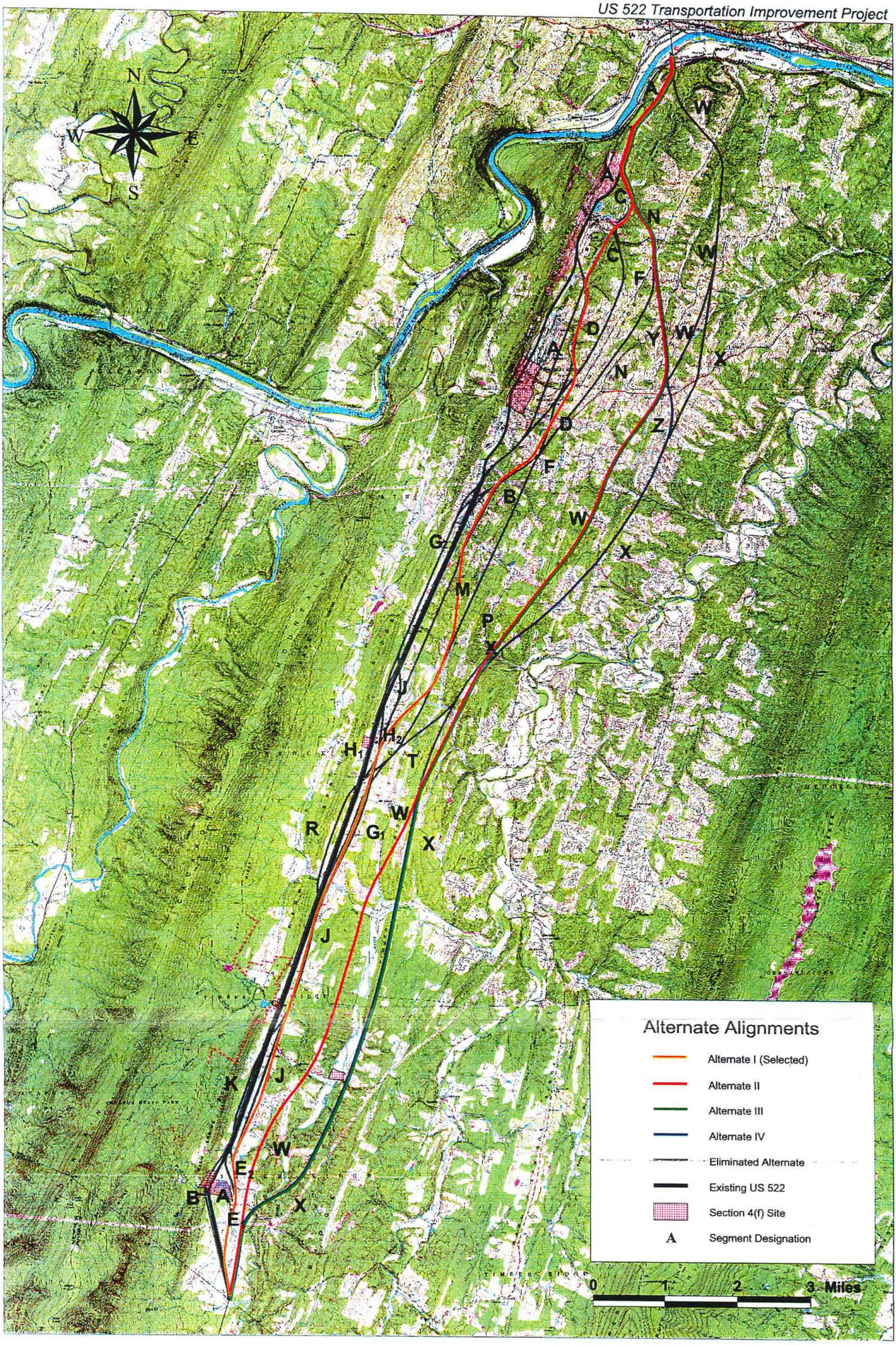
# *APPENDIX E*

## FIGURES

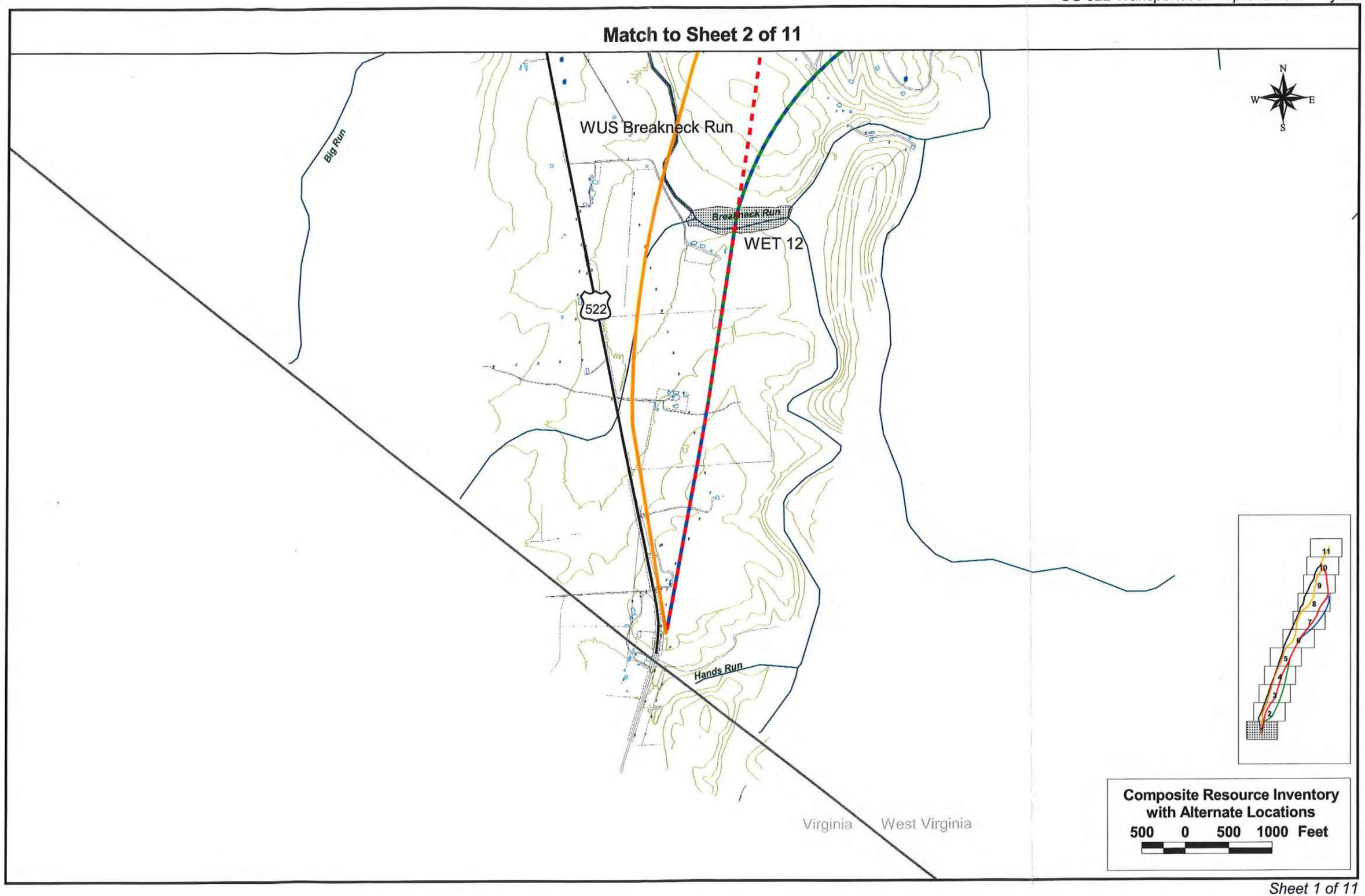

N
W
E
S
Pennsylvania
Maryland
Maryland
Potomac River
70
68
70
522
9
9
522
Morgan County
Cacapon River
Cacapon State Park
West Virginia
Hampshire County
Virginia
Location Map
Selected Alternate
Major Highway
County Boundary
Cacapon State Park
1 0 1 2 3 4 5 Miles

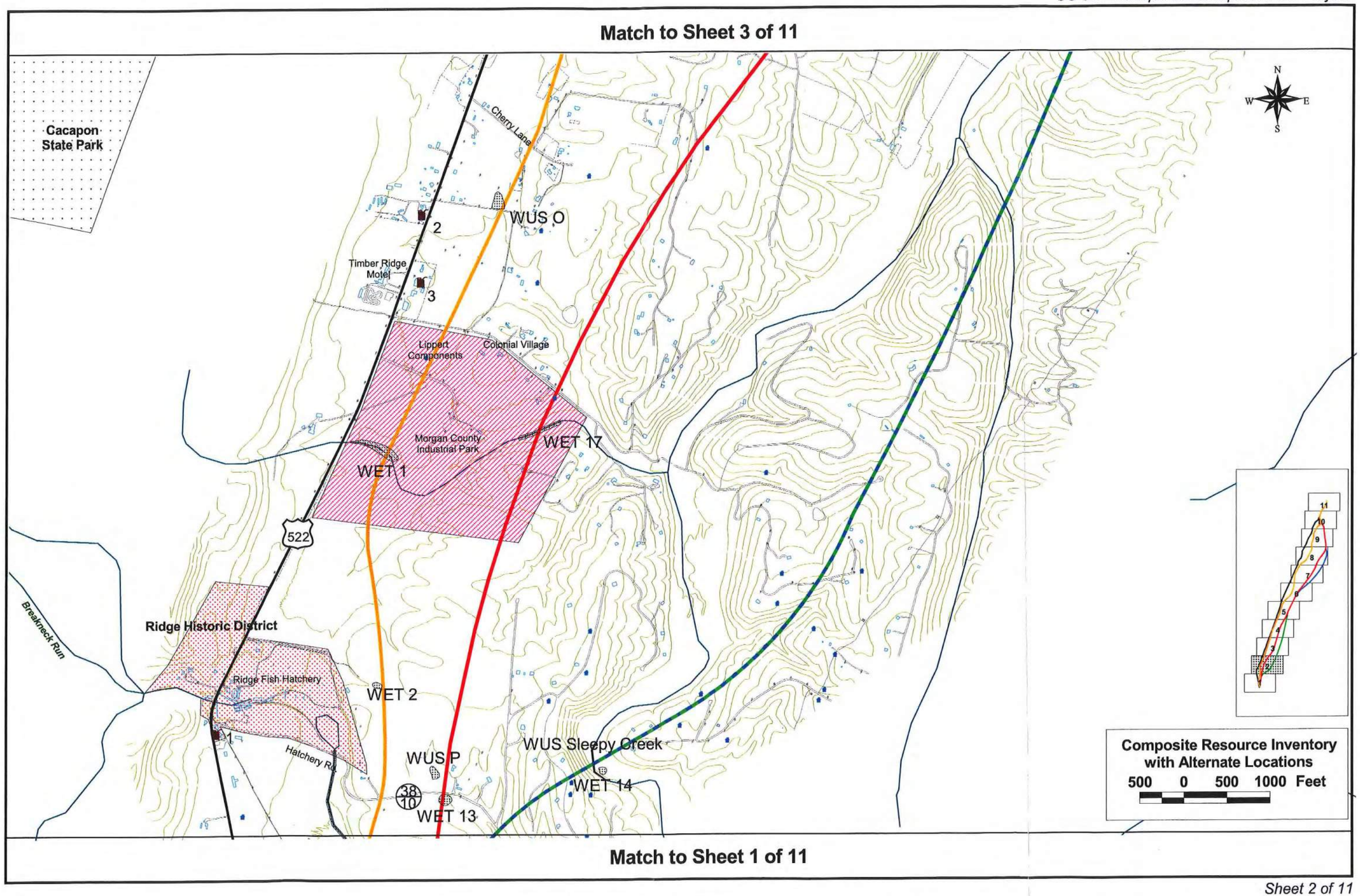

Maryland
Hancock, MD
N
W
E
S
U.S. Silica Company
522
Berkeley Springs
9
Winchester Grade Rd.
13
Morgan County West Virginia
9
Morgan County Park
522
Cacapon State Park
28
Oakland Rd.
Industrial Park
Ridge State Fish Hatchery
Virginia
Selected Alternate
Selected Alternate
Existing US Route 522
Existing Secondary Route
State Line
0 1 2 3 Miles


N
W
E
S
Section II
Section I
WASHINGTON COUNTY
WIDMEYER WMA
BERKELEY SPRINGS (P.O.)
Pop. 735
Burnt Factory
Sir Johns Run
Hancock
Ridgeville
New Hope
Woodmont
Great Cacapon (P.O.)
CACAPON STATE PARK
CACAPON MOUNTAIN
Coolfont
Smiths Crossroads
Johnsons Mill
Rock Gap
Stotlers Crossroads
Morton Grove
Oakland
Ridge
RIDGE STATE FISH HATCHERY
Unger (P.O.)
Alternate Alignments
Alternate I (Selected)
Alternate II
Alternate III
Alternate IV
Existing US 522
0
1
2
3 Miles

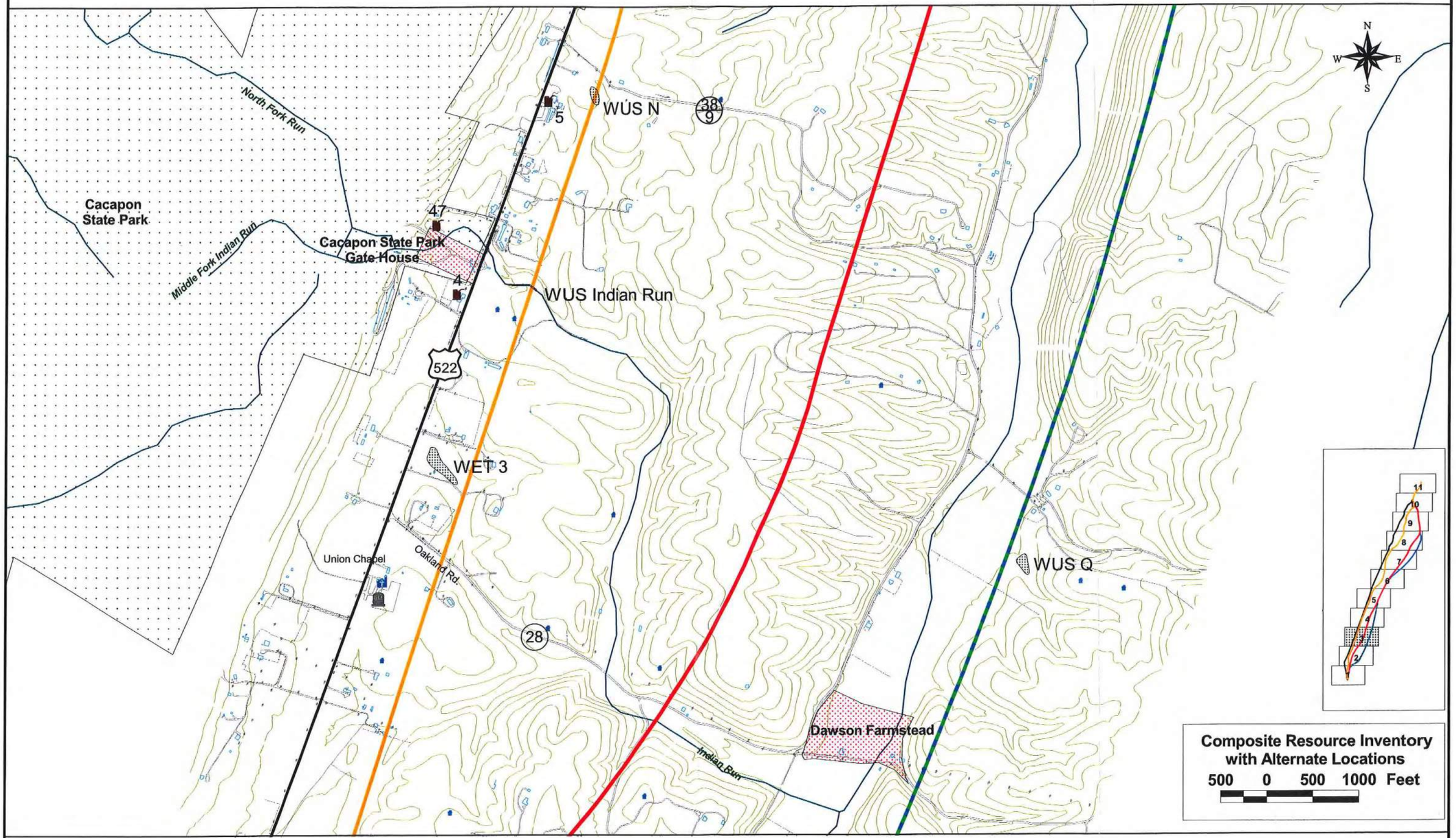

N
W
E
S
Alternate Alignments
Alternate I (Selected)
Alternate II
Alternate III
Alternate IV
Eliminated Alternate
Existing US 522
Section 4(f) Site
A Segment Designation
0 1 2 3 Miles

- Section 4(f) Site
- Cemetery
- Church
- Fire and Rescue Station
- Hospital
- Additional Structures Located During Field Survey
- Wetlands
- Warm Springs Run 100 Year Flood Plain
- Storage Tank
- Potential Hazardous Waste Site
- School
- Railroad
- Stream
- Existing US 522
- Alternate I (Selected)
- Alternate II
- Alternate III
- Alternate IV


Match to Sheet 2 of 11
WUS Breakneck Run
Big Run
Breakneck Run
WET 12
522
Hands Run
Virginia
West Virginia
N
W
E
S
11
10
9
8
7
6
5
4
3
2
Composite Resource Inventory
with Alternate Locations
500 0 500 1000 Feet


Match to Sheet 3 of 11
Cacapon State Park
Cherry Lane
WUS O
2
Timber Ridge Motel
3
Lippert Components
Colonial Village
Morgan County Industrial Park
WET 17
WET 1
522
Breakneck Run
Ridge Historic District
Ridge Fish Hatchery
WET 2
1
Hatchery Rd
WUS P
38
10
WET 13
WUS Sleepy Creek
WET 14
N
W
E
S
Composite Resource Inventory with Alternate Locations
500 0 500 1000 Feet
Match to Sheet 1 of 11

Match to Sheet 4 of 11

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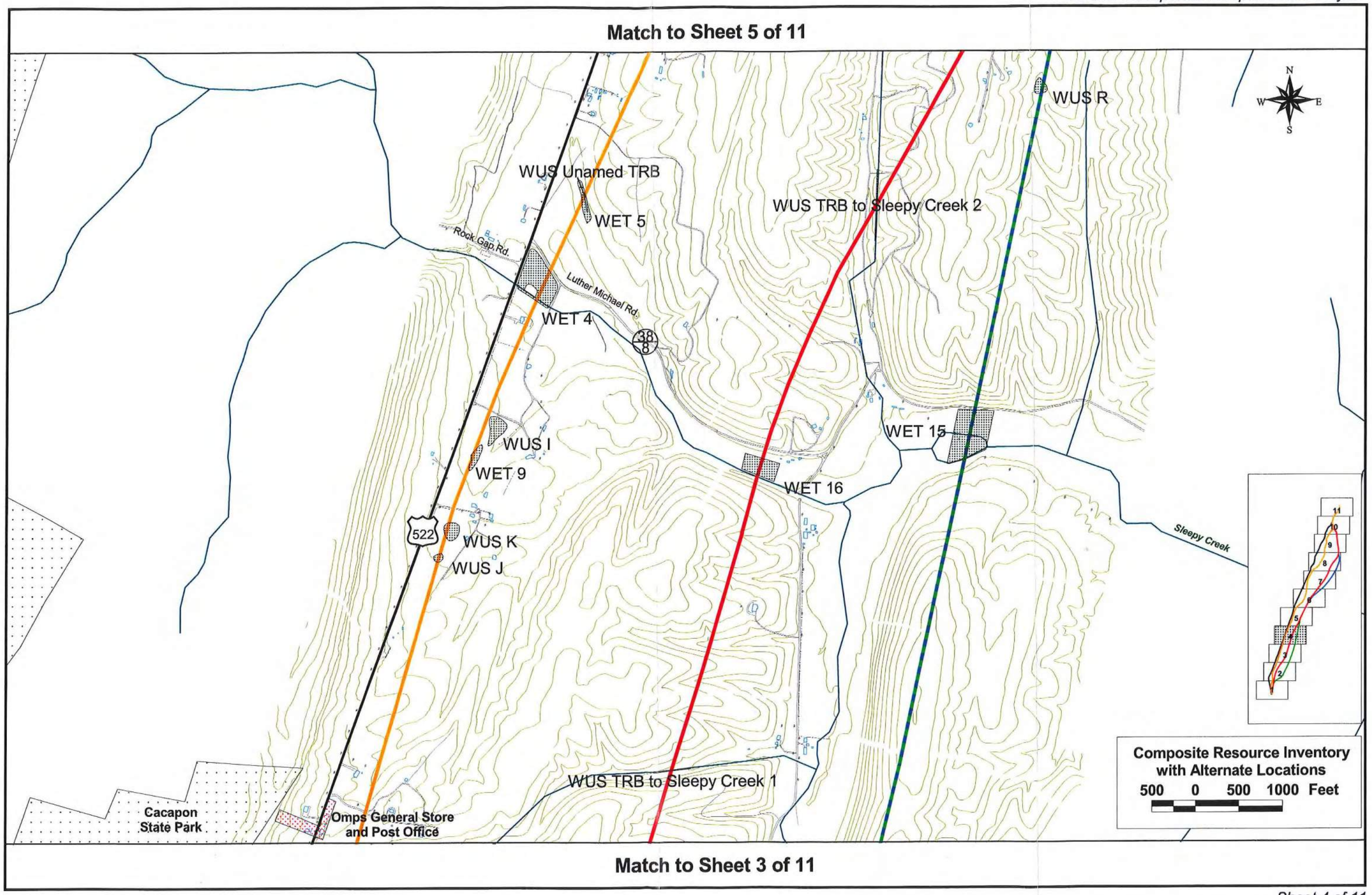
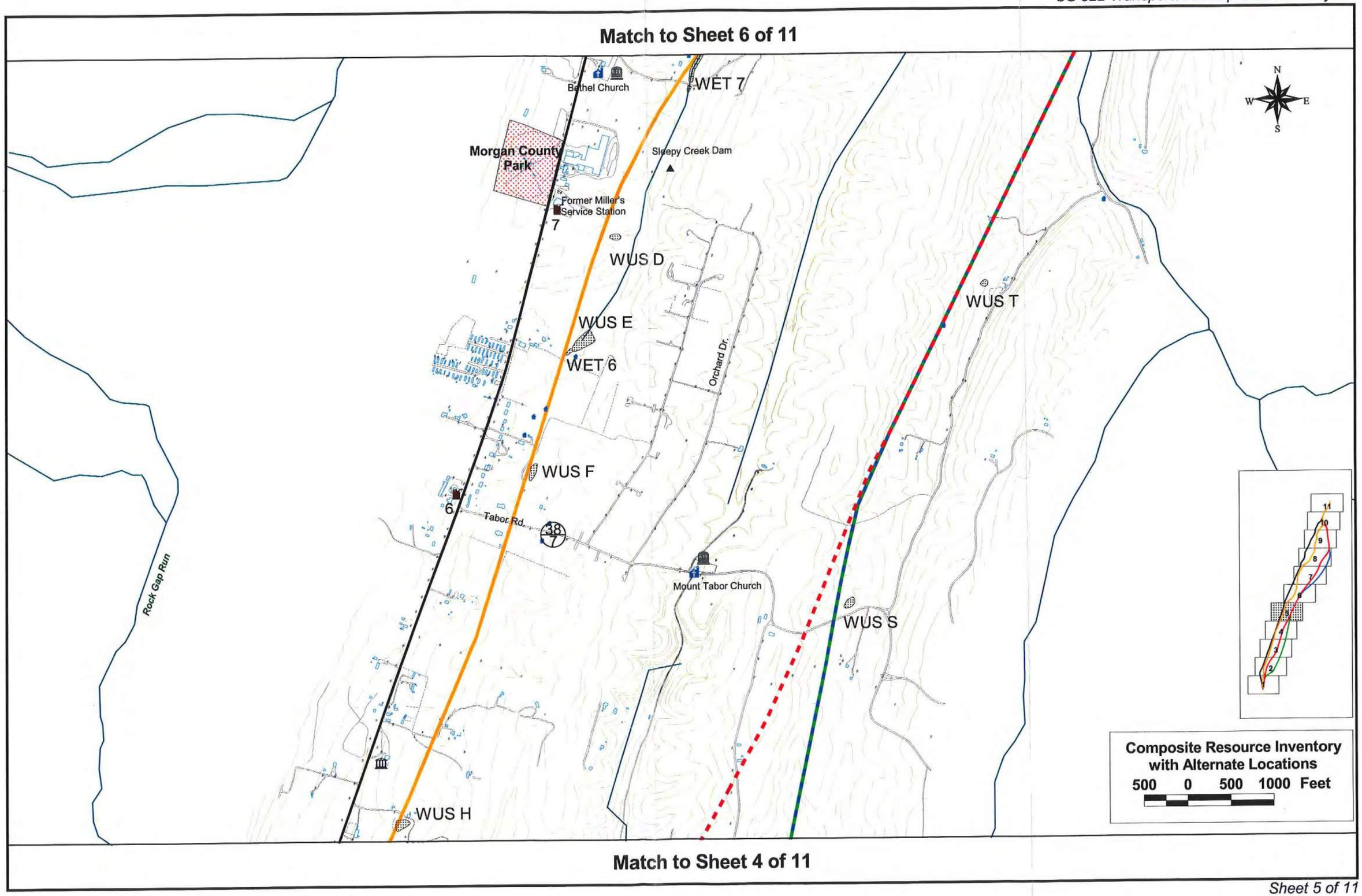
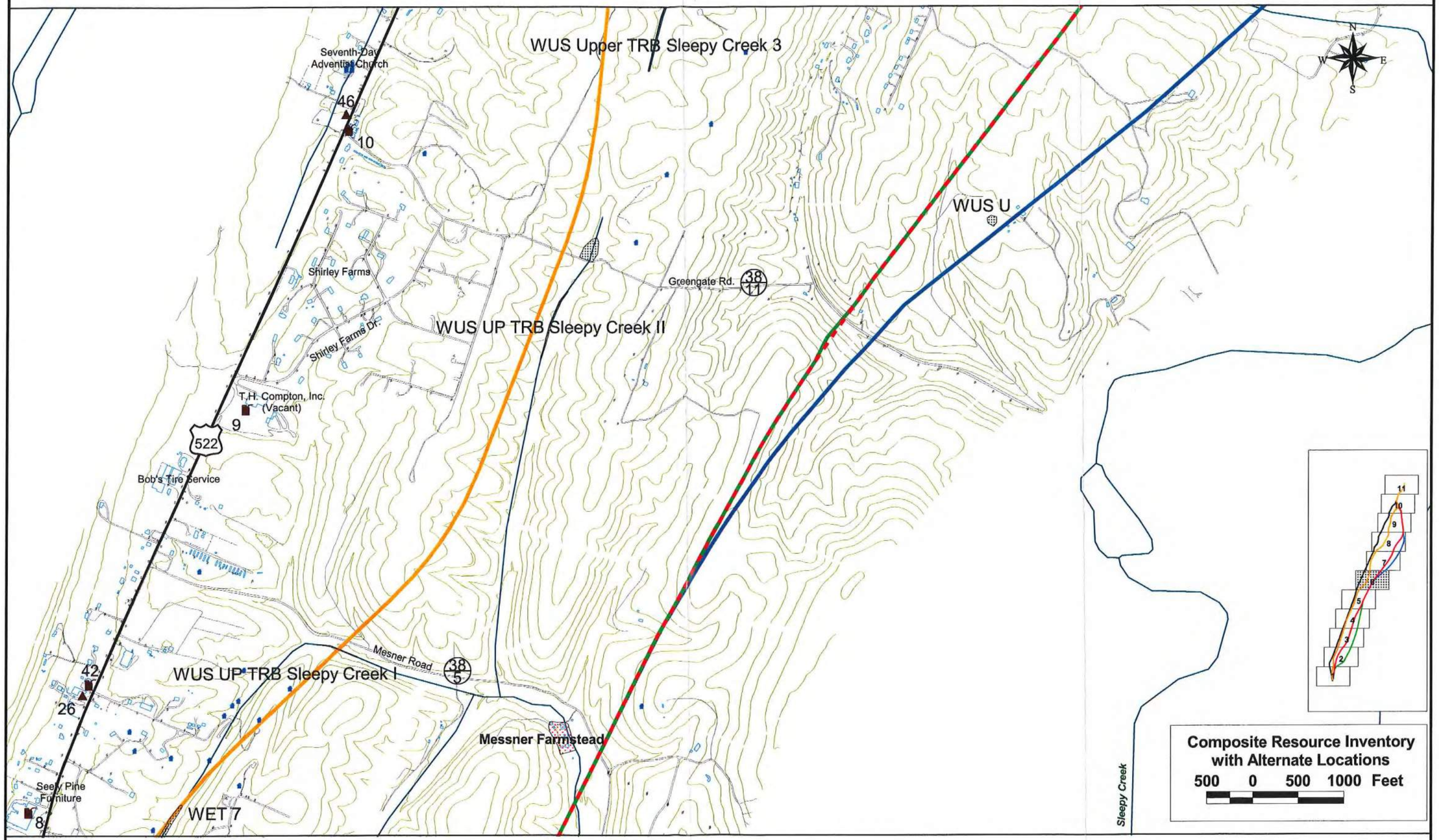

Match to Sheet 5 of 11
N
W
E
S
WUS R
WUS Unamed TRB
WET 5
WUS TRB to Sleepy Creek 2
Rock Gap Rd.
Luther Michael Rd.
WET 4
38
8
WET 15
WUS I
WET 9
WET 16
522
WUS K
WUS J
Sleepy Creek
11
10
9
8
7
6
5
4
3
2
Composite Resource Inventory
with Alternate Locations
500 0 500 1000 Feet
WUS TRB to Sleepy Creek 1
Cacapon
State Park
Omps General Store
and Post Office
Match to Sheet 3 of 11

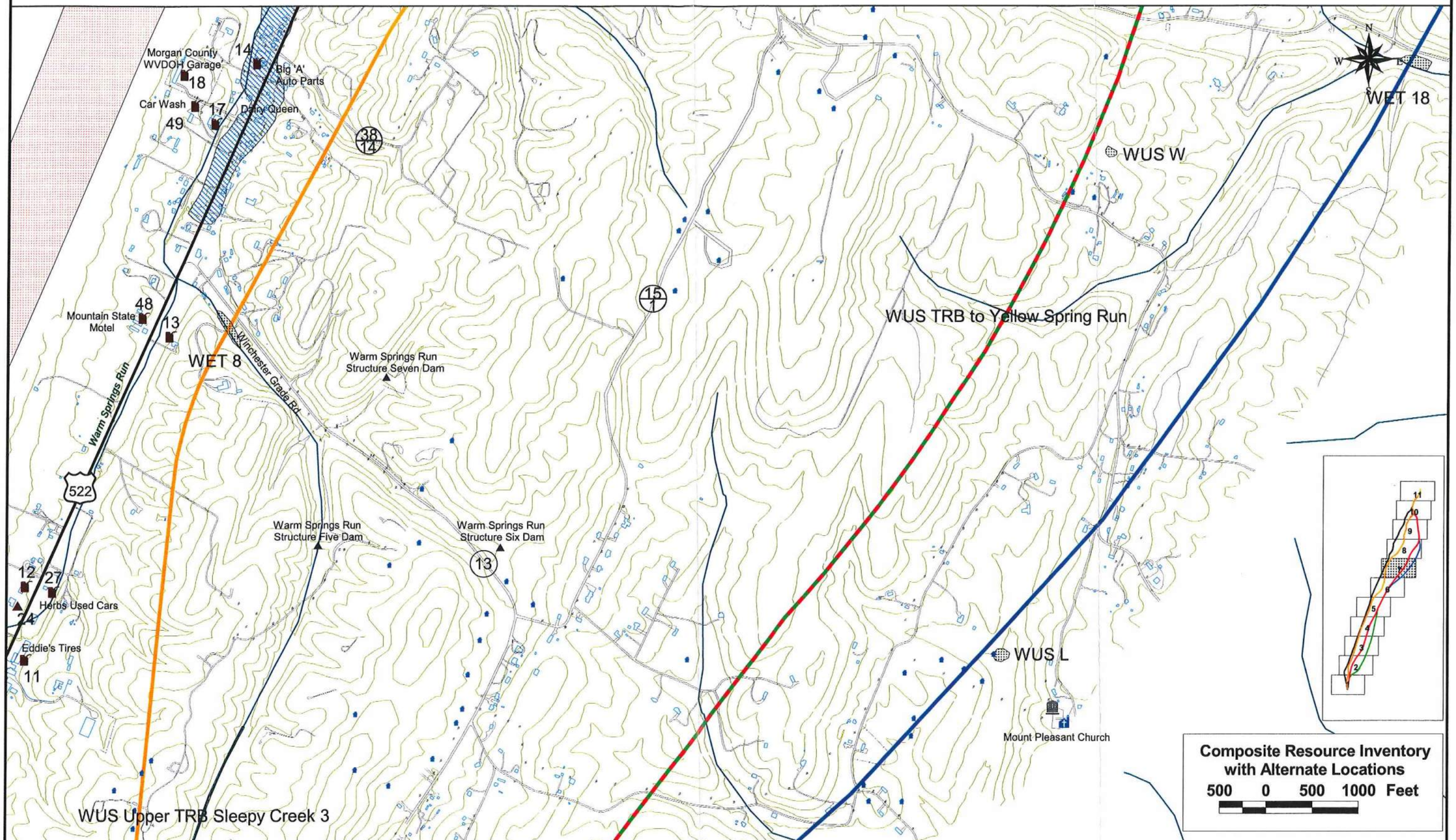

Match to Sheet 6 of 11
Bethel Church
WET 7
Morgan County Park
Sleepy Creek Dam
Former Miller's Service Station
7
WUS D
WUS E
WET 6
Orchard Dr.
WUS T
WUS F
6
Tabor Rd.
38
Mount Tabor Church
WUS S
Rock Gap Run
WUS H
N
W
E
S
Composite Resource Inventory with Alternate Locations
500 0 500 1000 Feet
Match to Sheet 4 of 11

**Match to Sheet 7 of 11**




**Match to Sheet 5 of 11**

**Match to Sheet 8 of 11**

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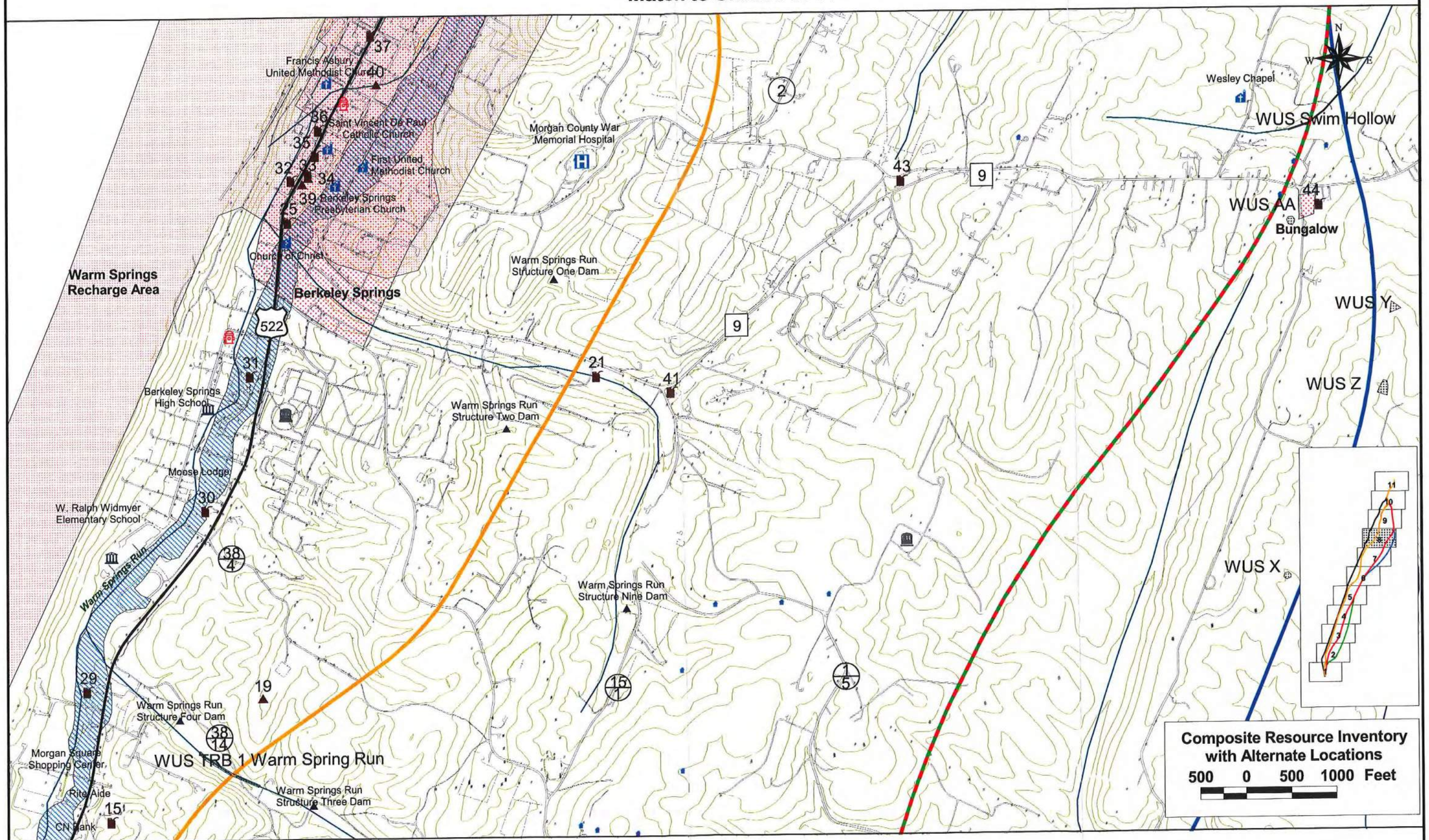
Match to Sheet 9 of 11

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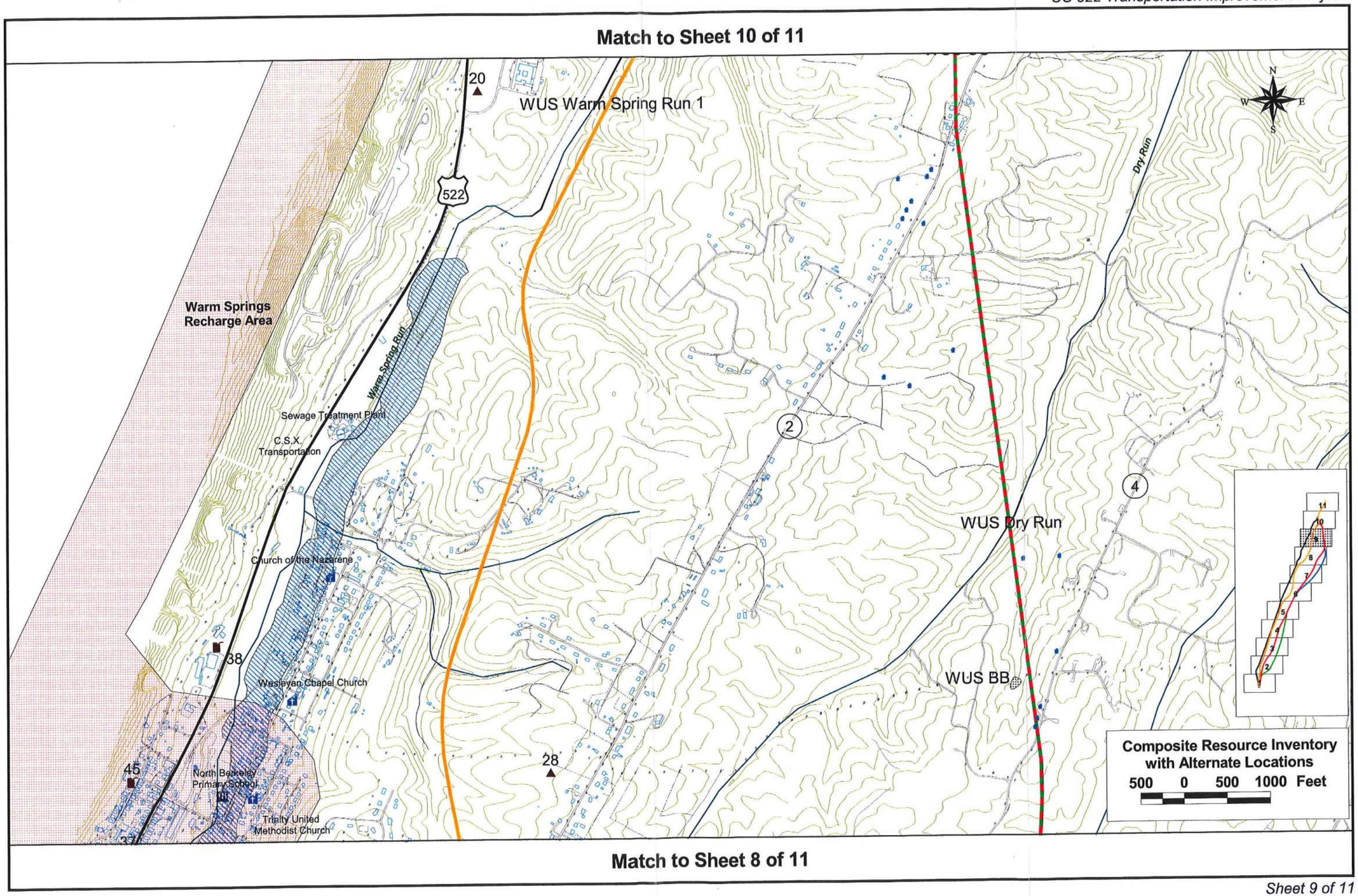
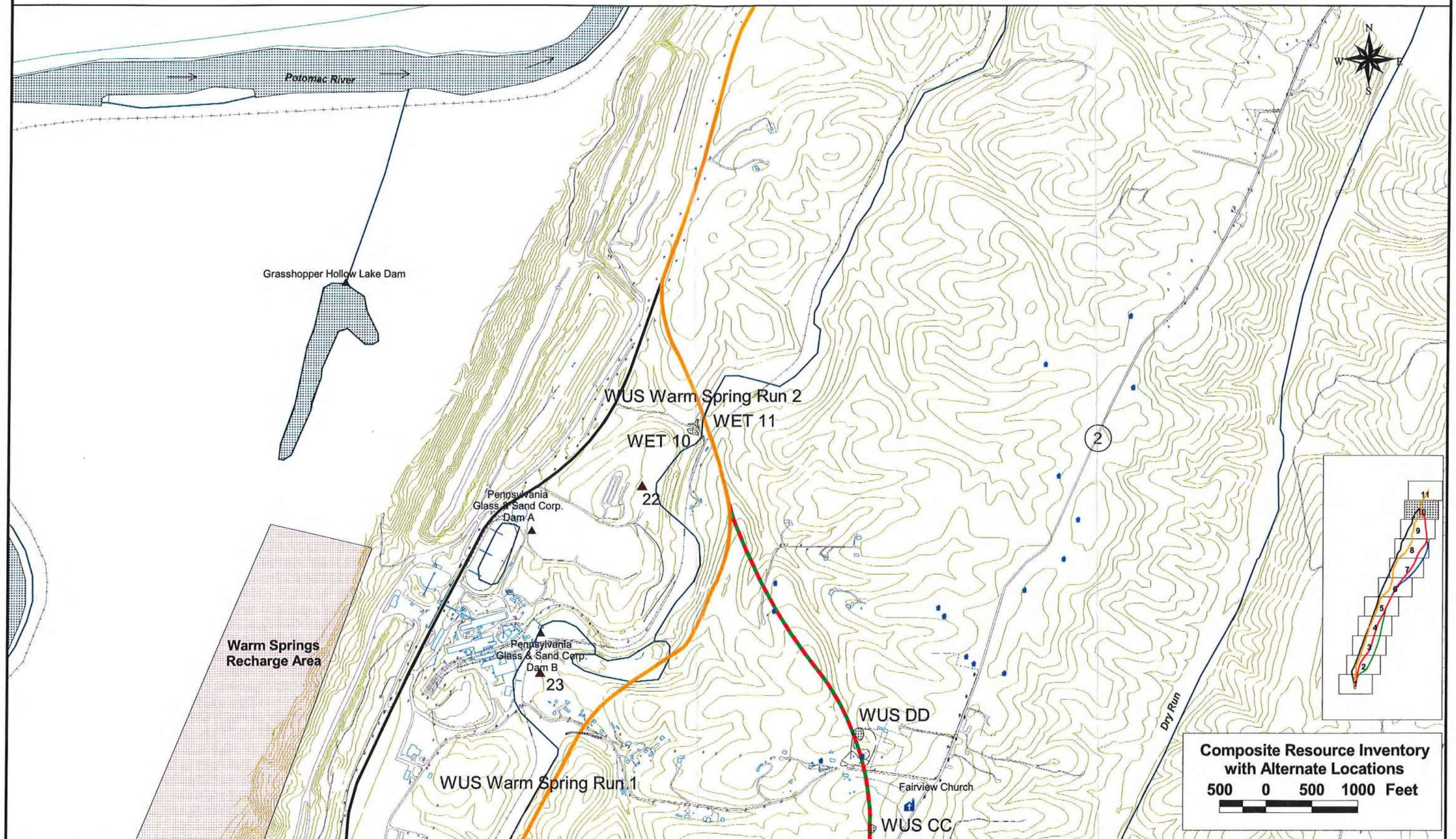

Match to Sheet 10 of 11
20
WUS Warm Spring Run 1
522
Warm Springs
Recharge Area
Warm Spring Run
Sewage Treatment Plant
C.S.X.
Transportation
Church of the Nazarene
38
Wesleyan Chapel Church
45
North Berkeley
Primary School
Trinity United
Methodist Church
37
28
2
4
WUS Dry Run
WUS BB
Dry Run
N
W
E
S
11
10
9
8
7
6
5
4
3
2
Composite Resource Inventory
with Alternate Locations
500 0 500 1000 Feet
Match to Sheet 8 of 11

**Match to Sheet 11 of 11**

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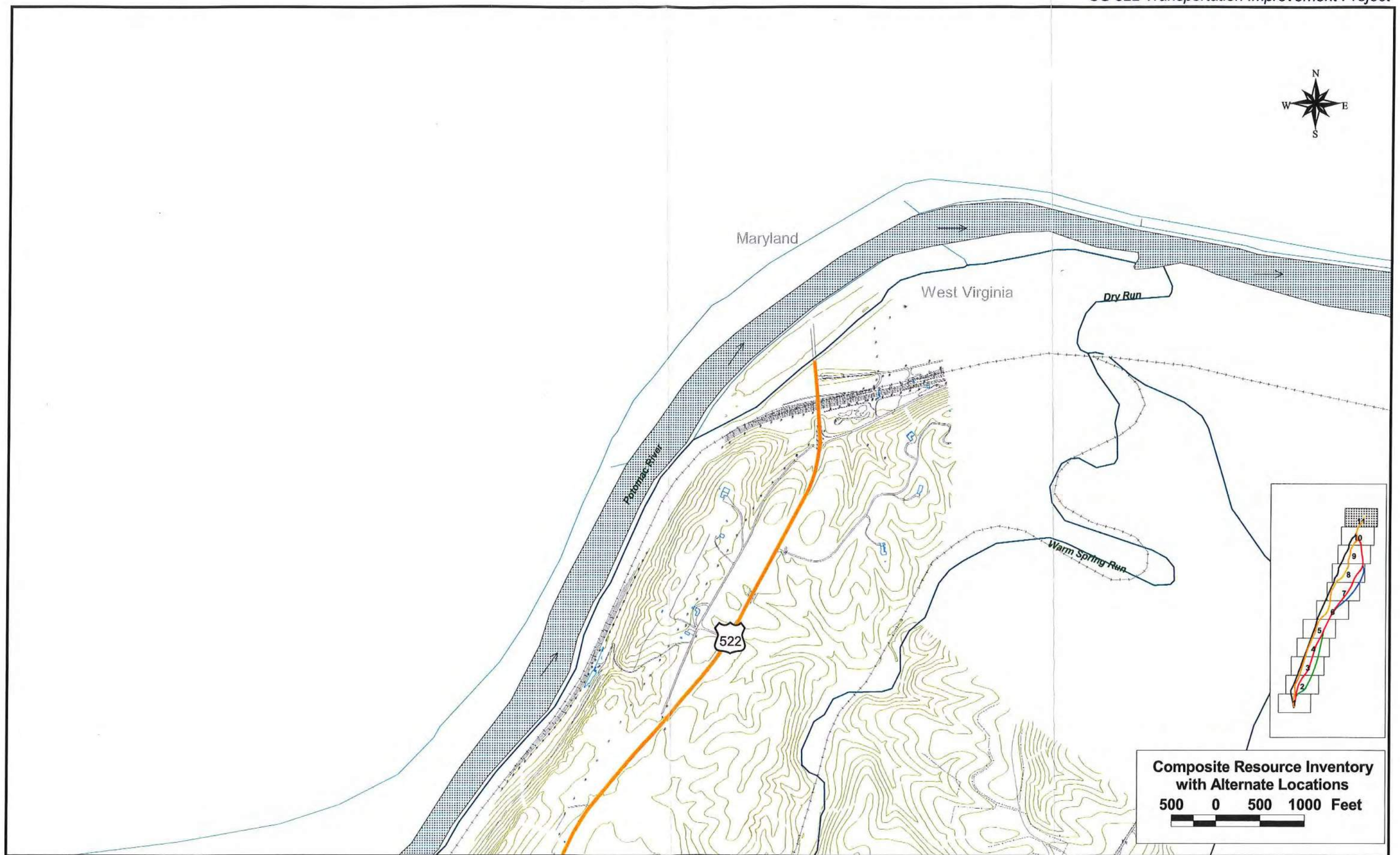


Match to Sheet 10 of 11

# APPENDIX B

# PUBLIC MEETING SUMMARIES

# INFORMATIONAL WORKSHOP
# PUBLIC MEETING REPORT

US 522 – BERKELEY SPRINGS BYPASS AND FAIRVIEW CONNECTOR
MORGAN COUNTY, WV

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STATE PROJECT U333-522-11.92 SEC 02
FEDERAL PROJECT NFA-2317(005)D

APRIL 2019

# TABLE OF CONTENTS

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SUMMARY OF MEETING ..... 1

ATTENDANCE ..... 1

TOTAL COMMENTS ..... 1

COMMENTS SUMMARY ..... 1

ATTACHMENTS

- COMMENT TABLE
- TOWN OF BATH PLANNING COMMISSION COMMUNITY SURVEY & RESULTS
- MEETING NOTICE
- MEETING FLYER
- MEETING HANDOUTS
- NEWSPAPER ARTICLE

US 522 – BERKELEY SPRINGS BYPASS AND FAIRVIEW CONNECTOR | MORGAN COUNTY
STATE PROJECT U333-522-11.92 SEC 02 | FEDERAL PROJECT NFA-2317(005)D

SUMMARY OF FEBRUARY 28, 2019 PUBLIC MEETING INFORMATIONAL WORKSHOP AND COMMENTS

## Summary of Meeting

The West Virginia Department of Transportation, Division of Highways (WVDOH) hosted an open-house public meeting informational workshop on Thursday, February 28, 2019 to inform the public and receive comments for the proposed US 522 – Berkeley Springs Bypass and Fairview Connector project. The meeting was held at the Berkeley Springs High School in Berkeley Springs, WV from 4:00PM to 7:00PM. The meeting was advertised in the local newspaper. Meeting flyers were also distributed to Town of Bath offices, local schools, area businesses, and restaurants.

Maps of the revised Berkeley Springs Bypass segments of US 522 and the Fairview Connector were on display and members of the public were invited to view the maps and talk with WVDOH and consultant staff in attendance. WVDOH District Five Right of Way staff were also in attendance to answer questions about the WVDOH right of way acquisition process. Comment forms were attached to the handouts at the meeting and were available online, before the meeting and during the comment period, on the WVDOH website. Meeting attendees were invited to provide written comments during the meeting or via mail or email during the 30-day comment period that ended April 1st.

## Attendance

The meeting was attended by 220 members of the public.

## Total Comments

A total of 29 comments were submitted during the comment period. All of the comments have been incorporated into a table and is included as an attachment.

## Comments Summary

A summary of the type of comments received is provided below in no particular order:

- Concern for noise impact
- Concern for cost of project
- Request for bridge at Johnson Mill intersection
- Request for 2 lane bypass instead of 4 lane
- Concern for loss of tourism
- Support for roundabouts
- Support for T-intersections with traffic signals

- Concern for vehicles crossing bypass at proposed intersections
- Concern for safety and speed limits
- Concern for losing access to homes on Sugar Hollow Lane
- Concerns regarding potential impacts to Warm Springs Watershed Dams

During the public meeting the Town of Bath Planning Commission distributed a community survey to help them understand the opinions and concerns that residents may have on the proposed US 522 bypass and its effect on the town. The community survey and summary of responses are provided as an attachment.

# FEBRUARY 28, 2019 PUBLIC MEETING | COMMENTS | 02.28.19

| No. | | Comment |
|---|---|---|
| 1 | 2/28 | Please complete a sound impact study with viable options to reduce the noise levels<br>Consider putting a bridge on Johnson Mill intersection so that residents can access their homes without having to cross a 4 lane high speed highway |
| 2 | 2/28 | Make it a 2 lane road. It's only purpose is to bypass the town. |
| 3 | 2/28 | Please consider a 2 lane bypass (mainly for truck traffic). Our tourist business will take a big hit if the proposed bypass goes through. I own a tourist rental cottage on the outskirts of town. Tourists come here to escape from ugly, intrusive highway infrastructures. They don't speak to an "almost heaven" environment. If we lose the tourists, we will be another down and out WV small town. |
| 4 | 2/28 | We definitely prefer the roundabout options to the other choices. If there are places where traffic needs to cross over a four lane highway, consider putting in lights rather than stop signs. Or build a bridge. |
| 5 | 2/28 | I prefer T-intersections with traffic lights. I am getting too old to dodge young people driving too fast. Lights improve safety. Roundabouts are too confusing and dangerous. |
| 6 | 2/28 | I prefer the double roundabout option. I am concerned with the proposed crossings at places such as at Sugar Hollow Road and Johnson Mill Rd. Trying to cross a highway with vehicles at speeds exceeding 45 mph is going to be not only hard to do, but will probably have some tragic results. |
| 7 | 2/28 | I would to see a 2 lane bypass with a 55 mph speed limit, seems reasonable for the size of this area. Save tax dollars and take less land. Still accomplish something – divert the big trucks and cars that want a straight shot around town. To access the bypass, make good ramps – Do not want a stop sign or roundabout. |
| 8 | 2/28 | The business access through town from Bath No. & So. was a "must" change. Thank you!! The roundabout, if selected must be 2 lanes wide in order to accommodate local & through traffic. The backup at the light, otherwise will be too congested. Be like other states. Traffic approaching crossroads must be lowered to 45 mph to avoid accidents. Virginia employs this to cut down on accidents and deaths on bypasses. If no roundabout at So. end of town, an overpass for So. bound traffic will avoid long backups at light. Again study other states. |
| 9 | 2/28 | Truck bypass should be labeled as such. Cars must be allowed to drive into town on current road. To make town more attractive for tourists please consider tearing down old decrepit buildings that are abandoned. We do not want 4 laner from bypass to VA – we want BS to stay as a quaint town. |
| 10 | 2/28 | Roundabouts are a bad idea! T much better please – traffic lights at both ends. Speed of traffic @ 522/Sand Mine Road will continue @ 65+ to the bridge. Traffic lights inspire safety. Consider needs of traffic turning on the River Rd. from Potomac bridge and facing downhill 65+ mph trucks. |

| No. | | Comment |
|---|---|---|
| 11 | 2/22 | I would like to comment on the proposed bypass in Berkeley Springs, West Virginia, to explain why I am against this plan. I have lived in south Morgan County since 2011. My home is situated in a housing development just off Route 522 a few miles north of the VA/WV boundary line. It is always a challenge to deal with the amount of truck traffic that passes through on Route 522 daily. Route 522 is a narrow, two-lane road with both residential and commercial properties all along the route from the VA line up to the downtown area of Berkeley Springs. The speed limit is 55mpt until you get closer to town, when it changes to 45 mph, then 35 mph, and finally 25 mph. It is a dangerous road, and a driver must be super vigilant when planning a turn to be sure a semi travelling behind will be able to slow or stop in time. Many of the truckers honor the speed limits, but not all. This portion of Route 522 is part of the US Scenic Byway, and it has become less scenic and more dangerous due to the large amount of truck traffic daily. It seems obvious that these facts should indicate a need for restriction of "through traffic" by these big rigs. If a trucker has business along the route, that should definitely be allowed, but the citizens of this county deserve better accommodations for their basic safety when it comes to the trucks that merely use 522 as a shortcut instead of using the Interstate highway I-81. Now that a bypass route is planned to divert the truck traffic around the center of town, without adding any restrictions on large truck traffic on the portion of 522 that passes through southern Morgan County, I am dismayed. This bypass will certainly increase the truck traffic between the Virginia line and the beginning of the bypass. A bypass will lure even more semi traffic to use the 522 shortcut instead of I-81. Interstate 81 is a much more appropriate road for such large trucks. The first order of business should be to get these huge trucks off the entire stretch of 522 between the Virginia state line and the Potomac. Through-truck traffic needs to be regulated on this road due to extreme safety concerns before any plans for a town bypass move forward. There seems to be a set belief in this area that it is "impossible" to regulate this traffic because 522 is a federal highway. I have never seen any proof of this "fact." The West Virginia Division of Highways surely has the ability to demonstrate more concern and attention to the basic safety of all the drivers who live and work along Route 522. Until these safety concerns are addressed by the WV Division of Highways, I stand against the proposed bypass. |
| 12 | 3/1 | We would like to thank all officials involved in reviewing previous comments. We are pleased Berkeley Spring residents and visitors will continue to have access the our town. Also, the Fairview Connector as shown on the handout will impact fewer residents/homes. Finally the round-about seems the safest way to enter the Berkeley Springs Bypass by ensuring drivers slow down. Again, thank you. |
| 13 | 2/28 | Please, is it possible to have only one exit/ent onto Rt. 9 – no other on the bypass. It is not needed to have one on Fairfax or Johnson Mill or Sugar Hollow? Why? I would also only make it 2 lanes – not 4 (but that's me!) All this is just a cut through to reduce mileage for the truckers – not to help to town. Thank you for letting me express my frustration and hopefully we will still have a town in 20 years. |
| 14 | 3/1 | Please do not build a 4-lane expressway – it does not make good sense to build a two lane expressway around our town for large trucks only – saving thousands of dollars and saving our precious community. Your proposal is cruel and makes no sense for many reasons. I implore you to be reasonable. Build 2 lanes and have open access to 522 – do not divert traffic around our community! Please listen to our pleas – and save money! Thank you |

| No. | | Comment |
|---|---|---|
| 15 | 3/4 | Since the entire hwy will not go from Potomac River Bridge to the Virginia State line, I do not understand the need for 4 lanes and a 65 mph speed limit. My comments that I submitted last year have not changed. Now I see a couple new proposals for the North + South tie in's, one being a roundabout. This to me is really a bad idea with the large tractor trailers we have coming thru here, it seems you are trying to appease the business owners that feel people will not drive thru town because the original plans made it so you would have to exit off the bypass to get town. That was perfect and really do not like either of the new proposals. Also since it will only be 2 lanes thru the rest of the county, why the need for 4 lanes at approximately 3 miles is overkill and will promote speeding. Please consider these thoughts as this has become overkill, in the 20+ years of study. P.S. This is not sour grapes, as it appears that I will be forced to move anyway because of the current design and the change in grade elevations in land around my property for a new entrance to form the driveway. It looks like quite a few properties will have to be purchased looking at the current plans, and I have also read where the U.S. Silica Plant operation is going to be out of sand in about 4 years. Why not think toward the future if indeed a highway will go all the way thru the county. [commenter included maps with a proposed route for the bypass] |
| 16 | 3/6 | Dear Mr. Scites, My name is Richard C. I have owned the property of 141 Dark Hollow Lane in Berkeley Springs since 1982. This new Bypass will cut off my only sensible access to RT. 522 along with approximately 10 other families that live back Sugar Hollow Lane. The only road that they are giving us and the other families back in this area the option to use is approximately a 14% grade causing it to be unsafe and impossible to travel during adverse weather. Not only will the residents be unable to get in and out of the hollow, but school buses, rescue vehicles, state highway trucks, utility vehicles or any other type of fuel or delivery trucks will also be unable to travel up and down that hill. Blocking off the other end of Sugar Hollow Road not only endangers the lives of the people in this area, but also lowers the property values of our homes. There has to be another solution to this problem.<br>To say that I'm upset and very concerned is a major understatement. I have gone to all the local meeting and talked to all the representatives with no resolution. It's almost as if no cares about the families and the livelihood that will be impacted by the closing of this access point to 522. My neighbors have presented ideas and other alternatives in blocking off the access to 522, some ideas involving a bridge or a tunnel. We are not saying that the Bypass is not needed, but we are saying that there needs to be another alternative than just blocking off access from Sugar Hollow to Rt. 522.<br>I would appreciate any help or information you can provide on this issue. Is there anything I can do other than retain an attorney to get this resolved? If you could either contact me by a letter to [removed for privacy] or call [removed for privacy]. It would be greatly appreciated. Thank you in advance for your help and your time to listen. |
| 17 | 3/14 | Relocate road, instead of behind my deck on Sugar Hollow Road, I see your taking the house below us which was moved from Merry Woods and the state saw they were moving if and did nothing. Last the engineer said no we are not buying – Bull, those people came from California. You have the dams too! Residential area. Buy our house! (Then, you dismiss Tom Smith of transportation) |

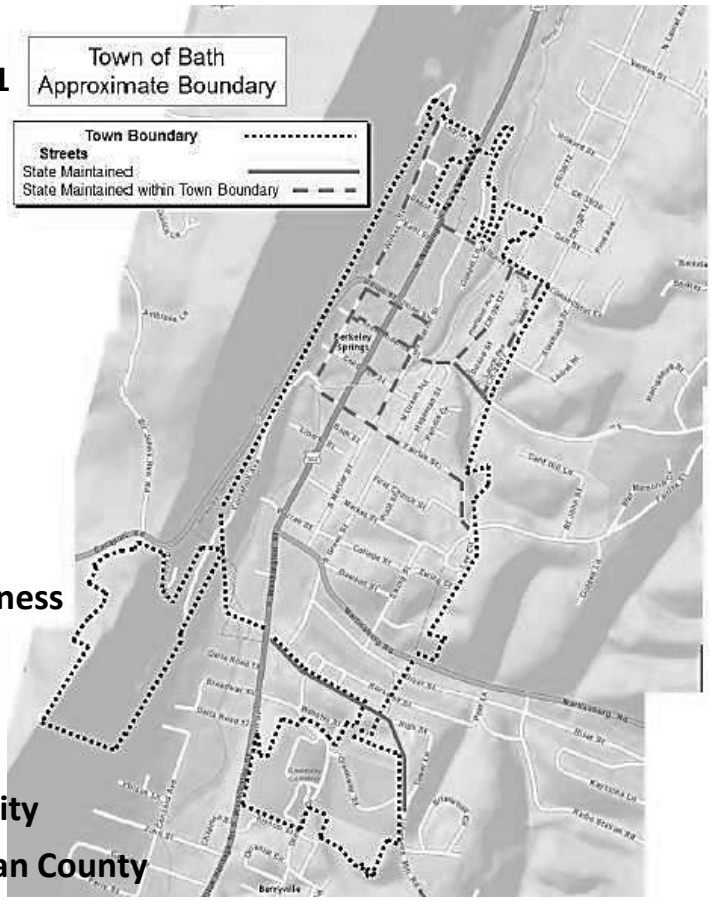
| No. | | Comment |
|---|---|---|
| 18 | 3/14 | We do not need a 4 line limited access highway. We do need the highway to be full access. Just like 522 South in Virginia. I travel the back roads to work and the proposed plan will cut off roads. For example Road 38/4 will be cut in half. I will not be able to drive to work without going all the way the highway. A full access highway like in Virginia would allow me to not change my drive to work. I know this will work. I live in West Virginia but I do have cross the 4 lane full access 522 in Virginia to go to Winchester, Virginia. It works fine. We do not need limited access! We do not need long on and off ramps when the design in Virginia is proven and it works. Change the design. |
| 19 | 3/14 | Dear Mr. RJ Scites, We are writing to let you know that we do want the Berkeley Springs bypass. We are vey concerned that our downtown area will lose a considerable amount of business with this bypass. We are also concerned with the lack of planning for this project. We believe the money is better spent on repairing our secondary roads and bridges as you propose. Please put a stop to this bypass. Thank you. |
| 20 | 3/11 | After reviewing the bypass info, I can only conclude that the idea of a roundabout on the south end of the bypass, must be for entertainment purposes only. I can envision a truck ballet going on as 7-10,000 semi-trucks go thru this town daily and end up on a monster roundabout. Otherwise, the plans look ok. My vote is a T intersection. |
| 21 | 3/22 | I live at [removed for privacy]. I am interested in what will be the expected noise level and distance to the bypass in front of my house. Would you please reply to me. Thank you. |
| 22 | 3/15 | The last two projects ok to me. April 19, 2018. April 1, 2019. You all started Nov 2, 1994 and in Sept. 30, 1998. Need help soon! |
| 23 | 3/28 | The Eastern Panhandle Conservation District (EPCD) partners with the West Virginia Conservation Agency (WVCA) to maintain the eight Warm Springs Watershed Dams which help control storm water runoff that help to reduce possible excess flooding to the town of Berkeley Springs and surrounding areas. With this in mind, EPCD has concerns with the planned route of the 4 lane by-pass which will be in close proximity between Warm Springs Watershed Dams 03 and 04 in the Sugar Hollow area.<br>An EPCD Supervisor was informed by a DOH representative that at this location, a base of culverts and fill will be used as a platform or base on which the highway will be constructed. EPCD supervisors are uninformed and do not know how large the culverts will be and whether or not this type of construction will interfere with or potentially enhance water flow in this part of the Warm Springs Watershed. Major land use changes have direct impacts on the proper and safe operation of the watershed dam structures.<br>At the southern point, where the by-pass leaves 522, a design a little further east (between 522 and Waugh Road) would miss many more houses and would reduce a lot of the storm water concerns for flooding issues in Berkeley Springs. With this further east adjustment, you would still be in line with crossing Route 9 at the current designed point. Although there are three watershed dams between 522 and Waugh Road along Winchester Grade Road, you have more area to travel between the dams and possible less intrusions of the natural flow of the watershed by missing all five dams by traversing just west of Waugh Road in a northerly direction towards Route 9. Sincerely, Lin Dunham, EPCD, Morgan County Supervisor |

| No. | | Comment |
|---|---|---|
| 24 | 3/27 | To Whom it May Concern, Don't build the bypass. There are always two ways of doing something. Why can't the people of Berkeley Springs decide what we want. This is our town. I love my old town. I've been here my whole life. Years ago you could sit out on her porch & enjoy sitting, eating or talking to your neighbor. With the big trucks you can't. When you drive and going the speed limit well, that's not fast enough. The big trucks ride so close you can't see their plates. When you make a turn to get off the road, they lay on their horn and or give you the finger.<br>Here in Berkeley Springs, people here stop to let the school buses out. Well, sometimes if a big truck behind you they get really close to you as you sit & blow their horn to make you move on.<br>I'd like to see the roads, back roads paved. There are in awful shape. The bypass will raise taxes, the state road workers will be on the bypass and the other roads will be late to get too. Snow removal will need more trucks. And the noise will be awful. The bypass is less than four miles, there are other roads people can travel on. The speed limit goes from 55, 45, 35, 25. I've been told that coming through my town takes longer. I just don't understand why we can't use that money to fix other roads or why we need a four lane, how fast can going 55 or sixty down to 20 to stop will take? Is that five, seven, ten minutes worth all that money? People from small towns drive so different from people from big cities. They drive with no respect for the other driver (recks) not all but for me they do. (Crazy)<br>Please let the people who live here tell what we want, not someone that doesn't live here tell us what we want or think we need. Thank you. |
| 25 | 3/27 | Dear Sir: I attended the informational meeting regarding the US 522 – Berkeley Springs Bypass and Fairview Connector meeting at Berkeley Springs High School on February 28th and was impressed by the revisions that have been made to the project. Although our family property is still jeopardized by the new highway, I was pleased to see that the public safety aspects of my earlier concerns have been somewhat addressed. Please consider the following as the project moves forward:<br>• Both end designs of the bypass are much more beneficial to the town and its citizens and should encourage Tourist and local traffic into town while freeing the town of trucks traveling at speeds dangerous to pedestrians. Although I normally prefer roundabouts as an intersection alternative, in this case I feel that, of the two, the stop light option is the safer choice. It is imperative that the highway construction at each end of the bypass compel trucks traveling at higher speeds to slow down to safely merge with local traffic. Enclosed is a satellite view of an interchange on Route 86 in North Carolina. This slightly widened intersection allows traffic to proceed at slower speeds in all directions without the need for traffic lights, and the slower speeds make merging into the north-south flow much safer. This diagram is not the answer to the 522-bypass end designs, but it might stimulate some thought toward a model which would accomplish the same objectives. Avoiding the addition of two more stop lights on 522 would be a positive outcome for all motorists.<br>• Speed and safety on the bypass will surely become an issue at both ends and at those intersections without interchanges. In light of the number of intersections in this 4-mile span, the human safety factor is so much more important than the negligible time saved over the four miles of bypass at 65 m.p.h. vs. 55 m.p.h. Even though the road will be built to 65 m.p.h. |

| No. | | Comment |
|---|---|---|
| | | standards, it is still within the purview of the highway department to restrict all traffic to 55 m.p.h. Please give serious thought to lowering the posted speed limit for all vehicles to 55 m.p.h.<br>• The satellite photographs with the highway overlay now show acceleration and turn-off lanes, but the big problem of large trucks on unimproved country roads still exists. Unfortunately, most GPS directions usually relay the shortest route option, which might dump unwanted truck traffic onto Sugar Hollow Road, Johnson's Mill Road, Fairfax Street, and Davis Road. Trucks making town deliveries should be sufficiently served by the ends of the bypass or the Route 9 interchange. By restricting exiting truck traffic to only the Route 9 interchange, trucks would be traveling only on suitably designed roads and the necessity for future traffic lights at the intersections of Sugar Hollow Road and Johnson's Mill Road with 522 would be eliminated.<br>Thank you for listening to these concerns. The economic future of Berkeley Springs and the safety of its citizens are in your hands.<br> |
| 26 | 3/27 | I believe the bypass is not necessary. If existing road stop lights were synchronized & had limited turn signals (the delay can be up to 8-10 seconds with only one car turning off 522, backing up traffic) flow would be smoother, our roads are in bad shape, bridges too. Do that first.<br>I'm glad your newest plan allows N&S traffic on 522 to get into town easily, as our town prospers from car traffic. If the bypass must be so, signage for the town & a reduced speed limit would be helpful. Thank you. |
| 27 | 3/27 | My 1st concern is the cost of this project. I think the money is better spent fixing our crumbling roads. But if it is to be built, I prefer the T intersection with traffic lights at north & south start. Also a slower speed limit, 45-50 mph. I would prefer a 2 lane |

| No. | | Comment |
|---|---|---|
| | | road with 3 lanes at major intersections. If the thru truck traffic would be forced to use I-81 instead of 522 as a shortcut, we probably wouldn't need anything. |
| 28 & 29 | 3/30 | My address is Rob Mar Lane. According to the proposed map of the bypass the DOH is going to take our front porch and a small portion of our living room for a right of way. We have not been contacted as of yet, and we are open to possibly selling our home. We have no interest in being right by any part of the bypass. It will affect the property value and with part of the house being in the right of way…We have no clue how that will affect what little front yard we do have. |

**Town of Bath Planning Commission**
**271 Wilkes Street Berkeley Springs, WV 25411**
**Telephone: 304-258-1102**




# COMMUNITY SURVEY

**Please answer three questions to help us understand your opinions and concerns about the proposed bypass and its effect on the town.**

1. **Describe the location of your home or business** (***check all that apply***)

   **___ located near the bypass**
   **___ located within the Town of Bath**
   **___ located in the Berkeley Springs community**
   **___ located outside the community in Morgan County**
   **___ other**

2. **What are your concerns about a bypass around Berkeley Springs** (***check all that apply***)

   **___ noise**
   **___ flooding**
   **___ sediment and dust**
   **___ effect on landscape view**
   **___ effect on your water supply**
   **___ loss of business in downtown**
   **___ development sprawl along bypass**
   **___ other concerns** (***please list***)

   _____
   _____
   _____

3. **Would you consider adjustment of town boundaries to better address flooding and demand for services like police, water, and sewer for new businesses and subdivisions?**

   **___ yes ___ no**

4. **Other comments you would like to share with the Town of Bath Planning Commission:**

   _____
   _____ (***continue on back***)

**Thank you!**

## Town of Bath Planning Commission Survey
## Conducted at the WV DOH Public Meeting 02/27/19

Surveys handed out: 91 - Returned: 75

| Location | |
|---|---|
| near the bypass | 37 |
| Town of Bath | 15 |
| Berkeley Springs Community | 24 |
| Morgan County | 22 |

**What are your concerns about a bypass around Berkeley Springs?**

| noise | flooding | sediment and dust | view | water supply | business | sprawl | other |
|---|---|---|---|---|---|---|---|
| 43 | 30 | 27 | 30 | 23 | 40 | 30 | 27 |
| 57% | 40% | 36% | 40% | 31% | 53% | 40% | 36% |

| Would you consider adjustment of town boundaries to better address flooding and demand for services like police, water, and sewer for new businesses and subdivisions? | YES 41 | NO 27 |
|---|---|---|
| | 55% | 36% |

| Other Concerns | Mentioned |
|---|---|
| safety | 6 |
| effect on tourism, loss of customers | 3 |
| losing house, property, or driveway | 3 |
| increased runoff | 2 |
| speed | 2 |
| at-grade crossings | 2 |
| Sugar Hollow Road | 3 |
| effect on flood control dams | 1 |
| zoning, taxes, devalued property | 1 |
| effect on other roads | 1 |
| pedestrian and bike lanes | 1 |
| destruction of land | 1 |
| increased traffic | 1 |
| access to downtown | 1 |
| Maryland bridge | 1 |
| future road work to Virginia | 1 |
| town killer | 1 |

| | | ANNEX - YES | ANNEX - NO |
|---|---|---|---|
| 9 | Expanding the boundaries to include more of the water service area would seem to be wise | 1 | |
| 14 | I have been writing on this bypass for 40 years! | 1 | |
| 15 | Adjust the traffic lights to facilitate better movement of traffic. | 1 | |
| 16 | Clean up the upper and lower end of Town. Enforce zoning - enforce. Entering and leaving town is an embarrassment | 1 | |
| 17 | Adjust the traffic lights to alleviate congestion downtown. | | 1 |
| 18 | How much would my property tax increase if this goes through? | | 1 |
| 19 | How about a two lane bypass? Must protect tourist business or | 1 | |
| 20 | I didn't move to a small town country landscape to look at a 4 lane highway. I will look for property elsewhere and take my family's 100K a year income and find a home in Maryland *Cest la vie* Berkeley Springs and WV. According to your drawn plans I will have a right-of-way fence 10 feet away from the only porch on my house. I think it's unfair to put a fence that close to my only porch. | | 1 |
| 21 | I would like a two lane, one each way, with only one exit - from & onto Rt 9 - and OMG - what about a weight station with Jim D as the 'in charge'person? Please help the town get the trucks out of town without making the town die! | | 1 |
| 28 | 1. We would like to see a sound impact study completed with possible solutions. 2.Reduce speeds (ie 55 mph) 3.Make the bypass a toll road to fund improvements to the community and costs of maintenance and repairs. 4.Consider prohibiting trucks on 522 and scrap the project. Eliminates the truck traffic solves the issues all together and saves money. 5.A bridge will be needed on Johnson Mill Road for residents of those communities to cross the highway, otherwise we would never get across the 4 lane highway!! | 1 | |
| 29 | Any new business & subdivision should pay the tap fee. | | 1 |
| 30 | The bypass seem[sic] (as stated) to be a connector betweenI-81 in Winchester, VA and Hancock, MD, and not particular [sic] considering the needs of the Berkeley Springs community - nor the original design CUT OFF Rt-522 at both ends of the bypass. | 1 | |
| 31 | Why do there[sic] need to be 4 lanes and multiple interchanges on a road intended solely to bypass the town. Make it 2 lanes! | | 1 |
| 32 | Do not understand how my driveway/or where my driveway will go with a 4 lane 65mph Hwy cutting bother ends of the circle off Why 65mph roundabouts really! this is under planned and pretty much absurd The ends of the bypass access is what has changed and the original plan was better in my opinion for truck access to keep the traffic moving. Seems like a bad project in the making. The north end of 522 is 55mph the lower end is 45mph WHY is the short 3 mile bypass 4 lane Hwy still listed in the memo as being 65mph? | | |
| 37 | Please patch the pipeline ditches running across Green Street by Dawson's house !!!! | | 1 |
| 38 | I've noticed the turn signals at the court house on 522 intersection slows north bound traffic - The signal to go north is delayed sometimes 12-15 seconds, for one vehicle to turn on Fairfax sometimes less [sic] 7-8 sec | 1 | |
| 39 | What planning has been done to address the bypass? None. This bypass has the potential to negatively impact our MAJOR economic driver - tourism. How will the town assist town businesses? | 1 | |
| 40 | A bypass will not. In any way, make the town better unless you're shooting for a ghost town. | | 1 |
| 41 | Traffic circles are not truck friendly, what's your take? What is our local planning commission working with the Department of Transportation on? Need your transparentcy[sic] put the Morgan Messenger to work | | 1 |
| 42 | I would like the bike trail to extend in the future past the bypass. Warm Springs crossing should allow for bike trail to cross under the bypass | 1 | |
| 45 | How does adjusting town boundaries effect flooding. | | |

| | | | |
|---|---|---|---|
| 52 | Flooding is a major concern as the landscape of the hill is changed. Bypass located within town - its not a bypass! We are wipeing[sic] out too much of the town. Exit to 9 sends all that traffic to old sheets WANT MORE TRAFFIC LIGHTS Roundabouts a horrid idea!! T is better & a traffic light to slow trucks as they join 522 n ps- I hate the whole thing. Its ripping community apart pps I believe this will kill the town like it killed Hancock This bypass Route will not directly affect my home but I am opposed to it | 1 | |
| 54 | If you want new businesses, you need people in town to buy. Removing people from town will not help. Federal & state policies that do not support the buying power of the middle class does not help. | | 1 |
| 65 | Bypass is unnecessary and a waste of money. | | 1 |
| 66 | Please consider roundabout entrance | 1 | |
| 67 | Construction will be "dirty" - how to minimize sediment/erosion Need trees!! Any thoughts on noise abatement? | 1 | |
| 68 | Roundabout looks like a bad idea | 1 | |
| 69 | Need a speed camera in town Mobile weigh station Weight restriction on trucks Length restriction on trucks | | |
| 70 | Please allow the people in Berkeley Springs to vote on this as there are so many newcomers since the 1990's | 1 | |
| 71 | This 4-lane Hy-way[sic] this close to Berkeley Springs will create stormwater management problems for Berkeley Springs. | 1 | |
| 72 | I would prefer no trucks above a certain weight not allowed on 522 from Winchester to the 70 - I also feel that the bypass will actually bring more trucks to the area, - What happens when the trucks come off a 4 lane bypass and have to cross over a 2 lane bridge into Maryland - With more trucks coming through, it will make it more difficult for those on the south end to turn onto 522 I moved to Berkeley Springs to be in a quiet area not a speedway for trucks - So with the bypass you are "buying" out all the peoples property - We won't need a bypass because people will be moving away | | 1 |
| 73 | Unnessasary[sic] - no one wants this!!! | | 1 |
| 74 | 2 lane bypass is all that is needed | 1 | |
| | | 17 | 13 |
| | | 52% | 39% |

# NOTICE

# OF

# INFORMATIONAL WORKSHOP PUBLIC MEETING

## STATE PROJECT U333-522-11.92 SEC 02
## FEDERAL PROJECT NFA-2317(005)D

## US 522 - BERKELEY SPRINGS BYPASS and FAIRVIEW CONNECTOR PROJECT
## MORGAN COUNTY

The West Virginia Division of Highways (WVDOH) will hold an informational public meeting on Thursday, February 28, 2019, in the cafeteria at Berkeley Springs High School, located at 149 Concord Ave., Berkeley Springs, Morgan County, West Virginia on the proposed US 522 Project. This project proposes to construct the Berkeley Springs Bypass and the Fairview Connector. The project begins near Winchester Road (County Route 13) and terminates near Sandmine Road (County Route 38/1), including a connector from US 522 to Fairview Drive (near War Memorial Hospital) for a distance of approximately 4 miles. This meeting complies with the public involvement requirements of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act.

**NO FORMAL PRESENTATION WILL BE MADE**. The scheduled public meeting is from 4:00 to 7:00 p.m. and the public will be afforded the opportunity to ask questions and give written comments on the project throughout the meeting. A handout with project details will be available at the meeting and on the WVDOH Website.

Those wishing to file written comments may send them to Mr. RJ Scites, P.E., Director, Engineering Division, West Virginia Division of Highways, 1334 Smith Street, Charleston, West Virginia 25301 on or before Monday, April 1, 2019. Visit the WVDOH Website at http://go.wv.gov/dotcomment for project information and the opportunity to comment on the project.

**The West Virginia Department of Transportation will, upon request, provide reasonable accommodations including auxiliary aids and services necessary to afford an individual with a disability an equal opportunity to participate in our services, programs and activities. Please contact us at (304) 558-3931. Persons with hearing or speech impairments can reach all state agencies by calling (800) 982-8772 (voice to TDD) or (800) 982-8771 (TDD to voice), toll free.**

**OPEN HOUSE PUBLIC MEETING**
**THURSDAY, FEBRUARY 28, 2019**
**4:00PM to 7:00PM**
**BERKELEY SPRINGS HIGH SCHOOL**
**149 CONCORD AVENUE, BERKELEY SPRINGS, WEST VIRGINIA**

# US 522—BERKELEY SPRINGS BYPASS AND FAIRVIEW CONNECTOR PROJECT

**STATE PROJECT U333-522-11.92 SEC 02, FEDERAL PROJECT NFA-2317(005)D**
**MORGAN COUNTY, WV**

Join the West Virginia Division of Highways (WVDOH) on Thursday, February 28, 2019 at the Berkeley Springs High School in Berkeley Springs, WV for an open house on the proposed US 522 Project. Representatives from the WVDOH and Federal Highway Administration will be available between 4:00 PM and 7:00 PM to discuss the proposed project and answer questions. There will be no formal presentation, however project maps and materials will be available for your review. The proposed project includes changes that reflect the consideration of public comments and concerns voiced at the April 26, 2018 public meeting as well as additional information obtained since that time. This meeting complies with the public involvement requirements of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act.

## PROJECT SUMMARY

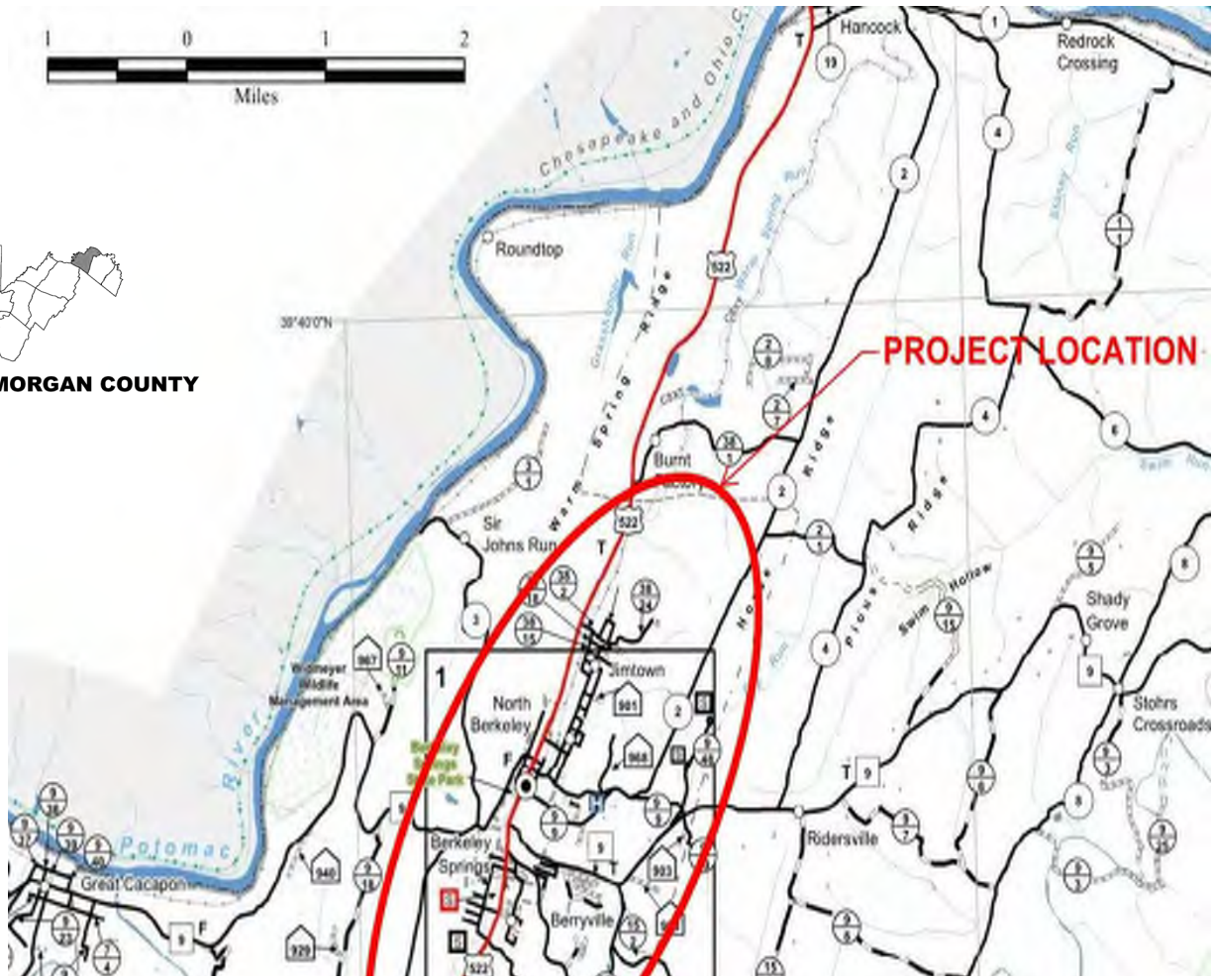
This project proposes to construct the Berkeley Springs Bypass and the Fairview Connector. The project begins just south of Winchester Road (County Route 13) and terminates south of Sandmine Road (County Route 38/1), including a connector from US 522 to Fairview Drive (near War Memorial Hospital) for a distance of approximately 4 miles. The Berkeley Springs Bypass will be a four-lane, controlled access expressway with a grassed median and a design speed of 65 miles per hour.

This Berkeley Springs Bypass project is part of the US 522 project that was studied in the mid-1990s to early 2000s. That project consists of a four-lane roadway on a new alignment from the Virginia/ West Virginia state line to the Maryland state line for a distance of approximately 19 miles.

## PROPOSED SCHEDULE

| | 2019 | 2020 |
|---|---|---|
| Public Information Meeting | *February 28, 2019* | |
| Comments Due | *April 1, 2019* | |
| Right-of-Way Acquisition | *2019* | |
| Construction | | *2020* |

## Project Location




## To Comment on the Project

Comments can be submitted at the meeting or mailed to:

**Mr. RJ Scites, P.E.**
**Director, Engineering Division**
**West Virginia Division of Highways**
**1334 Smith Street**
**Charleston, West Virginia 25301**

Comments may also be submitted via our website at:

**http://go.wv.gov/dotcomment**

Click on the blue tab "Engineering Projects", then click "Open", then click on "US 522—Berkeley Springs Bypass and Fairview Connector"

***Comments are due April 1, 2019***

*Upon request, WVDOH will provide reasonable accommodations including auxiliary aids and services necessary to afford an individual with a disability an equal opportunity to participate in our services, programs and activities. Please contact us at (304) 558-3931. Persons with hearing or speech impairments can reach all state agencies by calling (800) 982-8772 (voice to TDD) or (800) 982-8771 (TDD to voice), toll free.*

# US 522—Berkeley Springs Bypass and Fairview Connector

**State Project U333-522-11.92 SEC 02 | Federal Project NFA-2317(005)D**

**Morgan County, West Virginia**

## Public Meeting — Thursday, February 28, 2019

## WELCOME!

Welcome to the public meeting for the US 522—Berkeley Springs Bypass and Fairview Connector. The West Virginia Division of Highways (WVDOH) is conducting this public informational workshop to present changes to the proposed project that reflect the consideration of public comments and concerns voiced at the April 26, 2018 public meeting as well as additional information obtained since that time. Some highlights of the changes include:

- Revised intersections at the southern and northern end connections to existing US 522 (selection of final intersection design will be based on right-of-way and environmental impacts and cost associated with the current and future 4-lane construction projects)
- Elimination of at-grade intersection at CR 38/4 (Myers Rd.)
- Construction of ramps for Winchester Grade Interchange will be delayed for future construction

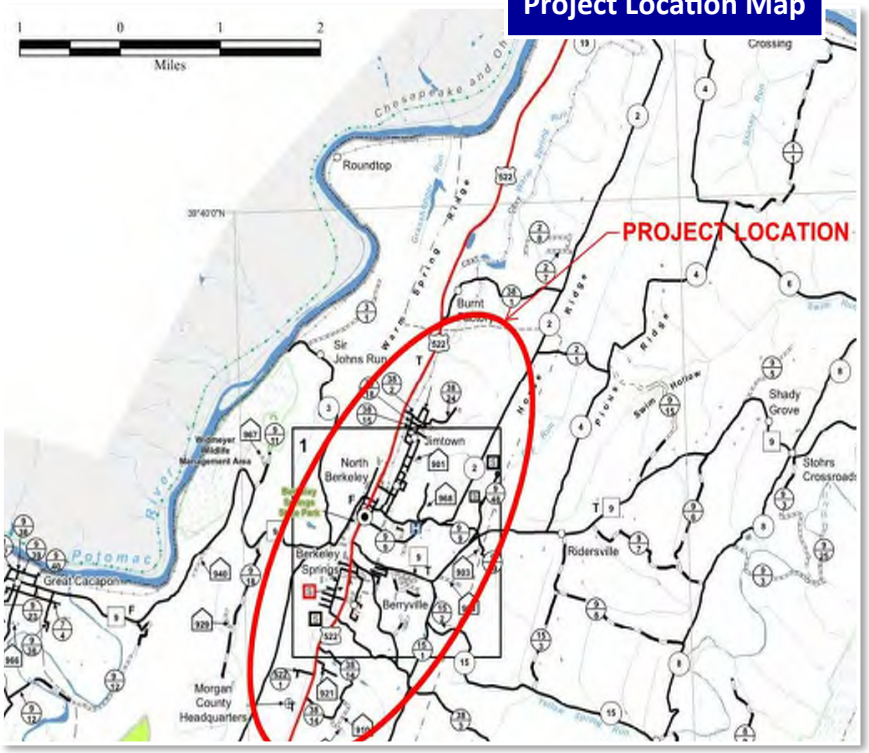
*This meeting complies with the public involvement requirements of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act.*

## Project Description

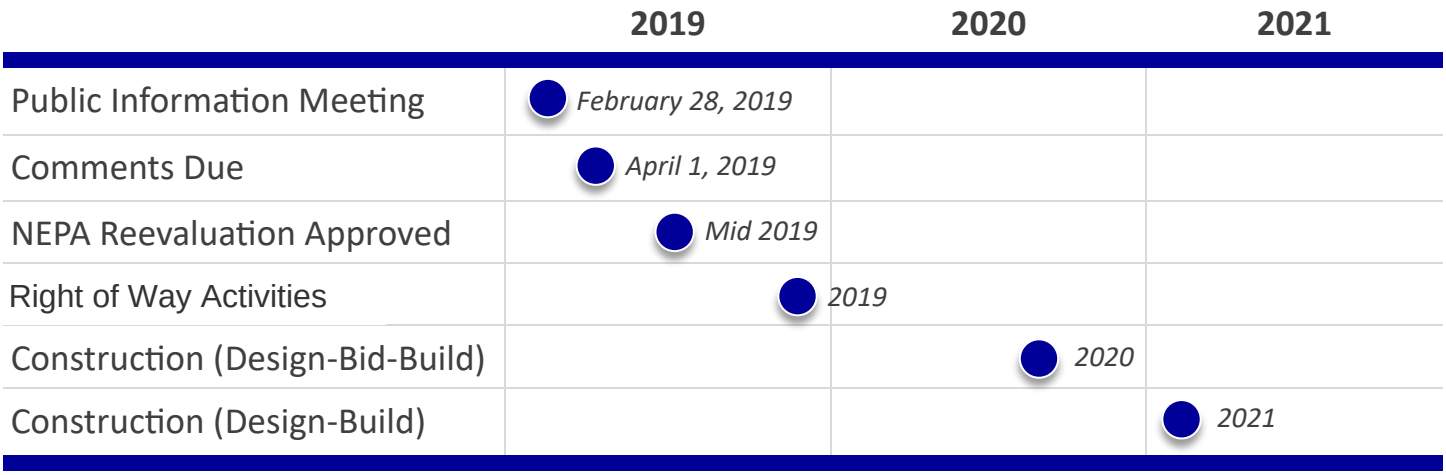
This project proposes to construct the Berkeley Springs Bypass and the Fairview Connector. The project begins just south of Winchester Grade Road (County Route 13) and terminates near Sandmine Road (County Route 38/1), including a connector from US 522 to Fairview Drive (near War Memorial Hospital) for a distance of approximately 4 miles. The Berkeley Springs Bypass will be a four-lane, controlled access expressway with a grassed median and a design speed of 65 miles per hour.

The Berkeley Springs Bypass project is part of the US 522 project that was studied in the mid-1990s to early 2000s. The purpose of the US 522 project is to improve and upgrade US 522 to restore capacity to an acceptable level of service to accommodate increased traffic and improve safety. The US 522 project consists of a four-lane roadway on a new alignment from the Virginia/West Virginia state line to the Maryland state line for a distance of approximately 19 miles. The Berkeley Springs Bypass portion of the US 522 project will be the first segment to be constructed.

**Project Location Map**



## Proposed Schedule

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**Mr. RJ Scites, P.E.**
**Director, Engineering Division**
**West Virginia Division of Highways**
**1334 Smith Street**
**Charleston, West Virginia 25301**

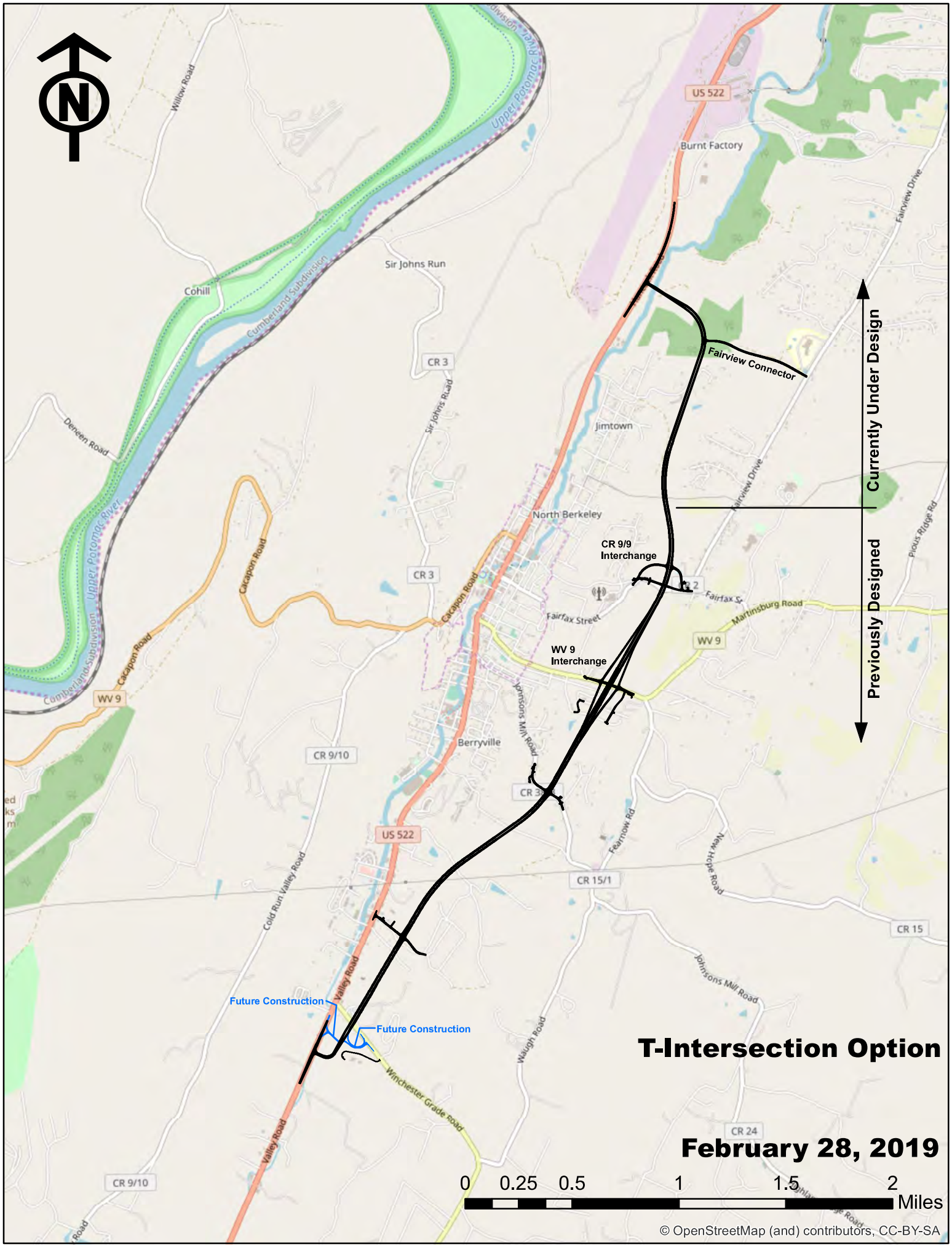
Comments may also be submitted via our website at:

**http://go.wv.gov/dotcomment**

Click on the blue tab "Engineering Projects", then click "Open", then click on "US 522—Berkeley Springs Bypass and Fairview Connector"

***Comments are due April 1, 2019***

***Thank you for attending our meeting! Your interest in the project is greatly appreciated.***


N
Willow Road
Upper Potomac River
Cumberland Subdivision
Cohill
Sir Johns Run
US 522
Burnt Factory
Fairview Drive
Fairview Connector
Currently Under Design
Previously Designed
CR 3
Sir Johns Road
Jimtown
Deneen Road
North Berkeley
CR 9/9
Interchange
Cacapon Road
Fairfax Street
Martinsburg Road
WV 9
WV 9
Interchange
Johnsons Mill Road
Berryville
CR 9/10
CR 3
US 522
Fearnow Rd
New Hope Road
CR 15/1
CR 15
Cold Run Valley Road
Valley Road
Future Construction
Future Construction
Winchester Grade Road
Waugh Road
CR 24
CR 9/10
T-Intersection Option
February 28, 2019
0
0.25
0.5
1
1.5
2
Miles
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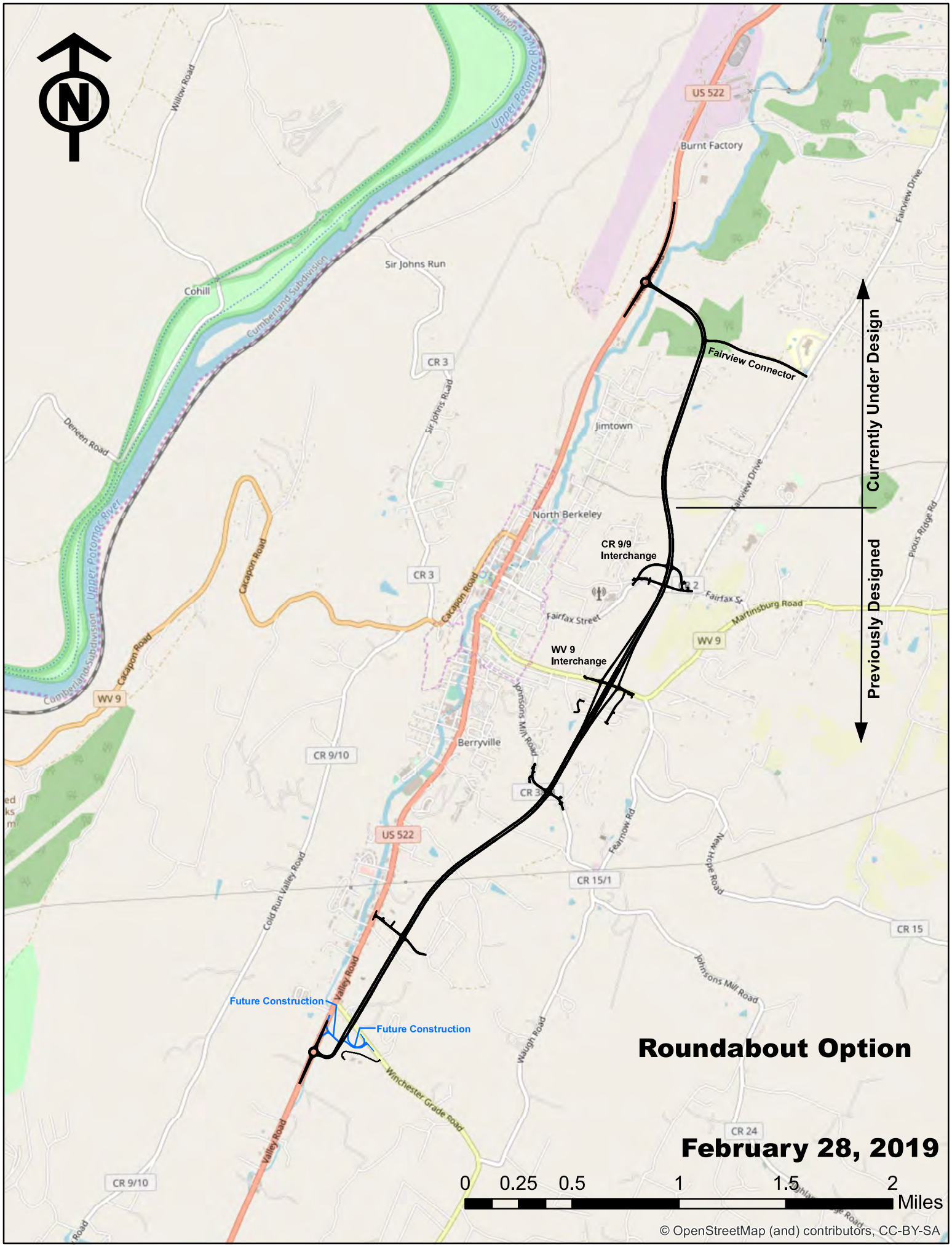
N
Willow Road
Upper Potomac River
Cumberland Subdivision
Cohill
Sir Johns Run
US 522
Burnt Factory
Fairview Drive
Fairview Connector
Currently Under Design
Previously Designed
CR 3
Sir Johns Road
Jimtown
Deneen Road
North Berkeley
CR 9/9
Interchange
Cacapon Road
Fairfax Street
Martinsburg Road
WV 9
WV 9
Interchange
Johnsons Mill Road
Berryville
CR 9/10
CR 3
US 522
Fearnow Rd
New Hope Road
CR 15/1
CR 15
Cold Run Valley Road
Valley Road
Future Construction
Future Construction
Winchester Grade Road
Waugh Road
Johnsons Mill Road
CR 24
CR 9/10
Roundabout Option
February 28, 2019
0
0.25
0.5
1
1.5
2
Miles
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WVDOT-DOH Morgan County Headquarters
Best Western
Food Lion
Rankin Fitness
Skeeter's
Blue Flame
DQ
Clarks
Gemini Centre
Foxs Pizza
CNB
McDonalds
Rite Aid
522
Appraisal Services
Antiques
Rocs
Valley Car Wash
13
38 14
Calvary Bible Church
Eastridge Health Systems
Angus & Ale
38 14
Sugar Hollow Road
Winchester Grade Road
Matchline Sheet 2

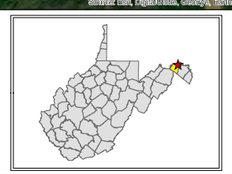
**Legend**

- State Police
- Design Bid Build
- Design Build
- Future Construction

# US 522 Relocation and Improvement Southern Connection T-Intersection Option

Notes:

0 200 400 600 800 Feet



US 522
Morgan County WV
**Sheet 1A**

**February 28, 2019**

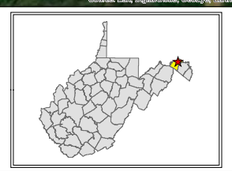
**Legend**

- State Police
- Design Bid Build
- Design Build
- Future Construction

# US 522 Relocation and Improvement Southern Connection Roundabout Option

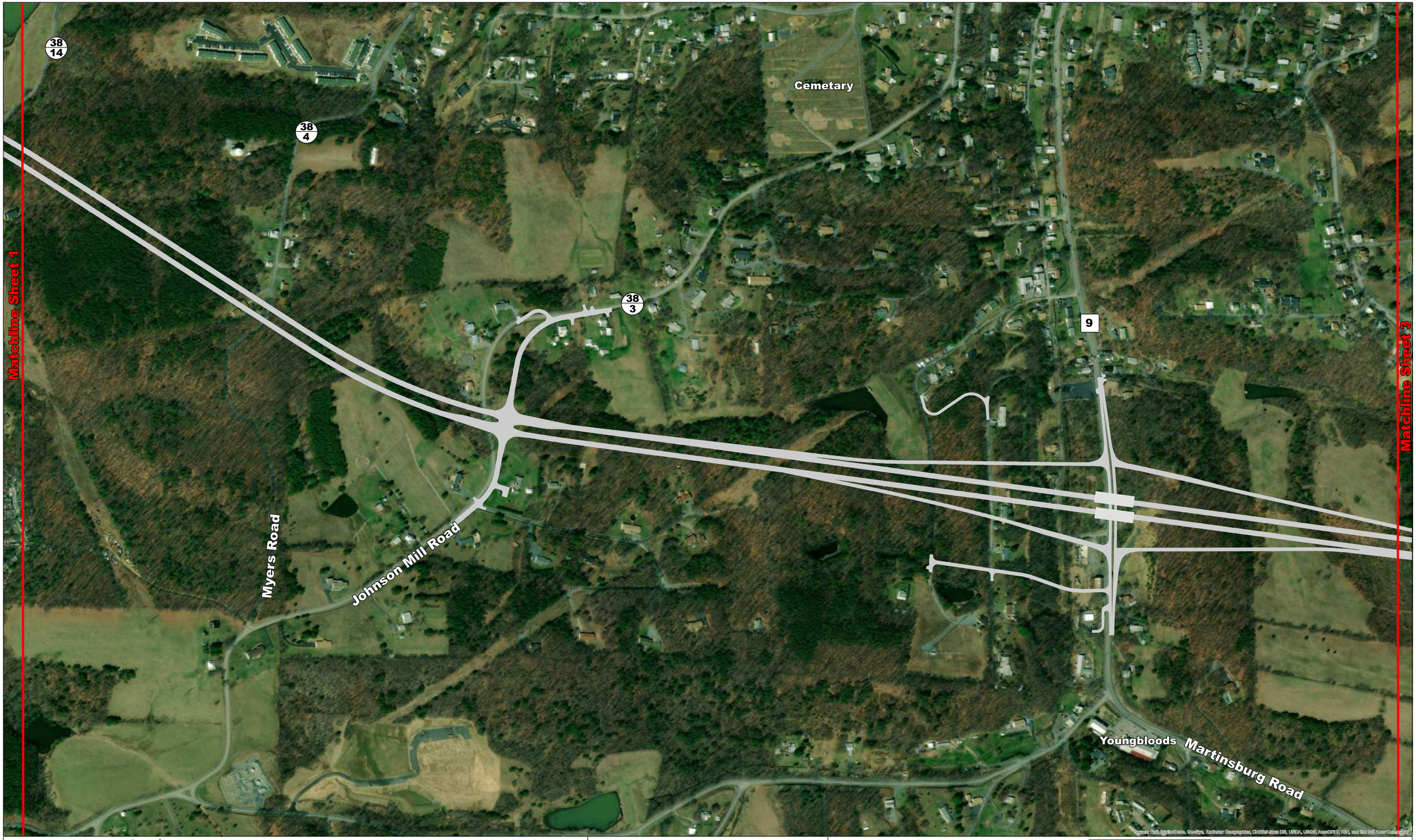
Notes:

0 200 400 600 800 Feet



US 522
Morgan County WV
**Sheet 1**

**February 28, 2019**



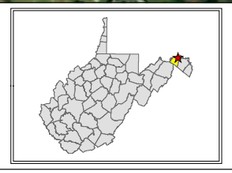

**Legend**

- Design Bid Build
- Design Build
- Future Construction

# US 522 Relocation and Improvement

Notes:

0 200 400 600 800 Feet



US 522
Morgan County WV
**Sheet 2**

**February 28, 2019**

Morgan County School Board Office

Berkeley Club Beverages

Harrison Avenue

Berkeley Springs

N. Laurel Avenue

Previously Designed

Currently Under Design

N. Berkeley Street

Sherril Lane

38/2

Matchline Sheet 2

Matchline Sheet 4

2

Davis Road

Morgan Lane

9/9

Fairfax Street

Martinsburg Road

Maggies Lane

2

Fairview Drive

Woodside Lane

Sunset Drive

**Legend**

Design Bid Build

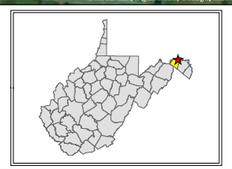
Design Build

Future Construction

# US 522 Relocation and Improvement

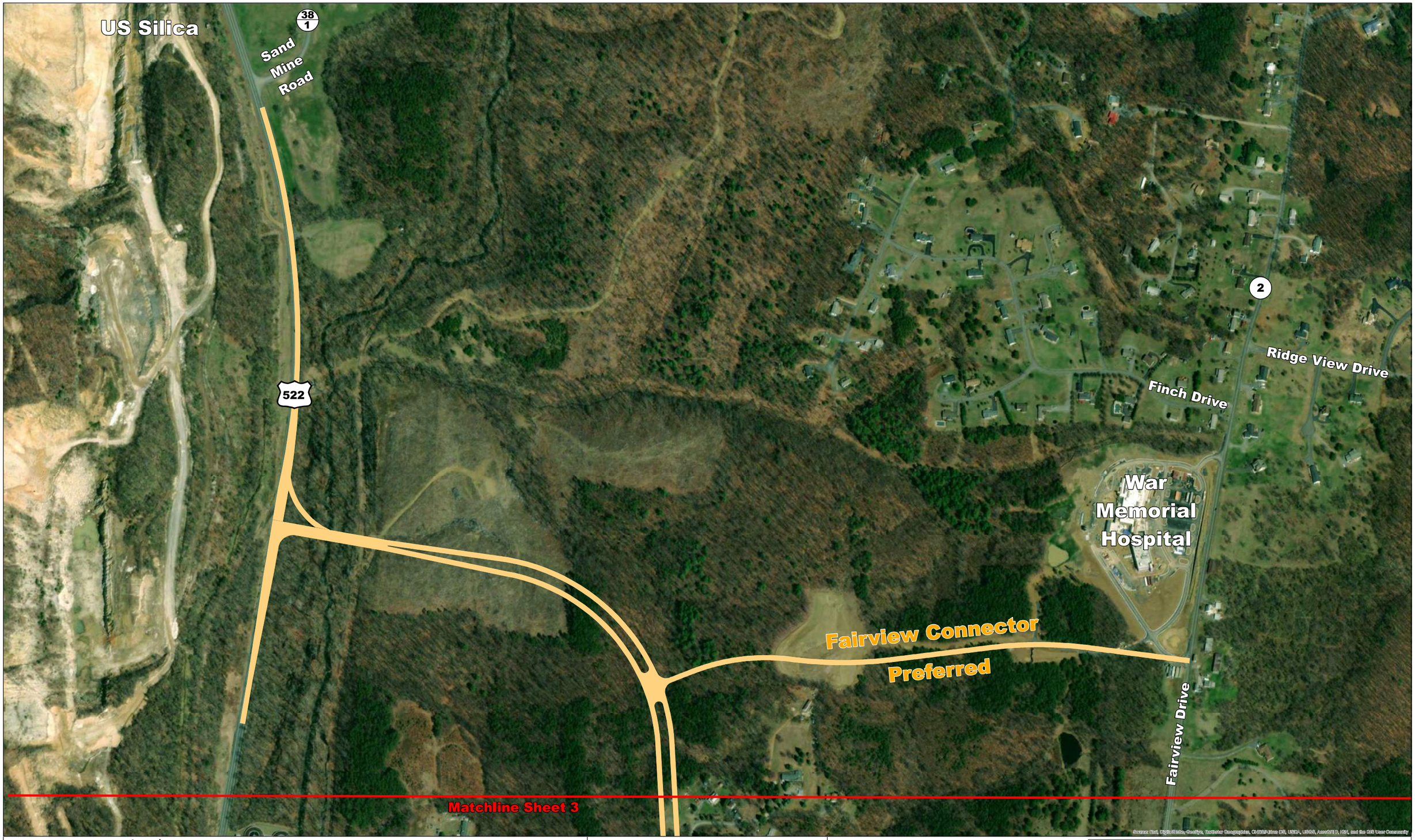
Notes:

0 200 400 600 800 Feet



US 522
Morgan County WV
**Sheet 3**

**February 28, 2019**



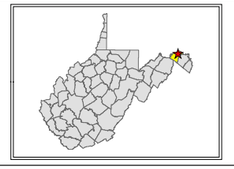

**Legend**

- Design Bid Build
- Design Build
- Future Construction

# US 522 Relocation and Improvement Northern Connection T-Intersection Option

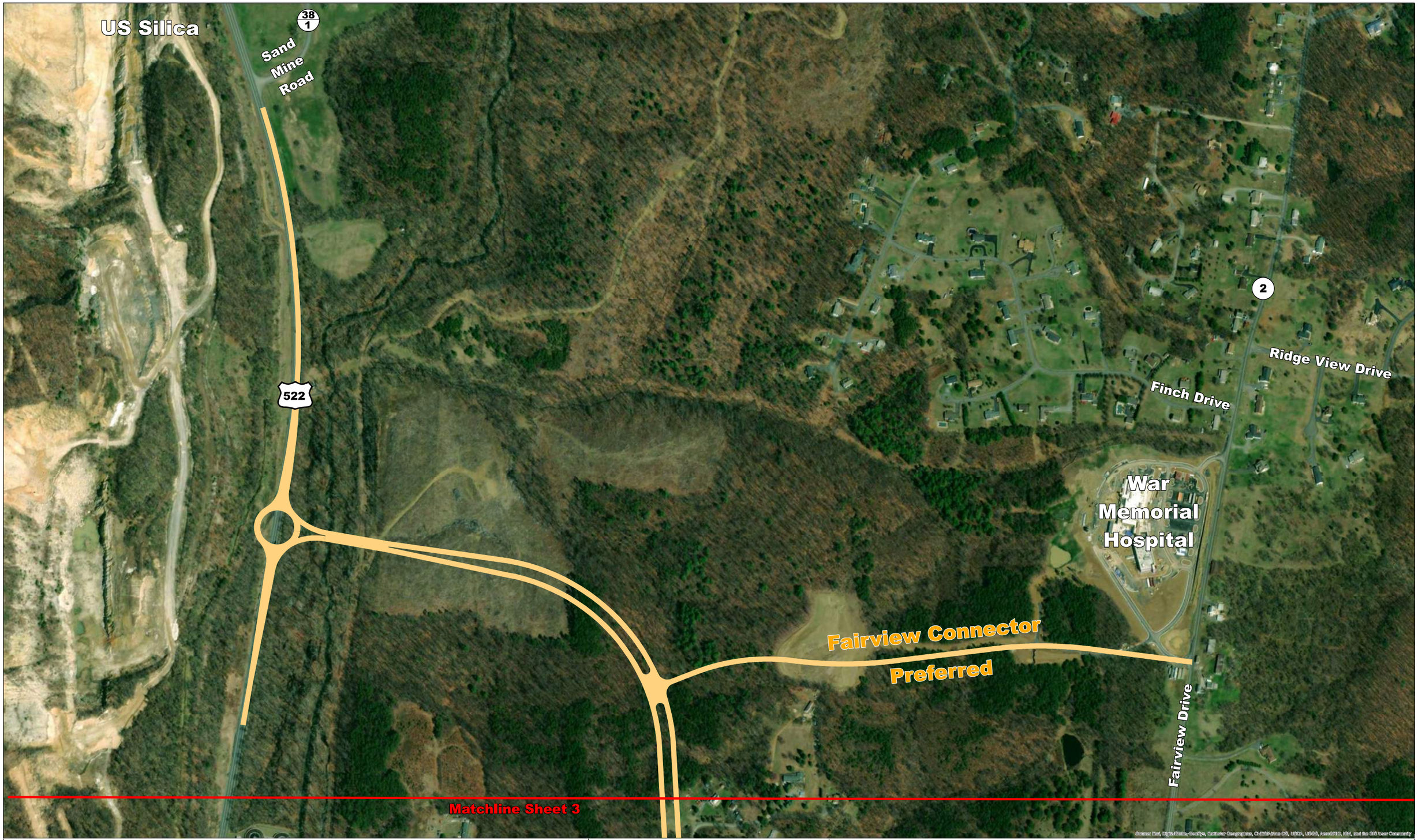
Notes:

0 200 400 600 800 Feet



US 522
Morgan County WV
**Sheet 4A**

**February 28, 2019**




**Legend**

- Design Bid Build
- Design Build
- Future Construction

# US 522 Relocation and Improvement Northern Connection Roundabout Option

Notes:

0 200 400 600 800 Feet

US 522
Morgan County WV
**Sheet 4**

**February 28, 2019**

# US 522 – Berkeley Springs Bypass and Fairview Connector | Comment Sheet

Mr. RJ Scites, P.E.
Director, Engineering Division
West Virginia Division of Highways
1334 Smith Street
Charleston, West Virginia 25301

Date: _____

**Date:** **Thursday, February 28, 2019**
**Location:** **Berkeley Springs High School**
**Subject:** **INFORMATIONAL WORKSHOP PUBLIC MEETING**
**Project:** **US 522—Berkeley Springs Bypass and Fairview Connector**
**State Project No. U333-522-11.92 SEC 02**
**Federal Project No. NFA-2317(005)D**

**Comments Due By:** **Monday, April 1, 2019**

Please consider the following comments:

_____

_____

_____

_____

_____

_____

_____

_____

_____

(Please print the following information):

Name:

Address:

Email:

Organization (If Any):

How did you hear about the Informational Workshop Public Meeting?

Project Information and Comment Sheets can be found online at the WVDOH website http://go.wv.gov/dotcomment. Click on the blue tab "Engineering Projects", then click "Open", then click on "US 522—Berkeley Springs Bypass and Fairview Connector".

Completed comment forms may be handed to a WVDOH official tonight, submitted via the WVDOH website, or mailed to the address above.

The Morgan Messenger

Founded in 1893 by S.S. Buzzerd

Berkeley Springs, W.Va. WEDNESDAY, FEBRUARY 27, 2019 Volume 126, Number

# Bypass meeting Thursday to show changes made by DOH

by Trish Rudder

Changes to the proposed U.S. 522 Berkeley Springs Bypass that reflect public comments made from last year's presentation can be viewed at tomorrow's public workshop Thursday, February 28, by the West Virginia Division of Highways (DOH) at Berkeley Springs High School in the cafeteria from 4 to 7 p.m.

The changes include revised intersections at the southern and northern end connections to U.S. 522. The selection of the final intersection design will be based on right-of-way and environmental impacts and costs associated with the current and future four-lane construction projects.

see **BYPASS MEETING** page 3

# Bypass meeting

(from front)

The change eliminates the at-grade intersection at Myers Road.

Also the construction of ramps for Winchester Grade Interchange will be delayed for future construction.

The proposed changes can be viewed online at: http://transportation.wv.gov/highways/engineering/comment/BerkeleySprings Bypass/Documents/handout.pdf

Public comments can be submitted at the meeting or mailed (including people who cannot make the meeting) to: Mr. R.J. Scites, P.E., Director, Engineering Div., West Virginia Division of Highways, 1334 Smith St., Charleston, WV 25301. Comments are due April 1.

# INFORMATIONAL WORKSHOP
# PUBLIC MEETING REPORT

US 522 – BERKELEY SPRINGS BYPASS AND FAIRVIEW CONNECTOR
MORGAN COUNTY, WV

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STATE PROJECT U333-522-11.92 SEC 02
FEDERAL PROJECT NFA-2317(005)D

JULY 2018

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TOTAL COMMENTS ..... 1

COMMENTS SUMMARY ..... 1

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- MEETING NOTICE
- MEETING FLYER
- MEETING HANDOUTS
- NEWSPAPER ARTICLES

US 522 – BERKELEY SPRINGS BYPASS AND FAIRVIEW CONNECTOR | MORGAN COUNTY
STATE PROJECT U333-522-11.92 SEC 02 | FEDERAL PROJECT NFA-2317(005)D

SUMMARY OF APRIL 19, 2018 PUBLIC MEETING INFORMATIONAL WORKSHOP AND COMMENTS

# Public Meeting Summary

The West Virginia Department of Transportation, Division of Highways (WVDOH) hosted an open-house public meeting on Thursday, April 19, 2018 to inform the public and receive comments for the proposed US 522 – Berkeley Springs Bypass and Fairview Connector project. The meeting was held at the Berkeley Springs High School in Berkeley Springs, WV from 4:00PM to 7:00PM. The meeting was advertised in the local newspaper. Meeting flyers were also distributed to Town of Bath offices, local schools, area businesses, and restaurants.

Maps of the Berkeley Springs Bypass segments of US 522 and the Fairview Connector were on display and members of the public were invited to view the maps and talk with WVDOH and consultant staff in attendance. WVDOH District Five Right of Way staff were also in attendance to answer questions about the WVDOH right of way acquisition process. Meeting attendees were invited to provide written comments during the meeting or via mail or email during the 30-day comment period that ended May 21st.

# Attendance

The meeting was attended by 228 members of the public.

# Total Comments

A total of 375 comments were submitted during the comment period as well as a few weeks following the comment period. All of the comments have been incorporated into a table and is included as an attachment.

# Comment Summary

A majority of the comments received during the public comment period were regarding concern with the design of the beginning of the bypass on the south end of US 522 not allowing local traffic to continue onto existing US 522. There were also several comments with concerns with Option 1 of the Fairview Connector due its proximity to the Fairview Subdivision as well as topography. Some comments referenced concern over bypassing the Town of Bath and the potential decline, however several comments were in favor of the bypass noting that the existing truck traffic presents safety, noise, and health issues for visitors, residents, and business owners within the Town of Bath. A summary of the type of comments received is provided below in no particular order:

- General Support of the bypass as is

- Support of Fairview Connector Option 2
- Prefer a truck only bypass
- Unsure if it will impact them
- Concern for noise
- Concern for pollution
- Concern for economic impacts
- Concern about real estate impact
- General concern/opposition of bypass
- Concern for Safety
- Concern for needing to use bypass for local traffic
- Concern for acquisitions due to project
- Concern for local traffic impact
- Concern for aesthetic and community character impacts
- Prefer 2 lanes vs 4 lanes for bypass
- Concern for bike safety
- Concern for roadway conditions at bypass intersections
- General environmental concerns

The public meeting notice, flyer, handouts, and news articles regarding the public meeting are provided as attachments.

## Attachments

- Comment Table
- Meeting Notice
- Meeting Flyer
- Meeting Handouts
- Newspaper Articles

# APRIL 19, 2018 PUBLIC MEETING | COMMENTS AND RESPONSES | JULY 10, 2018

| No. | Date Received | View/Comment |
|---|---|---|
| 1 | 4-16-2018 | A corridor connecting Berkeley Springs to Martinsburg would be a greater benefit to the economic expansion of WV and link the Panhandle in a way that would be more cohesive than the current slow and dangerous road of route 9. A bypass around Berkeley springs will not create any new economic development for WV and only allow faster bypass of this great state. |
| 2 | 4-19-2018 | I own "therapeutic Massage" and Earth Farm with Alpacas. I am worried about noise for both businesses. I am concerned for pollution as well. I live off Johnson's mill Road. These roads may put us out of business.<br>1. When alpacas are stressed their fleece is worthless to weave, spin or have a saleable product.<br>2. High tunnels are up and we cannot put up tree buffers or lose our crops. |
| 3 | 4-17-2018 | My name is Mike Rohm and I live in Fairview Subdivision (163 Finch Drive / Berkeley Springs, WV 25411) behind the hospital. From maps that I have seen, 522 Connector Road comes between my house and the hospital. Is this going to affect my property? I have to relocate for work and need to know because I think we will have trouble selling my house until we know how this will affect our property. Any information you could provide would be greatly appreciated. I have been unable to get any answers concerning this matter. |
| 4 | 4-19-2018 | The new highway has been needed in Morgan Co. for over 30 yrs. The truck traffic and the traveling traffic needs to be moved out of Berkeley Springs. I would like to see the construction begin as soon as possible. I hope "Now is the Time"! |
| 5 | 4-18-2018 | Please complete a noise study and consider noise reduction options as traffic moving 65 miles an hour or great will create a lot of noise. We recently moved here to get away from noise and traffic, with this project progressing, we may have to leave our planned forever home. Also concerned about local business as they rely on 522 passersby for business. This could kill the town.<br>Traffic studies are also needed to address the effect of the interchange to local traffic. For example, Rte. 9 and New Hope would probably need a traffic light along with several other intersections.<br>Wondering why we are accommodating VA commute and truck traffic at our expense.<br>Please do not proceed. |
| 6 | 4-19-2018 | I am 100% looking forward for Bypass construction to begin. I lived on the corner of Broadway St. and 522 for 17 years. The noise pollution and the road dirt and vibrations and CO gas from trucks and Cars is unbelievable. My house must be power washed twice a year. And the front porch cleaned every 2-3 weeks.<br>Also, the noise of trucks is so loud that you can't carry on a conversation without stopping every time a truck passes. This applies throughout the town.<br>Our town would be:<br>1. Cleaner<br>2. Quieter<br>3. Safer for people walking and driving<br>4. Less CO to breath during daily activities<br>5. More attractive for visitors/tourist. |

| No. | Date Received | View/Comment |
|---|---|---|
| | | 6. People that live right next to 522 as it exists right now would be healthier (Lungs/Ears/Stress/Etc.) |
| 7 | 4-19-2018 | My husband and I just moved to Berkeley Springs for peace and quiet, away from the noise and business…We live in the Fairview development, so regardless we will hear noise and our quiet peace will be disturbed! There are two options for the Fairview connection – option 1 Obviously will disturb the community and development we live in, going right behind our homes! I, and my neighbors, encourage you to go with "option 2", which will seemingly disturb almost no one. Please choose "option 2". I will do however almost guarantee you – the entire plan in general is not desired by anyone in Berkeley Springs. Please reconsider this project. And at the very least, choose option 2 as the Fairview connector. |
| 8 | 4-19-2018 | I just moved to the area in the Fairview development; As I am not excited at all about any of this project – the options for the Fairview connector road is discouraging. Please choose "option 2" which is further away from the homes in our development, so we can maintain some relative peace. Thank you for understanding. We would prefer not to have to deal with all the disturbance "option 1" will cause if it is right behind our homes and directly across the street from our home. |
| 9 | 4-19-2018 | I think trucks going through Berkeley Springs are a detriment to the town, but I don't think the bypass is a solution. Why do we not have a weigh station? The town will die and we can't afford to lose it. It will not only take jobs away from people, but it will lower our property values. We moved here because the town was very appealing, but if it dies, there would be little reason to stay. We need to attract business not lose them. |
| 10 | 4-19-2018 | Make some percent of contractor cost overruns go to improvements to pedestrian egress along 522 inside "project location". Make a percentage of all fines, fees, costs of contractor go to area along 522 in "project location" for improvements to all signage. Place significant signs along bypass to alert traffic to opportunities just off the bypass to minimize business loss to the town. Use "option 1" on Fairview Connection and place an "emergency vehicles only" ramp to the front of War Memorial emergency entrance. |
| 11 | 4-19-2018 | I support the project 100%. Thank you for minimizing the amount of homes that will need removed. Fairview connector needs to ensure a good sight view distance for turning onto Fairview Drive. |
| 12 | 4-19-2018 | Much needed bypass. 100% for 20-30 year.<br>1. Noise level maybe<br>2. Funds appropriate in past and exchange to Jefferson County. No No – moving money to other projects. |
| 13 | 4-19-2018 | The beginning of the bypass (traveling northbound) needs to be redesigned to allow northbound traffic the option to continue on existing Route 522. Mandating that all traffic use the bypass at the beginning will be extremely harmful to the economy of Berkeley Springs and the Town of Bath. |
| 14 | 4-19-2018 | I am a lifelong resident of Berkeley Springs, I have seen the congestion grow. I live on the southern end of town and avoid town due to the excess traffic. I believe the bypass is long overdue to stimulate growth and give safety to local residents in town trying to enjoy our beautiful Town of Bath. Please consider also making the southern ramp available so vehicles can go straight through on 522 to town and not get off on the bypass to get back on – that is going to be confusing for visitors. |
| 15 | 4-19-2018 | No Bypass |
| 16 | 4-19-2018 | We live in Fairview S/D (Finch Drive). The intersection has a bad site distance when you approach from the south. In the mid-1990's there was a fatal accident. The map doesn't show the dip of Fairview Drive in that area. |

| No. | Date Received | View/Comment |
|---|---|---|
| | | We prefer Option 2 for that reason and also, we have concern of the hospital diagnostic imaging tractor and trailer accessing on the Option 1 to the hospital. Tractor trailers do not do U-turns.<br>One other thought…The future development with businesses would be optional with Option 2. The sewer line is also in the area of Option 1. |
| 17 | 4-19-2018 | Looking at the plans at the meeting and the one that was drawn up years ago, it makes more sense to me to go past the silica plant on the east side and stay further east as to weave slightly around the existing homes at the north end of Sherrill Lane and to the west of the development on Sunset Drive! It appears to only put in a slight curve rather than cutting people's properties near their homes. This will have far less impact on people's quality of life. So I strongly oppose the proposal today. |
| 18 | 4-19-2018 | Fairview Connector Option 1 would be a disaster because of sight constraints where it connects to Fairview Drive, Option 2 connects at a flat area to Fairview Drive. At Finch Drive and Fairview Drive, I personally know of 1 death and 2 severe injuries due to auto accidents. Please take this into consideration and also option 2 is not as close to residences. |
| 19 | 4-19-2018 | I am a supporter of the project. The upgrade is sorely needed to help with safety and economic development. I expect the option 2 for the Fairview connector will be best due to poor sight distance on option 1. |
| 20 | 4-19-2018 | Getting the "trucks out of town" is pointless if there are not "quaint" areas, restaurants, etc. to occupy. History of numerous towns for which tourism is the lifeblood have been destroyed by such bypasses. Why? People pass them by. Why stop? |
| 21 | 4-20-2018 | I am writing to request a minor re-design of the intersection of the proposed US 522 bypass near Winchester Grade Road to allow northbound, local traffic to utilize the existing US 522 rather than being forced onto the bypass. The most frequent destinations for me and my neighbors are grocery, bank, fast food, convenience, and insurance office along the existing US 522 just beyond the proposed US 522 bypass merger at Winchester Grade Road. Local traffic should not be re-routed onto the bypass in order to frequent these locations. Moreover, I also believe a redesign would better promote public safety as local traffic forced onto the bypass would be required to use no less than three major intersections to reach the above referenced destination area. The majority of traffic accident occur at intersections. Thank you for your attention and consideration. |
| 22 | 4-26-18 | You need to put a Y at the ends of the bypass. If I understand it correctly, if I am traveling south to north to work, church or to downtown or Food Lion, I will be forced onto the bypass near Sheetz Route 13. I will then have to travel on a 4 lane highway and exit. Then backtrack south on 522. This makes no sense. I do not want to travel on a highway or backtrack to go shopping for groceries. Please make it possible to continue straight onto 522 without getting on to a highway. [drawing depicting how travel will happen with current design] Fix this problem. We should have an option for local traffic to go straight on 522. Make through traffic vs the Highway. |
| 23 | 4-25-18 | We do not need a 4 lane highway. All we need is a 2 lane limited access bypass to funnel traffic around town. We don't need trucks and traffic going 65+ miles an hour making all kind of noise pollution. A 65+ mile an hour 4 lane highway is overkill for 4 miles. How about a 2 lane road. Two lanes will save tax money. You really need another informational meeting. The last one was years ago. Things change. |
| 24 | 4-26-18 | Mr. Scites, My name is Max Crosen Jr., we own a house and 1¾ acres which is in line with the bypass. I have an idea which would benefit us and the State. Our property and the land above us, which the State already purchased was bought over 70 years ago by my |

| No. | Date Received | View/Comment |
|---|---|---|
| | | grandfather. I live next door to my parents who are in their 80s. If I could purchase the unused portion of land above us this would allow me to still be close enough to take care of them. Any assistance would be appreciated. Thank you. |
| 25 | 4-26-18 | Dear Sir, This letter is in regard to the Berkeley Springs, WV 522 bypass. I feel that this road is not needed. We do have a traffic problem in town, but there should be a better way to deal with it. I live on Morgan Street with the bypass planned for behind my house. This will make a bad condition for noise and air quality. Our reason for living out of town was to avoid these conditions. This could force us to sell and move.<br><br>I have three suggestions for this problem:<br>1. Not put in the bypass, instead, try routing the town traffic through without all the stoplights and using more of the side streets and moving it more efficiently.<br>2. If there is no other way, then take an idea from Cumberland, Md. They had the problem of taking I68 through their city and they had the clever idea of an overpass. If Cumberland could build an overpass over their city, surely WV could build one for this little dump town. That would save a lot of homes and sanities along with letting visitors see the town and attractions. This is supposed to be a tourist town and taking the cliental away from the business is not wise.<br>3. If the bypass goes thru, then there should be a Y connection to 522 on both ends. There are fire trucks, police cars, ambulances, etc. that need to not be wasting time on some back road to get to town. Also, the people on their way to town need a direct route for efficiency and old 522 is a straight route. Not having an entry and egress for locals doing business along 522 and town just seems stupid as a simple sign could route the through traffic onto the bypass and we could still have the access to the stores and business we need to get to with the Y. |
| 26 | 4-27-18 | Dear Mr. Scites, I am a resident of Morgan County and am employed with Morgan County Government as the County Planner and Floodplain Manager. I attended the April 19, 2018 public meeting regarding the proposed Rt. 522 bypass project and would like to forward some concerns/comments to you.<br>• It was stated at the meeting that the existing 522 at both ends of the bypass will be closed to thru traffic, diverting all traffic to the bypass. Local travelers must then exit off to get to old 522. I am opposed to this idea for it will direct local travelers and local truck deliveries to exit off into neighborhoods and onto roads that cannot handle the volume of traffic (Myers Road, Sugar Hollow, Johnson Mill and parts of Independence Street (old Davis Road)). If Food Lion or Dollar General has a truck delivery, a semi tractor trailer should not be traveling on Myers Road, Sugar Hollow or Johnson Mill Road. I think a sign at the north and south end of the bypass that directs thru traffic to the bypass (especially trucks traveling thru) and allowing local travelers to have an option to stay on 522 is a much better idea.<br>• Sugar Hollow Road travels around in a loop from Rt. 522. You are proposing to terminate the north end of the loop. This would be a hardship for some of the residents along this road for again, there are parts of this road that are very narrow and difficult to traverse with any type of large vehicle or trailer.<br>• Myers Road and Sugar Hollow intersections - There are sections of these roads, if not its entirety, that are not yellow-lined; only wide enough for one vehicle and portions are not paved. If all traffic is diverted onto the bypass, the volume of traffic exiting here and |

| No. | Date Received | View/Comment |
|---|---|---|
| | | traveling along a very narrow road and through residential neighborhoods (Catawba Apartments, Michael Manor Subdivision) could be hazardous.<br>• I'm confident that DOH will design adequate stormwater runoff best management practices (BMP) for this project but please keep in mind that there are flood control dams in this area that should not be considered in your stormwater design for handling any additional runoff.<br>• I would like to request that another public meeting be scheduled once construction drawings are completed. It is always beneficial for citizens to have the opportunity to review the completed design showing parcel data, right of way limits and specific construction BMPs proposed. The impact on the families affected by the new road is always a concern and I feel that the more information provided to the public, the better. would also like to request that a copy of the construction design be forwarded to me so the public has the option to come into my office to review the design. My office had a set from years ago and quite often citizens would come in to review them. Unfortunately, that set was destroyed when the courthouse burned down in 2007.<br>• I would like to request that DOH forward any floodplain encroachments to my office for review (bridges, overpasses, culverts).<br>I am in favor of the bypass project for the purpose of diverting truck traffic out of town but I feel that diverting all traffic to the bypass would direct local truck deliveries and local travelers onto roads that can' t handle the volume or type of traffic, and secondly, there is the possibility of this having a negative impact on tourism within the Town of Bath.<br>I appreciate your time and thank you for the opportunity to forward my concerns. Please feel free to contact me should you have any questions or need additional information. Regards, Alma E. Gorse |
| 27 | 5-1-18 | I live on the north end of proposed 4 lane highway that you have under design. My address is 39 Sherrill Lane. As of now from what I am seeing you are taking out the front of my property and my driveway. Me and my neighbor above me both have nice homes, but across from us are mobile homes and older homes. It would make more sense to stay further to the east side and miss home and go around the east side of US Silica to come back on US 522. |

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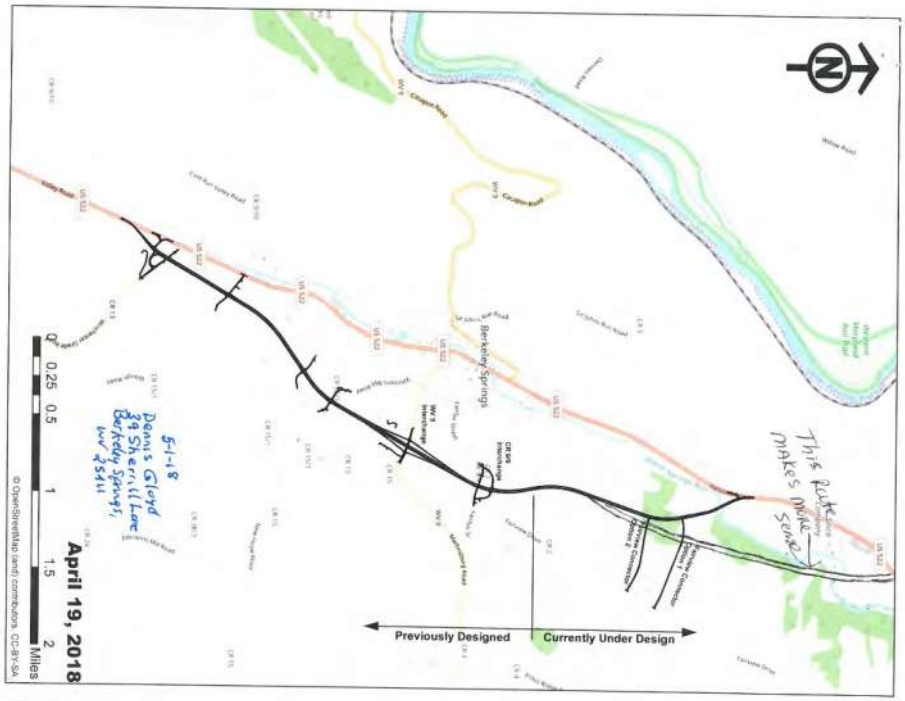
| | |  |
| 28 | 4-28-18 | It seems as though our house will be in the pathway of the bypass, so this is a real concern for me.<br>When I bought our house, I was working full time, and making good money, with no problem qualifying for a home loan. Now I am 65, semi-retired, living on social security + a part time job. Even if you take our house at fair market value how will I qualify for another home loan with my reduced income situation?<br>I am 65 and my wife is 62. What plans do you have to help senior citizens who are not as advantaged as the younger work force? |
| 29 | 4-30-18 | I am a 75 year old widow who moved here and built a home in Cacapon South 15 years ago. I read in the Morgan Messenger about the Berkeley Spr. Bypass. I am not against the plan except for the forcing of locals onto a 4 lane highway. I do not want to get off 522 in order to go to Food Lion, the pharmacy, and my doctors. Please change the proposal that forces locals onto a fast 4 lane road to do our local business. |
| 30 | 5-7-18 | Dear Mr. Scites:<br>On behalf of the Morgan County Commission (MCC), let me express our appreciation to the WVDOH and your project team for moving the 522 Bypass project closer to a reality. This project, essential to the economic development and quality of life for our County, has been |

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| | | under consideration for many years. We can't tell you how pleased we are to see the progress DoH and your team of engineers have made to make this actually happen.<br>We applaud the design your team has developed. The MCC desires that as the result of the 522 Bypass, the economic viability of the County's downtown business district along the current 522 be preserved. We further hope that the 522 Bypass will secure the safety and well-being of all residents of the neighborhoods, and travelers along the streets and byways intersected by the 522 Bypass.<br>The MCC feels that modest modifications to the current design for the 522 Bypass can be made without causing undue delays or additional costs to accommodate the above mentioned goals. We respectfully offer, for your consideration, the following suggested modifications to the current design:<br>1. Allow non-truck traffic heading north to proceed along the current 522 to downtown Berkeley Springs and beyond without being forced to exit on to the southernmost entrance to the 522 Bypass and thereafter having to return to 522 via the various turnoffs that the current design provides;<br>2. Allow non-truck traffic heading south to proceed along the current 522 to downtown Berkeley Springs and beyond without being forced to exit on to the northernmost entrance to the 522 Bypass and thereafter having to return to 522 via the various turnoffs that the current design provides;<br>3. Implement appropriate signage, traffic control, speed limits, weight restrictions for traffic exiting the 522 Bypass - along with maintenance of appropriate road width and quality near those exits - to ensure the safety of residents, drivers and pedestrians in the neighborhoods adjacent to Myers Road, Sugar Hollow Road, Johnson Mills Road, and other local roads or byways likely to experience added traffic as a result of the 522 Bypass.<br><br>While we have some specific proposals to offer on how these goals could better be achieved, we will wait to share our ideas with your team at an appropriate time and place of your choosing.<br>As always, we respect the engineering experience and expertise of your team. We also appreciate the unique opportunity Morgan County has to build the Bypass in the near future, and wish to do nothing to jeopardize the project. However, we do feel that it's critical to consider reasonable modifications to the current design in order to realize the full potential the Bypass has to offer our County, as well as the rest of the state of West Virginia.<br>Many thanks for your consideration, Joel Tuttle, President, Morgan County Commission |
| 31 | 5-2-18 | The proposed plan appears to be overly complex and over-reaching. There should be no requirement to get off on the bypass. It will be confusing for residents & visitors and be detrimental to many small businesses. Too many properties will need to be taken for this design as well. Please revise the plan! |
| 32 | 5-10-18 | I appreciate that a bypass around Berkeley Springs was included in the Governor's plan for updated roads in WV. However, the plan that all vehicles have to go on the bypass instead of staying on Route 522 is dumb, dumb, dumb. Why is your plan to build access roads to get off the bypass even considered? Let the traffic remain on 522 if coming into town and others not coming into town get on the bypass. That's how Warrenton, VA as well as other towns have their bypasses work! Elderly drivers, especially, do not need a 65 mph road around town and then try to get off a correct place for where they are headed. Please disband this idea and listen to our Morgan County citizens. |

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| 33 | 5-17-18 (email) | Good Afternoon, I am the Transportation Supervisor of Morgan County Schools and there has been some question arise on the bypass and the existing US 522 that I am hoping you can answer for me. Will the US 522 by pass completely close down the existing US 522? We have two schools directly off of US 522 and wondering how this change is going to restrict our traffic into and out of the schools. Our bus garage is directly off of US, so getting on and off of the existing US 522 will be imperative.<br>Any answers you could give would be greatly appreciated. |
| 34 | 5-16-18 (email) | I am writing to encourage design changes in the proposed 522 Berkeley Springs bypass. The current proposal would require school buses, parents, and staff to use the bypass which increases time and impacts safety. By requiring all vehicles to merge onto the bypass and use exit ramps, the potential for collisions is greatly increased. I believe the only safe design would allow motorists the choice of entering the bypass or not. |
| 35 | 4-30-18 | People traveling through Berkeley Springs should not be forced to enter the bypass. County residents should not have to do that. |
| 36 | 5-4-18 | 1. Town of Bath (B. spgs); Historic Tourist Town – Tourists provide/support Tax Base, upscale restaurants, hops, spas, Inns, B&Bs, Warm Springs are supported by Tourists.<br>2. No So./No. Bound Business Exits Directly off Bypass onto US 522 will kill town. Trawl other states and see how it's done! See dead towns, including those in WV killed by By-passes. (Huntington?)<br>3. With Direct Business (No./So.) access, only Rt. 9 exit needed.<br>4. Large % of Teachers I hired for Morgan County Schools had "driven through town" and decided they wanted to locate here. Exposure, Exposure, Exposure. Bypass without straight-through business Rt will kill another WV tax base! |
| 37 | 5-14-18 | Dear Mr. Scites, Twelve years ago my mother and I started a bi-monthly art show at Berkeley Springs State Park in downtown Berkeley Springs. Named Art In The Park, which runs from May through October. We started the show as an affordable marketplace for local and regional artists to sell their art. Art In the Park has been very successful. Plus, I'm happy to say that we have paid the state park more than $15,000 in fees.<br>I myself am an artist and I and Many of our artists depend on it as part of our income. Most our customers are from the DC/Baltimore area and are on their way to I70. Seventy percent of our customers just happen to be driving by and see us and the Farmer's Market (which is across the street) and stop. Then a lot of them visit the shops, grab a bite to eat, etc. If all the traffic is forced onto the bypass without a choice to drive through, it will kill our show. We depend on that traffic. You can see more about our show at Art in the Park WV on Facebook. |
| 38 | 5-9-18 | Dear Mr. Scites, The plan looks good to me. Proceed. |
| 39 | 5-7-18 | Dear Mr. Scites,<br>I am writing to you regarding the proposed US 522 Berkeley Springs Bypass. I am adamantly opposed to this bypass being built and I will list my reasons and concerns:<br>1 – My husband and I retired to Berkeley Springs in October 2010. I wanted to open a small business to keep me busy and make extra money. In doing so I used a large portion of our savings. My business, Berkeley Springs Memories, is located at 15 N. Washington St. in downtown Berkeley Springs. It is a Gift shop/Souvenir Shop. |

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| | | Without hesitation, I can tell you that between ¼ and 1/3 of my daily business comes because of drive-thru traffic. When I ask customers how they arrived in Berkeley Springs, many, many tell me it is because they have driven through in the past and never had a chance to stop before. I feel confident in saying that this is business will disappear upon the arrival of a Bypass. NO BUSINESS can survive if it loses ¼ to 1/3 of its customers. I can attest to the fact that I personally NEVER use a "business" route when a Bypass route is available. I want to get where I'm going and not interested in driving through the small towns. If there were no other choice however, I would appreciate the time spent driving slowly through a quaint town.<br><br>2 – I have attended meetings regarding the Bypass and have yet to hear a verifiable, logical reason for it. No one has ever asked me or other business owners in the downtown area what they felt would be the repercussions. I don't believe there has ever been a traffic study, other than the word of mouth of frustrated people waiting 5-10 minutes in traffic. When I hear this frustrating delay story, I laugh and advise them to spend a day in Washington DC traffic.<br><br>I have taken up my own unofficial poll of customers asking them their opinion of a bypass and 100% of them were horrified at the idea of passing us by.<br><br>When I looked at the map provided by WVDOH it was clear, by landmarks, that the map was old. There appeared to be a hand-drawn road titled Bypass. The on/off at Winchester Grade Rd/RT. 13 was complicated with multiple overpasses and it had #522 totally blocked off, making it impossible for any vehicle to go north toward town at this intersection. Looking at the map further, there appeared to be at least 7 bypass intersections. 3 of these intersections are barely 2 lane roads already in terrible condition, 2 are busy roads with virtually no room for cloverleaf access, and the other 2 have yet to be designed.<br><br>3 – This bypass is approximately 4 of 5 miles long, cutting through established neighborhoods with virtually no room for "future development". The cars will go from a 2-lane road (45 & 55 mph) to a 4-lane road (65-mph) and then back to a 2-lane road (55 mph). On exiting the bypass at the north end of town, vehicles will proceed to a small bridge in need of repairs and with speed limits of 35 mph.<br><br>4 – Our current politicians are telling us that this will bring lots of industrial and commercial business. We have a current tried and true tourism business that brings millions to our County and it seems senseless to internationally destroy this income stream. We have a large industrial park appx. 10 miles outside of town that remains available as well as hundreds of acres along #522.<br><br>5 – Our current roads are in poor condition. We have many, many dirt roads throughout the county. To build a multi-million dollar 4 or 5-mile road appears to be a slap in the face of those residents that must live with the poor roads we currently have. We live in the 21st century and are living with 19th century roads. I know for a fact that my own road takes 2 or sometimes 3 days to get plowed after a storm and in the 8 years that we have lived here, it has never been repaved, only poorly done cold patches. |

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| | | 6 – Our county's most valuable resource is the pristine water. People have, for centuries, come to Berkeley Springs to enjoy the healing waters. Building this bypass and the potential growth will drastically draw on our water source and our sewer system. No one is prepared for this potential problem.<br><br>In conclusion, this Bypass would destroy our laid-back, quaint, life style that people have sought out. Building a bypass will bring more trucks, more noise, more dirt, more traffic issues and problems for our natural resources. It may solve a very few current issues, but with a little more planning, I believe those issues could be resolved as well.<br><br>I implore you to reconsider building this bypass. Please do not destroy my business, our lifestyle, and our beautiful town. It is totally unnecessary.<br>Thank you for your time and I look forward to a response. |
| 40 | 5-7-18 | Dear Mr. Scites:<br>I am writing to you today with my comments about the proposed bypass highway at Berkeley Springs here in Morgan County, West Virginia. Simply put, I'm vehemently against the bypass. We don't need it and it will destroy us.<br><br>Berkeley Springs' main industry is tourism. At least 30% of tourism business comes as a result of people first discovering our town during a road trip as they pass through on their way to some other destination. They see the town's charming appeal and decide to make it a destination on subsequent road trips. A bypass will cause Berkeley Springs to lose at least 3oX› of our tourism business. Tt will kill our economy and our town.<br><br>The existing roads which would receive more traffic via access to and from a proposed bypass are not designed to handle such traffic It would create a hardship for residents along those roads and may be dangerous as well. A bypass will ruin the lives of people living near and along its path.<br><br>We are delighted that there is money available for road projects here. The money will be far better spent building an access road between Rt 522 north of town and Fairview Drive, where the hospital is. That road will give emergency vehicles better access to the hospital and will cost less than a bypass. The remaining money will be well-spent repairing the existing roads. There is a great need for both of those projects.<br><br>As you can see in my letterhead, I am a veterinarian and a bypass will not directly affect my business. However, a bypass will indirectly harm my business by destroying the local economy. Plus, I care about my town.<br><br>I respectfully implore you to redirect funding for a bypass, thereby not harming Berkeley Springs. Redirect the money to build an access road between Rt 522 and the hospital, and to the repair of our existing roads. That is far more desirable and beneficial for our community |

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| 41 | 5-2-18 | 1. Relocate your road, instead of behind my deck on Sugar Hollow Road, this is why we bought this house 30 years ago, not close to highway and close to town.<br>2. This is a residential area speed 65-35 miles<br>3. Buy our house – Please! |
| 42 | 5-1-18 | Dear Mr. Scites:<br>Please consider these comments regarding the US 522 Bypass Project.<br>Overview:<br>When a majority of citizens in a community express dislike for official plans to dramatically change their environment and quality-of-life; real community needs and solutions become clearer. A prime example is the 522-Bypass Project that rigidly remains a 4-lane high-speed at-grade thruway connector between interstates 170 and 181. The overall goal, as stated in the WVDOH handout, is "to improve and upgrade US 522 to restore capacity to an acceptable level of service to accommodate increased traffic c and improve safety." Based upon past experiences, this project goal will actually exacerbate current traffic problems by encouraging even greater pass-thru heavy trucks and vehicular travel to take a short-cut through Morgan County; causing a turnpike effect through Morgan County at the small historic Town of Bath in West Virginia.<br><br>Not only is the project goal shortsighted regarding improved traffic flow and safety, it promotes continued use of fossil-fuel energy for long-haul mucking and travel by car at a critical period on Earth when life, including humanity itself, is imminently threatened by global warming and needs rapid change in energy usage and supporting transportation infrastructure. Insanity is doing the same thing over-and-over again, expecting different results. Current climatic conditions demand fossil-fuel conservation now, while rapidly transitioning to alternative energy. Conservation now implies: 1) reducing transport and mobility that uses fossil-fuel, and/or 2) using more efficient rail and mass transit.<br><br>The "new" US 522 is the same design that citizens rejected years ago. And even greater changes have been taking place in the interim period. "Go Local", "Recycling", and "Destination Tourism via Mass Transit" are the current themes for economic development that sustains ecological integrity. In addition, movement towards simplicity in life style, more compact living spaces, common-shared spaces, repurposed public domain as compact public-service centers and/or subsidized mini-habitat villages, etc. Societies are decreasing individualized long-distance mobility and expanding the use of mass transit to facilitate preservation of natural forests and historic areas.<br><br>Unfortunately, West Virginia Division of Highways, WV Department of Transportation officials, and most WV state and local politicians, continue to cater to the status-quo of Carbon Enterprise Oligarchs, holding on to the past instead of planning for the future. The many comments from constituents trying to protect our future, preserve the historic town of Bath, maintain a rural quality-of-life in Morgan County, safeguard healthful waters, sustain the area's natural forests, and preserve the scenic mountainous terrain go unheeded.<br><br>Will citizen's comments be thoughtfully considered this time? Hopefully, yes. |

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| | | Summary of Major Community needs:<br>1. Get pass-thru tractor-trailer-trucks off of US522 through the Town of Bath to alleviate noise; pollution; traffic backups; damage to historic sites; negative impact on Berkeley Springs Park; and damage to the areas natural scenery and rural character that make Morgan County attractive to residents and visitors alike.<br>2. Reduce traffic on US522 in town via a simple 2-lane mandatory truck bypass with inspection station for all tractor-trailer trucks; to insure lawful safety compliance, and to thwart Internet- routing of interstate thru-traffic.<br>3. Keep other vehicles on existing US522; encouraging people to stop, shop, visit, and boost historic Berkeley Springs.<br>4. Minimize disruptions to existing neighborhoods, schools, businesses, etc. in Morgan County.<br><br>Major problems with US 522 design...<br>1. Economic-development's plan to "expand our economic base" via an outdated strip-mall-highway, like Route-40 in Hagerstown, is flawed and myopic. It is flawed by envisioning added jobs and tax revenue without deducting: utility upgrade costs; tax-incentives to lure corporate conglomerates; jobs and tax revenue lost by predictable failures of local businesses; and total money circulating out of our local economy into outside conglomerates. It is myopic because it doesn't consider impending effects of fossil-fuel usage.<br>2. Big-builders of highways and strip-malls rarely employ local construction workers and strip-mall jobs are minimum-wage. Monetary benefits go to the Fossil-Fuel Industry, Construction Industry, Corporate-Conglomerates, lobbyists, lawyers, bankers, land speculators, and political-governmental officials who promote interstate connector highways.<br>3. Tractor-trailer trucks, along with massive redirected interstate traffic, traveling at high-speed on 4- lanes with at-grade road crossings and no traffic-lights (even with a median-strip) impose a hazardous barrier between eastern neighborhoods and town.<br>4. Merging 4-lanes of high-speed pass-thru vehicles and tractor-trailer trucks onto US 522's 2-lanes means unmanageable traffic backups at peak periods.<br><br>Suggested solution:<br>Two-lane mandatory truck bypasses are successfully used in many areas to get big trucks out of small towns; without impeding other traffic. Truck bypasses include overpasses or traffic lights at enough cross-streets to facilitate local mobility and assure safety. Policing on bypasses enforces state-law compliance, insures truck/cargo safety, and bolsters local revenue.<br><br>To expand economy, strategically placed truck-stops provide food, services, and rest for truckers. Truck- stop facilities are built by local builders for locally operated businesses; providing local jobs and increasing local money circulation. |
| 43 | 5-11-18 | About project as currently designed impacts Berkeley Springs Town as well as surrounding areas in too many negative ways. Please reconsider your current design. |
| 44 | 5-11-18 | 1. Construction of the bypass would cut off my current access of Sugar Hollow Road, forcing us to use the section of road that has a very steep grade and 3 sharp turns. This would cut off my tractor -trailer access because a low-boy can't navigate those sharp turns. (I bring a low-boy home 1 to 2 times a year.) |

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| | | 2. In winter, that steep hill is treacherous. Emergency vehicles would have a difficult time traversing it. Since it's a dead-end road as currently planned, I'm sure it would become low priority for maintenance. I already have a standing problem with the state road – at least 15 years old – for lack of maintenance. The road floods in front of my property at least twice a year, washing out the bank and depositing debris on my property. I have to clean this up myself. I have brought an excavator in twice to regrade. I met with state road maintenance supervisors several times and, also, with a district engineer, but nothing has ever been done to fix the problem. A simple fix is possible by increasing pipe sizes to handle the flow and by maintaining ditches.<br>3. The bypass takes portions of my land that are premium, namely, my stream and waterfall.<br>4. In the years since this bypass project was last discussed, I have purchased additional land and build a 6,000 square foot garage/workshop on it. The proposed right-of-way looks to be within a few feet of my building and it takes the area in which I stage my firewood for my outdoor stove (the primary heat source for my home and workshop). I have no other place to store the wood except for my yard which has limited level ground.<br>5. My property value would surely be diminished by:<br>a). the close proximity to a high-speed bypass (noise, loss of privacy);<br>b). the destruction of the natural beauty of my waterfall and stream;<br>c). the poor access to my house (steep hill, dead-end road 0 pretty much I'm being put in a hole!) |
| 45 | 5-12-18 | Mr. Scites,<br>I oppose the Berkeley Springs Bypass road. It's nothing but a stop to the trucking industry and everybody knows it. Any bypass around town will totally ruin the rural character of the country. Forever.<br>Trucks don't need this. They can go around on I-70 and I-81. We should simply ban trucks through Berkeley Springs. Yes – ban trucks. Local deliveries only.<br>The project cost of this is $64 million? We all know the estimate is a farce. Whose estimate is this? Yours?<br>Meanwhile the county road to my place isn't even paved. I don't want it paved either.<br>Scrap the plan for the 522 bypass, save Morgan County from catastrophe. |
| 46 | 5-14-18 | I have concerns about how the 522 bypass will substantially affect my husband and me personally, as well as those of us who live in the "hollow" of Sugar Hollow Road. There are also serious concerns about the effects of the bypass on the Berkeley Springs community as a whole.<br><br>My husband and I live on Sugar Hollow Road which is shaped like a horseshoe, intersecting with Route 522 at the north end across from the Rescue Squad and at the south end by the ROCS convenience store/gas station. Because our house is much closer to the north access point, that is usually where we enter and exit Sugar Hollow Road. The proposed bypass will take away our usual access to SZ2, putting us at a dead-end and forcing us to use the south access point.<br><br>Since our driveway will be the last one before the dead-end, it would become the default turn-around for the school bus, state road trucks and snowplows, mail carrier, meter reader, UPS/FedEx trucks, delivery vans, fire engine, ambulance, and anyone else who needs to turn around. That is not acceptable. The bypass design needs to include a turn-around spot that can accommodate large vehicles. |

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| | | Being forced to access Sugar Hollow Road only by the south end poses a number of problems, not just for my husband and me, but for everyone who lives in the "hollow" of Sugar Hollow Road.<br>a) Depending on where each individual's home is, it is necessary to make either a hard right or left turn onto a very steep stretch of road — about 956 feet long at an average grade of 13.5% (grades range from 10.6% to 15.7%). At the top of this hill, it's necessary to make an immediate hard left turn, followed closely by a hard right turn. When the road is covered with froze n precipitation of one sort or another in the winter, it will be nearly impossible to climb the hill because the hard turn at the bottom of the hill precludes the ability to get a "running start" before driving up, and the length and pitch of the road make it difficult to maintain enough speed on a slippery surface to make it to the top and be able to make the immediate hard left turn. On one occasion last winter when we had a few inches of snow, a sheriff's SUV slid off into a ditch while trying to climb the hill — and he was near the bottom of the hill. In the event that a vehicle could only make it part-way up the hill, backing down would be dangerous. Driving forward down the hill would also be dangerous because of the hill's length and steep slope and the hard left or right turns at the bottom. If a vehicle couldn't safely make the turn at the bottom, it would end up in a ditch or the creek or run into a tree. Two vehicles approaching each other from opposite directions on the hill would have an additional challenge because the road is barely wide enough for 2 vehicles and is bordered by drainage ditches on both sides. I f a medical or fire emergency occurred at such times, it would be dangerous for the emergency vehicles to come down that hill. Delays in the timely treatment of a medical or fire emergency could be deadly. Emergency responders' safety would also be at risk trying to safely negotiate that slippery hill.<br>b) My husband occasionally brings home heavy equipment, transported via a lowboy trailer, to make improvements to our property. The truck and lowboy transporting the equipment easily access our home by coming in at the north end of Sugar Hollow Road, but it would be physically impossible for the truck and lowboy to navigate the turns at the top and bottom of the previously mentioned steep hill if the only access to our house would be from the south end of Sugar Hollow Road. Because we have access now, we should also have access after the bypass is built.<br>c) As already stated, safety and accessibility issues will be caused by eliminating access to the north end of Sugar Hollow Road for the residents of the "hollow" on Sugar Hollow Road. To ameliorate those issues, a major upgrade to the hill and the sharp turns at the top and bottom of it would need to be undertaken before the bypass is even started so that the residents of Sugar Hollow Road are not left with unsafe conditions and poor access during the bypass construction phase. The proposed bypass plan creates safety and accessibility issues that do not currently exist.<br><br>At the present time, getting off of Sugar Hollow Road onto Route 522 from both the north and south ends, can be challenging because of the amount of traffic on 522, particularly on Friday afternoon/evening and on weekends, especially during the warm weather months and holiday travel times. Once the bypass is built, I expect that situation to deteriorate even further. The current bypass plan has the bypass intersecting Sugar Hollow Road at grade, somewhere before the current<br>south end of the road. For everyone living on Sugar Hollow Road, it will be necessary to either cross over 4 lanes of high-speed traffic to get to the other side of Sugar Hollow Road and then, to Route 522, or to merge onto the bypass from a stop sign. From what I can see on the proposed bypass map, there does not appear to be an acceleration lane to safely get up to speed before entering the travel lane. |

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| | | That's a serious safety issue that compromises the safety of those entering the bypass and the bypass travelers who may have to suddenly slow down for merging traffic. Plus, as mentioned earlier, it sometimes takes a while to get onto 522 from Sugar Hollow Road at the present time when the speed limit on 522 is only 35 mph. I expect it to be much more difficult when the bypass traffic goes by at 65 mph. All of the at- grade intersections along the bypass will face similar safety and access issues.<br><br>As far as I can tell from the proposed bypass drawings, parts of our property will need to be taken for the bypass right-of-way. That includes part of the stream that runs along the lower portion of our property and a lovely little waterfall along the stream. It also looks like the right-of-way ends just feet from the back of my husband's workshop. I can't be sure from the drawings, but it may also take away some of the area where we store the firewood for our outdoor wood furnace.<br><br>For all of the reasons stated thus far, and because of the proximity of our house to the actual bypass - which will be noisy, unsightly, and take away our privacy - I expect that the marketability and value of our property will be greatly decreased. I wonder if we will be fairly compensated — or even compensated at all — for the property devaluation.<br><br>There are aspects of the current bypass proposal that are also troubling for everyone who travels on Route 522.<br><br>Most towns that have a bypass also have the option of not taking the bypass by continuing on the main road — often called the business route. This current bypass plan forces everyone traveling towards Berkeley Springs from either the north or the south to get onto the bypass. This is totally unnecessary. Locals will not want to be inconvenienced by going onto the bypass. Many travelers who might stop in Berkeley Springs if they actually saw the town, won't, because they are forced onto the bypass and won't even see what the town has to offer. According to Berkeley Springs merchants, as much as 30% of their income comes from out-of- towners passing through Berkeley Springs who stop and shop. 30% is a lot of income to potentially lose,<br><br>As already mentioned, safety at the at-grade intersections with the bypass is a big concern. From the map of the proposed plan, it appears that there are deceleration lanes for those leaving the bypass and turning off at one of the intersecting roads. However, there do not appear to be acceleration lanes for those merging onto the bypass from an intersecting road. Merging into 6S mph traffic from a stop sign is a challenging and dangerous situation for both the merging driver and drivers already on the bypass. Both deceleration and acceleration lanes are needed at the at-grade intersections and must be long enough to allow for safe deceleration and acceleration.<br><br>Since the speed limit on the bypass is 65 mph, I wonder if there will be safety issues when the northbound bypass traffic must merge into one lane going 55 mph on Route 522 and the southbound bypass traffic merges into one lane only going 45 mph.<br><br>As I read about the proposed 522 bypass and look at plan drawings, a number of questions come to mind:<br>a) How was the need for a bypass determined? Is there a traffic study or other needs survey that can be referenced?<br>b) Was local input solicited for the design? If so, from whom? Is there a record of the input that can be read? |

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| | | c) Will there be a follow-up public meeting to address issues presented during the public comment period?<br>d) Is there already funding for the entire project to completion? Thank you for reviewing my comments. |
| 47 | 5-14-18 | As a citizen of Morgan County for many years, I am gravely concerned about the news of the future plans for a bypass around Berkeley Springs. The current plan of funneling traffic around town will eventually lead to a "ghost town"; (much like neighboring Hancock, MD). Traffic, especially truck traffic, going to 55 mph to<br>65 mph (on the bypass) then gearing down to 55 mph to cross a two lane bridge are baffling.<br><br>The main exit off of 522 North is planned for below my home. In 1956 my husband and I built a home on 522. The noise and multiple fatal accidents from Winchester Grade Road to the Dairy Queen resulted in us building a new home off of Winchester Grade Road. We were so happy to move to this new location and finally have a more quiet surroundings.<br><br>Instead of a bypass, build an exit to the hospital which is needed and won't disrupt so many peoples lives. Or, make 522 a toll road. Instead of spending money, let's generate some much needed funds for the state. (How about repairing the existing roads!) Lastly, I am baffled and would like information on how a four land road will handle the traffic feeding into a two lane bridge.<br><br>Your further consideration into these plans and the concerns of the citizens of this county would be appreciated. Thank you. |
| 48 | 5-12-18 | In response to the offer for a comment period from West Virginia DOT I respectfully submit this letter with my opinion and recommendations regarding the proposed Hwy 522 Bypass in Berkeley Springs Morgan County.<br><br>I am qualified to comment as a Berkeley Springs property owner at 157 Congress Street in the Historic Town of Bath. We have a vested interest in the community of Berkeley Springs and Morgan County since 1989, now approaching 30 years we have enjoyed the community, merchant's, businesses and people. As property owners for this tenure, my family members and friend's have enjoyed the small town WS atmosphere with the exception of the commercial trucking traffic. Owing to our involvement and commitment to this community long term, we are aware of plans and objectives for the 522 Bypass.<br><br>Details of the 522 Bypass planning released earlier in 2018 have caused some great amount of concern that the planned implementation may have substantial adverse impact on some locals and unbalanced impact on all locals. Those concerns are related to (1) economic impact, (2) Real Estate impact, (3) inconvenient / unnecessarily impeded access to town services, features, merchant's, businesses and local government, In my opinion this plan offers an unfair exchange of traffic benefits & remedies for detrimental ROW, detriments to local commerce and detriments to local convenience.<br><br>A better solution is beyond my scope but within reach of DOT engineers. My suggestion would play along the lines of the following. |

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| | | Better solution — Exit required optional / mandatory access to 522 Bypass roadway for commercial thru traffic with no reason to stop in Berkeley Springs. Exit required optional access to 522 Bypass for in- transit traffic (non-commercial) desiring a direct, speedier transit around Berkeley Springs Northbound and Southbound. 522 normal traffic continues thru BS as a "Business Route" no exit required.<br><br>Better solution - Use existing roadway's & state / county ROW to maximum extent to establish bypass roadway north of Berkeley Springs and minimize impact to landowners for new ROW.<br><br>In my opinion, this approach will minimize the risk's associated with the 522 Bypass for locals and will provide the important benefit of an alternate route for all 522 traffic during traffic halting community events or emergencies. |
| 49 | 5-15-18 | To whom I may concern, I was born in Berkeley Springs Nov. 7 1960. I have lived here my whole life. I love my town and the people. I feel that I should have some say about the bypass. Most of the people that live here n elders. They nor myself would feel safe on the bypass. I worked in Hagerstown MD for seventeen years and took old forty due to the speed on the interstate. It's so sad that you can't sit outside your house due to the truck noise through town and they use their Jake brake. The bypass is going less than five miles then why not a tow lane, not a four lane and let 522 go straight to Hancock and Winchester. It's going to cause wreaks when entering the two lane for a four lane. And, to many off ramps. The trucks have 81 and 70, they do not need to come through our small town, and stay on those roads. They break the law and scare people, older people by tail gating. Then when you turn off, they lay on their horn. The pipe line came here and we the people had no say. I have a home and they are nine other homes on this land and each deed says that the land can not be commercialized. Well, a person bought a plot and took myself and others to count to overturn that and the judge rules in their favor. You have to have money to get your way in this town. Annette pays taxes and gives. Why can't you hear what we want and not about you all think we want or need. This bypass will raise our taxes, more state road trucks etc… The government and state need to ask me what we want and listen. Like I said, I love my town, but I don't care for the people who like to tell me what I want. And, by the way, the trucks can't be pulled over because there is no place for them to be pulled over. Thank you,<br><br>P.s. We the People not – you the people. |
| 50 | 5-7-18 | 1. Yes, we need a bypass<br>2. But not a "cut through" with enough on and off ramps to completely destroy one of the most historic and popular tourist towns in West Virginia.<br>3. need to redesign, redesign, redesign!<br>4. How about a true "truck" bypass? |
| 51 | 5-16-18 | My concern is the closing of 522 at the North and South entrances! I feel all traffic should not be forced to use the by-pass. I urge the redesign of the by-pass that would allow through traffic to continue on US 522 directly through town, also to insure the safety and integrity of the neighborhoods through which the by-pass will go. My street is to be an exit road and safety is my biggest priority with the access to town on the North and South entrances to Berkeley Springs. |
| 52 | 5-14-18 | Dear Sir: |

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| | | We have studied the proposed plan for the construction of the Route 522 Bypass of Berkeley Springs at length and have some grave concerns regarding its impact. First and foremost is the effect that this project will have on our four family properties located at the end of Merrywoods Drive. This plan will most likely destroy the residence that we now consider our family home. Even if the building were spared, we will no longer be able to enjoy the sylvan setting that we treasure. For this reason, it is paramount for those of us with property in the pathway of progress to know that our sacrifice is of great benefit to this community and, in the long run, worth it.<br>According to West Virginia Department of Transportation documents found online, "the Berkeley Springs Bypass will be a four-lane, controlled-access expressway with a grassed median and a design speed of 65 miles per hour." The purpose of this 20-year-old design is to alleviate the heavy truck traffic and congestion in Berkeley Springs; but the plan may be outdated and may not take into account the increase in traffic, the size of current trucks, recent growth of the area, or the best interests of the community.<br>Concerns:<br>• This plan will dump increased traffic onto four narrow, curvy country roads never designed for heavy use and not suitable for bypass access. Drivers unfamiliar with the area and relying on GPS will be diverted onto Sugar Hollow Road, Myers Road, Johnsons Mill Road, and Fairfax Street. The topography of all those roads is not favorable for increased traffic, and the thought of extra vehicles being funneled down through the Johnsons Mill Road and Fairfax Street residential sections is frankly very scary.<br>• Interstate highways with speed limits of 65 mph have interchanges and overpasses rather than intersections to eliminate the necessity of local traffic crossing the highway. Intersections are understood to be contrary to the concept of controlled- access. In this plan, however, only the Winchester Grade Road and the Route 9 junctions are scheduled for an overpass. Since no bridges are planned where the bypass meets Sugar Hollow Road, Myers Road, Johnsons Mill Road, and Fairfax Street, then an intersection at each site will be necessary to facilitate the movement of local traffic across the expressway. If local traffic is required to stop and then cross the 65 mph "limited-access" highway, the public's safety will be at risk daily.<br>• Local motorists must be able to make safe transitions between country access roads and the high-speed bypass. Unlike the interchange with Route 9, the current plan does not show extended entrance and exit ramps at the bypass intersections for Sugar Hollow Road, Myers Road, and Johnsons Mill Road. For the safety of all motorists. the intersections with Sugar Hollow Road, Myers Road, and Johnsons Mill Road must have adequate acceleration and deceleration lanes to safely separate entering and exiting traffic from bypass traffic traveling at 65 mph.<br>• Under the current plan, increased traffic will exit onto Sugar Hollow Road, Myers Road, and Johnsons Mill Road, perhaps making additional traffic signals necessary to allow for the smooth flow of traffic in town, thus further disrupting the smooth flow of traffic in town.<br>• Nothing in the current plan compels the bypass traffic at the northern or southern end to slow down to 55 mph and 45 mph respectively. Planners have stated that adding a traffic Y at the merger of either end of the bypass might produce the danger of high-speed traffic merging from four lanes to two lanes, but an alternative plan to slow down the traffic at each end of the bypass has not yet been submitted.<br>Requiring bypass traffic to decrease its speed when rejoining Route 522 is vital to the safety of all motorists. Construction of round-abouts/rotaries (multiple-laned traffic circles) at both ends of the bypass would eliminate at least one complicated interchange and one of the bridges. It would also ensure that traffic speed decreases to allow the bypass traffic to feed safely into a slower speed zone. |

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| | | Construction of an acceptable bypass around Berkeley Springs must serve its citizens first. It is imperative that additional studies be done to determine the impact of the bypass on local roads and traffic. Non-local traffic should be diverted with every effort to reduce any inconvenience to local residents. To protect the local business interests and preserve the character of the town, Route 522 should feed directly into town while the bypass should veer off eastward. Round-abouts/rotaries at both ends of the bypass would allow for the smooth, safe transition of traffic going onto and coming off of the bypass without the need for an overpass at the southern end. Limiting the exchanges to one at Route 9 and a second at one of the sites near War Memorial Hospital would still allow local traffic to access the bypass while at the same time eliminating the threat of increased traffic and congestion on secondary roads and residential streets. Since the hospital interchange is still in the design phase, the planning commission would be well-advised to convene an ad hoc committee composed of highway planners and a few well-informed local residents to develop a plan in the best interests of the town. I urge you to seriously consider the ramifications of the current plan and to revise it so that the needs of Berkeley Springs' citizens are best served. This is a case where less truly is more. |
| 53 | 5-18-18 | Please reconsider blocking all traffic on US 522 North Bound lane and south bound lane. Local traffic should be allowed to pass through town of Bath/Berkeley Springs. All trucks (except local delivery trucks) Must use the bypass as well as through vehicles. Forcing all local traffic onto a bypass creates potential for accidents. |
| 54 | 5-16-18 | I am a long-time property owner in Morgan County and read with interest in the recent Morgan Messenger the plans for the 522 Bypass.<br><br>I agree with the Morgan County Commissioners and the Chamber of Commerce Task Force that some changes to the proposed design are necessary. Most importantly, non-truck traffic from Hancock and Winchester should be ableto proceed into Berkeley Springs without having to go to the Bypass first.<br><br>The economic future of Berkeley Springs depends on this change being made so people are able to stop and shop and eat without the inconvenience of going on the Bypass first.<br><br>I hope the Division of Highways will modify the 522 Bypass design to make the plan more user-friendly to residents of and visitors to Berkeley Springs. |
| 55 | 5-18-18 | As a 20-year residential and business property owner (main street store), I find it unnecessary to build a bypass around our town. I drive daily multiple times through town and don't experience inconveniences due traffic. At the heaviest times of traffic flow, congestions is lower than any of our surrounding metropolitan areas including Martinsburg, Winchester, and Hagerstown. My preference is to not build the bypass. No Bypass!! |
| 56 | 5-20-18 | Please reconsider the no access on the south end to 522. It would be death to several businesses and a huge inconvenience to all locals south of town. I cannot believe such a concept was put on paper. The option should be given to bypass or travel into Berkeley Springs on 522. |
| 57 | 5-20-18 | Mr. Scites, My comments are included in the two opinion pieces enclosed. |

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| | | **Energy economy & bypass**<br>Dear Editor:<br>What's to be said about the latest U.S. 522 bypass plans? "The best laid plans of mice and men go oft' astray" immediately comes to mind. Robert Burns wrote his poem "to a mouse" (from which that quote was taken) after ruining a beautiful little mouse nest while plowing a field before winter.<br>Burns regretted what he had done, for the poor animal's planning and hard work had been for naught. Burns also reflected on humanity's susceptibility to the same conditions.<br>Today, politicians run roughshod over "the little people" but do not regret it, as did burns. They approve pipelines, expanded mining operations, big highways to nowhere, and extraction of anything that can be sold or stolen for profit.<br>I predict the highway will never be completed (or, perhaps, never even started) because politicans are either ignorant of our uncaring about more powerful forces than they at work in the world today: "one thing is for certain. People believe anything but reality, and that will catch up with them...soon...in a very painful way" (Tom Chatham via Project Chesapeake). "We are headed for a massive financial crisis" (Peter Shiff, as quoted by Mac Slavo via SHTF).<br>The U.S. is about to lose its world reserve currency status and replacement of the petrodollar system (fake money) with a system backed by gold (real money) being developed by Russia, China, and others. Total debts and derivatives in the world are now 35 times world gross domestic product (GDP) — an impossible amount to repay — which will lead to a depression far greater than that of the 20th century, perhaps as soon as next year.<br>However, "[That] growing pile of debt isn't going to be the prime limiter of growth in coming decades. Instead, it will be energy. The U.S. Shale "miracle" will be a short-lived mirage...[so] the economy will find itself increasingly restrained. We will be faced with a future of doing less.<br>Specifically, our destiny is in the hands of the laws of Thermodynamics. World economic growth cannot be sustained without new, plentiful and affordable [BTU-Rich] energy sources." (Adam Taggart via Peak Prosperity). None are evident at this time.<br>West Virginia's own "energy" economy was just rated worst among all 50 states plus D.C. Its growth rate is actually negative. A county going nowhere in a state going nowhere won't need a new, four-lane bypass.<br>John C. Webster<br>New Hope<br>5-2-18/MORGAN MESSENGER<br>US 522 JOHN WEBSTER MAY 20 2018<br><br>**Letters to tl**<br>**Don't need bypass**<br>Dear Editor:<br>In my previous letter, I tried to put the proposed U.S. 522 bypass into greater context, about which most seem unaware. A line from that letter bears repeating: "One thing is for certain. People believe anything but reality..."<br>Reality in this case is that we don't need a bypass economically (industry and jobs are not coming back), and we don't have to be a trucking-lobby-designated shortcut. Thru trucks were banned from using U.S. 17 as a short cut between Paris, Virginia (U.S. 50) and Delaplane, Virginia (I-66). We can do the same here.<br>In West Virginia, there are only six highways that are part of the National Truck Network Highways System of approved state highways and interstates for commercial trucks. U.S. 522 isn't one of them. In fact, the road is only designated as "other" – the lowest of four federal government tiers – and isn't considered a necessary truck route for reasons of national security of movement of freight.<br>In addition, Adam Mann, who wrote "Building Bigger Highways Actually Makes Traffic Worse" for *Science Magazine*, says that: "If there is anything traffic engineers have discovered, it's that you can't build your way out of congestion. It's the roads themselves that cause traffic."<br>"New roads...create new drivers, resulting in the intensity of traffic staying the same. Interestingly, the effect works in reverse, too." With fewer lanes, "the traffic simply readjusts and overall congestion doesn't increase."<br>Local politicians who dream of growth, jobs, big-box stores, malls, lots of fast food restaurants and easy money are stuck in the 1960's (as are West Virginia's highway designers). If they had any guts at all, they would just say no and end this 30-year exercise in futility.<br>However, reality being what we are told it is (instead of what it actually is), we will probably get a bypass. It doesn't need to be four lanes; it doesn't have to have at-grade crossings, it doesn't have to route automobile traffic away from town; and it does not have to cost $70 million.<br>No bypass is better than a two-lane bypass, and a two-lane bypass is better than a four-lane bypass.<br>The absence of thru trucks in Morgan County would provide immediate health benefits for everyone (both mental and physical), a renewed sense of place, and an impetus to make the whole area a destination worthy of its advertised reputation as a healing environment.<br>John C. Webster<br>New Hope<br>2-16-18/MM |
| 58 | | I live in Fairview Subdivision right by the hospital in Berkeley Springs. Map for 522 connector road runs between the hospital and my residence. Will this road affect my property? When will they know and if affected when will this take place?<br>Thanks |
| 59 | | I believe this to be a long overdue and needed project, and personally cannot wait until it's completed. The sooner the better! Thank you. |
| 60 | | I think the bypass in berkeley springs is a horrible waste of money.<br>a tiny town with no department stores or public transportation<br>the ass end of no where, does not need a bypass! It's ridiculous!!! |

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| 61 | | Please do not put that connector road to the bypass on the Fairview side of the hospital. We have a nice quiet community here and most of my neighbors do not want to hear people revving there cars and motorcycles all day long. Why not put the connector road on the side of hospital where there is nothing.? Would be a better choice. thank you |
| 62 | | Many comments since the 1990's have revolved around the impact on the businesses in the Town of Bath, and Berkeley Springs in general. Because Rt 522 is a north-south route many trucks and vacationeers use this route to decrease travel time versus utilizing Rt 81/Rt 70. Having been a property owner since 1987 and full time resident for most of those years since, I concur that a bypass is needed, however I would suggest that the bypass use be mandatory for trucks and optional for other vehicles. Rt 522 could still be used for local deliveries and those wishing to visit Berkeley Springs. Requiring trucks to use the bypass will speed up their journey and will reduce pollution within the Town. This may in fact increase tourism to the Town as now their would be less congestion, and potential for fewer accidents and certainly less pollution. As anyone can tell you, having lunch or dinner at Tari's Cafe on the sidewalk is noisy and quite frankly annoying. Thanks for the opportunity to comment |
| 63 | | I am in favor of the 522 bypass.<br>The truck traffic in town is horrible. Too much noise and pollution from the tractor trailers. The truck traffic creates to much noise when eating lunch or dinner or in a local store. It is disruptive. The trucks don't stop in town; they are just traveling thru and this bypass will also help commerce more thru the area more quickly. Maybe it will save some gas for the truckers.<br>I am also in favor of the bypass as it will create a faster way to get north of town. Last week I was stuck behind a wide load that was going 45 miles per hour in the 55 miles per hour zone.<br>Hopefully, it will create some local jobs too! A win win for everyone! |
| 64 | | PLEASE for the love of God make sure this bypass gets built! The sooner the better. I have jobs in Hagerstown MD on the weekends and it is almost impossible to get through Berkeley Springs on the weekends because of the congestion in town. The big rigs coming and going through town are tearing up the roads. Look at the road conditions in front of the old Sheetz store where 522 intersects with Rt 9. It's horrible. It gets paved and by the next day or so it looks like it was never touched because of the heavy traffic and big rigs. I read on average a total of 4000 trucks come through town on a daily basis. I can bet the truckers dread all the lights, the traffic stopped and pedestrians. Some say the town will become a ghost town, I feel that is simply not true. I travel around and when people ask where I'm from and I tell them Berk. Springs they instantly know of it and say they love this town. Well if people love it so much they will continue to come here no matter if a bypass is put in or not. I think this is very much needed. Thank you. |
| 65 | | We are opposed to the bypass. It would have a negative impact on the town businesses and the scale of it is too big and imposing. |
| 66 | | Giving further thought in the 522 by-pass, it is stated this will be a 4 lane highway with a speed limit posted at 65 mph, so my driveway will not only be cut off but we will have to enter or cross a major Hwy from a dead stop! this is quite unrealistic and dangerous ,it seems to me that at least 5 families will be displaced the way the proposal is currently projected ,looking at satellite views of the area, it could be moved eastward to clear the properties at the north end of Sherrill lane and run west of the development on Sunset drive using the original proposal in 2000-2001 to run east of the Silica plant, so I do not understand why this is like it is? Now I am not an engineer but consider myself to have a good foundation of "common sense", and by doing a re-routing as I have pointed out will alleviate not only the cost of purchasing properties and land, not to mention how you put a dollar figure on the quality of life you lose by having this in ones |

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| | | "backyard" so to speak, seems to make financial sense also, in a world of reckless spending and corruption in the political arena, why not keep monies in the coffer to use wisely? |
| 67 | | I am a resident of Berkeley Springs, living approximately 10 miles south from the Town of Bath ("Town"). I approve of the concept of a bypass, which has both benefits for commercial truck drivers that want to avoid slowing down while approaching and going through the Town, and benefits for residents like myself, who don't enjoy being tailgated by large trucks on US 522.<br><br>My understanding of the current plan is that nobody would be allowed to proceed on US 522 from the South or from the North of Town, once the bypass is reached from either direction. I believe that is ill-advised and therefore submit for your consideration the following.<br><br>1) A bypass should be for the benefit of those that wish to bypass the Town altogether. This bypass proposal should be amended to permit continued, uninterrupted access to US 522 from both North and South for anyone who desires to use that route, with the exception of large commercial trucks, which should be required to use the bypass in all cases. Such an amended proposal would alleviate traffic for local residents who wish to continue using US 522 for access to town for groceries, shopping, school, business or other needs or activities, while at the same time allowing them to avoid using a high-speed bypass that is likely to present more hazardous driving conditions.<br><br>2) Should the proposed bypass plan be approved without the above-described amendment allowing continued US 522 access for all but large commercial trucks, then I suspect there will be a significantly increased traffic flow on Cold Run Valley Road for those local residents wanting to access Town from the South, such as myself. This is essentially a residential, narrow road, and I fear that such a predictably increased traffic flow could result in an increase in auto accidents on that road, including potentially accidents that involve pedestrians.<br><br>3) Likewise, should the proposed bypass plan be approved without the amendment suggested in (1) above, it would mean that the school buses serving the Town would need to use the bypass for at least parts of their trips transporting children to and from Town schools. It seems likely that forcing school buses to do so would make those trips more hazardous for the bus drivers, and therefore for the children too.<br><br>For these reasons, I strongly urge the Department of Transportation to amend the proposed US 522 Berkeley Springs Bypass plan in accordance with the amendment suggested above in (1).<br>Thank you for your consideration of these comments. |
| 68 | | a major flaw in the bypass design at the start of the bypass south of Rt. 13. One of the DOH Engineers explained that the design directs all northbound traffic onto the bypass which prohibits any traffic from continuing North on existing Rt. 522. Basically, Old Rt. 522 will be ended at the start of the bypass. Traffic interested in driving through the town of Berkeley Springs must enter the bypass, then exit at an interchange and drive back into town. This will eliminate any traffic passing through the town of Berkeley Springs, and it makes it inconvenient for residents and visitors alike to travel into town. Residents traveling from the south to Food Lion will have to enter onto the bypass and then take an exit to get back to old Rt. 522 and access Food Lion. Our business as well as every other town business |

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| | | benefits significantly from pass through traffic. Over 30% of our customer base is derived from travelers who have driven through Berkeley Springs and decided they would stop by The Country Inn. These customers then become lifelong visitors to the town of Berkeley Springs and support our economy time and time again. All that traffic and revenue will be eliminated with the current bypass design. It discourages any traffic from driving into Berkeley Springs, and it actually makes it more difficult for them to access our town. All businesses in town will suffer with the implementation of a bypass, but the reduction in business will be even greater with the current design. I petition that the DOH redesign the start of the bypass south of Rt. 13 to allow traffic to continue northbound on existing Rt. 522 while having a ramp to the bypass. This can be completed with a "Y" design as you see at the start of most bypasses. This is practical and seems would be beneficial to all. Please consider supporting our petition in the coming weeks to improve the bypass for all. |
| 69 | | I want to add additional comments to my previous comments. It has come to my attention 522 North will end at the bypass. This needs to be changed. People need to be able to continue on 522 North into town. I shop at Food Lion and have salon and dental visits on 522 before the Food Lion and Winchester Grade Road that I will not be able to access if everyone has to drive on the bybass. This needs to be changed. Some people are mention a Y interchange. Please amend the construction so that locals and visitors can drive directly into town and not have to drive on the bypass. Tourists will also be afffected that visit us at Cacapon State Park Resort and the Best Western. There should be a choice to access the bypass and I can understand while local businesses are upset. Please reconsider and change the current plan. Thank you. |
| 70 | | Access to the current 522 should not be blocked at either the southern or northern entrances to the bypass. While truck traffic should be required to use the bypass, save for local deliveries and pick-ups, automobiles should have the option to continue on 522 without getting on to the bypass. The concept used in Berryville and Warrenton VA would be best. Have a 522 Business route that maintains the integrity of current 522 and its associated businesses, while rerouting commercial traffic around the population and commercial district of Berkeley Springs. Thanks for your consideration. |
| 71 | | Comment 2. For as long as the bypass, with its 65 mph speed limit (practically, a 75 mph zone), merges into traffic on 522 - 55 mph speed limit - at the northern and southern terminuses, there should be a slow down zone in each direction of the bypass prior to merging back into 522.<br>Thanks for your consideration. |
| 72 | | Comment 3. Consideration should be given to barring truck traffic on the bypass from taking any of the local exits that don't have overpasses/cloverleaves; save for local deliveries and pick-ups. If, and to the extent that the bypass dumps truck traffic on to these unprotected roads, residents, pedestrians, cyclists and children in particular, would face a greater risk of accident. If trucks can't be barred, significant effort should be taken to force compliance with local speed limits, crossings, and other rights of way. Thanks for your consideration. |
| 73 | | In regard to the plans for the bypass, I would like to address a few issues.<br>The first being the proposed shut off of the north end of Sugar Hollow Lane. Due to the path and grade of Sugar Hollow Lane, shutting down the north end will leave many residences without the means to get out during the winter months. Our driveway alone is at the very bottom of a steep hill with a hard-left turn to get to 522. Our ONLY means of getting out when the weather is bad is to go out the north end. This is also going to be an issue with the safety of our children and their bus routes. During winter there is NO way we are making it |

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| | | up the steep hill.<br><br>There is a safety issue of how would emergency equipment be able to access Dark Hollow Lane? There is no way a full sized firetruck or even an ambulance would be able to make the hard right turn at the bottom of the hill to access our homes on Dark Hollow Lane.<br><br>Another issue is the accessibility of equipment. There are at least 2 residences in the lower area that move heavy equipment in and out of their properties. We are one of those residences. Not only heavy equipment, but also use of our fifth-wheel gooseneck. Coming out of the driveway, there is no way to make that left-hand turn. This issue alone with cause financial loss due to our equipment being used for our business.<br><br>Effectively, by cutting off the northern access to Sugar Hollow Road you are causing serious safety issues as well as economical issues.<br><br>As for the interchange on Rt. 9. We own a rental that is at the very end of the new road leading to the ramp on the west side. I was not able to get an answer on just how that will be affecting that property at the meeting. Even though the construction is not till 2020, this it something that we will need to prepare for. The business located at 541 Martinsburg Road is a thriving business and if we are going to need to relocate due to various reasons or we are possibly have any changes on the property that may come up due to this construction, then we would like to know.<br><br>I formally request that there be a formal public meeting for all residences and business that are affected by this can ask their questions and get real answers. |
| 74 | | I am against this project. It looks like the connector will come down route 9 right in front of where I live. What a disaster for the neighborhood. I would appreciate having a more readable map so the exact locations can be seen. The map included on this web site is not detailed enough. |
| 75 | | Please use Option 2 for the 522-War Memorial Hospital connector road.<br>We would like to express our concern regarding the connector road from 522 to War Memorial Hospital. We live in Fairview Subdivision which will be impacted negatively if Option 1, access is used. This will not only devalue our property but add noise pollution to what is now a quite family owned tree lined community. After years of searching the Berkeley Springs area we felt Fairview Subdivision to be the perfect place to continue our retirement years.<br><br>We appreciate your consideration on our opinion. |
| 76 | | My name is Mike Rohm and I live in Fairview Subdivision (163 Finch Drive / Berkeley Springs, WV 25411) behind the hospital. From maps that I have seen, 522 Connector Road comes between my house and the hospital. Is this going to affect my property? I have to relocate for work and need to know because I think we will have trouble selling my house until we know how this will affect our property. Any information you could provide would be greatly appreciated. I have been unable to get any answers concerning this matter.<br>Thank you for you time. |

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| 77 | | My comment is in reference to the access to the north and south end of the bypass. At the meeting I found that I would need to get on the bypass and then exit just to stay on the current Rt.522. This concerns me on (2) levels.<br>1. We have a heavily traveled and patronized tourist town. Not having easy access to the 522 Business district will hinder the highly profitable market for our very small town. When I questioned if there was a possibility of a "Y" connection at the entrance of the bypass for both north and south, I was told no. I believe it is our best interest to have the optional route to the business district WITHOUT having to get on the bypass first.<br>2. As a resident of Berkeley Springs, I prefer to have easier access into the town on the optional entrance vs. being forced to get on the bypass and then exit to get to my in town destination.<br>I appreciate your consideration in this matter.<br>Thank you. |
| 78 | | There are currently only seven proposed bypass intersections (Rt.13, Sugar Hollow Road, Myers Road, Johnsons Mill Road, Martinsburg Road, Fairfax Street, and the Fairview Connector Road). Three of the proposed bypass intersections (Myers Road, Johnsons Mill Road, and Fairfax Street) are not scheduled for upgrades beyond 100 feet of the bypass. There is concern that these roads are not suited for the volume of traffic that could potentially use them to access the downtown area. Additionally, unless a later traffic survey warrants, no traffic control measures (signals) will be installed at the interchanges.<br><br>As a resident of Berkeley Springs, I am very concerned of the dangers this will cause. Also, I am extremely concerned of who will cover the costs (if there is a plan) to do the upgrades to these access points AND install signals.<br><br>Thank you for your attention to this concern. |
| 79 | | I don't care how close this proposed bypass comes to my home. I'm just glad to see it's finally coming to fruition. I just ask that we keep the current 522 open for full use of passenger card, force large trucks onto bypass unless local deliveries. Also any plans on a Route 9 bypass / realignment soon ? I'd like to hear back from someone if possible. |
| 80 | | To Mr. RJ Scites, P.E. STATE PROJECT U333-522-11.92 SEC 02<br>My By-Pass thoughts, why 4 lanes? please hear me out, a 2 lane route with limited access, being the connector Rd, Rt 9 Martinsburg Rd , and Rt 13 Winchester grade rd, will keep traffic moving thru, sheet #3 is misleading and shows an intersection showing rt 9 turning into davis rd by the old hospital ? this along with intersections at Rt 38/3 johnson mill rd, Rt 38/4 myers rd and sugar hollow rd are unnecessary for a true By-Pass, with limited access and no lights traffic flow will go smoothly thru and culvert style/overpasses can be implemented at those last 4 roads I listed ,this would not put people out who live hear in this area as most are concerned about this just being more congestion. I bring these ideas up not just because mine and some of my neighbors properties are in the "cross-hairs", it is also to keep a lower impact on the region. I have sent other comments and am very serious about preserving people's quality of life with the least amount of impact on an area in thought. Also going further south from Rt 13 winchester grade rd to connect in Va. at its dual lane highway, could also be limited to 2 lanes with perhaps only 2 more intersections, please take everyone's comments and think about them. I also believe the 55 mph speed limit would suffice. Thank You |

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| 81 | | Re: Route 522 bypass in Berkeley Springs, I have concerns regarding the following issues:<br>1 - speed of the bypass and how safety may be compromised for any excessive speeds (it currently is stated as up to 65 mph)<br>2 - noise pollution to residents surrounding the new bypass (within 2000 ft)<br>3 - air and soil pollution surrounding the new bypass (gardens, yards, air quality in homes, etc.)<br>4 - The proposed northbound route should not remove the current 522 already in place so that anyone who wishes to drive into Berkeley Springs can do so without entering the bypass.<br>5 - Traffic regulating features should be added to the bypass for exits. I cannot imagine vehicles attempting to get onto a 55+ mph bypass from any of these exits without some kind of traffic light, etc.<br><br>Thank you for your consideration of these issues. Until they are addressed, I fear the bypass plan is inadequate. |
| 82 | | I would certainly hope that you reconsider the layout of the proposed Berkeley Springs bypass. The way it is layed out is ridiculous. There needs to be a way to stay on the current 522 or take the bypass, like most town bypasses give you the option. Barricading the ends of the current 522 is a bad option. This was not a very thought out plan currently. |
| 83 | | Is it true that traffic approaching Berkeley Springs MUST exit Rt 522 and enter it again if they wish, they cannot just continue on 522 into Berkeley Springs without using the bypass from either the North or South direction??? |
| 84 | | I live on R9 (Martinsburg) Rd, I look forward to a reduction in truck traffic. I do have some concern with the Martinsburg Entrance/Exit to the bypass being only 1/4 of a mile from my home. My general traffic concern is around the unintended traffic pattern impact between the Bypass and the existing 522 along the R9/Martinsburg Rd.<br><br>I have a secondary concern with regards to bike riders. Will the Bypass take into account the impact to bike riders between Berkeley Springs and C&O. I foresee issues around the northern interchange just south of US Silicon. A bike riding north on 522 with it's limited shoulder will not allow for a bike to cross the 4 lanes of the Bypass. I believe there are local bike trail proposals that might be leveraged to avoid an expensive solution (e.g. US Silica & War Memorial Hospital) |
| 85 | | There are many concerns about the 522 bypass and conccector roads.<br>1. It is imperative that there is a way for traffic to stay on 522 through Berkeley Springs. With the current model, northbound traffic will have to go on the bypass. The inability for traffic to not go through Berkeley Springs will financially damage businesses.<br>2. Why are there so many connector roads? This bypass is not that long. Is there really a need for all the connector roads? I would say not, especially if there is an option to follow 522 through Berkeley Springs.<br>3. I have lived in Berkeley Springs for 27 years. There are times when traffic is unsatisfactory. Usually around holidays. This is usually for a short period of time (a few hours) and the traffic clears. There is not an everyday traffic issue in Berkeley Springs.<br>4. I understand the need/want for diverting trucks. This is a lot of expense to do this.<br><br>In summary, these tax dollars could be used somewhere else. In my opinion, this bypass/connector roads are not needed at this time. |

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| | | Furthermore, this bypass has been talked about for 20+ years. I assume there is a good reason it has not been funded/built in that time. The reasons are likely similar to those mentioned above. |
| 86 | | Good Afternoon,<br>I am writing with concerns regarding the US 522 bypass project planned for our area. I am specifically requesting that the current proposal to require ALL traffic from the South (including local) take the bypass and use the complicated exit ramp system to regain access to 522 be abandoned. Please redesign the bypass to allow traffic to stay on 522 if they choose. Also add "No Thru Trucks" signs. I've spoke with several reps including Charles Trump, who all stated that we wouldn't need them because the trucks will just know to use the bypass. Well can I say that the limited expense this will involve, in comparison to the whole project, would create a lot of peace of mind in the public here. Lastly, I would like to know how in the world the engineers who drew these plans up could not have known the huge problem it would cause and also why there seemed to be not one DOT rep. at our local meeting that could provide an explanation as to why it was proposed or was really even aware that this was drawn into the design at all. This unfortunately has shown us the utter lack of communication the DOT/DOH is known for and I for one was hoping it had gotten better. Please help those of us out here you support this project to have a leg to stand on when we defend it. |
| 87 | | I am writing to request a minor re-design of the intersection of the proposed US 522 bypass near Winchester Grade Road to allow northbound, local traffic to utilize the existing US 522 rather than being forced onto the bypass. The most frequent destinations for me and my neighbors are grocery, bank, fast food, convenience, and insurance/accounting offices along the existing US 522 just beyond the proposed US 522 bypass merger at Winchester Grade Road. Local traffic should not be re-routed onto the bypass in order to frequent these locations. Moreover, I also believe a redesign would better promote public safety as local traffic forced onto the bypass would be required to use no less than three major intersections to reach the above-referenced destination area. The majority of traffic accident occur at intersections. Thank you for your attention and consider |
| 88 | | I am writing to request a minor redesign of the intersection of the proposed US 522 bypass near Winchester Grade Road to allow northbound, local traffic to utilize the existing US 522 rather than dead-ending Valley Road and forcing all traffic (including local/business traffic) onto the new bypass.<br><br>The most frequent destinations for me and my southern Morgan County neighbors are grocery, bank, fast food, convenience, and service agency offices along the existing US 522/Valley Road just north of the proposed bypass interchange near Winchester Grade Road. Local business traffic should not be re-routed onto the bypass in order to frequent these popular locations. Moreover, I also believe a redesign would better promote public safety as local business traffic forced onto the bypass would be required to use no less than three major intersections to reach the above-referenced destination area.<br><br>Please consider a minor re-design (perhaps a 'Y' interchange) whereby local traffic may choose 'business' and thru traffic may choose 'bypass.' Thank you for your time and attention. |
| 89 | | One major flaw is the lack of a smooth transition from 522 north after the bypass intersection. It is very inconvenient to all local travelers and an expense that can be avoided. Let the bypass be simply that…a bypass with an entrance and exit at either end. The only |

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| | | interchange that is needed is for the hospital. Those that want to go to town can simply go as they do now. And, those that want to bypass Bath can use the bypass. That's as complicated as this project should be. There really is no need to tear up the area around town by adding the additional interchanges on the plans; and think of the savings in construction costs. |
| 90 | | The forced entry onto the bypass (and associated blockage of Route 522) at both ends of the proposed bypass is a huge flaw of the present design, and MUST be fixed. It will greatly reduce the volume of spontaneous stops/purchases at local businesses by out-of-towners.<br><br>We don't need any of the proposed intermediate interchanges, except for the Fairview connector. We just need stoplights at either end of the bypass, plus signage indicating that trucks must take the bypass, except for local deliveries.<br><br>This has worked very well for the Route 7 bypass of Berryville, VA. Why can't such a simple solution work here also? |
| 91 | | I agree that the bypass could be a wonderful, rejuvenating thing however the current design fall short of ensuring that goal. The bypass cannot and should not be allowed to kill the beautiful town of Bath and with the current design that is what will happen.<br><br>I'm happy to see the trucks disappear from downtown Bath. On the other hand, I do not want to see all of those people from Ohio and Pennsylvania who are passing through disappear without stopping to have a meal or check out our local businesses. The current design ensure those very folks from out of town will never have the opportunity to see the wonderful town of Bath and our local businesses will suffer.<br><br>The current design must be reworked make sure there is a Y design at the start of the proposed bypass. This Y design will result in keep the large trucks from passing through Bath but at the same time allow people for Ohio, Pennsylvania and local direct access to the town of Bath.<br><br>I'd also note that if the Y design amendment to the proposal is denied, there will likely be a significantly increased traffic flow on Cold Run Valley Road, and I wonder if the impact of that was even considered during the planning phase.<br><br>There is another adverse impact of the current, unamended bypass proposal that seems to me is relevant is that it would force school buses to use the bypass, which presumably would make for a more hazardous trip for the bus drivers and the kids who use the buses.<br><br>The redesign of the current plan into a Y design is a simple process and not at all difficult to incorporate into a better design of the bypass plan.<br><br>The northbound traffic on Route 522 Must be allowed to continue into downtown Bath. Route 522 Cannot end at the start of the bypass. This is poor design that will ensure the death of businesses in the town of Bath. |

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| | | The current design will eliminate any traffic passing through the town of Berkeley Springs, and it makes it inconvenient for residents, the same residents this bypass is supposed to help and visitors alike to travel into town. Residents traveling from the south to Food Lionwill have to enter onto the bypass and then take an exit to get back to old Rt. 522 and access Food Lion. The town businesses benefits significantly from pass through traffic. More than 40%+ of the customer base for the town will be derived from travelers who have driven through Bath and decided they would stop by town businesses. These customers then become lifelong visitors to the town of Bath and support our economy time and time again. All that traffic and revenue will be eliminated with the current bypass design.<br><br>The current design discourages almost eliminates any traffic from driving into Bath, and it actually makes it more difficult for them to access our town.<br><br>I currently live in the Cacapon South development and keeping the bypass design as it is currently shown will make it difficult to do simple shopping at businesses like Food Lion. It will be easier to head to Winchester than to deal with getting into town working the bypass.<br><br>All businesses in town will suffer with the implementation of a bypass, but the reduction in business will be even greater with the current design. |
| 92 | | Hello, our concern is our home. The map is showing the ramp will becoming off of the 4 lane bypass right thru our front yard. An engineer commented at the meeting that it will not affect our home because it will be Ariel..My concern is my home sits on a hill and my beautiful front window will be facing that exit ramp and we will be seeing truckers, cars and everything else coming thru. Regardless if it is Ariel, there still has to be something grounded to hold the bridge. The noise alone will not be the quiet we have come to love. We also have animals that are use to running and we don't have to worry about them going to the road because we have acreage, to when the road comes we have a fear we will lose our animals. Also, we have quite a few of the wild animals that like to visit as well that we enjoy to watch. With the bypass we will not be able to enjoy that luxury.<br><br>We are also very concern that no one has got in touch with us about this as well. we purchase the home 5 years ago and it was not mentioned to us about a bypass, we looked on the appraisal papers as well as closing and it says that there is no right always and so forth.<br><br>Our driveway as well will be in the middle of all this. Our pond will suffer as well..<br><br>We just need answers to what you are going to do. I would appreciate anything that can be supplied to us..... |
| 93 | | Did anyone who currently live in Morgan County help plan this thing? I am a Parent of a Morgan county student and for years now I have had to get my kid at school, go to after school sports or music class - go to my bank, then to our Tractor Supply then to Hancock for Save A Lot and gas. Do I really have to negotiate this monster? You have choked the bypass exits at the two worst points of traffic. After school to rush hour at Rt. 9 and Winchester Grade is currently a mad house and kind of dangerous - this sounds like it will make it much worse!<br><br>As a business owner to the West in Great Cacapon it sounds like a night mare! Right now all our customers from 70 can't just make a |

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| | | simple Right on Rt. 9 west. My customers easily buy last minute items at the 7-11 or at Doris's Deli and now have to negotiate the bypass?!? Don't close off my business pipeline!<br><br>No tolls were mentioned yet - I know they are coming - you have spoke of them befor - You usually wait till the road is done - then want to sell it to private people or impose a "temporary" toll that will never go away - like all the tolls that were supposed to end in 2017? Any of those toll booths gone yet! SAY NO TO BY PASS - You will strangle an already tough economy to our western business owners of Morgan County!<br><br>If we Must have it - keep 522 open on both sides - let the trucks that need to go thru - go thru on the By Pass. The current truck traffic IS way too much for the roads and 522. -Do your hospital access road and plan 1 exit back to town (not on 9 or Winchester Grade) - and let the town prosper economically with much cleaner air without the trucks! I may be able to eat at the outside cafe that way!<br><br>I BEG you not to make it tougher for our Wester Morgan County Business owners! It is tough out here - but most of us have been here 20 years or more.<br>Thank you for your time |
| 94 | | I am 100% for the bypass. Although it wouldn't help my situation with trucks...I think eliminating truck traffic through Berkeley Springs would encourage more businesses to open. Berkeley has turned into a truck town. One thing tourists don't want is truck pollution, noise and inconvinence. There are too many empty stores for rent and for sale signs. This is not inviting and there is no "real" draw for people. All there is now is the Country Inn and baths. Berkeley Springs should become a destination point like Ellicot City. Brings in the stores, resturants, fairs etc. There is nothing cultural here and I think Berkeley should take a really good look at it's self. They are not as good as they think they are. I think the bypass would encourage more people willing to invest their money in start up businesses. The center of town should be busy all the time and people would visit in the winter because of the shops, restaurants and events going on. You have a great state park whichcould hold more bluegrass concerts and craft fairs. Mogan county has so many possibilities. I built a house here 4 years ago with the thought that Berkeley might grow but all I have seen is people and stores closing. Think out side of the box. Berkeley could really be a great destination point...right now there is not enough to offer anyone. |
| 95 | | The past August, we became full-time residents of Berkeley Springs-having moved from our home of 39 years in northern Virginia. I am extremely concerned about the proposed plans for the 522/Berkeley Springs Bypass. The current proposed plan has so many negative aspects that are not adequately balanced by the positive. Honestly, I have never seen a plan like this for a bypass. My experience is (such as in Leesburg) there is a business route (original road) and the option of a bypass around a designated area.<br><br>The business of Berkeley Springs/Bath are constantly struggling to stay afloat. This plan for a bypass will decimate an already struggling economy and would virtually shut down this quaint town. It seems draconian to build a road that will surely have this result and is entirely contrary to the wishes of its residents.<br><br>As a resident of southern Morgan County, it will be extremely inconvenient, not to mention annoying, to be forced to go out of the way |

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| | | and onto a bypass, when running errands such as the grocery, pharmacy, etc. I request that this plan be reworked so that 522 remains untouched and the bypass is added to it. Thank you. |
| 96 | | Bypass is good idea. truck and motorcycle traffic make downtown almost unbearable during summer. |
| 97 | | I would like to voice my concern over the 522 bypass in Berkeley Springs. I have two comments.<br>1. Why would you force a two lane road into a one lane road to go over a hazardous bridge?<br>2. Why are you forcing people on to the bypass from both the North and the south? Residents who live off of 522 are going to have to use the bypass and travel out of their way to get home.<br><br>For these two reasons I am opposed to the current plans for the bypass. |
| 98 | | I am completely against the Berkeley Springs bypass. I don't see it as a benefit to the town in any way.<br><br>The widening of 522 will also have a very negative impact on the property value of homes along the route; along with an increase in trucking traffic making it more difficult to enter and exit 522.<br><br>It only benefits the trucking industry and the companies building the bypass. If the trucking industry doesn't like the current situation they can just stop using 522. |
| 99 | | While I am supportive of the bypass, I do have a question regarding it's possible impact on my father's home.<br><br>I attended the April meeting in Berkeley Springs and have a question about how the west bound lanes leading to the Route 9/Route 522 interchange will impact the driveway to our family's home. We live at 821 Martinsburg Road and it is not possible to tell from the photographs provided at the meeting as to whether our driveway access will remain after construction. Since this is the only access to our property, we have some concerns. My father, who owns the property, Paul Zimmerman, is 89 years old and has asked me to help him determine if our access will remain or not. I'm glad to provide any additional information you may need. Thank you. |
| 100 | | I applaud the fact that we are finally moving forward with the 522 Bypass. I do however have major concerns regarding the design at the South end. (522 from Winchester). Forcing traffic moving North onto the bypass requiring residents, school buses, local truck delivery, and tourists visiting Berkeley Springs to then exit from a high speed road does not in my mind seem to be the best approach from a traffic management or safety perspective.<br>It is my strong opinion that this section of the design needs to be revisited. I travel extensively by car in the area and a simple "Y' that directs people to the business route or the bypass needs to be the design of choice. I see this on roads in PA, Va and WV and believe that with a commitment that says that "we need to find a way to make that work' is incredibly important..not just at the South end but at the North end as well.<br>From an economic perspective its important that we provide tourists a direct: not off a bypass route: to a town whose economy is heavily dependent on tourism. Once a store owner in Berkeley Springs I cannot tell you how many times we heard" was just driving through and |

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| | | we decided to stop and visit". Requiring the "through trucks" to use the bypass and local traffic to stay on the local 522 direct should be the solution implemented. The design must be re-considered...its 16years old. |
| 101 | | I want 522 to remain open as an option for those wanting to come into our town. Businesses will suffer as a result and make it a ghost town like nearby Hancock MD.<br>As it stands now, even on busy holiday weekends, it only takes an additional 10 minutes to get through and why waste money. Fix the roads we have now.<br>Thank you for your consideration. |
| 102 | | The proposed bypass needs to be made in such a way that people have an easy option to stay on 522 and drive through Berkeley Springs if they want to! There is no need to force everyone to use the bypass if 522 is still perfectly capable of being used for people to drive through town. |
| 103 | 5-2-18 | Dear Mr. Scites,<br>I have reviewed the plans for the US 522--Berkeley Springs Bypass and Fairview Connector (State Project U333-522-11.92 Sec 02 \| Federal Project NFA-2317(005)D) and find, as currently planned, they will be unnecessarily onerous to Berkeley Springs/Morgan County residents. As stated in the newspaper, the reason there can not be direct, continued feeds onto 522 at the points of entry/egress from the bypass is because of safety concerns of the two high-speed connector lanes being reduced to one lane and merging with the one lane of 522.<br><br>I expect at least one of the smart people with Civil Engineering degrees on your staff could develop a better method for handling this situation than the current design. For example, as the high-speed connector lanes near the point of egress back onto Rte 522, the two lanes could be reduced to one lane, say a half mile before the merge, and the speed reduced over this distance to a more reasonable speed. The money saved on a half mile of roadway could be used to purchase stop signs or stop lights for the merge intersection (I believe it was called a Y). This is but one idea – I am certain your people can develop others. Please allow them the time to do so and provide us with a more reasonable path of bypass that will better serve our community, re-route truck traffic and allow easier tourist access to our downtown area.<br><br>Sincerely,<br>William H. Grow, Jr.<br>cc. Morgan County Chamber of Commerce (522 Bypass Working Group)<br>A letter is also in the mail |
| 104 | | First off why in the hell have you not came to tell me your taking my land for s road that will kill the town. Now that I have an idea where you putting the rd I just going to build a shit ton on house on it<br>You want it bring your wallet or change the plan |
| 105 | | Please DON'T do this..... we need traffic in our little town, just not the big trucks. Many restaurants offer outside seating & the fumes from the big diesel trucks is disgusting. Also it makes running to town a BIG hassle too.....It should not force all traffic to the bypass. |

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| 106 | | I think it's a bad idea for all traffic to have to take the bypass. The business and tourism will suffer. Please allow through traffic as a choice to motorist. |
| 107 | | To Whom it may Concern:<br><br>I have concerns that this bypass will adversely affect our local businesses by encouraging non-commercial traffic to avoid downtown.<br><br>I do believe that the tractor trailers coming through town contribute to slowed traffic from the downtown area almost all the way to Winchester Grade. They also present a hazard in the immediate downtown area as they often cross the yellow line to avoid parked cars.<br><br>But rather than spend $10 million per mile building a road across private lands and close to homes - the owners of which assumed they lived in peaceful country surroundings - why not prevent semis from taking the short cut through town? Signs prohibiting trucks over a certain gross weight are common across this nation, why not make use of them for Berkeley Springs?<br><br>Non-commercial traffic would still see our wonderful Bath, dinner at Tari's would be peaceful and no one would have their homestead disrupted. The later is even more important now that so many have had to deal with eminent domain issues over the gas pipeline. Do we need to ask yet more from our neighbors?<br>Thank you for taking my comments, |
| 108 | | The current proposal would require ALL traffic from the south (including local) to take the bypass and use a complicated exit ramp with multiple turns to gain access to 522 through town, rather than simply giving traffic the option to stay on 522 or take the bypass. Under the proposed design, the current Rt. 522 will be barricaded to northbound traffic and residents who live south of Route 13 would be required to enter the bypass to access schools, shopping, etc. Although the north end of the bypass design is not complete, the group believes it is critical that it give travelers an uncomplicated option for remaining on 522 through the town.<br><br>I am suggesting a "Y" to have the option of either getting on he bypass or continuing through town be done at both the north and south entrances of the bypass. |
| 109 | | There are currently seven proposed bypass intersections (Rt.13, Sugar Hollow Road, Myers Road, Johnsons Mill Road, Martinsburg Road, Fairfax Street, and the Fairview Connector Road). Three of the proposed bypass intersections (Myers Road, Johnsons Mill Road, and Fairfax Street) are not scheduled for upgrades beyond 80 feet of the access road. I am extremely concerned of the current conditions of these roads and adding traffic to them.<br><br>1. Why are so many access roads necessary from this very short bypass? 3 suitable entrance/exit points are at the north end, Rt.9 and South end. It is not necessary to spend all of the money on access roads, which could be used on more needed projects for the state roads. |

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| 110 | | In all I am very disappointed with the design of this bypass. It is overly outdated, it does not suppprt the business district with the north and south entrance/exit, there is wasted money going into an overwhelming number of access roads and worst of all, we are giving travelers a quick route around our state instead of improving the roads to keep the travelers on our roads.<br>It seems the benefit would be more prevalent in our area to complete the corridor from Martinsburg to Berkeley Springs. Supporting our WV residents having a much better route to get to WV jobs instead of encouraging us to leave the state and giving us a bypass to make it quicker for us to get out.<br><br>Very disappointing. |
| 111 | | I am against a bypass plan altogether, as I believe it is unnecessary. Notwithstanding the traffic problem on the weekend, the construction of a bypass will disrupt so much ground, roads, people in Morgan County, as well as our current way of life. There are several solutions to the traffic problem that could be addressed without a bypass. First, ban truck traffic on U.S. 522 in WV. Other locales have banned truck traffic; it can be done. Secondly, local people know how to get around the traffic by using Waugh Rd, Fearnow Rd, and New Hope Road to Route 9 to avoid the downtown traffic. Third, the downtown businesses need the pass-through traffic as part of their sustenance. A bypass is completely unnecessary.<br>If a bypass has to be built, U.S. 522 pass-through traffic must be allowed to continue onto the current road, instead of having to take the bypass, then exit later. An option to bypass or continue must be in place at either end of the bypass. Truck traffic would only be allowed on the bypass. 65 mph is too fast for the bypass. It should be 55, if not 45. |
| 112 | | We need rt.522 to be a straight thur without having to use the bypass. Making 522 dead end will make the traffic trying to go thru town and getting to local business very difficult. And the intersection at Myers rd can not handle anymore traffic. I'm fully in favor of the bypass but it has to be built appropriately. Many other towns have a bypass with the option of traveling straight thur town. |
| 113 | | After looking at maps of the design and talking with different people, I'm told that coming from the south end you will not have the option to stay on the old 522 with the bypass and that you'll be required to get on the dual lanes. This is absolutely ridiculous for those of us who live on Rt13. My husband works in Winchester and would have to hit the bypass and backtrack. It's one thing to put the bypass in and have traffic diverted, it's totally different when you're inconveniencing those of us who are local. This would be a mess for the school buses trying to deliver kids safely, locals just trying to get to the grocery store or get gas... seriously, it's not very well thought out. I'd rather deal with the traffic and leave it how it is than that mess |
| 114 | | Instead of a 4 lane bypass around Berkeley Springs, a BR522 would be sufficient with an ordinary 2 lane road in my opinion.Beings this town is not a Winchester or Leesburg VA. We don't have the jobs,population ,and traffic of those mentioned. Getting tractor an trailers off of 522 I thought was main objective? Not. Interferring with the local traffic an residence to an from town should be paramount! Then overpasses? My goodness it will take 10 years to build them . took ten months or more to restructure Johnson Mill Bridge!! .By increasing the highway infrastructure, I don't see it bringing in a whole lot of new Companies,an Businesses to this town. If it were to do so the small town appeal will be gone! |
| 115 | | I am concerned about the plans for the 522 bypass. I live on South side of 522 so it's my understanding once bypass is done, I would have to take this road in order to go into town to shop. By looking at the map this would take me out of the way instead of straight shot like |

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| | | we currently have. Is there alternatives to this?<br><br>Thank you |
| 116 | | RE: Berkeley Springs bypass<br><br>I cannot find an explanation why the bypass is needed, so I assume it is to get the trucks out of town. I think trucks should be encouraged to take a different route altogether.<br><br>Trucks have to catch 522 at the intersection of Interstates 68 and 70, and they have to end near at the intersection of 81 and 37 near Winchester. According to Google maps, using 522 takes 52 minutes and 42 miles at the 37/81 intersection north of Winchester. Alternatively, using 70E (at the 68 intersection) to 81S takes 59 minutes and 62 miles, a difference of 7 minutes and 20 miles, or 3 gallons of diesel fuel.<br><br>That seems a pretty good argument to avoid the $40 million cost and disruption of the bypass. Use traffic regs to make the 522 route unattractive to truckers. (BTW, I doubt the town will be much quieter. Trucks at 65 mph make a racket that spreads for miles.)<br><br>According to the website http://geocounts.com/traffic/project/1471556443665#?llz=39.62810202622976,-78.20960998535156,13 which counts trucks on 522, very few trucks are local; that is, about 1000 trucks drive south of town and 1000 trucks cross the VA border.<br><br>It seems the overall plans call for a 4-lane 522 highway all the way to the VA border. These plans are apparently 20-25 years old. Could someone could send me the original rational behind the project? |
| 117 | | Please, please do everything in your power to allow 522 traffic to remain on 522 and not have to do the bypass and exit to get to 522. I am afraid our sweet little town won't survive the change. Times are tough enough for our economy, we are just starting to feel some relief and this current plan seems destructive.<br><br>Thank you for your time and consideration. |
| 118 | | I have 2 businesses in town I also live in hancock. This bypass is going to destroy our little town if you block off 522 and force us to get on a bypass it is going to cause alot of headaches and time loss. If this remains I can guarantee 2 business that bring a lot of revenue into this town will shut our doors. I understand you all wanting the trucks out of town so make it a truck bypass allowing cars to still come thro ugh Berkeley springs aka tourist that keep our town alive. This is a joke. |
| 119 | | Horrible design. A 4 lane high speed highway dividing our county does not benefit our residents. Forcing local traffic onto a bypass, North and South. Lifelong residents losing their homes so we can have traffic speeding through this beautiful rural community. |
| 120 | | I don't think the bipass is a bad idea, but I think closing 522 is a horrible idea. Leave it as it is, but add the bipass for those simply passing through. A lot of our local shops and restaurants rely on people driving by to bring in extra customers. |

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| 121 | | Please don't block 522access roads off. As a former bussiness owner I can tell you all access to this county is crucial!! Most of the back ways in our county are very passable as roadways. put in your bypass but please don't cut off our county! |
| 122 | | I'm a life long resident of Berkeley Springs and at times get frustrated by the amount of traffic in town. So I am all for a bipass that allows traffic to have a way to avoid town. That being said our town is driven by tourism and not having a way to directly enter town is a mistake. We want to make our town better by limiting some of the unneeded traffic, but we in no way should end 522. It is not only bad for the economy of Berkeley Springs, but is also a major inconvenience for locals who have to access town on a daily basis. Thanks |
| 123 | | Keep 522 open for this wishing to travel through Berkeley springs. |
| 124 | | I respectfully ask that you strongly consider Option 2 for the Fairview connector road to War Memorial Hospital. Option 2 is not in close proximity to any homes, whereas option 1 is very close to many homes in Fairview Subdivision. Thank you. |
| 125 | | How to destroy a town. This bypass will destroy the town of Berkeley Springs. The plan must be redesigned to allow 522 north to continue in a straightforward way through Berkeley Springs. As it stands, all traffic will be routed onto a 4 lane highway with complex exits to the town. It is impossible to justify the existing plan. Thank you. |
| 126 | | I think the smartest thing would be is to - Place an on and off merging ramp for the 522 bypass and leave a 522 Business route for traffic to continue right on thru town. |
| 127 | | Wonderful news that we are finally getting our bypass. I have lived here my entire 64 years and see that we truly need this. Thank you. |
| 128 | | do not close of Route 522, if route is marked business route 522, people will have a choice of which route. |
| 129 | | Please allow a bypass through Berkeley Springs that also allows downtown traffic without a headache or having to redirect onto the bypass and get off to go back downtown. Downtown businesses are absolutely important to BS for tourism and not allowing this community to die out. But the direct path is also necessary for parents dropping kids off at schools. I don't want to get on a bypass or busy road just to drop my kids off. Schools are the integral component to a successful community and BS has last 400 kids in the school system in the last 10 years. We can not afford to chase off more families and we need to focus on bringing more jobs into the town to support a growing community.<br>Creating options for downtown direct and bypass for truckers will be the best of both worlds. Allow choices for travelers who want to visit downtown on their vacations through but also straight throughs for truckers and people on a mission. We need both options to sustain this town or it will die out soon.<br>I am a MOCO parent, transfer in, and now work in the school system. We need choices for parents and tourism to grow. We need businesses to have quick options in and out of town to ensure our community doesn't go in and businesses want to relocate here.<br>Don't block force one direction upon everyone. Use one of those stupid roundabouts if needed lol. Thank you |
| 130 | | Don't close rt 522 for all traffic wishing to pass thru. Also prioritize a corridor from Berkeley springs to Martinsburg that would aid in linking the panhandle together more efficiently |
| 131 | | Having access to 522 is very crucial to our local business. Access to 522 allows visibility to the shops, dining, hotels and history that our town has to offer. Others that are traveling for work, truck routes, through traffic or those that need a quick route from point A to point B can utilize the bypass. Designate one route as 522 local/business and the other as 522 bypass. |

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| 132 | | Requiring traffic approaching Berkeley Springs northbound to exit Rt 522 and use the bypass does not make any sense. To this would be the perfect definition of "business route". I have seen them all over the country. I don't understand how staying on a road can be a safety issue!! |
| 133 | | Please look at spending State money in a responsible way. Cutting off the main through fare of Berkeley Springs will be devastating to the local businesses. As with many communities throughout the Country when a bypass is constructed, our bypass should be an option to the traffic, not the only choice. A "Y" access to the new road, at the North and South end, would allow pass thru traffic to take advantage of the bypass without changing the charm and convenience to the local population. The benefits to pass thru traffic should not be more important than completing the bypass in a way that enhances the community. Allowing traffic to continue to flow straight on 522 with the bypass as an option provides the most benefit to the local community. |
| 134 | | You are acting on a 18 year old plan. Berkeley Springs does not need a 4 lane 65mph highway. What you are going to do is bring more noise and pollution to our area. You are only 6 to 8 blocks from town. The increase in truck traffic for a short cut from I70 to I81 will increase and who could blame them to save fuel cost. 65 mph through a dense animal population will cause more accidents and a burden on fire and rescue. If your intended is to relieve traffic, you may do it but put a burden on the county. The simple solution is either make US 522 local deliveries only or a ttwo lane truck bypass. Your plan is costly to the state and the well being of Morgan County! |
| 135 | | Why spend a lot of money on exits when the object of the bypass is to divert trucks away from downtown. Make the road two lanes, nothing fancy, and allow cars easy access to the shops and attractions in town. The only exit that would be needed would be to the hospital. Anyone making local deliveries would just stay on 522. Whatever else, FIX that mess on the south end: we don't need to get on the bypass to go to recycling. |
| 136 | | Build it. |
| 137 | | I am writing to voice my opposition to the bypass. As a small business owner and resident of Berkeley Springs it is not a good idea. To my knowledge, the people and businesses were not consulted on this bypass, the design of the bypass nor were any traffic studies done for this bypass. This bypass will destroy businesses in Berkeley Springs, pollute the air with additional traffic, cause a strain on our volunteer emergency responders, and leave an unrepairable mark on our environment. |
| 138 | | I am opposed to the 522 bypass as it is now planned. Access to Route 522 should be simplified at the north and south entrances to the bypass. The interchange at Route 9 would cause considerable traffic problems and the overall design creates numerous safety concerns.<br><br>If the bypass is to be built, the design should be carefully reconsidered. We are using a 20-year old design, which needs to be looked at again! |
| 139 | | I am not in favor of this bypass for MANY reasons. However, IF the bypass MUST go in at Berkeley Springs, I think that the State of West Virginia should take an intelligent approach as to how the town is accessed on both the North and South entrances.<br>Making EVERYONE get on the bypass is a total waste. I have no idea why, when I am coming from the State Park I will need to get on the bypass to get off the bypass to get home since I live in town.<br>I know I am not an engineer, but based on many other places I have traveled and knowing how we access the "business" routes during that travel, it only makes since that this bypass follow that same type of pattern. |

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| | | PLEASE take this into consideration as I believe your attention to this matter will be more productive.<br>Thank you. |
| 140 | | I am not in favor of this bypass for MANY reasons.<br>IF the bypass MUST go in at Berkeley Springs, I think West Virginia should take a different look as to how the town is accessed on both the North and South entrances.<br>Making EVERYONE get on the bypass is a total waste. We are setting up the Town of Berkeley Springs to take a huge loss in tourist dollars. Maybe this does not impact the final decision makers, but this does impact your small businesses who have supported and loved this State for many years.<br>Your consideration in this matter is appreciated.<br>Thank you. |
| 141 | | I am not in favor of this bypass. You are putting my children in danger on every time they are on the school bus and have to get on the bypass. I am NOT happy about how little this has been thought out.<br><br>The access roads are HUGE safety concern! WHY would you NOT put the money into fixing our existing roads?!?! Those roads you are talking about putting access roads at are road paths, not roadways. You are setting the stage for accidents, safety concerns.<br><br>PLEASE, I beg you to reconsider what you are doing here. This bypass may be benefiting some big business, but it does not benefit our little town and we plead with you to PLEASE reconsider the dangerous road you are about to put in.<br><br>Thank you for your consideration. |
| 142 | | After reviewing the maps for the bypass, I am confused as to WHY we need 5 access points in such a short distance. Sugar Hollow Road, Myers Road, Johnson Mill Road are accidents waiting to happen. I am not sure who has reviewed these roads in order to put together these access points, but you obviously did not drive on these roads or you would know what I am referring to.<br>Myers road has access for one vehicle to get through and based on what I have researched, you have no intention of expanding or bringing these roads up to date. So I am going to assume when there is a huge accident where there is a loss of life, we will then need to do something about this road and I will have to pay for the updates as the tax payer. I think it is bad enough that my taxes will suffer when we have to pay to add more DOH workers to care for these roads, more emergency personnel to serve these roads and more law enforcement to patrol these roads - I will also be paying for the lack of attention that is necessary to put appropriate roads in.<br>I moved here from Baltimore to be in a small town environment that would provide a safer environment for my 3 children. But I am finding that, depending on who is backing a project with the right money in hand, it does not matter where you go to get away from the mess, it will follow. |
| 143 | | Using the same comment from my husband...After reviewing the maps for the bypass, I am confused as to WHY we need 5 access points in such a short distance. Sugar Hollow Road, Myers Road, Johnson Mill Road are accidents waiting to happen. I am not sure who has reviewed these roads in order to put together these access points, but you obviously did not drive on these roads or you would know |

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| | | what I am referring to.<br>Myers road has access for one vehicle to get through and based on what I have researched, you have no intention of expanding or bringing these roads up to date. So I am going to assume when there is a huge accident where there is a loss of life, we will then need to do something about this road and I will have to pay for the updates as the tax payer. I think it is bad enough that my taxes will suffer when we have to pay to add more DOH workers to care for these roads, more emergency personnel to serve these roads and more law enforcement to patrol these roads - I will also be paying for the lack of attention that is necessary to put appropriate roads in.<br>I moved here from Baltimore to be in a small town environment that would provide a safer environment for my 3 children. But I am finding that, depending on who is backing a project with the right money in hand, it does not matter where you go to get away from the mess, it will follow. |
| 144 | | WHY 5 access points in such a short distance? Sugar Hollow Road, Myers Road, are accidents waiting to happen. Why do we need this, who exactly is going to benefit from having so many access points?<br><br>I moved here from Martinsburg to be in a small town environment and am very disappointed in what is happening here. If you want to spend money, take out all of those access points and use it to put the corridor in from Martinsburg to Berkeley Springs so my husband is driving on a better road to work every day.<br><br>Keep people driving in West Virginia. Use the money to keep people in the state and not a shortcut around us. |
| 145 | | I do not want this bypass. If you can make this kind of money, please use it towards fixing the roads that we have. Or put it toward education so everyone can quit arguing about the School Levy for Morgan County. WV should be supporting education and the growth opportunities of the residents that live here to learn trade skills to get jobs. Instead we are putting in a bypass that doesn't even make sense and will end up costing us tax dollars to maintain, repair and replace.<br><br>We just watched a teacher's strike this year that shined a light on the fact that our teachers are underpaid and leaving our state to go elsewhere to get better paying jobs. WHEN will everyone stop and think about the residents first and the POWERFUL, MONEY HUNGRY companies second. We all know that the bypass is part of a bigger plan for someone with the right amount of money or the right politician in their pocket...help us stop this tragedy before it starts. |
| 146 | | Residents need someone to stand up for them. Stop this madness, NO BYPASS for Morgan County. It's not safe, it does not support us economically, it does not make sense for this small town.<br>Please, before this goes any further, consider what you are doing to this county. You will stand to lose more than you gain. |
| 147 | | If you have to do this bypass, for the love of all that is good, rethink the engineering.<br>We need to have the right access for the business route in to the town. We need to have a Y access that gives travelers the opportunity to decide if they want to come into town or go the bypass. WHY would we ever force our residents AND travelers to get on the bypass? The reason for this bypass was to get the trucks OUT of town limits. By forcing everyone to get on the bypass it defeats the purpose.<br>PLEASE look at the North and South Entrances and make the appropriate changes. |

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| 148 | | The access roads that are shown on the map, please take serious consideration into eliminating, at the very least, Myers Road.<br>Myers Road is disastrous now, let alone when more people are encourage to take this road. Please reconsider having so many of these access roads.<br>If safety of your WV residents is important, please eliminate some of the access roads, please.<br>Thank you |
| 149 | | Please take another look at the North and South entrances to the bypass. Please consider what I have heard and use the Y entrance vs. having the existing set up. Not having an option to go straight into the business section is a serious issue.<br>Please take a look at this. |
| 150 | | I think a bypass would be beneficial to Berkeley Springs, but not the way you currently have it proposed. I think that on both the northern and southern end of it, there should be a Y allowing a choice of business 522 and bypass 522. Also, should be services signs like the interstate has for the local businesses downtown to show what is available at each exit of the bypass. I also think you should invite the local leaders and citizens to help with planning (have a hand in designing and developing it) the bypass to make it beautiful (maybe the local garden clubs, etc. can plant beautiful flowers along it). I'm not against it, just against the way it is currently being planned. |
| 151 | | I am for the bypass. I'm not a transportation expert, so I'm just hoping you guys know what you're doing. As far as tourism goes though, those semi trucks on 522 need a different route. That should be obvious to anyone who believes that looks matter. If you are trying to market a destination as quaint, quiet, small, rural, health, historic place....semi trucks idling in the middle of the historic shopping district does not fit the profile or any reasonable marketing plan for a destination.<br><br>Whatever you may hear, something is amiss when a commerce representative is against commerce. Personal vendettas do not belong in decision making for a region. I encourage you to discard any form letters responding to this issue. The only ones who really care about this wouldn't use a form letter and there are those who just like telling others what to say.<br><br>Morgan County needs this bypass and anyone can see it if they visit the place, especially around 2-3 o'clock when we have school buses mixed in with the semis.<br><br>We have only lived in Morgan County for 4 years and we have always lived rural. I have never seen a circumstance like this. If 522 is blocked for even 10 minutes, traffic is backed up for miles. It can easily take 45 minutes to get into the North end of town.<br><br>It can't be ideal for the truckers either. They're just sitting there, causing them delays to their destination. Most are very considerate, I will give them that.<br><br>Please build the bypass. |
| 152 | | The proposed by-pass for rt 522 in Morgan County is inane- This is a small rural town, with farms and generations of families, and some one has suggested a four lane 65 mph highway through the middle ? |

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| | | Stupid idea- overkill for the area-<br>repave the roads we already have to make a difference. |
| 153 | | I LIVE EIGHT MILES SOUTH OF BERKELEY SPRINGS ONE MILE EAST OF 522. I BELIEVE THAT ACCESS TO PASSENGER VEHICLE TRAFFIC TO 522 SHOULD NOT BE CLOSED. ONLY SEMI-TRUCK TRAFFIC SHOULD BE "REQUIRED" TO ENTER THE BY-PASS. THE TOWN OF BATH (BERKELEY SPRINGS) WAS HISTORICALLY A TOURIST DESTINATION AND IS IN THE PROCESS OF REBUILDING THIS IMAGE. WHILE OTHER REGIONS OF WV FOCUS ON INDUSTRY AND MINING BERKELEY SPRINGS IS A TOURIST DESTINATION--ESPECIALLY FOR WASHINGTON DC, PITTSBURGH AND BALTIMORE. BERKELEY SPRINGS ALSO RECCEIVES NUMEROUS VISTORS TRAVELING FROM NEW YORK TO FLORIDA AND VICE VERSA. THESE TRAVELERS WOULD BE ELIMINATED IF ACCESS TO PASSENGER TRAFFIC WERE BLOCKED ON 522. THE TOWN OF BATH IS AN HISTORIC VENUE DATING FROM THE TIMES OF THE ORIGINAL COLONIES. IN 2015 I PURCHASED THE ORIGINAL BATH TOWN HALL. IT TOOK ONE YEAR TO RENOVATE. IT IS ON THE NATIONAL HISTORIC REGISTER. IT NOW HOUSES A RETAIL SHOP AND LOCAL "HEALERS". CLOSING 522 WOULD GREATLY ENDANGER MY INVESTMENT, WHICH IS TO RETURN BERKELEY SPRINGS TO ITS FORMER GLORY. THANK YOU. |
| 154 | | Living south of Berkeley springs, I travel into BS more than 5 times a week to shop, eat, exercise, use the library etc.<br>The 522 bypass, as previously understood, would eliminate the heavy truck traffic through town. However, after further studying the plans, I discovered that I will be "forced" to use the bypass just to get to the grocery store!! Of course going out of my way will not eliminate my need for groceries, but it will impact the way I shop and use services in Berkeley Springs. Locals should not be forced to Bypass" our community. A traffic circle or roundabout on the North and South ends of the proposed bypass would allow us the option to continue traveling on 522. A weight limit should be imposed to eliminate tractor trailer traffic, with the exception of local deliveries.<br>While I agree a bypass will relieve congestion through town, I do not support the current plan to eliminate local traffic on 522 |
| 155 | | As a business owner and resident of Berkeley Springs, Morgan County I ask that the WV Department of Transportation address 2 major concerns with the current bypass design:<br><br>1. Don't close Rt. 522. Allow it to remain open as a business route for local traffic wishing to access Berkeley Springs. I ask that the design be changed to allow local traffic to stay on Rt. 522 while having an exit for the bypass route.<br><br>2. Ensure safety at bypass intersections including improving the quality of local access roads that will intersect the bypass. Some of these roads are in very poor condition with one of them (Myers Rd.) being only one lane wide in places. Heavy traffic exiting the bypass onto these roads is a large concern.<br><br>Your attention to these issues is greatly appreciated. I feel the resolution of these issues is crucial to installing a new highway route that is beneficial to all who use it. This road will be the largest highway project in Berkeley Springs in my lifetime, and the end result should be a well-designed project that serves all. Thank you for your time. |
| 156 | | What problem is the bypass trying to fix and what other solutions have been explored? And the cost/benefit of each determined.For example - wouldn't appropriate signage to send trucks to other high capacity highways like rt 70, 68 and 81 be more cost effective? |

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| 157 | | I believe that the proposed bypass is both unneeded and poorly thought out. It will force traffic onto the bypass and make access into town available through narrow winding roads resulting in an increase in accidents and a burden on EMS. It will effectively kill the town's business and open up development where we don't need any, hurting the small historic town setting that we now all enjoy.<br>I believe if the bond money that is available was used to repave roads in need, fix marginal bridges and culverts throughout Morgan County that our quality of life would be better and the money well spent.<br>Thank You |
| 158 | | Berkeley Springs relies heavily on tourism and pass thru car traffic to support many downtown local businesses.<br>The by-pass as designed chokes off the entrance to town by forcing all traffic on to a 4 lane by pass and then requires them to take an exit to get to the historic down town area.<br>This would be a severe hinderance to future economic growth as well as the businesses already present and thriving.<br>The plan needs to be revisited while taking into consideration existing conditions under which the Town of Bath currently thrives.<br>Auto traffic needs to funnel cleanly and without hinderance into the Town of Bath, NOT routed around. |
| 159 | | I believe that the present design/plan of forcing both north and south bound traffic onto the Berkeley Springs bypass is faulty. This is especially true for local residents. Being forced to take a round about route to conduct routine business as opposed to a simple Y intersection for a Business 522-ByPass 522 will require a a greater use of fuel. Several of the proposed intersections are with roads which are not suitable for increased traffic leading to safety concerns.<br>Businesses in town will be adversely affected by the rerouting of all traffic onto the bypass. I believe that the simple Y division at both ends of the proposed bypass is a much simpler solution allowing the traveler the choice. |
| 160 | | Dear Sir:<br>Thank you and your staff for the information you provided to the Berkeley Spring community re. the proposed US 522 Bypass. In response to your question, I heard about the public meeting in the "Morgan Messenger" newspaper.<br><br>I'm writing to comment that your plan is EXTREMELY INCOMPLETE AND UNSATISFACTORY!<br><br>Your background and description of the project should have provided a much more detailed history of and need for both the original "US 522 project (mid-1990s to early 2000s)" and the "NEPA Reevaluation of the 2000 Final EIS and 2001 Record of Decision".<br><br>The citizens of Morgan County are entitled to far more than one month to thoroughly analyze and comment on a project of this size and impact on their lives! At least six months should be allotted for comments from all affected parties.<br><br>The preliminary maps are, by your own designation, unfinished -- "currently under design". The diagrams do not indicate how traffic would flow through the various intersections.<br><br>However, the most serious flaw of this project was not referenced in any way in the printed material, but instead was communicated only by word of mouth. Apparently your plan would block both north and south traffic from entering Berkeley Springs. Instead, those |

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| | | motorists would be able to enter or leave town only via new access roads/streets connecting US 522 with the bypass.<br><br>Diverting local drivers from entering town in either direction is incredibly unwarranted and imposes totally unnecessary restrictions on them. It is a nearly universal practice throughout the United States to allow drivers approaching a bypass to choose to continue directly into the town without having to use any part of the bypass.<br><br>In summary, this project was poorly designed, unprofessionally presented and ill-timed. Please immediately cancel your timetable, start redesigning and invite the public to participate in every phase of future planning and construction -- if any!<br><br>Nelson Sparks<br>109 Cielo Lane<br>Berkeley Springs, WV 25411<br>nelson-terra@outlook.com |
| 161 | | My wife and I want the WV-DOH to allow non-truck traffic heading north from Virginia and south from Maryland to access the Berkeley Springs business district without getting onto the bypass.<br><br>We ask the WV-DOH to designate as US 522-B (business) the current US 522 between the north and south points of the bypass merge and designate the proposed bypass of Berkeley Springs as US 522. This allows traffic coming south from Maryland and north from Virginia to continue straight on US 522-B (business) into the Berkeley Springs business district.<br><br>We believe that signs at the junction of 522 with the bypass can advise trucks to use the new US 522 (bypass) rather than the US 522-B (business). |
| 162 | | I covered the bypass meeting as a Morgan Messenger reporter. I am also a Morgan County resident that comes to Berkeley Springs several times a week and goes to Hancock, MD regularly. I strongly urge you to redesign the Berkeley Springs bypass so that non-truck traffic coming from Winchester and Hancock can continue straight on US Route 522 South and North and come into town without being forced to get on a high-speed bypass. The impact on the town's economy could be devastating and local businesses that are hanging on by a thread could lose 30-40% of their drive-through customers. I also have major safety concerns about residents and school buses with people having to get off and on a bypass where trucks and traffic will be doing 75 to 80 mph in a posted 65 mph speed limit. Overweight trucks that are traveling the bypass could lose control especially in bad weather and cause deadly accidents. Six different bypass exits and entrances for a town of this size seems excessive with the impact of funneling traffic on those roads and through those neighborhoods another issue.<br>The tractor-trailer truck traffic using 522 as a shortcut is the major problem. The Division of Highways could deter through truck traffic with weigh stations at both ends of Morgan County, weight restrictions, no through truck traffic signs and other efforts. A four-lane bypass coming back into a two-lane highway without a new Hancock Bridge is also problematic. Why not a two-lane bypass for trucks with a couple less exits? |

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| 163 | | 1. Construction of the bypass would cut off my current access of Sugar Hollow Road, forcing us to use the section of road that has a very steep grade and 3 sharp turns. This would cut off my tractor-trailer access because a lowboy can't navigate those sharp turns. (I bring a lowboy home 1 to 2 times a year.)<br>2. In winter, that steep hill is treacherous. Emergency vehicles would have a difficult time traversing it. Since it's a dead-end road as currently planned, I'm sure it would become low priority for maintenance. I already have a standing problem with the state road - at least 15 years old - for lack of maintenance. The road floods in front of my property at least twice a year, washing out the bank and depositing debris on my property. I have to clean this up myself. I have brought an excavator in twice to regrade. I met with state road maintenance supervisors several times and, also, with a district engineer, but nothing has ever been done to fix the problem. A simple fix is possible by increasing pipe sizes to handle the flow and by maintaining ditches.<br>3. The bypass takes portions of my land that are premium, namely, my stream and waterfall.<br>4. In the years since this bypass project was last discussed, I have purchased additional land and built a 6,000 square foot garage/workshop on it. The proposed right-of-way looks to be within a few feet of my building and it takes the area in which I stage my firewood for my outdoor stove (the primary heat source for my home and workshop). I have no other place to store the wood except for my yard which has limited level ground.<br>5. My property value would surely be diminished by:<br>a) the close proximity to a high-speed bypass (noise, loss of privacy);<br>b) the destruction of the natural beauty of my waterfall and stream;<br>c) the poor access to my house (steep hill, dead-end road - pretty much I'm being put in a hole!) |
| 164 | | The current proposal would require ALL traffic from the south (including local) to take the bypass and use a complicated exit ramp with multiple turns to gain access to 522 through town, rather than simply giving traffic the option to stay on 522 or take the bypass. Under the proposed design, the current Rt. 522 will be barricaded to northbound traffic and residents who live south of Route 13 would be required to enter the bypass to access schools, shopping, etc. Although the north end of the bypass design is not complete, the group believes it is critical that it give travelers an uncomplicated option for remaining on 522 through Berkeley Springs. |
| 165 | | There are currently seven proposed bypass intersections (Rt.13, Sugar Hollow Road, Myers Road, Johnsons Mill Road, Martinsburg Road, Fairfax Street, and the Fairview Connector Road). Three of the proposed bypass intersections (Myers Road, Johnsons Mill Road, and Fairfax Street) are not scheduled for upgrades beyond 100 feet of the bypass. Residents have voiced concern that these roads are not suited for the volume of traffic that could potentially use them to access the downtown area. Additionally, unless a later traffic survey warrants, no traffic control measures (signals) will be installed at the interchanges |
| 166 | | As a real estate agent, I always like to ask my clients and customers how they ended up in Berkeley Springs or why they decided to buy their main or second home here. A very high percentage of those folks tell me they have driven through our town on family trips and it looked so nice they wanted to make it a second home. Many of them only drove through or visited one time before deciding to look and buy a home here!! This bypass as it stands will hurt the real estate business here. If you don't give people a choice of bypass or business route then those folks will miss our town completely! It's imperative that there is at the very least a choice to stay on 522 and drive directly to downtown!! |

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| 167 | | The interchange at CR 13 needs to be re-designed so that there is an easy choice to continue on 522 through Berkeley Springs or take the bypass. The current design would force all traffic onto the bypass and require traffic wishing to stay on 522 to exit and make a series of stops and turns which is completely unnecessary and would cause great economic harm to the businesses located on 522 at the south end, as well as to encourage potential visitors to bypass the town altogether. Berkeley Springs has relied heavily on tourism as the core of its economy since its founding. The interchange design for both the South and North end of the bypass must offer traffic a straightforward and simple choice between continuing on 522 through town or taking the bypass. Any other option would cause great economic harm to the community. I have visited every state in the union and have seen multiple designs that offer travelers easy and equivalent route choices. Those designs need to be implemented on this project. |
| 168 | | I have concerns about how the 522 bypass will substantially affect my husband and me personally, as well as those of us who live in the "hollow" of Sugar Hollow Road. There are also serious concerns about the effects of the bypass on the Berkeley Springs community as a whole.<br><br>My husband and I live on Sugar Hollow Road which is shaped like a horseshoe, intersecting with Route 522 at the north end across from the Rescue Squad and at the south end by the ROCS convenience store/gas station. Because our house is much closer to the north access point, that is usually where we enter and exit Sugar Hollow Road. The proposed bypass will take away our usual access to 522, putting us at a dead-end and forcing us to use the south access point.<br><br>Since our driveway will be the last one before the dead-end, it would become the default turn-around for the school bus, state road trucks and snowplows, mail carrier, meter reader, UPS/FedEx trucks, delivery vans, fire engine, ambulance, and anyone else who needs to turn around. That is not acceptable. The bypass design needs to include a turn-around spot that can accommodate large vehicles.<br><br>Being forced to access Sugar Hollow Road only by the south end poses a number of problems, not just for my husband and me, but for everyone who lives in the "hollow" of Sugar Hollow Road.<br>a) Depending on where each individual's home is, it is necessary to make either a hard right or left turn onto a very steep stretch of road – about 956 feet long at an average grade of 13.5% (grades range from 10.6% to 15.7%). At the top of this hill, it's necessary to make an immediate hard left turn, followed closely by a hard right turn. When the road is covered with frozen precipitation of one sort or another in the winter, it will be nearly impossible to climb the hill because the hard turn at the bottom of the hill precludes the ability to get a "running start" before driving up, and the length and pitch of the road make it difficult to maintain enough speed on a slippery surface to make it to the top and be able to make the immediate hard left turn. On one occasion last winter when we had a few inches of snow, a sheriff's SUV slid off into a ditch while trying to climb the hill – and he was near the bottom of the hill. In the event that a vehicle could only make it part-way up the hill, backing down would be dangerous. Driving forward down the hill would also be dangerous because of the hill's length and steep slope and the hard left or right turns at the bottom. If a vehicle couldn't safely make the turn at the bottom, it would end up in a ditch or the creek or run into a tree. Two vehicles approaching each other from opposite directions on the hill would have an additional challenge because the road is barely wide enough for 2 vehicles and is bordered by drainage ditches on both sides. If a medical or fire emergency occurred at such times, it would be dangerous for the emergency vehicles to come down that hill. Delays in |

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| | | the timely treatment of a medical or fire emergency could be deadly. Emergency responders' safety would also be at risk trying to safely negotiate that slippery hill.<br>b) My husband occasionally brings home heavy equipment, transported via a lowboy trailer, to make improvements to our property. The truck and lowboy transporting the equipment easily access our home by coming in at the north end of Sugar Hollow Road, but it would be physically impossible for the truck and lowboy to navigate the turns at the top and bottom of the previously mentioned steep hill if the only access to our house would be from the south end of Sugar Hollow Road. Because we have access now, we should also have access after the bypass is built.<br>c) As already stated, safety and accessibility issues will be caused by eliminating access to the north end of Sugar Hollow Road for the residents of the "hollow" on Sugar Hollow Road. To ameliorate those issues, a major upgrade to the hill and the sharp turns at the top and bottom of it would need to be undertaken before the bypass is even started so that the residents of Sugar Hollow Road are not left with unsafe conditions and poor access during the bypass construction phase. The proposed bypass plan creates safety and accessibility issues that do not currently exist.<br><br>At the present time, getting off of Sugar Hollow Road onto Route 522 from both the north and south ends, can be challenging because of the amount of traffic on 522, particularly on Friday afternoon/evening and on weekends, especially during the warm weather months and holiday travel times. Once the bypass is built, I expect that situation to deteriorate even further. The current bypass plan has the bypass intersecting Sugar Hollow Road at grade, somewhere before the current south end of the road. For everyone living on Sugar Hollow Road, it will be necessary to either cross over 4 lanes of high-speed traffic to get to the other side of Sugar Hollow Road and then, to Route 522, or to merge onto the bypass from a stop sign. From what I can see on the proposed bypass map, there does not appear to be an acceleration lane to safely get up to speed before entering the travel lane. That's a serious safety issue that compromises the safety of those entering the bypass and the bypass travelers who may have to suddenly slow down for merging traffic. Plus, as mentioned earlier, it sometimes takes a while to get onto 522 from Sugar Hollow Road at the present time when the speed limit on 522 is only 35 mph. I expect it to be much more difficult when the bypass traffic goes by at 65 mph. All of the at-grade intersections along the bypass will face similar safety and access issues.<br><br>As far as I can tell from the proposed bypass drawings, parts of our property will need to be taken for the bypass right-of-way. That includes part of the stream that runs along the lower portion of our property and a lovely little waterfall along the stream. It also looks like the right-of-way ends just feet from the back of my husband's workshop. I can't be sure from the drawings, but it may also take away some of the area where we store the firewood for our outdoor wood furnace.<br><br>For all of the reasons stated thus far, and because of the proximity of our house to the actual bypass - which will be noisy, unsightly, and take away our privacy - I expect that the marketability and value of our property will be greatly decreased. I wonder if we will be fairly compensated – or even compensated at all – for the property devaluation.<br><br>There are aspects of the current bypass proposal that are also troubling for everyone who travels on Route 522. |

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| | | Most towns that have a bypass also have the option of not taking the bypass by continuing on the main road – often called the business route. This current bypass plan forces everyone traveling towards Berkeley Springs from either the north or the south to get onto the bypass. This is totally unnecessary. Locals will not want to be inconvenienced by going onto the bypass. Many travelers who might stop in Berkeley Springs if they actually saw the town, won't, because they are forced onto the bypass and won't even see what the town has to offer. According to Berkeley Springs merchants, as much as 30% of their income comes from out-of-towners passing through Berkeley Springs who stop and shop. 30% is a lot of income to potentially lose.<br><br>As already mentioned, safety at the at-grade intersections with the bypass is a big concern. From the map of the proposed plan, it appears that there are deceleration lanes for those leaving the bypass and turning off at one of the intersecting roads. However, there do not appear to be acceleration lanes for those merging onto the bypass from an intersecting road. Merging into 65 mph traffic from a stop sign is a challenging and dangerous situation for both the merging driver and drivers already on the bypass. Both deceleration and acceleration lanes are needed at the at-grade intersections and must be long enough to allow for safe deceleration and acceleration.<br><br>Since the speed limit on the bypass is 65 mph, I wonder if there will be safety issues when the northbound bypass traffic must merge into one lane going 55 mph on Route 522 and the southbound bypass traffic merges into one lane only going 45 mph.<br><br>As I read about the proposed 522 bypass and look at plan drawings, a number of questions come to mind:<br>a) How was the need for a bypass determined? Is there a traffic study or other needs survey that can be referenced?<br>b) Was local input solicited for the design? If so, from whom? Is there a record of the input that can be read?<br>c) Will there be a follow-up public meeting to address issues presented during the public comment period?<br>d) Is there already funding for the entire project to completion?<br><br>Thank you for reviewing my comments. |
| 169 | | I am not sure who thought this bypass was a good idea, but wow! I have debated about staying in WV or moving, I think you are making my mind up for me. NO BYPASS - this is a serious waste of tax payer monies. |
| 170 | | As a granddaughter and heir to one of Berkeley Springs hometown Mom and Pops businesses, I ask for your consideration in the design of the Southbound entrance of the bypass. You cannot stop traffic from continuing on into our lovely town that thrives off of tourist traffic nor can you make it difficult for the locals to continue their everyday commute and travel for work and business. You would essentially be killing off the local businesses that have worked their whole lives (60 years to be exact) to provide for their families that inspire to carry on the family name. My hope is that you reconsider the design to benefit the locals. Not to just benefit the tractor and trailer traffic. |
| 171 | | The plan I've been looking at on your maps is just so bad!! Why would you shut down direct access to Rt. 522. Is the intention to shut down Berkeley Springs to the tourists - many of which have not yet discovered us. And all those connector roads - what a waste of land and space. |

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| | | If - big if - we are to have a true bypass, we need two lanes - one north and one south - to deal with traffic that truly does not want to come through our beautiful town. And - big and - the speed limit has to be kept at 45 MPH.<br><br>This is not a bypass - it's a pass through. The town will still be affected by the noise and the pollution which will become much worse. All the dirty, toxic air will sink onto the town and the homes surrounding it.<br><br>Please trash these plans. Either come up with something that will enhance life in Berkeley Springs and Morgan County or just leave it all alone.<br><br>BTW, the speed limits on 522 could be enforced. Right now traffic on the southern part of 522 easily hits 65-70mph. We could use a couple State Police just dedicated to enforcing the speed limit. This would do a lot of encourage some of the truck traffic to stay on I-81 |
| 172 | | These are actually questions. I didn't hear about this until the day that there was a meeting at the school. I was at work. I own a home in the Fairview subdivision. By the map, it looks like option 1 Fairview connector will run along the back portion of the property I own. I currently have my house on the market. I know that you guys are planning on making a decision about the course of the road soon. But, I'm in a tough spot. I am worried about the sale of my house. I don't think that someone will want to purchase my house for a short time, just to possibly have to move again in another year. I'm not sure if it would be worthwhile to speak to someone from your department about the sale of my house if you make the decision to go with option 1 before that time. I don't have strong opinions about which option you guys choose, but, I have put a great deal of work into the home I am selling to make it appealing to a buyer. So, I don't mind selling it to the state, if a reasonable offer can be made. I was hoping to sell the home sooner rather than later.<br><br>Thank you for your time in this manner. |
| 173 | | Looks like no one has actually come to Berkeley Springs and become acquainted with the layout of our area. Why would you shut off 522??? Thought the purpose was to give the trucks a route around the town? We need cars - local and others - to be able to easily access BS without getting on a bypass and using an interchange. Really - this design is stupid.<br><br>If a bypass is necessary - and that's questionable - put in a 2-lane bypass AWAY from the town and not so close to it. Mainly for trucks with a speed limit of no more than 50 mph. The only interchange necessary, in that case, would be at Route 9.<br><br>Another alternative is to have the State Police actually enforce the speed limit on 522 instead of allowing trucks and cars to go way over 60 mph. Speed enforcement and hefty fines would encourage much of the traffic to stay on I-81.<br><br>We have a beautiful town and county promoting tourism. This road mess would discourage tourism and certainly detract from the beauty of this area. |
| 174 | | You must revise these plans that block traffic from entering the town and force everybody on the bypass even if they are trying to go to school, work, shopping, or even home. |

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| | | The bypass must have two forks, one for bypassing the town, and one for local and business traffic. Any other plan will simply destroy the town, and that surely is not your intention...<br>Is it? |
| 175 | | 522 bypass needs to make sure that the current 522 stays open as is and not closed on the southern end. Locals need to be able to continue 522 to get to work, store etc. instead of going onto the bypass to go 1/2 mile. This whole bypass needs some re Designing. We live here not the designers. Locals know best what will and will not work.<br>We just want the tractor trailers off of 522 they our town. |
| 176 | | Not allowing local traffic to choose between taking rt522 or the bypass from the South as well as the North side is of great concern. I believe that as currently designed the bypass could be detrimental to the town. I do see a need for a bypass, however I feel that a less complicated design would be both beneficial and more cost efficient. No upgrades to existing roads where access ramps are planned is also a concern for some of these as the current roads were not meant for the traffic flow that could potentially be redirected on to them. A simple bypass with access to rt. 9 would possibly be a more viable option for this area. I do hope that you take this under consideration before making a decision. Thank you for your time. Sincerely Rebecca Mills |
| 177 | | Dear Mr. Scites:<br>I am writing as a property owner and part-time resident of Berkeley Springs who expects to retire there permanently within the next two years. I support making sure that tourists and locals can access downtown Berkeley Springs easily. Since 2009 my husband and I have been very happy weekend and holiday residents of this wonderful community. We are supporters of arts and other organizations and enthusiastic ambassadors for the community for visitors and others. We take advantage of the state parks and local programs, as well as do our grocery shopping, hardware, health and other routine activities while there.<br><br>I strongly encourage the highway department to make sure that there is sufficient and easy access to downtown Berkeley Springs for locals and for visitors. This is and always has been in part a tourism and resort community and our county thrives on that. We do not want to have the tourist sector weakened - we want it to remain vital and grow. And, for routine shopping, we don't want to steer folks away from Morgan County into Maryland or Virginia. Because we live further south in Morgan County, it is not much further for us to drive to Winchester Virginia to the grocery store, for example. Please don't increase the distance and difficulty for us to access Berkeley Springs. Thank you. Robin Talbert |
| 178 | | The bypass is poorly planned. What are the solutions for the feeder roads like Myers, etc.? What about impact studies for noise and air pollution for residences located around the new bypass? Were they done and presented to current homeowners? The northern and southern ends of the bypass limit access to 522 and force people who want to visit downtown to use the bypass and an exit to get there. The bypass has no traffic lights, and with speeds of 65 mph (let's be honest -- 70-75) then how are people supposed to get on and exit safely without exit ramps at every feeder road? This plan has MUCH to be desired. |
| 179 | | Please do not leave the existing ends of US 522 open. They need to be cut off for the safety of the traveling public. Leaving the ends open will just keep traffic the same and nobody will use the bypass. Too many people will be killed at the ends before the state changes it anyway if the ends remain open. The overall layout looks fine the way it is. |

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| 180 | | I do not agree with the proposed bypass plans. This WILL take our tourists away and Berkeley Springs will suffer. Small towns cannot lose tourism. |
| 181 | | Please take another look at the bypass and change it so that 522 is open to allow for anyone who wish to pass through or stop to visit be able to. The current map is beyond confusing and would make it hard even for the locals to get around in town let alone anyone one traveling that would want to stop and visit. |
| 182 | | If people passing through use the proposed bypass, they will not be needing multiple exits. Local people in the southern part of the county may want an exit at Rt. 9 east. Please consider not building the other exits.<br><br>I am concerned about pollution to surrounding land from the trucks, air pollution as well as soil pollution from runoff. The trees along the current route of 522 are suffering from pollution and some have died. |
| 183 | | My home is a few feet from Fairview connector option 1...<br>if this is built, my home would be hell to live in and impossible to sell.<br>TLR |
| 184 | | I am requesting a review be made for traffic to be given an option to go on the proposed US 522 by-pass or continue north through Berkeley Springs. To deny access to Berkeley Springs on US 522, and require all traffic on the by-pass, and by a complicated exit enter Berkeley Springs, is a concern for local business.<br><br>Warrenton, VA had a perfect by-pass. Either go to the business center or go on the by-pass. It's not complicated. The signs easily give you the option. If you want to stop there to shop or eat, or continue your trip via the by-pass, the option if yours.<br><br>In conclusion, the US 522 by-pass should be a win-win. Access should be available to Berkeley Springs by US 522 for local residents and the many visitors that come to this wonderful town, and the people who are just on a journey to some other place have a by-pass.<br>Thank you for your consideration in this important decision. |
| 185 | | The current proposal would require that ALL traffic from the south enter the bypass and use a complicated exit ramp with multiple turns to gain access to the current Rt. 522 through town. The current Rt. 522 would be barricaded to northbound traffic. We need to have an entrance to the town and a choice to get on the bypass. |
| 186 | | There are seven proposed bypass intersections (Rt. 13, Sugar Hollow Road, Myers Road, Johnsons Mill Road, Martinsburg Road, Fairfax Street, and the new Fairview Connector Road. Three of the proposed bypass intersections (Myers, Johnsons Mill, Fairfax Street) are not scheduled for any upgrades beyond 100 feet of the bypass. There is concern that roads at the proposed intersections are not suited for the volume of traffic that could potentially use them to gain access to the downtown area. Either these access roads need to be eliminated OR they need to be a part of the FULL upgrade and not just a part that will have to be updated in the future and our tax dollars will be required to pay for it! |
| 187 | | Why were studies completed in the early 2000's that clearly shows this bypass is not needed ignored? There was no hesitation to use the maps from that time period as clearly what was provided at the meeting was old. However, no one took the time to go through studies |

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| | | from that time that show disruption to our natural resources?<br>Who from the DOT will be reviewing this and WHO will be talking to the citizens of Morgan County that will be impacted about what YOU are going to do to preserve our natural resources AND not add to my already overwhelming taxes that I pay. |
| 188 | | I have no idea why we are "rushed" to get through this process of spending such a large amount of money on this bypass WITHOUT having the most ideally designed routes for the benefit of our town.<br>I am certain that someone is profiting from this deal that they are pushing the process. However, you have many voting constituents who are more and more upset by this disruption.<br>You want to keep trucks out of the town to save the roads and reduce noise in the area, then put limitations on everything but local delivery trucks. Otherwise, leave the town to grow naturally based on our beauty and water resources.<br>This is how small town American continues to die. Take the money, fix the current roads that are a terrible mess. Take the money to develop a corridor from Martinsburg to Berkeley Springs so we can people working in our state instead of making it easier for them to go around us and benefit other states. |
| 189 | | I have no idea why we are "rushed" to get through this process of spending such a large amount of money on this bypass WITHOUT having the most ideally designed routes for the benefit of our town.<br>You want to keep trucks out of the town to save the roads and reduce noise in the area, then put limitations on everything but local delivery trucks. Otherwise, leave the town to grow naturally based on our beauty and water resources.<br>Take the money, fix the current roads that are a terrible mess. Take the money to develop a corridor from Martinsburg to Berkeley Springs so we can people working in our state instead of making it easier for them to go around us and benefit other states. |
| 190 | 5-15-18 | 522 By-way and Connector Road<br>Hello<br>I am submitted comments and concerns regarding the proposed 522 bypass listed below. I feel that most of these points are fairly and thoughtfully prepared. Please forgive grammatical errors and give the points of this mailing your attentive consideration. I am the Director of the Eastern Panhandle Regional Planning and Development Council however these comments are being made as a citizen of Berkeley Springs and Morgan County. These comments do not represent those of the Council as we have not had a meeting to discuss this issue.<br><br>Though I expect you will receive plenty negative comments and outright protest against this proposed highway project my comments will be focused on the community and areas that may need a closer review of details, public concerns and planning components. I will take the presumption that this project is needed locally for future growth, future traffic needs and prosperity of the region as well as the state. This region has been strong in growth and is need in much investment to handle this growth.<br><br>Transportation improvements are at the top of the list of needed infrastructure for the future of the region. One of the strong reasons for the 522 bypass is the possibility of spurring new development. The geography is such that care and planning should be taken so that invaluable land resources and prospective site pads can be accessed. (We need to reserve as many of the flattest 30 acre sites for industry as possible along the route and interchanges) |

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| | | The economic impact of the road on the north end and at access points will be incredibly positive over time. Please maintain all the proposed interchanges to maintain access to the town. Berkeley Springs is a tourist town. We need every exit in the plan. We need to encourage access to town. Some will complain about the current condition and type of road that serve the town but the access should be maintained and certain ones maybe limited to auto only or the road upgraded as part of the project. (Myers Road). Please consider upgrades to those roads that access the town and lead to commercial establishments.<br><br>The biggest argument you will hear is the concern for business continuance within the Town of Bath. My personal opinion is this community is not the same as many of the ones that lost significant business because of being bypassed. A quick analysis of the businesses that could be affected by traffic loss is fairly specific. The Town has a solid weekend tourist economy with mostly folks that make their reservations from the metro area. There will probably be a short term reduction in business and the town is very small with limited resources. We need more creative ways to entice traffic thru town and making town better for those who vacation here. We are a weekend retreat but we are not the destination everyone touts. We have more part time and seasonal jobs than full time. The State of WV Commerce Department should plan to provide development support and resources during this short term impact. This need for short term resources should be mentioned and supported by the WVDOH if possible.<br><br>The north and south connections should be designed and constructed to entice entrance to town potentially utilize some special feature. There is much concern about the entrance on the north bound lane at the south end point. The existing floodplain in that area that could possibly warrant a redesign or elevated roadway or other construction measures. My understanding is that the southbound lanes on the north end should be an easy fix to those concerns by maintaining direct access to valley Road.<br><br>In many highway projects they make arrangements for utilities with conduit. This should be planned and included where it makes the greatest sense. Where practical can you use natural topography to allow cross access by wildlife and farm use? Will there be snow/deer fencing? Trees could be an excellent buffer and provided needed pollution controls.<br><br>I cannot express strongly enough the sensitivity of the environment through Morgan County. I also know the construction can be successfully developed with the proper Storm water Management. I should warn you there is nary a place in WV that will be more serious about the monitoring of the operations. Your work area boundaries are narrow and that will present limitations.<br><br>One of the negatives in building a road of this nature is that it affects some families along the route. Some get dislocated and depending on their house value they may or may not be able to locate a replacement for the value. (How do we help these people?), some that were before in quiet locations now will be near a fast highway. Being close may be worse than be taken in some situations. Will those in extreme close proximately to the road be considered for purchase? Or will there be noise barriers or trees planted. The Regional Council has an environmental program and may be able to assist and capture potential funding. It would also be great PR for the WV DOH. |

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| | | The town is located within a flood plain. All the water from the new road will impact the Warm Springs Watershed thus any future changes will be blamed on the road construction. We are also solely located within the Chesapeake Bay watershed and more rules will apply to the construction. Proper sediment and erosion control measures during and after construction should a high priority.<br><br>Another issue that will be brought up will be the limiting of billboards. Our community has tendency to want to be involved in policy. Can the number of billboards be limited by the state?<br><br>Specifically the road splits Sugar Hollow Road. Having traveled both ends of the road I believe some additional review should be done as several of the residence will be<br><br>Also there is a bike trail designed and funded along the old abandoned R.R. right of way. Please include that in part of the plan and how will they cross and intersect each other near US Silica? Can there be bike trail designed within the highway plan? Or at least along the new road beyond the intersection with the NBRT? On towards Hancock. The Town of bath recently received a Federal Lands Access Grant FLAP to determine the best feasible across to the Maryland bridge to the C&O canal National park. We have asked that group to reach out to WV DOH to include some access in your plan near the connector road. (along the side of 522 near the north entrance?)<br><br>There is a new Gas line being built in the area and a determination as to how to best utilize that resource on valued properties should be considered. Growth and development is expected.<br><br>Hospital access is vital as there is a plan to develop a medical campus there. Again flat and accessible or easily developable acreage is key.<br><br>Should cost become an issue is there a plan B? Do you have to build both lanes? Can it be designed flattened? Construct one lane with turning lanes? To some it is the lack of egress options that is the problem along 522. Complete to 4 in the future.<br><br>Route 9 needs planned now! Growth has started again. It will save so much money in the future if you can save the ROW now. The amount of houses being built in the new route will raise the cost significantly and make it even more difficult for public acceptance if we wait. (Not build but at least determine the route) Once the corridor is approved anywhere the two routes intersect and can be easily improved between connectors over time. |
| 191 | | All the proposed interchanges are needed and essential to the plan. The Sugar Hollow road intersection will be important to existing businesses and investments in commercial businesses, however some of the folks living along that road do become landlocked due to the nature and percent of slope limitations of Sugar Hollow road. Please evaluate this area for possible solutions. |
| 192 | | How bout this, make the bypass just 2 lanes with mandatory use by big trucks and simple ramp/entrance/exit at each end, no other exits/entrances..... |
| 193 | 5-14-18 | We have studied the proposed plan for the construction of the Route 522 Bypass of Berkeley Springs at length and have some grave concerns regarding its impact. First and foremost is the effect that this project will have on our four family properties located at |

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| | | the end of Merrywoods Drive. This plan will most likely destroy the residence that we now consider our family home. Even if the building were spared, we will no longer be able to enjoy the sylvan setting that we treasure. For this reason, it is paramount for those of us with property in the pathway of progress to know that our sacrifice is of great benefit to this community and, in the long run, worth it.<br><br>According to West Virginia Department of Transportation documents found online, "the Berkeley Springs Bypass will be a four-lane, controlled-access expressway with a grassed median and a design speed of 65 miles per hour." The purpose of this 20-year-old design is to alleviate the heavy truck traffic and congestion in Berkeley Springs; but the plan may be outdated and may not take into account the increase in traffic, the size of current trucks, recent growth of the area, or the best interests of the community.<br><br>Concerns:<br>• This plan will dump increased traffic onto four narrow, curvy country roads never designed for heavy use and not suitable for bypass access. Drivers unfamiliar with the area and relying on GPS will be diverted onto Sugar Hollow Road, Myers Road, Johnsons Mill Road, and Fairfax Street. The topography of all those roads is not favorable for increased traffic, and the thought of extra vehicles being funneled down through the Johnsons Mill Road and Fairfax Street residential sections is frankly very scary.<br><br>• Interstate highways with speed limits of 65 mph have interchanges and overpasses rather than intersections to eliminate the necessity of local traffic crossing the highway. Intersections are understood to be contrary to the concept of controlled-access. In this plan, however, only the Winchester Grade Road and the Route 9 junctions are scheduled for an overpass. Since no bridges are planned where the bypass meets Sugar Hollow Road, Myers Road, Johnsons Mill Road, and Fairfax Street, then an intersection at each site will be necessary to facilitate the movement of local traffic across the expressway. If local traffic is required to stop and then cross the 65 mph "limited-access" highway, the public's safety will be at risk daily.<br><br>• Local motorists must be able to make safe transitions between country access roads and the high-speed bypass. Unlike the interchange with Route 9, the current plan does not show extended entrance and exit ramps at the bypass intersections for Sugar Hollow Road, Myers Road, and Johnsons Mill Road. For the safety of all motorists. the intersections with Sugar Hollow Road, Myers Road, and Johnsons Mill Road must have adequate acceleration and deceleration lanes to safely separate entering and exiting traffic from bypass traffic traveling at 65 mph.<br><br>• Under the current plan, increased traffic will exit onto Sugar Hollow Road, Myers Road, and Johnsons Mill Road, perhaps making additional traffic signals necessary to allow for the smooth flow of traffic in town, thus further disrupting the smooth flow of traffic in town.<br><br>• Nothing in the current plan compels the bypass traffic at the northern or southern end to slow down to 55 mph and 45 mph respectively. Planners have stated that adding a traffic Y at the merger of either end of the bypass might produce the danger of high-speed traffic merging from four lanes to two lanes, but an alternative plan to slow down the traffic at each end of the bypass has not yet |

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| | | been submitted. Requiring bypass traffic to decrease its speed when rejoining Route 522 is vital to the safety of all motorists. Construction of round-abouts/rotaries (multiple-laned traffic circles) at both ends of the bypass would eliminate at least one complicated interchange and one of the bridges. It would also ensure that traffic speed decreases to allow the bypass traffic to feed safely into a slower speed zone.<br><br>Construction of an acceptable bypass around Berkeley Springs must serve its citizens first. It is imperative that additional studies be done to determine the impact of the bypass on local roads and traffic. Non-local traffic should be diverted with every effort to reduce any inconvenience to local residents. To protect the local business interests and preserve the character of the town, Route 522 should feed directly into town while the bypass should veer off eastward. Round-abouts/rotaries at both ends of the bypass would allow for the smooth, safe transition of traffic going onto and coming off of the bypass without the need for an overpass at the southern end. Limiting the exchanges to one at Route 9 and a second at one of the sites near War Memorial Hospital would still allow local traffic to access the bypass while at the same time eliminating the threat of increased traffic and congestion on secondary roads and residential streets.<br><br>Since the hospital interchange is still in the design phase, the planning commission would be well-advised to convene an ad hoc committee composed of highway planners and a few well-informed local residents to develop a plan in the best interests of the town. I urge you to seriously consider the ramifications of the current plan and to revise it so that the needs of Berkeley Springs' citizens are best served. This is a case where less truly is more.<br>Respectfully yours |
| 194 | | I fully appreciate the need to divert heavy truck traffic around the village of Berkeley Springs. However, I believe the current bypass proposal is totally over-engineered and would be significantly detrimental to the economic well being of Berkeley Springs.<br><br>I strongly believe a better and more economical solution for West Virginia taxpayers would be to build a two lane "truck bypass" around Berkeley Springs without all the road interchanges contained in the current proposal. The idea is to allow heavy truckers to be on their way north or south, but also allow all other motor vehicles easy and direct Rte. 522 access in to and out of Berkeley Springs.<br><br>I also appreciate the need for more direct access to War Memorial Hospital, but again that can be more economically provided by an access road directly from the present Rte. 522 and with a smaller access exchange from the "truck bypass."<br><br>Thanks for your time to consider my recommendations. |
| 195 | | I own a weekend cabin south of Berkeley Springs and am a frequent visitor to the town. I support the construction of the bypass, but like many other residents of the area and local elected officials I strongly urge that the current proposal to divert all incoming traffic to the bypass be modified to permit direct access to the town on 522. The diversion would create significant inconvenience for Berkeley Springs residents and visitors, would overload local streets at the interchanges and, it seems to me, would serve no useful purpose. Through drivers, especially truck drivers, would automatically use the bypass rather than pass through town. This tendency could be reinforced, if necessary, by signs requiring through trucks to use the bypass. |

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| | | Thank you for considering my comments and those of others, and for your efforts to bring a long-awaited bypass to our community. |
| 196 | | As a resident of Berkeley Springs, I would like to comment on the proposed Rt. 522 by pass. I am not in favor of the current plan which forces everyone off Rt 522 and on to the bypass. It is extremely inconvenient for those of us on the west side of 522, forcing us to drive miles out of our way. It will be a disaster for the town, many of whose businesses depend on people passing through. Berkeley Springs was badly hit when the housing bubble burst, the second home market collapsed and Coolfont closed. It is just beginning to recover, the Coolfont Resort is about to reopen again and the Country Inn is doing well. People forced onto the bypass will not make an extra effort to get back to 522 and the town will die. Even allowing traffic to proceed on 522 and marking that as "Business Route" will be bad for the town. I propose you mark the bypass as "Truck Route" and force large thru trucks to use it. Tourists are less likely to use a truck route and more likely to drive through town. As for the safety concerns, there are bypasses all over the country which seem to operate safely; I have been on many of them. I am not even sure a double lane road is necessary since trucks now use a single lane from VA to MD or MD to VA on 522 and don't seem to find that discouraging enough to use Rt. 81 instead. Please listen to the people who use this road every day. Thank you. |
| 197 | | I travel daily to Berkeley Springs for banking, grocery shopping, picking grandchild up from School. I do not want to be forced on a 4 lane bypass where the speed limit will be 65 and everyone will be going between 70 and 75. You should be able to continue on Business 522 and not forced on a bypass. Thank You in advance for making this happen. |
| 198 | | I am writing to request that the WV DOH consider a re-design on the Rt. 522 Bypass entrance from the south and to include direct access to Rt. 522 from the north when that section of the bypass is designed.<br><br>The current design requires that ALL traffic enter the bypass and then exit in order to reach the current Rt. 522. I would ask that the new design allow direct access to Rt. 522 with the bypass being optional for all traffic except non-local truck deliveries.<br><br>I would also ask that the DOH reconsider the selected interchanges. The Myers Road interchange is not suitable for even single lane traffic, let alone what vehicles may decide to use it to access Rt. 522. Only three interchanges are necessary - Rt. 13 (unless direct access to Rt. 522 is provided), Rt. 9, and the Fairview Connector Road. |
| 199 | | I am the sheriff of the county.<br>Those of us in law enforcement know the necessity of this bypass from the front lines. The recent fire at the old warehouse on US 522 proved the need for a bypass once again. Traffic is gridlocked in Berkeley Springs. There is no way to divert it when there are incidents. I live on US 522. I jokingly refer to it as I 522 because often the traffic (especially semis).<br><br>I am also concerned about not only traffic safety but environmental safety due to the large traffic backups in Berkeley Springs where exhaust fumes from trucks and cars can become overwhelming at times.<br>As a representative of law enforcement we wholeheartedly support the bypass in the interest of public safety. |

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| 200 | | The bypass is a real need in our area. The traffic on 522 in Berkeley Springs is a nightmare. Business growth is pretty much stagnant here and I believe building the bypass would encourage businesses to locate here. I saw that happen in Jefferson county when the bypass went in in the 90's. |
| 201 | | To Whom It May Concern:<br>I am writing to convey my concern about the plan for the proposed Rt. 522 bypass in Morgan County. I know that others have written expressing concerns -- which I share -- that the bypass will cause irreparable harm to the businesses of our town, and to the quality of life of its residents. The state's assumption that the bypass will somehow attract economic development is false, and not supported by any study or evidence. Big box stores, including Walmart, are closing all over WV. Our town's thriving economy is based on tourism and those who have second homes here -- we are a place like no other, a destination with charm and beauty unsullied by generic franchise businesses. The bypass would make Berkeley Springs just one more WV ghost town.<br><br>My more serious concern, however, is that the plan closes the present Rt. 522 to local traffic. My 4-mile trip to the store becomes a 7-mile trip as I would be forced to leave 522 within site of the actual store.<br><br>Worse, it would create a terribly dangerous situation for our school buses, drivers, and kids. Instead of going directly to the schools [especially Widmyer elementary and the High School], the buses would be shunted onto the 4-lane, 65mph bypass [adding miles to their routes]. There they would have to accelerate to merge left, then cross the lanes of traffic to slow, stop, and make a right turn across the other two lanes of traffic. They would have to do this among speeding heavy trucks and other vehicles, twice a day, 180 days a year. There are a LOT of buses here -- they would clog the "bypass" completely in the morning and afternoon with slowing, swerving traffic. Some buses would be on the bypass several times during their routes. The potential for a catastrophic accident costing the lives and wellbeing of our precious kids is FAR TO HIGH.<br><br>Why have there been NO TRAFFIC STUDIES?!? The plan is 20 years old, and our area has been growing and changing for two decades, part of the economic engine of the eastern panhandle. While we do need a connector from 522 to Fairfax and the Hospital, we do NOT need the bypass. What we need is investment in the roads and bridges of Morgan County as a whole -- this would share the bounty of the road bond far more fairly to benefit all citizens of the county, and it would increase their safety instead of endangering our children.<br><br>Please STOP the rush to build this bypass. DO A TRAFFIC STUDY. Learn what we really need to travel safely and well in Morgan County. |
| 202 | | The current proposal would require that ALL traffic from the south enter the bypass and use a complicated exit ramp with multiple turns to gain access to the current Rt. 522 through town. The current Rt. 522 would be barricaded to northbound traffic. It is critical to give our local residents and visitors an uncomplicated option for remaining on Rt. 522 through Berkeley Springs. |
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| 208 | | There are seven proposed bypass intersections (Rt. 13, Sugar Hollow Road, Myers Road, Johnsons Mill Road, Martinsburg Road, Fairfax Street, and the new Fairview Connector Road. Three of the proposed bypass intersections (Myers, Johnsons Mill, Fairfax Street) are not scheduled for any upgrades beyond 100 feet of the bypass. There is concern that roads at the proposed intersections are not suited for the volume of traffic that could potentially use them to gain access to the downtown area. It is critical to ensure the safety and integrity of our community and its neighborhoods. Either complete the roads from end to end with upgrades of 2-lane suitable roads OR eliminate the access roads. |
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| 214 | | It is imperative that the following apply to this project:<br>* NON-truck traffic to be directed through downtown Berkeley Springs via 522 North and 522 South without having to use the bypass.<br>* THROUGH trucks (not having business in downtown Berkeley Springs) to be directed to use the bypass.<br>* Traffic SIGNAGE to be placed in appropriate locations to protect people where there are bypass crossings at local roads. The County Commission has designated particular bypass crossing locations needing such signage.<br>* LOCAL/Berkeley Springs FOOD ESTABLISHMENTS and GASOLINE STATIONS to remain the services for both cars and trucks using either the bypass or 522 North and South. Additional services NOT to be built along the bypass.<br><br>Thank you for the opportunity to make my comments regarding this project. |
| 215 | | The proposed bypass for Berkeley Springs is sorely needed and long overdue. The current design should be modified to allow traffic to easily flow to both old Business-522 and the proposed by-pass with a Y type design. Forcing traffic to enter the bypass from either the north or south and then take an exit to regain entry onto old Business 522 does not make common sense. Remember - locals will have the most daily traffic north and south through the county. The exits on the proposed by pass should be limited to include the Fairview connector, Rt 9 and Rt 13. Other routes are not capable of handling excessive traffic and tractor trailers. |
| 216 | 5-16-18 | Dear Mr. Scites;<br>I am opposed to the proposed US 522 Bypass around Berkeley Springs, WV.<br><br>There has never been a traffic study done to establish the need for a bypass, not 20 years ago and not now. People say they would love through trucks out of town and I agree, but there are other options that have not been discussed, options that will not destroy the Town of Bath's economy and Tourism. |

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| | | What is the gain from the bypass as planned? Just 4 miles and far too many entrances and exits that really just destroys land, property and peoples homes. How do you justify 2 high speed lanes going North and a one lane (current US 522) going North, converging onto a one lane bridge going North, that Maryland owns and has no plans to enlarge. There were plans for a four lane high speed Rt. 9 from Martinsburg also coming into Berkeley Springs, and that would make 2 more lanes converging North onto the Maryland Potomac Bridge! What a backup/traffic jam that would create!<br><br>Forcing local people off US 522 onto the bypass to get into town or even to get to the grocery store is sheer lunacy. It is obvious that no real thought has been put into this plan. A bypass will kill the Town of Bath as a tourist town, as bypasses have done all over the country.<br><br>Again, I oppose the US 522 bypass! |
| 217 | | We received a Right of Way Questionnaire from Triad Engineering (they suggested I try to get the info I'm looking for from WVDOH directly) in regards to the referenced project. I am hoping to get a heads up on what this possibly means. We appear from the proposed maps I had seen to be in the path or very near to it at least. When will we know what's going to happen. Should we begin looking for a new place to live? Should we begin ATTEMPTING to sell our house BEFORE there is a highway in our back yard? As you can imagine, the anxiety of this is very real and it would be helpful to know a little more about what could happen. Thank you. |
| 218 | | I live with my family 10 miles south of Berkeley Springs approximately 3 miles from 522. I try to do the majority of my shopping in Berkeley Springs to support the Town of Bath and the local merchants.<br>The current design of the 522 Bypass will add extra time to my trips into town with the inconvenience of a closed 522 at the south end of town. Driving the necessary Bypass, I will be forced to turn left from 5 of the feeder roads which will be dangerous because of crossing in truck traffic. It will add extra time to my daily shopping trips and discourage my making the effort to go into town. The current design will discourage tourist and pass through automobile traffic which is important to keep shops and restaurants viable commercial establishments. Please reconsider your plan to close the south entrance of 522 into Berkeley Springs to all traffic and close it only to thru truck traffic. |
| 219 | | Why are we going to spend millions of dollars for a bipass when we could improve our current road conditions and make it better for the citizens and passerby's. A bipass will distroy our little town and the economy will forever be changed and there will not be any backtracking to fix the issue. Please email me with anymore questions you may have. Thanks |
| 220 | | Sirs<br>The proposed bypass is a bad idea.<br>I have lived in Morgan County for 31 years.<br><br>Berkeley springs is a unique and relative safe town that is vibrant, having a wonderful blend of we culture, art, talent.<br>The town relies on tourism.. Much hard work has been done by the Chamber of Commerce, church's, arts groups, individuals to make it that way. |

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| | | I ha e seen many towns that have bypasses, and it is anuisance to visitors to get into these towns to visit. As a result, the towns lose much of their vigor since motorists "by pass" them.<br>Do not allow Berkeley Springs to become like those. You only have to look at nearby Hancock, Maryland to see a dead town with so many closed up store fronts.<br><br>The proposed bypass would cause people to go out of their way just to buy a gallon of milk.<br>Ultiply that by thousands of trips a day,<br>Better spend available money on improving and repaving damaged roads.<br>Have you ever traveled Blue room or Troy Roads.<br>The future of Berkeley Springs will be just as bumpy and rough as these roads if the bypass is built.<br>Thank you. |
| 221 | | As a homeowner who lives on property that would be adjacent to Option 1 of Fairview Connector, I have several concerns. My first concern is that Option 1 would be directly adjacent (behind) my house/property. Not only will this cause noise and disturb my families relaxation and quiet that we currently enjoy, it will also affect my family pets, specifically our dog. Option 1 will also have a negative affect on the wildlife that lives and roams through the wooded area that will be destroyed. Option 1 of the Fairview Connector also impacts many other residential properties within the Fairview Subdivision on Bluejay Ct and Finch Dr in the same manner as it affects my property and family. According to the maps of the proposed Bypass and connectors options, Option 2 seems to have the least impact to residential areas and should be the option chosen. It also appears to be the easiest and shortest Option of the two, which would also make it the least expensive to build.<br><br>While I am 100% in agreement that the bypass needs to be constructed, options that have the least impact on residential properties and wildlife should be given the highest consideration. |
| 222 | | Dears Sirs,<br>As a business owner in downtown Berkeley Springs and resident of Morgan County for 45 years, I want to state my strongest opposition to the so called bypass. It is a waste of State bond money and a business ruining plan. As for the Fairview connector, let the hospital finance its own driveway!<br>Bert Lustig |
| 223 | | The membership of Travel Berkeley Springs which represents the tourism industry in the county, requests that DOH redesign the north and south entrances to the bypass to allow through traffic to continue on US522 into Berkeley Springs without being required to get on the bypass and then find their way off. TBS research over the years has found that 30% of first-time visitors to the region come because they have passed through town in the past and liked what they saw. No one wants to lose 30% of their business. Making it difficult to allow traffic to stay on 522 and easily move through town would have a deleterious affect on tourism business. Tourism has a $40 million annual impact on the local economy.<br>We are also concerned about the safety and integrity of the roads and neighborhoods impacted by the access points. If traffic can flow freely through town, there is no need to have multiple access points to bring people off the bypass to town and no worry about the |

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| | | inadequacy of the local roads for absorbing bypass traffic.<br>Although visitors stay throughout the county, it is the famous warm springs and town that draw them and have for nearly 300 years. We are concerned about the negative effects of the bypass and ask that your design help the town continue to prosper and not damage it beyond repair. |
| 224 | | I previously said we need the bypass. My position has not changed EXCEPT we need to keep art 522 open for local traffic. |
| 225 | | Please keep 522 (business route) OPEN We need to be able to go straight thru town instead of by pass for locals and tourist that want to come thru our beautiful HISTORIC town.<br><br>The bypass is important and needed and so is OUR TOWN.<br>This is OUR FUTURE MAKE IT RIGHT for this beautiful historic town.<br><br>TOURISM is important part of this towns future. This town is asking just to be able to survive and have a future PLEASE ALLOW US TO CONTINUE MAKING OUR HISTORIC TOWNS FUTURE. |
| 226 | | Keep 522 open!!! Taking the bypass into town makes no sense!! It will be beneficial to all. |
| 227 | | Please keep 522 open. Closing it off makes no sense for people that live in town and will make it harder for people to get to there jobs that work in town. |
| 228 | | I am troubled on several counts with the proposed Berkeley Springs bypass.<br>The cost to WV taxpayers is outrageous. I have heard several different figures ranging from $32 M to $72 for a 4 mile bypass! This is not good stewardship of taxpayer monies.<br><br>The biggest issue seems to be the truck traffic in town. It is my understanding that US route 522 is not a designated necessary route by the National Truck and Highway System for commercial trucks. How inexpensive it would be to limit truck size and no bypass would be necessary. I'm sure our local businesses would appreciate non diverted traffic.<br><br>I have been unable to locate any traffic studies for our area. Have these studies been conducted? If so please publish the results of the studies in our local newspaper, The Morgan Messenger and if the studies have not been done they should be done immediately. I find it ludicrous that you would spend millions of dollars without first doing your research and having concrete answers and empirical data.<br><br>My biggest concern, however, is SAFETY. The proposed bypass has uncontrolled intersections onto very marginal roads as opposed to flyovers with ramps. What plan is there for major improvements to these roads some of which are not even 2 lanes wide and go through neighborhoods? Have any engineers even traveled these roads to see why this plan will not benefit our town but will cause numerous injuries and accidents?<br><br>These concerns need to be addressed before any plans proceed. |

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| 229 | | I cannot support the US-522 Bypass around Berkeley Springs/Town of Bath in its current design configuration. In general, we do need a bypass to improve the situation in Bath/Berkeley Springs. I believe that the State can design and build a successful integration of existing US-522 and the Bypass. The major problems are with the North and South interchanges where the Bypass will re-join the existing US-522 roadway. There are many designs for successful bypasses, but I'll point out a nearby one that is considered a success – the US-30 Bypass and Business US-30 design at Bedford, PA. Both East and West interchanges have designs that permit both easy exit to Business US-30 and easy entrance onto the US-30 Bypass. Yes, the design is more complex than the one proposed for US-522, but solving the problem of actively diverting all traffic from the current US-522, and saving the town is more important. In Bedford, the eastern interchange requires a fly-over on the eastbound lane of the bypass to permit eastbound traffic staying on Business US-30 to cross under it. The western interchange has a straight line entry for traffic going east onto Business US-30, but does have a grade level entry (Stop sign) for traffic going west off of Business US-30. A simple fly-over on the west bound lane of US-522 Bypass could improve this; should Traffic Engineering see the need. Conclusion: The Bypass is the "Right Thing to Do"; but it also is required to "Do the Thing Right". Please consider a significant redesign of the North and South interchanges between the Bypass and current US-522. Designation of a "Business US-522" is also required. |
| 230 | | I am the President of the Morgan County Planning Commission and in that capacity I support comments made to you by our County Planner (Ms. Alma Gorse) in a separate communication.<br><br>Also, I support the resolutions of our County Commission, the Economic Development Authority and our business-owner community expressing concern over designs for the north and south transition / access points and for the safety of interchanges with local roads.<br><br>The north and south junctures should allow traffic to flow easily into and out of town without being forced to enter onto the proposed new road and then exiting. Local roads with access to the new road should be up-graded to handle increases in traffic and anticipated future commercial development. |
| 231 | | This by pass will hurt the restaurant that my family has owned for 29 years. 90 percent of our business comes from tourism. The bypass will make if very difficult for customers new and old to continue coming here. |
| 232 | | The current bypass design in Berkeley Springs needs to be changed. The redesign should allow Rt. 522 to remain open at the North and South entrances to allow traffic to continue to flow thru the town. Please make this change for the people who live in our town, and for the good of the community as a whole. |
| 233 | | I have lived in Berkeley springs for 26 years and have been an employee of Taris Cafe for 10 years. This bypass will devastate our town. I would say 40 percent of the customers I wait on say they were just passing thru town and found us by chance. Our town thrives on tourism. To say the bypass will affect our business is an understatement!!!! The town's tourism has allowed me to raise my children as a single mother. This bypass would destroy me and my children's livelihood. With that being said I am also a homeowner and my property will be bordered by a highway. Can someone tell me what this will do to my property value? Berkeley Springs is a town with no Wal Mart or strip malls or highways. Who's idea is this bypass and what will they gain? In the end of this horrible decision Berkeley springs and its |

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| 234 | | I have lived in Berkeley springs for 26 years and have been an employee of Taris Cafe for 10 years. This bypass will devastate our town. I would say 40 percent of the customers I wait on say they were just passing thru town and found us by chance. Our town thrives on tourism. To say the bypass will affect our business is an understatement!!!! The town's tourism has allowed me to raise my children as a single mother. This bypass would destroy me and my children's livelihood. With that being said I am also a homeowner and my property will be bordered by a highway. Can some one tell me what this will do to my property value? Berkeley Springs is a town with no Wal Mart or strip malls or highways. Who's idea is this bypass and what will they gain? In the end of this horrible decision Berkeley springs and its residents only loose!!!! I hope whom ever will profit from this has a conscious and can sleep peacefully at night knowing he or she are destroying lives. |
| 235 | | As a long time resident of Berkeley Springs I understand the town needs to do something about the trucks coming through town. I have two suggestions. 1) make the by pass a trucks only road with only deliveries allowed. 2) not allow trucks on 522. The last thing I would request is that 522 remain open for traffic north and south. I believe this is the best option for our town.<br>Thank you |
| 236 | | It is my understanding that all traffic will be forced to go on the Berkeley Springs Bypass traveling northbound on Rt. 522. Once on the bypass, travelers will be able to exit the bypass onto Winchester Grade Rd, then return to the local retail areas, such as Sheetz, Food Lion, McDonalds, Rite Aid, and other establishments.<br><br>There needs to be an option to travel directly into the retail areas of Berkeley Springs via the local 522 and WITHOUT being forced onto the high speed Berkeley Springs Bypass. This modification to the plans is a MUST to ensure businesses survive the re-routing of traffic onto the high speed interchange. |
| 237 | | Dear Madam or Sir,<br>I'm writing you because I'm concerned about the proposed by-pass around Berkeley Springs, WV. I am a quilter who's business is directly effected by the flow of traffic that is now in Berkeley Springs. People stop all the time who are enchanted by our little pretty town. They get out of their cars to stretch their legs, buy some food & drink and discover our artists wares...mine included. This by-pass will kill the "accidental tourists" in our area. All Berkeley Springs commerce will suffer. Please, don't do this to our little town. We thrive on this flow of traffic.<br>Sincerely,<br>Laura Gough |
| 238 | | Hanging waited since 1974 for the Berkeley Springs by pass to become a reality, it is most important that the design be one the citizens of Morgan County can live with on a daily basis.<br>The current design does not accomplish that. A Y bypass, keeping the integrity of the downtown and common sense travel for locals is what needs to be achieved. Two years of continuing to acquire land, gives you plenty of time to redesign your plans before work begins. Let's keep it simple, and all will be pleased . |

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| 239 | | 1. The current proposal would require ALL traffic from the south (including local) to take the bypass and use a complicated exit ramp with multiple turns to gain access to 522 through town, rather than simply giving traffic the option to stay on 522 or take the bypass. Under the proposed design, the current Rt. 522 will be barricaded to northbound traffic and residents who live south of Route 13 would be required to enter the bypass to access schools, shopping, etc. Although the north end of the bypass design is not complete, the group believes it is critical that it give travelers an uncomplicated option for remaining on 522 through Berkeley Springs.<br><br>2. There are currently seven proposed bypass intersections (Rt.13, Sugar Hollow Road, Myers Road, Johnsons Mill Road, Martinsburg Road, Fairfax Street, and the Fairview Connector Road). Three of the proposed bypass intersections (Myers Road, Johnsons Mill Road, and Fairfax Street) are not scheduled for upgrades beyond 100 feet of the bypass. Residents have voiced concern that these roads are not suited for the volume of traffic that could potentially use them to access the downtown area. Additionally, unless a later traffic survey warrants, no traffic control measures (signals) will be installed at the interchanges. |
| 240 | | Please revise the 522 by pass to make the trucks go out around town and let the cars have a straight road on 522 to go through town. Also.... that by-pass should only be two lanes.... the trucks going through town now are just cutting off the 81/70 connection through Hagerstown, Md... they are not limited in their choices of roads to travel. I really wouldn't mind a truck weigh station on both North and South.... and I can recommend a T crosser/ I dotter that could manage it quite well!<br>Thank you in advance for the changes, |
| 241 | | There must be convenient access to downtown Berkeley Springs from the bypass. Having no exit into the commercial part of town is not only damaging to the economic base of Morgan Count but ludicrous! |
| 242 | | Your plan is to put so many family business out of business. Your gone to kill another town, and it will be just become a meth factory. But hey that's what WV is good for and oh the coal mines. I mean seriously the state earns so much money off this small town, To spend money on a highway plus the maintenance which would contribute to a lost of business, increase of welfare (which is a big problem already), less income that the state will gain from taxes, oh yeah the increase of meth/Heroin heads you will have sorry I had to say that twice. Put that money in to your school program, and putting WV back by to work, not out of work. |
| 243 | | It is important to me as a Morgan County resident who lives south of Berkeley Springs to have access to town via 522 and not be required to use the by-pass. Same for traveling from the north over the Potomac River bridge at Hancock, MD: direct access to town via current 522 is vitally important. |
| 244 | | Morgan Wireless, LLC is in full support of the State of WV, Dept. of Transportation, and the DOH to build the designated By-Pass/Connector in Morgan County, WV.<br><br>We will defer the design and the construction of the By-Pass/Connector to the road expert engineers at the Dept. of Transportation and Dept. of Highways.<br><br>We believe the State of WV will minimize safety issues and minimize other potential issues as much as humanly possible. We are glad the citizens of WV voted for The Road Bond in November, 2017. |

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| | | We would like to extend our appreciation for the design of so many, (7) I believe, on off locations.<br><br>With so many access points to the Town of Bath along the By Pass, motorists will be able to chose which location best suits their needs. The design will decrease the traffic count on any specific road and spread it among those 7 on offs. The construction will reduce the one way in and one way out of the existing Route 522 in The Town of Bath. The By Pass will also reduce the amount of truck traffic and the noise and pollution from same along old Route 522. Locals and visitors will be better able to sit outside and talk at the many restaurants, shops, and bars in The Town of Bath. Also, our school children will be more safe along the old Route 522. Locals and visitors will also have reduced and safer traffic to cross from one side of the street(existing Route 522, North/South Washington Street) to the other.<br><br>Motorists from the West of the Town of Bath along Route 9 west, (Great Cacapon and Paw Paw areas) and the residents of The Town of Bath have access to the existing infrastructure(existing Route 522) to get to Town of Bath offices, the Morgan County Courthouse, North and South Washington Street, CNB Bank, Citizens Bank, most lawyers, most doctors, most CPA's, most Hotel/motels, 7 eleven, General Dollar, Family Dollar, the 19th Hole, Clark's Furniture, the Moose, the American Legion, the Post Office, the Sheriff's Dept., the Berkeley Springs Fire Department, DQ, McDonald's, Food Lion, NAPA, Advance Auto, the shopping center on the south side, the Chamber of Commerce offices, the Morgan Messenger, the Ice House(Local Morgan Arts Council) and Travel Berkeley Springs offices without interrupting their current routine.<br><br>As a local business(Internet Provider) in the Town of Bath, we have daily contact with the actual residents in the County and in The Town of Bath. A majority of the residents are for the By Pass, in our non scientific opinion.<br><br>Also, we believe with the approximate $ 25,000,000 investment the State of WV is making at Cacapon State Park will add more tourists and visitors from the north and south. Less from the East and West(Route 9).<br><br>Also, many signs will be made available for the merchants and businesses along those 7 on offs to advertise. |
| 245 | | These comments are submitted on behalf of residents living on Fairview Drive near War Memorial Hospital. A certified letter with their signatures was mailed 5/17/18. #7016 2070 0000 1361 1814<br>We respectfully submit the following for consideration:<br>We live directly across from War Memorial Hospital and a possible design of the Fairview Connector Road is our worry. This design will have a major impact on our lives and we are asking for your consideration of the following:<br>1. We request that we be kept apprised of any changes/plans regarding the Fairview Connector and/or the Berkeley Springs Bypass. In the past various County/State agencies have not informed us of major changes that would occur until the week they occurred, i.e., the construction of the new hospital.<br>2. We request that you consider our safety as a major part of your process. We are directly caught in the hospital traffic and cross traffic using Fairview Drive as a major thoroughfare to their destination. Any time of the day, any day of the week you can observe almost all |

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| | | vehicles not obeying the speed limit. In standing at the end of our properties, we can be caught in a dangerous situation if we were not to move completely out of the way. We are unable to grass trim, get the mail, or drive out of our driveway without extreme caution because of the negligence of drivers and the fact that they seem nonchalant about the safety of this area even with a hospital located here. A connector road coming to Fairview Drive would make this neighborhood considerably dangerous. Excluding local residents that live in this immediate area, drivers are careless and negligent in their driving and we regretfully feel that this situation could be a bad accident waiting to happen.<br>3. We ask that you consider making a connector road to the back of the hospital that would not affect any neighborhood. Why is it not possible for the hospital to use their 70 or 80 acres that they were supposed to use to build War Memorial Hospital? Instead they built a cost efficient hospital too close to Fairview and placed a large entry sign and driveway within 10 to 14 yards of our driveways creating a neighborhood safety issue. We knew nothing of their plans until the day machinery showed up to start cutting hundreds of trees. A little consideration and yes, a higher cost, could have put the hospital many acres in on their land with a safe driveway for patients and everyone concerned.<br>4. We know you will have many letters to review and many complaints to consider. We know we will not be able to stop the progress of the bypass, nor would we want to do anything that would keep Berkeley Springs from moving into the future. What we are asking is for consideration of where the Fairview Connector Road will be placed, to consider the impact on our neighborhood, and the safety of those driving and living here. This is a wonderful neighborhood. Why wouldn't you want to protect that by designing a connector road that does not disrupt neighborhood life on Fairview Drive? |
| 246 | | This project is long overdue! The vast majority of the traffic we encounter on US522 is 'just passing through'. It consists of those who live in neighboring states and are following their guidance systems to visit family, or go on vacation, mostly. But many even use it to travel from home to work, and vice versa.<br><br>There are some that argue this will hurt business in downtown Berkeley Springs. I disagree. I believe this will greatly improve the quality of the tourism experience in our fair little town; restoring the quiet and quaint feel it once had - before all of the East Coast began using it as a shortcut from Interstate 81 to Interstates 76, 70, and 68, and vice versa.<br><br>My only hope is this project will move forward and reach completion in time for me to enjoy the benefits, thereof! |
| 247 | | For many years Berkeley Springs was jammed full of heavy traffic. not being able to go into town due to heavy back ups. trying to get throughout town and onto Ryan 522 was a nitemare. Berkeley Springs is a town that has a wonderful group of followers<br>Who enjoy dining .. hiking .. camping .. antiques.. and quietness .. this project should of been started back in the 90's but never happened ...guess we'll see how politics work .. |
| 248 | | Hi, I am for the bypass but I live between the new sheetz and 19th hole. I'm hoping this part of 522 remains open. I also would like 522 remain open all the way through as a business route. You could choose business or the bypass. I also own a business just outside of Berkeley Springs on valley road (522) we have a garage that offers towing and the more routes available will help with recovery of accidents and emergency services like fire and rescue. Thank you. |

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| 249 | | I am a citizen and business owner in Berkeley Springs. I am opposed to the current design of the by-pass and propose that thru traffic be able to continue north and south on Rt. 522 with limited access roads into town from the by-pass.<br><br>I am concerned about the safety and integrity of the roads and neighborhoods impacted by the access points. If traffic can flow freely through town, there is no need to have multiple access points to bring people off the bypass to town and no worry about the inadequacy of the local roads for absorbing bypass traffic. |
| 250 | | The north and south starting points for the bypass need to allow the option of local traffic to continue on without being forced to enter the bypass. Our business is at the north end of town and would be negatively impacted by the round about way of getting there on the bypass as designed now. Tourists passing by our shop and coming in is an important benefit of our location, which would not happen with the bypass as it now is designed. Please consider the tourist business, so important to our town's prosperity, and redesign the bypass. |
| 251 | | I would like to request for the Department of Transportation to redesign the current design of the upcoming bypass. Many Berkeley Springs residents such as myself work in town in businesses that will be negatively affected by the current design of the bypass. With the current design, visitors for the town will have to get on the bypass, take an exit off of the bypass, and drive another 3/4 mile just to get back to town, and I feel that many will not be willing to do that. It will confuse and deter them, especially visitors who have been coming for years. Please reconsider the current design of the bypass and the affect it will have on the livelihoods of the people living in the town, as well as the visitors who will have to use it. Thank you very much. |
| 252 | | I am opposed to the proposed US522 By-Pass around Berkeley Springs, WV.<br><br>I am a transplant from New York State and in the nearly two years I have lived here I have been amazed at the lack of transparency by first the Division of Water & Waste Management. Who once the pipeline was started opened up access to the permit for the Eastern Panhandle pipeline. Then at the hearings they conducted gave no presentation and to this date have made available the responses to the concerns of the people who attended the meeting. The elected officials did not show up. When a suit was presented they post phoned it to July 10th when the pipeline would already be in. Slam dunk by the Department and the Contractor democracy at work??<br><br>Now I am watching the same identical approach by the Division of Highways. The Division has a meeting where the material is dated, no presentation but the use of the new tactic where members of the Division talk with individuals and thus they get their input but the people whom you serve do not get the whole story. Then to make matters worse one finds the have to pay $75 to see the WVDoT - US 522 Berkeley Springs Bypass - West Virginia - Project Profile. Where are your concerns for the people of the impacted area??<br>I understand the following:<br>I understand there has been no traffic study done for this project. I think it would have helped in understanding how the by-pass traffic returning to Berkeley Springs will impact the streets you plan on funneling the traffic back to Berkeley Springs. This may be because your only concern is the 100 feet off the return avenues?? Those streets are not designed for heavy truck traffic either to weight of safe passage with other vehicles. I have seen firsthand the impact of high speed roads that exit to city streets, they back up on the highway. Oh, they cannot be upgrade for this increase in local traffic because they do not have the funds! If you had to fund them you would not have the funding to do the project and OH yes they are not in your jurisdiction so not a concern. |

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| | | When I came here it was a quiet area and a place to retire. For some reason, and I have read the marketing study carried out for the pipeline in 2014 this not an area for major development as it is in the Jefferson and Berkeley County areas. Have you seen that study??<br>The economic development people and the elected official of this area were involved in the study and still said the pipeline would bring economic development to the area. If you have done or would do a study it might not have a supporting out come for the by-pass.??<br>I have not seen a reason why you think you can funnel a 4 lane highway into a two lane bridge and think it is going to be a safe proposition. I did hear that maybe the reason you have not finished the design on that bridge end of the by-pass is that US Scalia wants their ore back that is under US522 so I would not be surprised to see that section of the present 522 "By-Passed. Also the River Road access at the bridge is already an accident waiting to happen. Have you personally seen the area???<br>I was driving on Route 9 yesterday and between the hospital turn off and where Sleepy Creek crosses 9 I counted 12 semi trucks. I suspect you have the extension of Route 9 in mind so that it connects into the by-pass then what will happen with traffic going on to the two lane bridge at Hancock??<br>I have attached an extensive study on the effects of truck by-passes carried out in 1995 and it appears there are no positive benefits to a truck by-pass. The second attachment is a study of a number of areas in the U.S. which have by-passes in place. In certain situations a by-pass does have a positive influence on a by-pass village. But those situations were located where the by-pass was mid way in a transit pattern between two major cities. Have you done a marketing study on its impact on Berkeley Springs, exclude development along the by-pass because that just takes away from Berkeley Springs.<br>US522 has the lowest rate given a federal highway, "other" so why not just have Berkeley Springs put an ordinance in of No Through Trucks. They are expanding the bridge on Route 81 and keep the traffic out of the area it has no real economic benefit. See the attachment where this was done in NC.<br>The term "sunk-cost" means that you have spent the money on development but if it turns out to be a bad decision stop from spending more money on a bad decision. We could certainly use a new small bridge across Sleepy Creek on Burnt Mill Road. If the pipeline was have a issue where it crosses either Sleepy Creek (by HDD) or Bunt Mill road our development of 50 plus homes would be cut off. The bridge is closed but now has no trespass signs on it and full cross barriers which would make it difficult to have pedestrian traffic use it for an escape, we are boxed in. It would be a project where the safety of the people who live here ought to be considered.<br>I have found it a real eye opener that the elected people and the government people who serve this community do not listen to the voice of the people. If there is positive to the By-Pass why do you not inform the people who it impacts? Instead you let rumors go around, have no transparency and achieve your goals by just Ram Roding it though right over the people it directly impacts. I see the pipeline process already being used on this process and even more local people are impacted and you are spending their money!! Sorry it does not make sense.<br>Yours<br>John E. Dropp<br><br>ABSTRACT<br>A relief route is a segment of a highway that moves traffic around the central business district of a city. Planners perceive it as a means of enhancing mobility |

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| | | and often associate regional economic progress with construction of bypasses. Though a bypass often means safer, quieter, less-congested downtowns,<br>the communities receiving a bypass generally worry about potential negative impacts to the local economy. Hence, to make well-informed decisions on constructing relief routes, impact studies are needed. This paper examines the economic impacts of highway relief routes on small- and medium-size communities in Texas. Per capita sales in four different industry sectors were chosen as the indicators of impact.<br>The models developed suggest that the bypassed cities suffered a loss in per capita sales in all four industrial sectors considered. The magnitude of the<br>traffic volume diverted appeared to be the greatest determinant of the impact. The overall impacts of the bypass were the most negative for gasoline service<br>stations and the least for service industries. The impacts were less negative for cities that had high per capita traffic volumes. In addition, city demographics,<br>regional trends, and proximity to a large city were estimated to have important impacts on 57.<br>The Impacts of Bypasses on Small- and Medium-Sized \Communities: An Econometric Analysis<br><br>Village Approves Plan to Re-Route Truck Traffic Around Neighborhood<br>David Sinclair/Managing Editor, Feb 27, 2015<br><br>Residents on Lake Hills Road in Pinehurst may be getting a little relief from an increasing amount of truck traffic through their neighborhood. The Village Council on Tuesday approved a staff proposal to post a “No Thru Truck” sign at the signalized intersection of N.C. 5 and Lake Hills Road to reduce the number of vehicles using the road as a cut-through between N.C. 5 and Linden Road.<br><br>California Department of Transportation, Transportation Economics<br>California Bypass Study, The Economic Impacts of Bypasses, Volume 1: Planning Reference, FINAL REPORT<br>System Metrics Group, Inc., In association with<br>Cambridge Systematics, Inc., Economic Development Research Group, Inc.<br>HLB Decision Economics, Inc., Judd Associates, May 2006 |
| 253 | | Dear DOH people. Our family has been in Berkeley Springs for 40 years and we have attended meetings in the 1990's when this highway was being planned. We did not attend the one meeting on April 19th when the design was revealed.<br>We are very concerned about the lack of design consideration for easy access to the town shopping district by our numerous tourists and visitors from the north and the south.<br>We support the Mayor of Bath and the Commissioners of Morgan County in the concerns that they are addressing you with these issues.<br>OUR TOWN MUST STILL BE EASY AND FUN TO ACCESS BY CAR.<br>Please continue your very intelligent work re-routing the truck traffic around the town by allowing those who only use highway 522 as a thoroughfare to choose the by pass, and those that may want to stop in town (traffic either from north or south) to easily access the |

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| | | town.<br>We are Morgan County property owners.<br>Thank you for your consideration of this important issue.<br>Richard T. White and Wendy L. Baruch |
| 254 | | These comments are in regard to the Berkeley Springs Bypass. I am not in favor of this proposal for several reasons. Primarily because it will kill the town and displace people for reasons which have nothing to do with bettering the life of local people. I have lived in several different states and everywhere that a bypass has gone in, the results were never what was promised.<br><br>This bypass will literally BYPASS Berkeley Springs and therefore kill the town by preventing travelers from even seeing the town, much less realizing it is there. Locals will know it it there, and be inconvenienced by the bypass, but travelers will not, and therefore will not stop for any reason other than to gas up and stop at a convenience store. Thus killing the restaurants and local businesses which are now accessible by people traveling through town. Another example is the inconvenience to locals, my husband would have to get on the bypass for one exit every day just to get off it immediately to access the road to come home or go to work. That may not be a problem immediately as traffic will be light but it won't take long for that traffic to build up and make the entrance and exit a problem. Instead of allowing for people to stay on 522 instead of taking the bypass, you will force local traffic to use it and be inconvenienced for the sake of making it "convenient" for out of state people to bypass us.<br><br>I also object to the displacement of fellow citizens for a project that is not wanted except by the DOT and our supposed representatives. It is my belief that this will displace people who can hardly afford to move or be able to find housing suitable to their needs. I realize that they will be offered "fair market value" for what that is worth. But that does not cover the cost of lost time looking for a new home, nor does it cover the cost they will incur for moving. The elderly and physically handicapped who live in the path of this disaster will have to move and how are they supposed to afford that? I am positive the government will NOT pay what the house is really worth to them in terms of amenities, location and relocation costs. The flippant attitude that the government will reimburse them hardly takes into account the actual cost to these people.<br><br>The reason given for the bypass is that it will ease the traffic situation. This is a canard put forth every time an entity wants something for their own benefit. The DOT wants it because they will get a tidy little sum out of it and use this as a selling point for their next budget increase. The local representatives are in it for what it gains them and NOT for representing the local population. They will point out that this bypass was voted on by the people of West Virginia AND the local population and received a majority vote. But if they wanted an accurate reflection, the vote on these projects would have been one by one and not as an all or nothing proposal. It was put on the ballot that way to ensure passage. Additionally, if it had been a single initiative, it would only have needed to be voted on by the LOCAL population who may not have voted for it, had they realized the impact that the bypass would have but who voted for it as a package with other enhancements.<br><br>At the meeting here in Berkeley Springs, I asked about environmental and historical impact. The response, typical of a bureaucrat, was |

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| | | that there had been a report done to show the impact. I believe the gentleman said the report was about three inches thick (indicating hundreds of pages) if I cared to read it. There are several problems with this response. First it is a snide way of saying, good luck reading a government report which will be written in such a way as to make it unintelligible to the average person. Not because we are stupid, but because it will make a lot of citations to various laws and ordinances which would take someone with a library of those laws and regulations to make out what it actually says. I also have no doubt that the report will say that the impact will be minimal or non-existent. Mainly, because it is one government entity telling another government entity what they want to hear. Or even worse, it will be a report written by the very agency which wants the bypass to be approved and therefore, will no doubt be written with a slant toward their opinion and not necessarily the best interest environmentally or historically for the local community.<br><br>All this action, the reports, the discussion and the taking of comments will be down in Charleston. Not locally where people can make their opinions really felt. Yes, you are taking comments here (which requires a computer and internet access), or by mail, which means someone must sit down and write out their comments. But the Department of Transportation and Charles Trump and Darryl Cowles, will be right there in Charleston, able to lobby the other representatives of the state to go along with their opinions. Completely bypassing the local citizens opinions. I have no faith that the government will listen to the people arguing against the bypass as they don't want to hear that particular opinion.<br><br>I also think the prominent reason given for the bypass could be brought about by less intrusive and less costly methods. However, these methods would not increase the DOT budget nor would it meet the approval of our representatives who stand to gain something from the project. I think, since you are using OUR money to fund this, that perhaps you should look at it as is this the best use of public funds. It is not, especially for a state that has a woefully underfunded education system, lacks funding to fight the opioid epidemic in this state and the support of local police forces.<br><br>A quick look around would indicate that there are much less costly but highly effective methods of controlling traffic than a major construction and DESTRUCTION project. If trucks are the problem (and I don't say they are), than simple putting a weigh station north and south of town with mandatory stops would eliminate a lot of the problem as this would make the shortcut more time consuming. Also, a more strict enforcement of traffic laws would also be less costly and more productive as it would also raise local funds. As an example I give you Route 17 and Route 50 in Virginia. Route 17 has a strictly enforced speed limit. When I say "strictly enforced" I don't mean just lip service. Drive the road and you will see that EVERYONE knows to drive the speed limit on this road. Because it is typical to see anyone who strays over the speed limit pulled over and getting a citation. I don't know of anyone in my 15 years of living in this area, who has received a warning in this jurisdiction. Route 50 is a two lane road until you get closer to DC. Then it widens out but instead of relieving congestion, it has made it worse. Try driving the widened portion sometime. But these solutions would not suit the DOT because it would not be able to add to their budget and our local representatives would not stand to gain by abandoning the scheme (I use the word scheme because that is what it is). These plans would in the first case (truck stop) require only two pieces of property to be obtained and thus cause little inconvenience to the local population, provide revenue (through the citations issued) and alleviate the traffic problem by making it more convenient for trucks to use 81 instead of the mileage shortcut it would become a time loss due to |

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| | | having to stop. The second would require absolutely NO loss of property to anyone and also increase revenue. The imposing of strict traffic enforcement would prevent trucks again by making them slow down and therefore remove the incentive to take a mileage shortcut instead of a time shortcut.<br><br>I would also like to address the "traffic alleviation" aspect. It will, initially, alleviate traffic, but once this bypass is discovered, this positive aspect will turn into a negative one. Traffic will increase NOT decrease, perhaps not through town, but definitely on the bypass. As two examples, I will give you the 37 bypass in Winchester and the Route 1 bypass in Delaware. Both were initially lightly traveled, Route 1 is now a disaster to get on or off and the traffic is worse than ever. Not to mention there is constant construction to alleviate congestion, the very reason for its initial construction. Route 37 is less so, but it is rapidly becoming the same. Indeed, due to the entrance and exit ramps on 37 it is sometimes easier, more convenient and less time consuming to drive through town.<br><br>This bypass will not only affect the people who live in its path. People who previously lived in areas not affected by the noise and light pollution will now lose that because the road will cut a wider swath through the county and into areas where the noise and light pollution did not previously reach. One of the things I enjoy most about living in a small town is the lack of lights which cause light pollution. I can go out on my porch at night and see the stars, planets, and the occasional cosmic event with no interference from other lights. When it is moonless out here, we can see the Milky Way. But once this bypass goes through, there will be a need for road lights, headlights and construction lights (some of which are the most obnoxious out there). This will all cause light pollution and take away some of the advantages to living out here. The noise pollution will now effect more of the county population also. With the bypass will come more tractor trailers as it becomes know that this is a shortcut to 81 and 66 in Virginia. This will increase the noise of the bypass not to mention traffic in general.<br><br>Additionally, the bypass will kill not only the town but the uniqueness of Berkeley Springs. By bypassing the town and forcing traffic onto the bypass it will lower the possibility of people stopping to check out local restaurants or businesses. Additionally, the big chain restaurants, gas stations and stores will start purchasing the property around the various exits to enable them to be accessed most conveniently. Now some may say this is good, we won't have to drive to Winchester or Hagerstown to shop, but it will also kill all the locally owned businesses. It will also make us like every other town in the US along an interstate or bypass. We will lose out local flavor and uniqueness. People will say but that is progress. I don't think it is. Friends and families displaced, local enterprises shuttered, loss of community. All of this done for "our sake". Well I would rather patronize local businesses but not all of our local population will do that and so they will opt to support big stores that have no ties to the community and don't care what we look like or want as long as they make a profit. Recently there was a survey which showed that people who live in small towns are happier than those that don't. I think this is because we still have local communities, local businesses and closer knit churches. I prefer this over "convenience" which is why I moved here.<br><br>Now DOT is proposing to build this road and they say they will maintain it and plow it in the winter. But eventually they will turn it over to the local DOT to manage. This will mean that roads that rarely get fixed now, will never get fixed because all of the budget will go to |

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| | | keeping the bypass up. Roads that rarely get plowed in winter now, will never see a snow plow. West Virginia is known for its bad roads (which argues against the DOT being able to maintain this one also). It has been this way for years. I originally moved to WV in 1976 and the road situation hasn't improved. I then moved away for about 25 years, the roads still have lots of pot holes, are as poorly marked as ever and just as badly maintained. I would suggest that until the DOT can properly maintain current roads it would probably be best not to take on the maintenance and upkeep of additional roads.<br><br>Finally, the traffic and what it brings. Once the bypass becomes known, it will increase in traffic. But more ominously, it will become a shortcut for drugs and criminals. West Virginia cannot deal with the drug problem now, do you really think we will get any kind of assistance from the state to stop illegal drugs or criminal activity? Roads which were previously unknown to non-locals will now become easy access to homes for purposes of burglary, car theft and drugs. Rob someone's home here and the criminal can be on I70 in minutes making it almost impossible to catch them. Am I painting a dismal and worst case scenario? Yes, because I have already seen this happen in too many towns and cities across the states. I don't want this same mistake to be made here in the name of progress. I like Berkeley Springs and I like my neighbors and don't wish to turn them out of their houses so I can make it through town faster.<br><br>PLEASE take into account the lives and livelihoods you will be destroying in the name of "traffic alleviation and convenience". I want Berkeley Springs to stay a quite little town where people say hello and you can go to locally owned businesses and restaurants and get the small town charm, because once you do this, there is no going back, I have never seen any place remove a bypass. Berkeley Springs may not be perfect but I like it the way it is, friendly, local and charming.<br><br>I have no doubt that even with opposition to this bypass by locals, the government will, as always, think they know best and tell us silly local hicks that we don't know a good thing when we see it. I will tell them, put this bypass in and you will be killing a perfectly good town and destroying the lives of perfectly good citizens. But by the time that happens, all the government officials will have moved on to bigger and better jobs and they won't have to deal with the aftermath. We locals will. |
| 255 | | The north and south entrances into Morgan County must be changed to allow the Winchester, Va. and Hancock, Md. traffic to continue on U.S. 522 without entering the bypass. Travelers need "a straight shot "that will bring them into Berkeley Springs. Trucks need to enter the bypass at those points either with a cloverleaf, traffic signals or stop signs. |
| 256 | | As a resident at the south end of the town towards Cacapon State Park, I love travelling to town and supporting our local businesses. With this bypass, we will be very discouraged coming to town and will head to Winchester instead. This will not be good for our town. I know we are not the only ones who feel this way. Look at Hancock...it's practically dead...do you want that to happen to our town? |
| 257 | | Please do not build this bypass. There are better uses for the money like fixing all the roads and bridges in the county. There is no need for this bypass. Traffic counts show only 18% of 522 traffic are trucks and I have an extensive legal brief demonstrating how they can be banned by the town of Bath.<br>This bypass threatens the economic and community health of our 300 year old town and brings nothing real to the table just pipe dreams of economic prosperity. Why? Because there is a 4 mile bypass???<br>It is sad and dangerous that all this is being proposed with NO PLANNING. The route, maps and concept was rejected 20 years ago and |

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| | | now it's back with no changes. It is obvious the health and well being of our famous town played no role in development of this road.<br>I would be happy to see the connector road built as it was originally conceived to go from Fairview Dr. to 522; current maps show it ending in the bypass not going all the way to 522.<br>I opposed the bypass and 4-laning of 522 20 years ago and have seen or experienced nothing that would have me change my mind.<br>I have a 40 year old business downtown and fear for its viability if this bypass is built. Do something more cost effective and save our town from living death. |
| 258 | | As President of the Chamber of Commerce, I am concerned about the economic well being of the businesses in Morgan County, especially those in Berkeley Springs. I believe the proposed bypass presents great threats to the health of prosperity of those businesses and the town.<br>I join the various organizations that have requested a redesign of the bypass to allow simple and easy continuation of through traffic on 522 without having to enter and/or exit the bypass to do so. Our travel council has collected years of data that demonstrates approximately 30% of new visitors to our tourist town come because they have driven through before and liked what they see. That business would be lost if the bypass remains configured the way it currently is. The current design would be highly destructive to our town and the county's tourism economy.<br>I also support concerns about the areas around the access roads, none of which are suitable to support additional traffic from the bypass into and out of town. Limit the access roads and make improving the roads part of the plan.By limiting the access roads, fewer neighborhoods would be disrupted by traffic and wrangling with the bypass. Make this bypass better for our community -- we have to live with it forever. |
| 259 | | PLEASE don't close off 522 at any point! Please allow us to drive straight through 522 ! Locals do not want to have to go on a bypass to get from one end of the county to the other.<br>We have great concerns as to the quality of existing roads that will be used for exits and entrance. One in particular is Myers Road. Please be sure to secure improvements on any of the roads being used in their entirety all the way to their connection to and from the bypass and 522. |
| 260 | | Warm Springs Watershed Association (WSWA), a 501(c)(3) organization, is the locally recognized environmental protection leader for the watershed where the US 522/Fairview Connector road will be constructed. WSWA has commissioned numerous inventories and studies of the watershed, and has partnered with local government, state agencies, and other organizations to develop watershed implementation plans to address flooding, sedimentation, and other critical problems in the watershed. In addition, WSWA has a strong track record of project implementation.<br>In relation to the US 522, WSWA offers assistance to WVDOH and its consultants identifying potential environmental impacts in the area proposed for construction.<br>WSWA strongly urges construction activities in and adjacent to streams and wetlands be mitigated solely within the Warm Springs Run watershed. Working with Thrasher Engineering and the Town of Bath, WV, WSWA has identified numerous stormwater management projects that could be used for mitigation and that can reduce stormwater damage in Berkeley Springs. WSWA has a strong expectation that these projects should be evaluated by WVDOH as potential mitigation projects for US 522 construction. |

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| 261 | | The Warm Springs Watershed Association (WSWA) has worked with the Town of Bath Tree Board and the Cacapon Institute to develop a comprehensive tree canopy inventory and improvement plan for the Warm Springs Run watershed area where construction of the US 522/ Fairview Connector road will be built. The intended purpose of the plan is to reduce flood damage and provide environmental improvements for the watershed.<br><br>WSWA requests that a dense buffer composed of trees and shrubs be planted all along the new highway on cut and fill slopes outside of the road shoulders to protect air and water quality, reduce long term soil erosion, and reduce storm runoff. Additional benefits of a green buffer of trees and shrubs are as a visual screen, noise reduction from the highway, a reduced need for mowing by WV DOH, and prevention of intrusion of non-native invasive plants into the watershed. |
| 262 | | An overpass should be considered for Sugar Hollow Road (Route 38/14) instead of the tremendous amount of fill proposed for the valley.<br><br>Two flood control structures for the Berkeley Springs community are located adjacent to Sugar Hollow Road. The current design of the US 522 bypass uses a culvert nearly 500 feet in length between the two structures. This pipe obliterates the benefits of the wetland behind the proposed highway and the tributaries that feed into the flood control structures.<br><br>The flood control structures are old but still functioning. Additional fill in the valley will add long term sedimentation to the permanent pool of the one structure, depleting its capacity for flood control. |
| 263 | | Seeding mixtures used for medians and areas directly adjacent to road shoulders need to be free of fescue species. They should contain Indiangrass, which is native to many of the right of ways in Morgan County. Native trees and shrubs should be planted on most of the area impacted by road construction. |
| 264 | | I believe that the plans for the bypass should allow for “local” traffic to continue on 522 without having to use the bypass. This will allow those wishing to utilize local businesses to do so without having to backtrack and go out of their way. |
| 265 | | I've been studying project. Know motorists traveling north would continue onto the bypass automatically; a short portion of existing 522 would be barricaded. Motorists could get back to existing 522 from intersecting points at Winchester Grade, Sugar Hollow Road, Myers Road, Johnsons Mill Road, or W.Va. 9. Motorists traveling south on 522 from would also be required to enter the bypass via Winchester Grade. And, know a portion of 522 near U.S. Silica would be closed. Motorists going south from Maryland would enter the bypass, but could turn onto the old 522 quickly. Those traveling to Maryland would have to make a turn onto the bypass.<br><br>1. PLEASE CHANGE DESIGN OF ENTRANCES ONTO BYPASS FOR A "BUSINESS ROUTE" AND "BYPASS ROUTE." Make it optional for locals who use the roads every day, and tourists/visitors. I currently live near Winchester Grade. I use that to get to 522 daily, sometimes several times/day; I use Johnsons Mill to go other way to town depending on where in town want to go. I don't want to be forced to get on and off bypass at Winchester Gr. just for a few thousand feet and have to turn back to existing 522. When I go south on 522, don't want a joggle and series of turns. Similarly, it makes no sense to have to get onto bypass coming back north to Winchester Grade, for a few thousand feet and compete with 65 mph, so I can get back off to get back to Winchester Grade. The design as it is from both ends, |

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| | | forcing us onto bypass and forcing us to have to slow down or stop, and make turns, and immediately have to get back up to a high speed makes no sense at all in today's situations here. It's more dangerous that way. I've talked to many, many residents and locals who use area who hate that idea.<br><br>I go to Hancock, Md. 2 times per week. Similarly, I don't want to have to go through a series of turns or loops at Winchester Grade to get to current 522 to go through town, and near Sand Mine Road, have to make a turn, stop, and resume speed quickly to get back onto 522 again because part of it is barricaded.<br><br>Yes, 522 is too full of trucks and hectic now. We could use a bypass. However, why can't they be instructed w/signs to enter bypass unless they have local business? And why can't it be OPTIONAL for locals and those passing through?<br><br>2. PLANNED BYPASS SPEED. At Johnsons Mill, I'm concerned about crossing, or any other intersection. Bypass Speed of 65 mph is too much. Now 522 is 55 mph. It's less when you get toward town such as at Winchester Grade Rd. Cuts down there. But 55 mph is fast enough. Trucks and other vehicles try to do more than 55 mph now. Telling them it's OK to do 65 will let them think they can do 70 or 75 mph. It will be extremely dangerous and tricky for locals etc. to try to cross bypass of speeds like that from secondary roads.<br><br>3. UPKEEP OF SECONDARY ROADS. THERE ARE ROADS LIKE THESE AND OTHERS NOW WHO NEED ATTENTION. There are currently seven proposed bypass intersections (Rt.13, Sugar Hollow Road, Myers Road, Johnsons Mill Road, Martinsburg Road, Fairfax Street, and the Fairview Connector Road). Three of the proposed bypass intersections (Myers Road, Johnsons Mill Road, and Fairfax Street) are not scheduled for upgrades beyond 100 feet of the bypass. Residents have voiced concern that these roads are not suited for the volume of traffic that could potentially use them to access the downtown area. Additionally, unless a later traffic survey warrants, no traffic control measures (signals) will be installed at the interchanges.<br><br>If you are going to have at-grade or overpass/ramp interchanges w/secondary roads, you will have to do a lot more to do decent upkeep of roads.<br><br>CURRENTLY, THERE ARE ROADS THAT NEED ATTENTION. Johnsons Mill Road needs attention now w/intersection with Waugh and Fearnow Roads. There are potholes and a patch from fall 2017 that has high ridges that jar a person when crossing over the patch. Waugh Road has a low place where a patch was done after a culvert was installed. It's in curve. You hit at angle and it's hard on front end of car. We have to try to remember to hit it at slower speed, braking as approaching it. Speed limit approach jars heck out of you.<br><br>4. CIVIL WAR TRAILS NEEDS DIRECTIONAL SIGNS AT MAIN ROADS LIKE 522 AND SECONDARY. I'm secretary of Bath-Romney Campaign Historical and Preservation Assoc. We're a Civil War educational and living history group. In 2011, we got 6 Civil War Trails signs placed in Morgan Co. Several are in Berkeley Springs. We've tried to get previous local DOH manager and regional managers to help us install CW Trails directional signs, which have arrows on them. They would be provided to DOH by Civil War Trails, Inc. free. They just need to be |

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| | | placed on roadways like 522, Winchester Grade, W.Va. 9 West, etc. on existing sign poles or poles to be installed. The locations are on brochures for West Virginia Civil War Trails and online. If tourists are forced to enter a bypass, how will they know easily how to get back to town or county locations to find them? The same can be said for spas, Geo. Washington Heritage Trail signs, arts and crafts folks, antique store, etc. It would hurt tourism here to make bypass entrance arbitrary. |
| 266 | | We citizens been studying project. Know motorists traveling north would continue onto the bypass automatically; a short portion of existing 522 would be barricaded. Motorists could get back to existing 522 from intersecting points at Winchester Grade, Sugar Hollow Road, Myers Road, Johnsons Mill Road, or W.Va. 9. Motorists traveling south on 522 from would also be required to enter the bypass via Winchester Grade. And, know a portion of 522 near U.S. Silica would be closed. Motorists going south from Maryland would enter the bypass, but could turn onto the old 522 quickly. Those traveling to Maryland would have to make a turn onto the bypass.<br><br>I'm secretary of Bath-Romney Campaign Historical and Preservation Assoc. (BRCHPA) and a Civil War living historian. We're a Civil War educational and living history group.<br><br>In 2011, we got 6 Civil War Trails signs placed in Morgan Co. Several are in Berkeley Springs.<br><br>I have several concerns with planned design of entrances and exits, and forcing people onto bypass only to immediately have to get off when wanting to stay on 522 for any reason. But here I'm writing about Civil War Trails signs and affect this design of bypass would have on our sites, tourism.<br><br>CIVIL WAR TRAILS NEEDS DIRECTIONAL SIGNS AT MAIN ROADS LIKE 522 AND SECONDARY. We've tried to get previous local DOH manager and regional managers to help us install CW Trails directional signs, which have arrows on them. They would be provided to DOH by Civil War Trails, Inc. free. They just need to be placed on roadways like 522, Winchester Grade, W.Va. 9 West, etc. on existing sign poles or poles to be installed. The locations are on brochures for West Virginia Civil War Trails and online. If tourists are forced to enter a bypass, how will they know easily how to get back to town or county locations to find them? The same can be said for spas, Geo. Washington Heritage Trail signs, arts and crafts folks, antique store, etc.<br><br>It would hurt tourism here to make bypass entrance arbitrary. |
| 267 | | I agree that both ends of bypass should offer the option to drivers to choose whether they go through town or take the bypass. Through tractor trailers should have to take bypass or be ticketed and have a steep fine...aka revenue for town. |
| 268 | | I agree that both ends of bypass should offer the option to drivers to choose whether they go through town or take the bypass. Through tractor trailers should have to take bypass. |
| 269 | | Concerning the proposed bypass for Morgan County. I live in the Town of Bath and it is my understanding that the north and south ends of Rt 522 at/near the bypass entry points would be closed permanently once the bypass is done. Personally, I do not wish to be forced to use the bypass when I want to go to Hancock or Winchester. Please do not close 522 to through traffic. Trucks will use the bypass as |

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| | | intended and people wanting to travel in the town of Bath will be able to without being forced to use the bypass.<br><br>I understand the concern that people have about the trucks on 522 but I do not believe that the issue deserves the amount of money that the State is prepared to pay for it. Then there are local road use concerns if the bypass draws more trucks that expected. These small roads are not in good enough shape to handle the volume of traffic now being discussed.<br><br>I do not believe that the bypass is a good use of funds nor good for the Town of Bath. |
| 270 | | please do NOT built the by-pass as presented; i believe it is a horrible plan, destined to severely hurt our precious town.<br>yes, we do need a by-pass for large trucks - but certainly NOT a 4-lane one that prevents traffic entrance into town. I believe a two-lane road, designated only for trucks of a certain size, would be a lot more appropriate (not to mention a LOT less expensive!). PLEASE throw out this design and come up with one a lot more appropriate, a lot more helpful, and certainly a lot less expensive. |
| 271 | | I am a resident on Fairview Drive and would like to strongly advocate for the Option 2 Fairview Connector as there are MANY concerns with Option 1 as follows:<br>1) The proposed intersection for Option 1 and Fairview Drive would present an extremely hazardous situation for drivers. There is no line of sight for incoming vehicles due to the road terrain. In fact, numerous accidents have occurred at the nearby Fairview Subdivision intersection including a fatality.<br>2) The proposed Fairview Connector Option 1 would be placed over the public sewer line that runs directly in the path.<br>3) There is an environmental concern with a natural stream and water run off that would be disrupted with Option 1.<br>4) Why would you propose to build a connector immediately in resident's backyards (squeezing it between a Subdivision and a Hospital) when you have undeveloped land South of the Hospital [as proposed in Option 2)?<br><br>From a Route 522 Berkeley Springs Bypass, local residents should be able to remain on the existing 522 Route and travel should not be disrupted from Hancock, Maryland to South of Berkeley Springs. Travelers should not be "forced" to enter the Bypass and manuevour throughout various exits to do business or work in Berkeley Springs. Traditional bypasses typically allow for that traffic flow so that local residents and businesses are not negatively impacted.<br><br>I would hope that my comments are taken into consideration. I feel that most of the residents of Berkeley Springs are supportive of the road expansion but with some additional modifications to preserve our "way of life". |
| 272 | | With current design of bypass, IT'S SCREWING UP LOCAL PEOPLE. IT MAKES NO SENSE. IT MAKES LOCAL PEOPLE LOOP AROUND IN ALL KINDS OF DIRECTIONS, TAKING US OUT OF OUR WAY, TO GET YOU BACK WHERE YOU WANT TO GO.<br><br>DO A BUSINESS ROUTE AND OPTION TO GET ON BYPASS with some exits to get onto bypass. It would also save you money and alleviate a lot of problems.<br><br>65 MPH IS TOO FAST. Once they get back onto the current 522 or side streets, they'll continue at 65 if they can, especially on north end. |

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| | | Going 65 mph from four-lane to two-lane is a catastrophe. When you're going from bypass at northern end into old 522, it's four lanes into two lanes, and that's one lane each way. Current 522 is two-lane road, one lane each way. Bridge at Hancock is one lane each way.<br><br>I live off Rt. 13/Winchester Grade Road. I don't want to do a joggle every day to get to town on old 522, or go south on 522. If I want to go to Tractor Supply, hardware store south of town, I'd have to do a joggle by the way it looks now. Coming home, I'd be forced onto bypass near Rt. 13 and have to exit off onto 13 instead of making my turn.<br><br>There's going to be an overpass there anyway. Why not make BYPASS optional, with two routes? One for business/local traffic, and one for bypass?<br><br>If I want to go into Berkeley Springs, I have to contend with traffic coming on and off bypass at Rt. 13, and do a joggle (?) to get to old 522 and continue into town?<br><br>If I'm going to town on Waugh Rd., taking back way, I have to cross a four-lane road at grade level, with motorists traveling 65 mph?<br><br>Getting back to other point, a four-mile bypass at 65 mph is too fast. Even 55 mph is bad enough for trying to cross it at slow approaching speed of secondary road. Rt. 522 in Virginia, with its four lanes, is only 55 mph. Why make our little four-mile stretch faster?<br><br>ANYONE GOING SOUTH ON BYPASS IN VICINITY OF RT. 13, HAS TO GET OFF SOUTH OF WINCHESTER GRADE, LOOP AROUND NORTH, GET BACK ONTO OLD 522, AND TURN RIGHT ONTO RT. 13 JUST TO GET TO RT. 13. Makes no sense at all.<br><br>It's really messed up at Rt. 13.<br><br>And secondary roads are in bad shape in places, like Myers Road (which is really narrow). Johnsons Mill has terrible patch at Fearnow Road. Waugh Road which joins Johnsons Mill has bad low place.<br>Where were the engineers when this was designed? Where did they study? They’ve been asleep at the wheel in their design. They certainly didn’t know much about local traffic patterns around this area. |
| 273 | | Please Consider urging a redesign of the bypass on its north and south entry that would allow through traffic to continue on US 522 directly through town, and evaluate the secondary roads and their adequacy for increased traffic to assure the safety and integrity of the neighborhoods through which the bypass will go. |
| 274 | | I'm opposed to the bypass. It will kill the town. There are alternatives to the problems presented by the truck traffic including a prohibition on thru truck traffic, truck tolling and weigh stations. Use the money instead to pave all the roads in Morgan County |
| 275 | | Please place these bypass plans back on the shelf. From the information on this bypass plan, it appears that no one in the WV State Roads Department has ever been to Morgan County. |

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| | | Interact with the citizens of Morgan County, The Chamber of Commerce, Shop Owners, etc. to determine what it is that we really would benefit from here in this area.<br><br>Hopefully our representatives have come to their senses after seeing this plan and are providing input as to alternatives. Build a Connector Road from Rt. 522 to Fairview Drive to provide emergency vehicles easy access to the hospital. And The Rest Of The Money - give it to our County so we can fix the existing roads which are in desperate need of repair!!!!!<br>We gave approval to the Road Bond to repair and upgrade our existing roads. A 4-lane hi-speed bypass is NOT needed or wanted. Think about it - 7 interchanges in a four mile span. Absolutely NUTS.<br>Please consider that we need road repair. |
| 276 | | I am against the development of the 522 bypass in Berkeley Springs, WV. It will harm the economics of the town, it will disrupt a lot of habitat that is already being disrupted by the pipeline installation, it will disrupt people's and their homes and their livelihoods. The noise, the lights, the accidents will be right in people's backyards. There is no need for this bypass. There is a need for banning trucks from 522 or setting up a toll for them. The trucks are the problem - they serve no purpose in Berkeley Springs, other than using it for a short cut from 70 to 81. They bring no economic value and no tourism, which is vital to the town's existence. I am against the development of the 522 bypass for many reasons. |
| 277 | | Berkeley Springs needs truck traffic control, not a complete bypass. Trucks need to be banned, and there is no reason why they cannot be. Even restricting truck traffic through Bath from 8 a.m. to 11 p.m. would remove the most hazardous, damaging traffic. Bath's status as a tourist town is tarnished by loud and dirty truck traffic.<br><br>A bypass to access the War Memorial Hospital from Rt.522 north of town is certainly a necessity. But routing all traffic around Bath is a bad plan. The current layout of the proposed bypass is ridiculous. |
| 278 | | I believe that Morgan County needs its existing secondary roads repaved more than it needs a by pass on 522. Many roads have not been repaved in over 15 years. Occasionally the pot holes are filled but many roads are in dire need of repair.<br><br>The money that would be spent on the bi pass would probably be enough (or more) to repave secondary every road in the county. That would be money well spent. |
| 279 | | I am a long time resident of Morgan County, WV. I am strongly opposing the Berkeley Springs bypass plan, as it would discourage economic development in the town of Bath, which is one of the reason for living in Morgan County, WV. Without the unique character of the shops, restaurants, and entertainment of Bath, there would be no reason not to leave Morgan County, WV in favor of neighboring states. This is a plan than has not taken into consideration the residents of Morgan County themselves. It is ill conceived, and a extremely poor choice of tax dollars for this state. |
| 280 | | Greetings,<br>I am a single momma and have a special needs little one at home. Although I have an advanced degree, I have struggled to find a way to |

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| | | make ends meet while also giving my son the extra care and love he needs.<br><br>I found an excellent job tutoring, but during the summer, when students are not in school, my tutoring income drops to nearly nothing. However, I don't give up easily, and a way forward presented itself to me from that hotbed of art and small business known as Berkeley Springs, WV. What a wonderful and peculiar place of art, culture, nature, and history. They have a show called art in the park, where my woven rugs have become a welcome addition. Hooray! An income for me, taxes for the state, and the dying art of weaving kept alive.<br><br>But wait, now I hear of a project that, in an effort to streamline the traffic through that area, cuts OFF access to Berkeley Springs? I understand it is not optimal for through traffic to crawl though town, but to cut off traffic completely would be a death blow to the many small businesses, artisans, bed and breakfasts, mom and pops, antiques, restaurants, and unique microcosm of west virginia culture that you would be pained to ever reinvent should it perish.<br><br>Not only that, but the parks department would also suffer, as they also have unique and profitable establishments such as the roman baths inside Berkeley springs, and at the Cacapon Park right outside town.<br><br>I would not even know about Cacapon park, or any of the wonders of the town of Berkeley springs if I had not often stopped there while driving from my home on corridor H in Virginia to my Fathers house in Ohio. I can take either Corridor H or go up 522 and through Berkeley springs. I usually choose the later, despite the significant tolls, because I so enjoy the town. My son and I often stop, swim, and adventure where our whim takes us, before setting out on the next leg of our journey.<br><br>Please strongly consider continuing access to Berkeley Springs. I am just one of many who are small and growing contributors of the unique culture and economy of this corner of West Virginia. I am just one of the little cogs, so many of which will fall and fail, scatter or disappear should your study find that access to this unique area is unimportant. |
| 281 | | I own a home off of HWY 9. I support the small business owners in Berkeley Springs. The traffic coming through the town brings in business and promotes the city. A bypass would destroy the businesses in the area.<br>Although I do not live there full time anymore, I love this area and would hate to see it fall into decline. |
| 282 | | Hello:<br>Since the public has been invited to comment on the proposed bypass in Berkeley Springs, I would like to share my thoughts.<br><br>Let me start by saying that I have lived in south Morgan County since 2011. The amount of large truck traffic along Route 522 was one of the first negative things about living here that I discovered. I remember thinking, "I am going to get killed on this road one day." If I had realized the amount of semi traffic that comes by every day along the road that I also travel almost every day, I would never have moved here.<br><br>So now when I learn that a bypass route is planned that would divert the truck traffic around the center of town, without adding any |

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| | | restrictions on large truck traffic on the portion of 522 that passes through southern Morgan County, I am dismayed. This plan will only increase the truck traffic between the Virginia line and the beginning of the bypass. Now the bypass will lure even more semi traffic to use the 522 shortcut instead of I-81. Interstate 81 is a much more appropriate road for such large trucks. The first order of business should be to get these huge trucks off of the entire stretch of 522 between the Virginia state line and the Potomac. (The safety of the bridge at that point is a whole other topic that also needs to be addressed, and it is not unrelated to the trucks that pass through daily.)<br><br>The plans for a bypass and a connector road to the hospital are too important for this community to feel "railroaded" by plans drawn up without sufficient research into the actual needs and concerns of this community.<br><br>Right now I feel that the bypass is happening no matter what the people who live here think about it. That is wrong. Better plans and alternative solutions need to be proposed, and the question should probably even be put to a referendum vote locally. There is so much to consider. There are so many road related concerns in this area. The question needs to be asked and answered whether this proposed bypass is the best plan moving forward for Berkeley Springs. At this point I doubt the majority of residents both understand and approve the proposed expenditures that are about to be made, supposedly to benefit Berkeley Springs.<br><br>Unless and until such carefully chosen solutions are proposed and agreed to by the community as a whole, I must say I stand against the proposed bypass. |
| 283 | | Please reconsider ANY Berkeley Springs bypass plans. Such a bypass would be a travesty for the citizens of Morgan County and all its visitors, and would do NOTHING to benefit anyone. A great deal of money would be spent to take one more beautiful, historic and charming American small town currently buzzing with small entrepreneurial businesses and turn it into just one more sad, deplorable and BYPASSED ghost town, surrounded by grotesque chain and box stores--Another step toward a boring, unoriginal, cookie-cutter America. Such money would be much better spent improving what already exists, streamlining what few problems may need to be addressed, without diverting existing traffic patterns and effectively erasing yet another thriving small town. Any comprehensive study would show this to be self-evident.<br>If you want some evidence of the charming small town America that we all have enjoyed to remain for our children and grandchildren, now is the time to preserve what exists, not take part in its obliteration. Thank you. |
| 284 | | I am writing to urge a redesign of the 522 bypass in Berkeley Springs.<br>At a minimum - please reconsider both the north and south entry points to allow through traffic to continue on US 522 directly through town.<br>I also urge you to evaluate the number of road miles and their adequacy for increased traffic to assure the safety and integrity of the neighborhoods through which the bypass will go and we the people who live here.<br><br>Please hear the voices of the community, the people who live and work here. It sounds like this very old plan may benefit from some updating. |

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| 285 | | I have lived in Morgan County since 1998. My husband and his family are MoCo natives. I remember the last time the bypass was on the table, and I am still very skeptical of the benefits of such a project, especially with the current design. Four or so miles hardly seems worth the destruction of properties, land and the expense. I'd rather see that money used to fix our current roads and build a toll or weigh station for the trucks that use 522 as a shortcut to other destinations.<br>I hope our officials and the WVDOT will take great care and thought, in a redesign of the current bypass plan, or not build one at this time. |
| 286 | | I would like to express my opposition to the plan for the Berkeley Springs bypass of Route 522. The proposal would actually close down through-access to locals, which makes no sense from a practical standpoint. If keeping trucks from going through town is the major goal, then there are smarter and less expensive ways to accomplish that. In fact, a bypass isn't even needed to accomplish it when a prohibition against through-trucks or a weight limit can be imposed. And even if some sort of bypass will be created, surely there's a way to create a plan that makes sense for local residents, merchants, and truckers alike. Please revisit the current plan and craft a better one in consultation with local townsfolk who are familiar with the situation. |
| 287 | | This is a ridiculous and unnecessary plan. It is a tremendous waste of BORROWED money. Please do not do this...it will kill Berkeley Springs, or badly handicap its future.<br><br>I raised my kids here. They still love coming home, but that will change with your bypass |
| 288 | | *Change the bypass design so local traffic can stay on US522 and not be forced to use the bypass and then take an exit to go downtown.<br><br>*Why can't you build a two lane bypass highway with a reasonable speed limit of 55mph? This makes more sense for a short bypass around a small town -- it would take a lot less ground and cost much less.<br><br>* We need a bypass but we don't need a four lane highway with a 65mph speed limit. Old folks in the county will have trouble navigating this type road. |
| 289 | | We absolutely to not need this bypass. The bypass will kill our town, and Berkeley Springs will become a ghost town. 99% of our tourism will cease to exist, and therefore, 99% of our tourism dollars will cease to exist. Look at what happened to Hancock, MD, which is just ten minutes from Berkeley Springs.<br><br>Take this money and fix our existing roads - really fix them, not just fill potholes that are back again in a month. |
| 290 | | Against the bypass!! Why cant we just put in a weigh station to deter truck traffic? We have current roads that need attention instead of building a bypass. Finally, why would we want a plan that cuts traffic off from town forcing everyone to use the bypass?! |
| 291 | | Dear Sirs:<br>I have a few comments about the proposed 522 By-pass project. First, more complete information should have been available to the public (not an incomplete design of the Northern entrance); second, at least six-months should have been available for the public to digest the information and comment; third and the most important, your information as presented DID NOT include the most critical |

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| | | piece of information -- that 522 would be blocked going North from the By-pass entrance and probably South as well -- that is just plain SILLY!<br>Why would the State waste taxpayers money creating unnecessary intersections from the By-pass to 522; simply allow 522 North to remain open to local traffic? And I understand a few of those intersections are "at grade" with no road improvement scheduled. Have you driven on Sugar Hollow Road or Johnson Mill Road? They are at best 2-lane country roads. Thank you for considering my comments. |
| 292 | | I am writing to ask for further consideration for the design of the 522 bypass in Berkeley Springs.<br>I think that what will work best for us residents is a 2 lane truck bypass way out of town with one interchange at Route 9. I also strongly suggest it would be a lot cheaper to hire another State Policeman or two who would actually enforce the speed limit at 55 mph and between enforcement and hefty fines, many trucks would choose to stay on 81.<br>Like many others, I am concerned about the impact on our small Town of Bath businesses and the cost of maintaining the bypass the way it is currently conceived in the very old design plan.<br>Please stop and look again.<br>Thank you |
| 293 | | Against the bypass!! Why cant we just put in a weigh station to deter truck traffic? We have current roads that need attention instead of building a bypass. Finally, why would we want a plan that cuts traffic off from town forcing everyone to use the bypass?! |
| 294 | | As a resident of Morgan County, I would like to strongly urge those in control of this project to reconsider the route in which is being proposed.<br>I live in the southern part of the county, a mile before the VA line. Route 522 is my front yard. I am witness to the daily flow of traffic that comes in and out of this county.<br><br>I think everyone can agree that the heavy presence of tractor trailers is problematic- for a number of reasons. Safety, being the most important. The traffic flow is frequently obstructed or held up, because of the number of trailers. There's always talk of concern regarding the wear on the roadways from the weight, combined with regular vehicles, too.<br><br>Banning all of them wouldn't be plausible, as we all know that some of the traffic within them is coming directly to our town, to bring us the things that we need in our little town.<br><br>Surely a solution can be found.<br><br>Watching them blow past the stopped school bus, almost daily- at 70 mph isn't ok. Its heart stopping!<br>My children catch the bus at the end of my driveway, with the bus stopped on 522. It is terrifying to put them on that bus, but I don't have the capability to take and pick them up from school. Almost daily, I witness vehicles pass the stopped bus. Mostly they continue south, while the bus is stopped, with its arm extended and lights flashing- more trailers, than regular sized vehicles, have blatantly ignored the lights and stop arm extended and continue at a speed of at least 60 mph, past the bus.<br>I've witnessed them come up from behind the bus, onto incoming traffic and pass it, in a "No Passing Zone". |

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| | | My greatest fear is that my children will be on that bus, or climbing the steps to get on and a trailer that is going too fast to stop will either hit the bus, or plow into the line of stopped cars and cause a very tragic-and PREVENTABLE accident.<br><br>Having them barrel up behind you while driving the speed limit on 522, swerving out of their way and onto the shoulder because theyre in your lane and not paying attention. Often worrying about them rear-ending you because you've had to come to a stop for someone turning off of 522-- DAILY.<br>Multiple times a day! And those are just some of the traffic flow problems with them on 522-<br><br>In town traffic flow issues are also concerning. How fortunate it was, that no kids or people were walking on the sidewalk when the truck ran into that (thankfully vacant) home by Earth Dog.<br>How lucky we've been that no over-excited Trick-or-treaters have stepped in front of one. Halloween is an active community effort, but often risky, as trick-or-treaters have to cross the main road in town to collect their candy. It's not very structured or safe.<br><br>All of those points also include regular sized vehicles. They're just as likely to hit another vehicle, head on or from behind. However, which would do more damage? A Ford Focus, traveling 65mph or a fully loaded tractor trailer at the same speed?<br><br>When I was 11 years old, my "boyfriend" was riding his bike along 522. He was struck and killed by a tractor trailer. Lives forever changed. I'm aware of some reports that have been given that show data that includes fatalities on route 522, involving tractor trailers.<br><br>The bottom line is simple. There are too many tractor trailers on this road- there is too much traffic, in general- there are no signs along the entire length of the road to alert drivers of bus stops, hidden driveways or to be cautious of vehicles entering or exiting the roadway. The bypass route that is being proposed isn't logical. While I agree that something needs to be done to fix the congestion and secure more safety along the route, I don't agree with the logistics of this bypass.<br><br>Please, for the sake of my children and in the name of Brandon Michael Keefer, please revisit the design and reconsider the exits and entrances at the South and North ends of our county..<br><br>Surely, those of you that I've voted for, given your promise of repairing our county's infrastructure can listen to the voices of the residents of this county and come together and find a more plausible solution. Doing so, without blowing through 50 million dollars and with the ability to allocate some of those funds to help and repair the other roads within the county that so desperately need it.<br><br>Thank you for your time and for allowing me to voice my concern. |
| 295 | | I have several comments to the matter.<br>1) What possible effects will there to the location of my mailbox, which, per the US Postal Service, must be across the road from my lane?<br>2) How much more traffic is anticipated so that I am aware of how many more people that I have to watch for when I cross the road to go |

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| | | to my mailbox? I have no aspirations to have an exponential chance of being run over by someone getting on or off the bypass no matter how much I look before I cross.<br>2A) Should the bypass go in, I noticed that it will A) Basically decimate my neighbor's house and (B) What would the effects be on even getting to 522 when construction is going on over Winchester Grade Road? Both my husband and I require 522 access to get to work every day.<br>3) As for the on-ramp for 522 coming from the south, there is no way that I desire to get onto an on-ramp, only to get off 500 feet later. It is just as fast to turn at Sheetz to access Winchester Grade Road.<br>4A) I want the option to be able to turn left at Sheetz to go to 522 South. The knoll by Carolina Lane can hide cars coming from the left. I have been nearly sideswiped making a left turn out of my lane many times. Forcing me to turn left onto to get to an on ramp only to get off 500 feet later is senseless. (I don't doubt that there will be a light at Winchester Grade Road someday.)<br>4B) If I turn right out of Sheetz to go to work, I do not want to have to find where to catch the bypass to get to work, which is above the proposed bypass "off-ramp," so it would make my daily commute longer and even more of a pain in winter due to the current priority of clearing roads.<br>5) Contrary to what the engineers who designed the bypass may believe, the local community does purchase local goods and services and not providing access to 522 into town from the northbound side of the proposed bypass would only cut off the town and make it longer for folks, including myself, to get into town to run errands, or even get to and from work every day.<br>6) Basically, most bypasses consist of an "Interstate Route" and "Business Route" to provide access to the town. The proposed bypass cuts off the town completely and will decimate the local economy by not providing the option of going through town. That being said, there are other options to re-route truck traffic without turning Berkeley Springs into a ghost town.<br><br>I unfortunately could not attend the public meeting, but in short, the bypass as designed would be a hindrance and death knell for the town of Berkeley Springs. Find another option to re-direct the large truck traffic and do not force us to bypass our own town unless we want or absolutely need to.<br><br>Thank you, |
| 296 | | Looking at the proposed map, why wouldn't the new bypass follow Waugh Road through to RT9 (Martinsburg Road) Really theres already an existing road and there would be less impact and disturbance.<br>Please take another Look at the Impact the existing proposal will have on the environment as well |
| 297 | | I think that the proposed 522 bypass is not a good idea. Not only would it prevent traffic and business from this small historical town, but it would be a big inconvenience to the people of this town, to have to enter the bypass just to get through town. There is a need for an alternative way through Berkeley Springs, but this was not thought through very well. |
| 298 | | The current plan for the 522 bypass of Berkeley Springs is flawed.<br><br>Diverting all traffic from 522 onto the bypass is untenable. The town economy is dependent on tourism. Forcing all traffic onto the by-pass will seriously impact the economy of Berkeley Springs. Studies show that 30% of tourist business is from pass through drivers. The |

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| | | economy is shaky enough. This plan will be disastrous for the local economy.<br><br>All local traffic will have to exit from or cross the entire bypass, much of the time crossing 65 mph traffic, whether going into town or to homes in the county.<br><br>School buses will have to do the same, a real safety issue. It is unreasonable to require buses to only use the overpassed intersections to cross the bypass. It would add time to the already too long bus trips needed to move children to and from school.<br><br>School buses crossing 522 will need wide medians. A 40' bus will need at least 10' front and back as a safety margin for stopping in the median to wait for a break in the high speed traffic. If a bus is waiting in the median and a vehicle on the bypass wants to turn at that road, how will two vehicles safely fit in that space? And if there are vehicles coming in opposite directions wanting to turn and there is a vehicle already in the median?<br><br>The roads between the bypass and town are too small to handle the increased traffic. They are small neighborhood roads, many not big enough for a centerline. This plan does not address the increased traffic on those feeder roads and the degradation of those neighborhoods.<br><br>Cutting off roads that cross the by-pass path is not in the interest of the local residents. Neither would taking out houses to put over/under passes at every intersection.<br><br>Finally, how much sense does a 4 mile 4 lane high speed highway that connects at either end to two lane roads make? The southern end connects in a 45 mph zone. The northern end connects to a two lane road to a two lane bridge that at some point will structurally not be able to sustain truck traffic. A bridge that is not under WV DOH control and MD repeatedly has said they have no plans to widen or upgrade.<br><br>With the at grade crossings required in this plan, a high speed expressway will not enhance traffic safety in Morgan County.<br>Modern traffic studies show that building more roads do not decrease congestion. It only increases traffic.<br><br>I am opposed to this plan. You need to engage the people who are directly impacted by a plan before proposing one.<br>Regards, |
| 299 | | I am totally opposed to the current Berkeley Springs bypass plan. Actually, it is not a plan, but a 20 yr. old, outdated, ill-formed idea of a road that only aids pass-through traffic while at the same time making our local traffic inconvenient and unsafe.<br><br>This plan will direct traffic away from downtown Berkeley Springs of which 30% finds our town and stops to support business here. |

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| | | Certainly, this plan does not address the traffic in town. It makes more complication and a gross amount of inconvenience to the people living here.<br>A bypass is an idea which should be discussed and investigated with many appropriate town governing bodies. This has not happened. A couple of public meetings are not substitutes for planning and deep conversation with community governing groups Travel Berkeley Springs, Chamber of Commerce, Board of Education and Morgan Arts Council, to name a few. Convincing one delegate is inadequate at best about what might be needed for community road changes here.<br>Asking for local opinion only after the proposal is mapped is not adequate feedback.<br><br>We are not here, in our jewel of an area of Berkeley Springs, to make traffic flow around us at high speeds while at the same time make our local traffic go through convoluted configurations to get to our downtown.<br><br>This current proposed plan is not only inconvenient but dangerous for our local community. Seven access roads to get into town are unacceptable for safe local traffic. Those coming through the area will find it cumbersome to even consider approaching downtown. It is inexcusable to offer the idea of making school buses cross 4 lanes of fast-moving traffic to approach the business area of town.<br>Our smaller street communities will be adversely affected by becoming "access roads".<br><br>Fast food, which is fast becoming a main reason national health is declining, should not be a focus of our community development and growth.<br>Box stores, situated on the outskirts of this road plan, if this is the hope of a few, will be obsolete soon. We are not looking for more gas stations, convenience stores and box stores to surround our town's environs.<br><br>If money is burning a hole in the pocket of the state government to spend on roads, then consider improving the ones we now have.<br><br>We need access for emergency vehicles to the hospital from US522 north of Berkeley Springs, to meet Fairview Drive.<br><br>We need a sidewalk and walking/biking path to our shopping districts so that more people can approach their grocery and pharmacy needs without a car. Having the main grocery store and other conveniences only accessible by car is not good community planning for the future.<br><br>We need high speed internet, excellent education, good planning for our water resources, and walking /biking paths are needed to bring viable business here to Morgan County and Berkeley Springs.<br>This bypass proposal will hurt our town. I am very much opposed to any of this proposed road as a bypass. |
| 300 | | The truck traffic through town is the local issue. That's it. Why spend dollars on something that otherwise has no purpose? Poor planning and lack of local input (historically) could potentially destroy the history, beauty and uniqueness of a small town struggling to grow. Why would you do that? |

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| 301 | | Do a connector road from Fairview Drive to 522. Make it easy for all of the emergency vehicles to get to the hospital. Have some developable economic land. That's about a six to eight million dollar project. And then give the rest of the money to Morgan County to fix every road in the county. Then everybody would be happy. They would be happy in Paw Paw. They would be happy in South Morgan. They would be happy in Pleasant View. None of them will benefit from the bypass. If we fixed every road in the county, we would be in much better shape and we wouldn't kill our town. We have a 300 year old town that is world famous. And I promise you this – no one at the Department of Highways has ever considered what this would do to the town. No one. |
| 302 | | Do a connector road from Fairview Drive to 522. Make it easy for all of the emergency vehicles to get to the hospital. Have some developable economic land. That's about a six to eight million dollar project. And then give the rest of the money to Morgan County to fix every road in the county. Then everybody would be happy. They would be happy in Paw Paw. They would be happy in South Morgan. They would be happy in Pleasant View. None of them will benefit from the bypass. If we fixed every road in the county, we would be in much better shape and we wouldn't kill our town. We have a 300 year old town that is world famous. And I promise you this – no one at the Department of Highways has ever considered what this would do to the town. No one. |
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| 305 | | We have lived in Berkeley Springs all of our lives, nearly eight decades. We've seen traffic increase, especially truck traffic, but we still don't believe the bypass - as designed - is NOT necessary.<br><br>Yes, we would like to alleviate heavy truck traffic, but surely there is a better design than a 4-lane, 65 MPH highway that will encourage more traffic and just lead others around our community. Why not a 2 lane trucks only road? Why no traffic calming measures or a weigh station that would eliminate the time they save on this route and deter them?<br><br>We live within 2000 feet of where you propose to put the bypass. We can't move. So our home is now essentially worthless and we will never again enjoy the quiet of our neighborhood. I'm told that there will be an exit at Fairfax Street. This exit will come to a Y at Davis Road and if strangers are using that road, there WiLL be accidents. It's barely wide enough for two vehicles at points. |

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| | | Please, look for other options. If you cannot find them, then at least design the bypass entrances so that we don't have to travel the bypass at all. Forcing all traffic onto the bypass isn't fair to local residents. |
| 306 | | I live off Sugar Hollow Road, one of the roads that is already going to be affected by the bypass. Please don't close Rt. 522. Please allow it to remain open as an easy access for those wishing to travel into Berkeley Springs. The bypass is allowing those who wish to avoid town the opportunity to go another route. What is the harm in leaving 522 open for those who don't want to use the bypass?<br>Ensure safety at Bypass Intersections including improving the quality of local access roads. We know the bypass is inevitable and will happen, but please reconsider the closing of 522 and make it easier for those of us who didn't want the bypass to begin with. Thank you. |
| 307 | | While I believe the truck traffic through town is annoying and a constant source of noise and dirt, I think the bypass AS CURRENTLY PROPOSED will be a far more detrimental action. Direct access to town from the north end and south needs to be maintained and not just for the benefit of the tourist! I'm concerned about the current proposal and hope that consideration for a better option can be made. I believe more discussion and cooperation with local citizens is necessary. One meeting with no real discussion is not satisfactory. This change to our roads and landscape doesn't affect DOH in Charleston....please be more inclusive of us in your planning. |
| 308 | | As a Fairview Drive resident and emergency responder in Morgan county, I urge consideration of the following.<br>Fairview connector road option #2. Option one would intersect with Fairview Dr at an already bad section of road. The there has been one fatality and several accidents at that location already and adding additional traffic volume could only increase those numbers. Option #2 allows traffic to enter Fairview where sight distance is much greater, providing a safer entrance and exit for vehicles.<br><br>Honestly I do not believe a connector road is needed at all. The emergency vehicle traffic that would be able to utilize this is minimal, mostly traffic from the north and they rarely transport to War Memorial. Most emergency vehicle traffic will exit the bypass at Fairview Dr and utilize it to access the hospital.<br><br>I have been a resident of Fairview for 25 years and honestly do not see the need for a connector road, traffic volumes have not increased that much. Spend the money for this project on current roads that need maintenance.<br><br>Also, from an emergency services aspect, direct access to the bypass and "local" 522 is critical. I urge reconsideration to open the ends of the road to allow more access w/o requiring vehicles exit the bypass to renter the local lanes. The primary emergency service departments are located in the "local" lanes of 522 and requiring they exit onto the bypass to continue responding will only lengthen response times. |
| 309 | | I own the McDonalds in Berkeley Springs. As of now, we gross very well because of the travelers that pass through using 522. If the option of using 522 is removed, my business will not prosper. Please do not close 522 and allow the option to remain the same, so that it not only won't hurt my company but the other businesses in town as well. I think the bypass will be a benefit, but please do not make it the only alternative. Thank you. |

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| 310 | | The bypass is badly designed, and not needed.<br><br>It is effectively a road to nowhere. All it seems designed to do is divert traffic away from town, with no easy access into town. It does not solve any problems. It creates two bottlenecks.<br><br>It diverts and creates even more frustration to traffic, damages business in town, and wastes money that could be applied to making the roads of the area better. Who is profiting from this fiasco of a design?<br><br>The state vetoed a needed traffic light at 522/Winchester Grade intersection, and approves this waste of funds? Who is making a profit on this? |
| 311 | | Money to be spent would be much better spent on roads like Detor Rd. Internet access. |
| 312 | | I would like to ask you to abandon the Rt. 522 Bypass plan that is currently on the table for Berkeley Springs. The current plan we have been given is unacceptable, as it stops ALL traffic from using the "business" route and it forces ALL traffic to use the bypass. The on/off exits are nothing more than 1.5 car-wide country roads and will never be able to accept the traffic placed on them.<br><br>I own a business in the middle of town on Rt. 522. I have owned this business for 6 years, have put every penny of my saving into it, making it a successful business. I estimate at least 1/4 to 1/3 of my daily business comes from "drive-through" traffic and if the bypass is built, I will lose that business. I cannot afford that to happen and will be forced to close. I firmly believe almost every business in the downtown area will be forced to close as well.<br><br>It certainly appears that NO thought has been put into this plan as it is the same plan that was given to us 20 years ago when the public overwhelmingly rejected it. Both the north and south end of the 4-mile bypass is unacceptable and the bypass will disturb and disrupt our entire existence. We have been a tourist destination for over 300 years and I don't want to lose that charm. No one in Morgan County is prepared for this to happen; no one has planned on how it will affect our water supply or sewer issues.<br><br>I don't believe there will be any kind of economic growth on this 4-mile stretch through neighborhoods. It will wreak havoc on school bus traffic and cause tourist to use convoluted overpasses and exits. People come to Berkeley Springs to get away from city life and when they find it difficult to reach and hear all the truck traffic, they will no longer come.<br><br>I believe the traffic signals could be timed to move traffic more easily, weight and length limits could be placed on the current Rt. 522 to discourage cut-through truck traffic. I think there need to be traffic studies done, as there has never been any, I think this is totally unnecessary and will do nothing to help our community thrive and survive.<br><br>PLEASE DO NOT build this bypass. |

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| 313 | | Mr. RJ Scites,P.E. ,<br>Sir I hope you at least read our many comments and concern's on the "US 522- Berkeley Springs Bypass and Fairview Connector", as this has become a major topic in the area. I would like to know if any other studies have been done or even considered? I moved here 3 years ago upon my retirement for a quieter and peaceful life, and it seems that will be wiped out with current on-going plans. Without dragging this letter out and sounding like "sour grapes", I hope you at least considered some of my previous comment's<br>Thank You |
| 314 | | Morgan County has so many needs, fighting the opioid crisis, lack of jobs - why are you spending 7M on a bypass? Local shops rely on the tourist economy that will be slashed by 30% - this will create a loss of local jobs and a spiraling of economic decline. Why are you not simply making 522 a "no truck" route? Many other towns have done this and it works. Please don't take Berkeley Springs off the map for tourists to see how charming it is. |
| 315 | | Have the bypass plans taken into account the additional noise associated with a high-speed road passing within hundreds of feet of what were once quiet, hillside homes? What about the air pollution associated?<br><br>Other towns fight to keep bypasses from occurring. Research Middletown, VA, who added traffic control measures, etc. This community, filled with high-income Northern Virginians, understood the value of drive-through traffic for their economy.<br><br>Please consider low-speed, 2-lane bypass that impacts the residents of Berkeley Springs as little as possible. |
| 316 | | Myers Road is little better than a bike trail winding through a forest. There are no plans to improve this road beyond 100 ft once it becomes an access point to the new bypass. When trucks pulling campers and other vehicles exit onto Myers Road and are met with this inadequate situation, then what? Who will pay for those desperately needed upgrades?<br><br>Please re-design the bypass. It is poorly conceived, and if it is rushed into just to use up funding, it will be the residents of Berkeley Springs who will suffer, rather than benefit, from it. |
| 317 | | As presently designed, the south interchange at Route 13 is not viable. It would force those of us who live south of Berkeley Springs to take the bypass to get to local stores such as the only grocery store in town. Additionally, the bypass should allow easy options for staying on the existing 522 or taking the bypass so that it doesn't cause economic harm to historic downtown Bath and impede access to Berkeley Springs State Park. Many other towns have bypasses that offer a direct route into town or a bypass option. Both the south and north interchanges should do the same. |
| 318 | | Take care of the existing roads before considering adding anything additional. 522 bypass is not needed. If it must be done there are a lot of things that need improved for town access. |
| 319 | | Lived here for 30 years do not want bypass |
| 320 | | This memo is being written in opposition to the planned by-pass of Route 522 around the town of Berkeley Springs, West Virginia.<br><br>Although I am not totally opposed to a by-pass that does not "encourage" the traffic to by-pass the town of Berkeley Springs, it appears |

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| | | that the current plan has not taken into account alternate means of ensuring that large "transit" truck traffic is prohibited from traveling through the town and other travelers are encouraged to pass through the town. Thus, it would help to maintain business to the local community.<br><br>My major objection that I have is that while this large sum of money is being planned for this single purpose, many of the local roads within Morgan County are in dire need of repair and resurfacing. The current plan for the bypass appears to cater to the needs of transit traffic from outside of the County and West Virginia, while failing to concentrate on the concerns of the local residents, who desperately are in need of the financial support to improve our roads.<br><br>An example of one such road that many local residents use to travel from Pine Grove Road to Winchester Grade Road in the Southern end of the County is Blue Brook Road. Come travel on it and see what damage it is capable of incurring on one's vehicle. Additionally, two individual communities are dependent on said road to access their communities.<br><br>In summary, we are desperately in need of Department of Transportation money for local road improvements. This should be a priority over spending money in support of individuals traveling though our State/County just to decrease their transportation time between major interstate roads (i.e. Routes 70, 68 and 81).<br><br>Please, please reconsider your decision and support our "local" needs over the needs of outsiders! |
| 321 | | Two weeks ago I was at the Ice House talking to a couple who were visiting the area. They had traveled from PA to VA for a funeral. They said that they traveled to Va through Berkeley Springs and decided on there return trip they would stop in Berkeley Springs. They wanted to stop in the shops and look around. They ended up staying the night.<br>This couple would never have even considered staying if they had traveled the bypass. How many other people would do the same.<br>The bypass is not good for Berkeley Springs.<br>I live South of town and the bypass would have me traveling more miles then necessary just to get in and out of town. I know it would be easier for me to travel to Winchester just to get groceries than use the bypass around town.<br>I say NO to the bypass. |
| 322 | | Please, please redesign the bypass entrances to allow direct access onto the current Rt. 522 and review the proposed interchanges to ensure the safety and integrity of our neighborhoods.<br><br>As a business owner in this town I'm very concerned that the current proposal will be unsafe and severely detrimental to the town and to my business. Please look closer and consider re-designing.<br>Thank you! |
| 323 | | Please leave Rt 522 open to the local community and have the bypass for trucks and through traffic that doesn't want to actually come to Berkeley Springs. Thank you for listening. |

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| 324 | | Regarding the proposed Berkeley Springs bypass:<br>1. Please conduct an up-to-date traffic study about this proposed bypass. Consider how the town operates (e.g. lots of pedestrian movement), how the community moves around to various locations (e.g. groceries, school, entertainment, sports, etc.), how the infrastructure moves around (e.g. fire response, ambulance,etc.).<br>2. If a bypass is deemed a significant improvement, have the main road the thru-way, with exits to LEAVE the main thru-way as OPTIONS. In other words, leaving the default to drive through town.<br>3. There are lots of roads and bridges in the area that could use repairs and improvements. I nominate North Wiles Street!<br>Thank you. |
| 325 | | Allow non-truck traffic heading north and south along the current 522 to proceed along the current 522 and beyond without being forced to exit on to 522 bypass.<br><br>Implement appropriate signage, traffic control, speed limits, weight restrictions for traffic exiting the 522 bypass on to local roads.<br><br>Implement signage to market/promote Town of Bath/Berkeley Springs to encourage tourists and travelers to utilize local merchants, businesses, and restaurants.<br><br>Use proper floodplain mitigation/stormwater management techniques/designs to protect watershed, town, land, and business owners from stormwater damage and flooding.<br><br>Use proper sediment/erosion control before, during, and after road construction.<br><br>Collaborate with Town of Bath/Berkeley Springs/Morgan County officials to ensure long term economic and environmental damage is prevented. |
| 326 | | My wife and I are residents of Morgan County, and, with one major exception that I discuss below, we support the Highway 522 Bypass, which can be a very positive infrastructure improvement for the residents and businesses of Berkeley Springs and Morgan County.<br><br>I believe the primary benefit – and need for – the bypass is to divert both northbound and southbound commercial through-traffic (much of which is tractor-trailers) on to 522 and away from the commercial, tourism and business locations in the center of Berkeley Springs and the Town of Bath. Few if any of my fellow residents have not experienced long delays in accessing shopping, restaurants, etc., in Berkeley Springs and Bath due to a seemingly endless line of slow moving tractor-trailers (and the latter would, needless to say, much prefer being able to bypass our commercial district). I have experienced those long delays particularly when headed north on 522 (I live in the southern part of the County near Cacapon State Park), but I believe the same congestion and delay impacts southbound travel on 522 as well.<br><br>The qualification on my support of the bypass concerns WVDOH's plan to require all traffic – including local travelers destined for the |

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| | | Berkeley Springs-Bath commercial district -- to use the bypass for part of their route and then be redirected to local 522. I strongly oppose that aspect of the WVDOH plan, and I believe the same view is widely shared by Morgan County residents and businesses. While through-traffic should certainly be encouraged (or perhaps required in the case of commercial trucking) to use the bypass (I doubt that much encouragement will be needed, particularly for truckers), residents, tourists and others destined for the commercial district should not be inconvenienced by a circuitous route to their destination (whether it's the grocery store, the pharmacy, the Museum of Berkeley Springs, or the Ice House gallery and exhibit venue, etc.).<br><br>Nor is this just a matter of convenience. After what I understand to have been a long period of serious decline, commerce, tourism and cultural activity is on the rebound in Berkeley Springs, with new restaurants and shops opening and other commercial and cultural activity on the upswing. Forcing a significant portion of all northbound and southbound travelers on to the bypass is certain to have a negative effect on these positive trends for Berkeley Springs and Bath. An analogy that is very much in point here is the decline of small-town America that has been a widely recognized consequence of the interstate highway system, which causes most travelers to bypass small towns. That consequence should not be repeated as part of the 522 Bypass. The design of the bypass should allow local and other traffic destined for the Berkeley Springs-Bath commercial district to do so without having to first detour on to the bypass.<br><br>Thank you for considering my views on this matter. |
| 327 | | My wife and I live on Fairfax Street opposite two of the driveway entrances to the old War Memorial Hospital, currently known as The Pines Opportunity Center. The current bypass design makes Fairfax St the first, shortest, and most direct route to downtown Berkeley Springs for traffic headed southbound on 522 and the most direct route out of town to 522 northbound. In addition to the increased auto traffic this will put onto Fairfax, GPS directions will undoubtedly route truck traffic headed into town from the north onto Fairfax as the shortest route, as opposed to routing them onto Route 9. Add to this additional traffic that might use Fairfax from the south into town and it's easy to anticipate that the traffic volume on Fairfax will increase exponentially.<br><br>My comments are directed at bringing attention to the numerous design issues from one end of Fairfax to the other that preclude its ability to take on this additional traffic as a primary feeder route into town. Aside from being a narrow road with a 25 mph speed limit from one end to the other, there are the following issues to consider (listed here from east to west): At the far east end, Warm Springs Middle and Intermediate Schools both use Fairfax as the only way in or out for all school buses and other related traffic; Just west of the school driveway is a tight S-curve on a steep hill capped by a blind crest (you can't see who's coming over the hill at you until they're over it); Immediately west of the new 522 interchange adjacent to the Pines Center is another S-curve with a small rise that presents another blind sight line at the exact point where the speed limit drops to 15 mph for the Little Learners Day Care Center (the Day Care itself generates a good amount of in and out traffic to include stopped school buses at a variety of times throughout the work day, those vehicles being difficult to see until cresting the rise immediately east of the Day Care lot); the Pines Center has three entrance/exits located within a very short distance starting with two roughly opposite the Day Care, two of which lack any stop signs for traffic coming out of the Pines; As the road drops down towards town, there are two more limited sight distance curves, the western end of the tightest S-curve (almost a 180 turn) recently witnessed a car careen out of control through a yard, over a four foot wall and into the side of a |

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| | | house; The final decent into town is quite steep and is extremely treacherous when there is snow or ice on the road; Finally, there is the diagonal parking near the base of the hill that require vehicles to back out into the traffic lanes and the blind N. Green St. intersection on the north side of Fairfax where cars can not see the traffic coming downhill from the stop sign.<br><br>Dramatically increased traffic under these conditions is a recipe for failure. As it is now, traffic on Fairfax consistently travels well above the posted 25 mph speed limit and it would require a major upgrade to the entire length of Fairfax to overcome the many other deficiencies. Many of the issues would require that Fairfax be rerouted and houses demolished. Rather than live with the consequences of doing nothing or completely changing the character of the neighborhood by eventually rebuilding the road (something that would undoubtedly be years down the road), it would appear to make much more sense to design an entrance from the bypass directly onto 522 around the sand mine to allow flow through traffic into town from the north and a like access at the south end. I would suggest an interchange be designed at the north end that incorporates the flow through into town with the new access road to the current hospital, that all through truck traffic be banned from using Fairfax, and that Fairfax be evaluated for the addition of proper signage (such as stop signs at the Pines driveways) as part of the bypass design. I would further suggest that the Pines driveways should be reconfigured as part of this process.<br><br>A new bypass does little to resolve overall traffic issues if it creates numerous new traffic problems on side roads that were never designed or intended to be primary feeder roads from a four lane highway. As a result, I ask that the WV Department of Highways consider what I've pointed out about Fairfax Street and seriously consider interchanges at both ends of the bypass to alleviate this problem. Your consideration of my comments is greatly appreciated. |
| 328 | | Have never wanted bypass -- Middleburg VA is an excellent example of residents saying no to a bypass because they realize that they would lose the quaint attractiveness of the town. Hancock, MD is an example of what happens to a town when a bypass goes by the town. We do not want to lose our uniqueness and ability to attract visitors. We have visitors who come to stay but we also have those who are just driving through and stop to go to the shops, eat in the restaurants and hopefully come again. NO BYPASS for Berkeley Springs. |
| 329 | | I continue to feel that a bypass by our community is definitely not in the best interest of Berkeley Springs!! Driving through our town gives us visitors who support our businesses. This is important. I without a single doubt feel that a bypass is a serious mistake for Berkeley Springs. |
| 330 | | Please come up with a new plan for the bypass. To think that an old plan inserted into today's settings is absolutely ignorant. The idea of the bypass is for the traffic coming through the town to have a way to bypass the town itself. In order to alleviate the unnecessary wear and tear on our roads, to protect our families from the dangers of higher speed traffic. The bypass should connect directly to 522 outside of town otherwise it is not a bypass. |
| 331 | | In my opinion a bypass is not needed. Why not spend the money on things that are actually needed like the access/connecter road from 522 to the hospital. There are plenty of roads here in Berkeley Springs that need attention other than this bypass that will kill our little town. There are pot holes and missing pieces of road that could use this money more then building a multi million dollar bypass road, that |

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| | | will take peoples homes away from them. What about the older folks who have been here all of their lives and have worked hard for what they have? Are you just going to take their property out from under them like they don't even matter. There are a few low water bridges that get washed out every time we have a lot of rainfall why can't those be fixed. Building a bypass road would be a waste of money considering what that money could truly be used for. |
| 332 | | Make sure that you have done your due diligence on making decisions that will impact the community using current data and not outdated information from past studies. We only have one chance at making this good for our community and our merchants. If not it could really negatively impact out wonderful community. |
| 333 | | I am opposed to any funding for a bypass as it is not necessary for the people of Morgan County. Restricting truck traffic on 522, spending the funding on the current 522 to repair it and other r roads in Morgan County makes much more sense. We have spent millions for a bypass through the panhandle and that is 81. |
| 334 | 5-21-18 | Dear Mr.Scites:<br>We are writing to express our deep opposition to the current plan for the north and south entrances to the Route 522 bypass in Berkeley Springs WV.<br>Not only is it completely unfair to those who live in the area to have to navigate the bypass in normal travels in the Berkeley Springs area, but more importantly it will deter travelers from town which in turn will severely deprive our businesses of tourist/travelers patronage. While Berkeley Springs may be a destination for some travelers, it is not a large attraction such as Harpers Ferry or similar historical or recreational sites. Our businesses rely on travelers trade to remain solvent. Sending traffic away from town will have a drastic and detrimental economic impact on our town.<br>As we have traveled around the country, we have observed many places where the city bypass is an "option." That is what needs to be done on both ends of the bypass in Berkeley Springs. The economic viability of Berkeley Springs must be preserved.<br>We urge you in the most sincere and urgent terms to revisit the north and south accesses to the bypass. Make access to the bypass an option -- not a requirement!<br>We would also note that there was no meeting with DOH to hear a full presentation or to make formal comments. The meeting held on April 19th was billed as an informational meeting. Informal comments to representatives could be made but until one had the opportunity to fully review and understand the plans it was difficult to make informed comments.<br>Sincerely |
| 335 | | The current bypass design will not work for our town. It is not a feasible option to have all traffic traveling north on 522 to enter the Bypass. The Citizens of Berkeley Springs should have a say as to how such an important change will affect their livelihood. Meet with the people and redesign. |
| 336 | | The bypass and results it would have on the small town, small business environment of Berkeley Springs and the surrounding woodlands would cause us to pack up and move elsewhere. Big roads and all they bring with them (such as box stores) are not what we settled here for. And not what the visitors who sustain our local economy come for either. |
| 337 | | Hello, we have owned a house in the Town of Bath since 1989 and were aware of the bypass plans. We are across from the Fire Station at 157 Congress St. I am distressed by the current plan to force what is now through traffic on 522 on to the bypass coming from Hancock |

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| | | and Winchester. It is safer for all of us including my 90 year old neighbor to be able to go directly through town on 522 to those locations than to have to enter and exit on the bigger, faster and more challenging bypass. We all think we can be independent and drive well into our 80's and 90's and that we can handle anything. But given the current plans for the bypass and the types of ingress and egress plans, I believe there is a public safety issue here for all of us.<br><br>I would like to ask that 522 continue to be open to local traffic and that through trucks be forced off at the bypass.<br><br>Also I am concerned about local businesses and the tourists who now come through the town and see the Country Inn and other stores and restaurants. That is how we found Berkeley Springs many years ago and how others find it today. Please reconsider the current design and make it safe and easy for people to navigate the Town of Bath and 522.<br><br>Thank you for your consideration of this request. |
| 338 | | We are in favor of a bypass, but we don't like how the current plan calls for all traffic to go on the Bypass instead of staying on 522. There needs to be a business 522 and a Bypass 522. Please redesign the 522 north and south entrances to allow traffic to stay on 522 through Berkeley Springs without having to get on the Bypass. Also the Exits are not in good shape to have so much extra traffic. Those roads need to be improved. Thank you! |
| 339 | | NO by-pass<br>If it happens, DO NOT limit rt 522 access |
| 340 | | Please, revisit and reconsider bypass and on and off exists. If we are going to invest in this, then let's do what is best for the residents and businesses.<br>Thank you for reevaluating the design for this bypass or not do it at all.<br>Appreciate your interest in listening to the residents and doing what is best for everyone involved. |
| 341 | | We were recently alerted to the proposed Berkeley Springs bypass by a representative from the Berkeley Springs Chamber of Commerce. To say that this news is alarming is an understatement given that we opened a new store at 2151 Valley Road, Berkeley Springs, West Virginia on May 4, 2017, at a cost of over $4,500,000.00. We spent a significant amount of time, energy, and resources working through our due diligence and permitting processes prior to opening this store. In fact, a large part of our efforts was spent working with representatives from the West Virginia Division of Highways ("WVDOH") for the issuance of a highway occupancy permit. However, throughout our processes we were never alerted to the possibility of the proposed bypass being a shovel-ready project, a project that was imminent, or a project that had any possibility of happening in the next 15 years. Conversely, we were told that this project—that was originally designed approximately 20 years earlier—was removed from any short- or long-term plan because of a lack of funding. If we had known that WVDOH was moving forward with this proposed project we certainly would not have invested millions of dollars to build at this location, which you now intend to bypass.<br><br>Sheetz hereby requests a face-to-face meeting with the appropriate WVDOH officials to discuss this proposed project and what can be |

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| | | done to lessen the significant and detrimental financial impact on the businesses, employees and families that depend on this vibrant business and retail corridor. Sheetz has 58 stores in West Virginia and looks forward to opportunities to reinvest in the communities where it has operated for over 33 years. Your assistance in addressing our concerns would be greatly appreciated. |
| 342 | | As a business owner, a resident, and as a mother of school age children, I would like to encourage the WVDOH to please redesign the southern portion of the 522 bypass. Please change the design to allow traffic to continue on the existing road rather than requiring all northbound vehicles to utilize the new bypass route.<br><br>The Morgan County Commission, the Berkeley Springs Chamber of Commerce, Travel Berkeley Springs and the Morgan County EDA have all signed Resolutions from within their organizations requesting this change.<br><br>We know what our community needs are and we implore you to take the time to design and implement this important project correctly as there is no second chance to get this right. Thank you for your consideration. |
| 343 | | I am against putting in the bypass. I work in a downtown restaurant, Tari's Cafe, and the majority of the diners when asked say they were just passing through and found the town to be attractive so they stop.<br>I fear that it will put me out of a job both at the restaurant and my other employment the visitor center.<br>If the bypass is a given it is a must that a business 522 is easy to access. The forcing of vehicles on to the bypass will definitely ruin the town plus be an inconvenience to residents trying to get to the local schools and grocery stores.<br>Also some of the interchanges shown are very narrow and dangerous roads. They need to be re-evaluated.<br>Thank you for considering my concerns. |
| 344 | | I can't believe this design. Choking off the southern part of town, requiring people to get on the bypass just to get to the main part of town is LUDICROUS!!!!!<br>If we need anything, it's possibly something at the north end of town for emergency vehicles to get to the hospital. If there is some other way to make the trucks leave us alone, such as making them take 70 to 81, do that. Otherwise, there is absolutely no traffic problem in town. The only time it gets backed up even just a little is Friday afternoons and during the afternoon when school is discharged. Anyone who thinks that's a problem is just a big baby. This Friday it took me exactly 5 more minutes that it usually does to get from the school to the intersection of 9/522. Big deal!<br>FIX OUR ROADS. Nobody in Paw Paw could care less about this bypass because it's not going to help them. But the back roads, and even most of the major roads, are in really poor repair. FIX THEM then let's talk.<br>The ones who will suffer are the business owners. Don't you know 30% of their business comes from people driving through town? YOU ARE GOING TO KILL OUR TOWN. |
| 345 | | I am a Morgan County resident. I am for the bypass, but I ask that we have full access to 522. Can it please be designed to make 522 the default and make an exit to get on to the bypass on the south end of town. Thank you for your consideration. |
| 346 | | The people of Berkeley Springs shouldn't be penalized due to the bypass. We need to have access to 522 from Winchester Grade Road and not have to use the bypass which would cause us to have to go out of our way to access shopping near us. I live off Winchester |

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| | | Grade Road on Waugh Road and would like to continue to use 522 to get to Food Lion which is only two miles from my house. Many people in Berkeley Springs are older and may have difficulty dealing with a high speed highway when they have been used to driving on our local rural roads. The purpose of having the bypass is to eliminate the truck traffic from our small town which wasn't built to handle trucks. I moved to Berkeley Springs, WV in 2005 to get away from the rat race and congestion of the DC metro area. I purchased a house that was secluded and private. Learning of the proposed bypass and the close proximity it will be to my house, I will have to contend with around the clock traffic noise. I enjoy sitting on my porch enjoying the peace and quiet. Is there a possibility of building the bypass farther east where there are more rural areas that wouldn't disturb so many people? Thank you for considering my request. |
| 347 | | I forgot to mention in my previous submission if the traffic lights in Berkeley Springs were timed smarter, this might help relieve the backup of traffic going through town. Many times as I'm driving into town the light is green and turns red before I reach it and there are no cars waiting in the opposing directions. |
| 348 | | Please redesign the Berkeley Springs bypass to allow traffic on Route 522 to continue moving directly through town in both directions. |
| 349 | | I would like to request that the WV DOH put this project on hold until updated traffic studies and public meetings can be held. The engineers at the public meeting in April said that the public meetings for this project were held in 2000! !8 years ago!! There are new people and businesses affected. Things do change in nearly 2 decades.<br><br>Additionally, by putting in a short-cut for travelers there is more likelihood that their money will be spent out of state in VA or MD. Instead of a $50 million bypass that could hurt our community, spend the money fixing Rt.9 East from here to Martinsburg so that our residents can get to the jobs that are being created by Proctor & Gamble without driving on a dangerous road. Right now I can commute 45 minutes and be in Washington Co, MD or Winchester, VA on good roads...Rt. 9 is avoided at all costs, because even though it's fewer miles it takes just as long and we all get carsick. Straighten Rt. 9 and we get the economic boost of WV workers staying in state to work and pay taxes.<br><br>Just because a project is "shovel-ready" doesn't mean it's appropriate for this time and space. |
| 350 | | Dear Sirs,<br>Thank you for asking and receiving input from the local community on the current bypass plan.<br>I feel that with any bypass it should be just that A BYPASS not a railroad where the driver does not have a choice whether to take it or not.<br>I have logged many many miles in my 45 years of driving and have taken and not taken many a bypass around a town or city.<br>I strongly believe we need a BYPASS for our community but I feel even more adamant that it needs to have a regular on ramp exiting from the current St. Rt.522 from both the North and South Bound lanes. It should have normal sign-age stating it is exit *** Bypass.<br>Please design the entrances leaving direct access to the current 522 and allowing those drivers that wish to stay on 522 that CHOICE and the drivers that wish to bypass Berkeley Springs the CHOICE to do so.<br>I am an Independent Business Owner as well as a Morgan County School Bus Operator and feel ones freedom of choice should never be taken away. |

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| 351 | | I have lived in Berkeley Springs for 20 plus years. I love this little town and all it's beauty. It's lovely park, wonderful shops, friendly people, quaint restaurants and local artists and health practitioners.<br><br>I have never met a person who has traveled through Berkeley Springs who has not said they have always wanted to stop and spend some time in the town.<br><br>Many happy occasions take place in Berkeley Springs - girl's weekends, spa weekends, bridesmaids weekends, wedding, etc., Apple Butter Festival, art shows, plays, etc., there is always something going on.<br><br>Please listen to the citizens. If the bypass does not allow drivers to drive through the town it will surely die. Spend less money, fix our roads, and let us live in joy and peace. Thank You. |
| 352 | | Please, please re-design the bypass to include direct access to the current 522! |
| 353 | | I've lived in Berkeley Springs all my life. This bypass is going to be built within 2000 feet of my home that I worked very hard to enjoy in retirement. The noise and pollution from the sheer volume of trucks that will use this road just to cut off their time between Maryland and Virginia is unacceptable.<br><br>Not only is the bypass unnecessary, the current design makes local residents use the bypass just to get around town. Why can't the road be designed just to be a 2 lane road for trucks and put it farther out of town?<br><br>They've been talking about putting a bypass in this town since I was a very young man. I never thought I'd see it in my lifetime and I hope that holds true. |
| 354 | | I was born and raised in Morgan County. I'm the 3rd generation of local businesses from the Youngblood family in Morgan County. I hope and pray for the bypass to be built. It is long overdue! With all of the exits available, anyone wanting to visit the downtown area has access. Most of the tourist is weekend traffic and should be no problem. At the present time, locals use several side roads to avoid the downtown traffic. This is daily. Even first responders use these side roads. Anyone wanting to visit the park or arts center should have no problem with all the access exits!!! If anything it should help the area for the one's wanting to pull off and look around. I am All for the Bypass and think it should have been done years ago. Thank You |
| 355 | | The plans definitely need help, and will be detrimental to business downtown |
| 356 | | As a homeowner, taxpayer, and part-time resident of berkeley springs, wv, I strongly urge you to reconsider the current design of the proposed 522 bypass. I firmly believe that a bypass which does not include a business through road onto current 522, at both the north and south ends, will be detrimental to tourism and business in our town. please also consider and evaluate the number, safety, and adequacy of access roads through residential neighborhoods with an increase in traffic in those neighborhoods. |
| 357 | | The design of the US Rt.522 bypass around the Town of Bath in Berkeley Springs is severely flawed in many ways, and also cuts off vital economic supply to the downtown area. PLEASE do not continue with developing the bypass as currently designed. Thank You. |

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| 358 | | Jeanne Mozier and her sister Barb Wolfe are asking people to come here and post opposition to the bypass and ask to redesign it. They have businesses and have been opposed to bypass... period. I am a Lifelong resident. I want the bypass exactly as it is currently designed. The majority of traffic is Big Trucks and bypass is definitely needed. Thank You |
| 359 | | Please reconsider the current proposed design of the 522 Bypass in Berkeley Springs. As an owner of a small business in the heart of Berkeley Springs, I can assure you that merging all traffic headed north onto the bypass will be detrimental to our small shops. About 40% of my revenue is currently coming from folks "just passing through."<br>The first public meetings held on the 522 Bypass were held before I was able to actively participate. Times/property owners have since changed. I find it ridiculous that as a 25 year old entrepreneur that has invested in downtown Berkeley Springs I've had ONE chance to ask questions and meet with engineers.<br>These proposed interchanges funnel traffic onto roads that are nowhere nearly equipped to handle additional traffic - ESPECIALLY Myers and Johnson's Mill Roads.<br>Where will the additional funding come from to maintain this bypass? As it stands, our state can't maintain the roads it has. West Virginia... building 4 lane useless roads to nowhere.<br>Have you studied the issues surrounding Morgan County? Sex Trafficking, Drug Deals/Overdoses, Kidnapping... Let's make it a little easier for criminals to pass right through the state! Who is going to be monitoring these roads because we can't afford to hire any additional law enforcement!<br>Stop with the bonds! Do not build additional roads until we have this state in a better financial position.<br>Hint: This bypass isn't going to put us in a better financial position.<br>This town has ZERO need for this bypass.<br>Also, ever heard "don't throw the baby out with the bathwater?"<br>30% of our tourists are traffic passing through. Our town was BUILT on tourism and continues to provide COUNTLESS jobs because of this.<br>How does it feel to be screwing over a 75 year old woman and her husband with Alzheimers?<br>My grandparents built their modest home with years of hard work. THE POTENTIAL of this bypass has already dropped the value of their home. They don't currently have the option of moving and the state will never buy their home.<br>May I call one of you when my confused/having a meltdown grandfather sees 18 wheelers passing through their once peaceful neighborhood?<br>THIS ROAD IS NOT NEEDED...<br>Unless your game plan is to screw over Morgan County. |
| 360 | | Please redesign the bypass to include direct access to the current 522 please!<br>The current design makes no sense, especially for those of us who live on 522 between the Sheets at Rt 13 and Rt 9 |
| 361 | | Build it. The bypass will bring much needed development to this area. |
| 362 | | The proposed bypass will be a devastating to our town. This is not only a waste of taxpayers money, but it is not a bypass it's a shortcut for truck traffic that will amplify the noise. Restrict truck traffic to 81/70. This is the perfect bypass for our town. No new roads need to be built. Save the money for repairs on roads we already have. My opinion |

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| 363 | | I generally agree with the concerns of the local working group concerning the by-pass proposal and design.<br><br>I noted that the intention as described in the WVDOT handout expressly states - "That project consists of a four-lane roadway on a new alignment from the Virginia/West Virginia state line to the Maryland state line."<br><br>So the intention is to have a four-lane through route from I-81 at Winchester. VA, to I-70 at Hancock, MD. That implies two unmentioned phases. First, the widening of US 522 North and South of the town of Berkeley Spring to four lanes beyond the bypass route. at some unspecified future time span. Next, a replacement four-lane or additional span across the Potomac River at Hancock MD. To the best of my knowledge, there is currently no plan or budget for such a project in Maryland.<br>Four lanes state line to state line would not alleviate traffic, it would ATTRACT through traffic. If the primary intention was to reduce local traffic, two bypass lanes for through traffic would be sufficient. So it would appear that alleviating congestion in the Town of Berkley Springs, or the needs of the town, or the concerns of local residents and businesses was not a primary consideration.<br><br>The current bypass proposal requires ALL traffic from the south (including local) to take the bypass and use a complicated exit ramp with multiple turns to gain access to Rt. 522 through town, rather than simply giving traffic the option to stay on 522 or take the bypass. Under the proposed design, the current Rt. 522 will be barricaded to northbound traffic and residents who live south of Rt. 13 would be required to enter the bypass to access schools, shopping, etc. Although the north end of the bypass design is not complete, the plans show suggest that design still calls for a similar full diversion of traffic. Again, this ill serves both residents and visitors.<br><br>I feel that travelers should have an simple "Y"-intersection option to proceed into town and the choice should be left to drivers whether or not to come into town or take the bypass. Both directions.<br><br>There are currently seven proposed bypass intersections (Rt.13, Sugar Hollow Road, Myers Road, Johnsons Mill Road, Martinsburg Road, Fairfax Street, and the Fairview Connector Road). Three of the proposed bypass intersections (Myers Road, Johnsons Mill Road, and Fairfax Street) are not scheduled for upgrades beyond 100 feet of the bypass. Residents have voiced concern that these roads are not suited for the volume of traffic that could potentially use them to access the downtown area. Additionally, unless a later traffic survey warrants, no traffic control measures (signals) will be installed at the interchanges.<br><br>It feels to me that the project was planned without much consideration to the circumstances or needs of the local area, but focuses on the needs of through traffic.<br>I implore you to consider the needs of the town and the people and businesses that are here. Perhaps even future studies might be in order. The examples of other towns come to mind, Berryville WV, Bedford PA, for instance. Some towns provided with well planned bypasses thrive, others wither. |
| 364 | | We are opposed to blocking the current 522 pathway to require travelers to use the bypass. Most bypasses we have seen do not require motorists to use the bypass. It is an option but not a requirement. Blocking the current route will create a hazardous situation for many of |

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| | | our older residents because they would need to negotiate access roads to reach areas both inside and outside the bypass area instead of having the direct access they now enjoy. Requiring all motorists to use the bypass is not in the best interest of Morgan County residents. |
| 365 | | The 522 Bypass should not happen at this time.<br>There has not been adequate research about current traffic trends, and the current bypass design is both incomplete and unacceptable. Only after new traffic research is done, and a new design is available should we even consider a bypass.<br>There should also be a plan to fix current roads in Morgan County, which are in terrible shape. |
| 366 | | This Bypass will surely destroyed our beautiful town of Berkeley Springs, WV. The intrusiveness of much more traffic, the noise, business coming to take advantage in this destructive venture. Will there be any place of peace left or does greed still continue to raise it's ugly head. |
| 367 | | The 522 Bypass needs to allow riders both North and South to be able to chose to stay on Business 522 that continues through town. The use of the 522 Bypass should be a choice made by each driver and not something that is forced upon the driver due to the Design of the roadway. |
| 368 | | Please redesign the ends of the 522 bypass in Berkeley Springs so that traffic can stay on the old 522 into town without getting on the bypass beforehand.<br>Also, please use high (sound deadening) walls for the entrance ramps and main bridge spans that will cross Rt. 9 East. This is a quiet neighborhood and the bypass without a doubt will make it more noisy. Please do your best to minimize the increase in noise once the road is open for traffic.<br>Thank you so much. |
| 369 | 5-17-18 | Dear Mr. Hark,<br>Thank you for your letter of March 15, 2018, informing Morgan County Citizens' Coalition (MCCC) of the deactivation of the US 522 Project.<br>We have sent our comments to Mr. RJ Scites as you suggested.<br>We are also sending a copy of our comments to you with this letter. We are refiling two major documents as our concerns were not addressed by WVDOH and most are still very relevant to the well-being of our County and community. We are refining:<br>1. Morgan County Citizens' Coalition Response to the Final Environmental Impact Statement (FEIS) for US 522, 12-13-2000<br>2. The Neily Report Analysis of the U.S. Route 522 Project, 10-30-2000<br><br>The MCC Response is 91 pages of detailed concerns with the FEIS. The Neily Report was prepared by Gerald Neily, nationally recognized transportation expert, hired by MCC to analyze Morgan County's transportation issues and to recommend solutions that deal with the problems while at the same time supporting the well-being of our community.<br><br>While we are all grateful for our transportation systems, the history of such highways foretells many potential disasters for our local environment with air and water pollution, a huge surge in the numbers of vehicles passing through, and literally having our community businesses and economy bypassed. |

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| | | As I reread our documents from so many years ago, I am struck by the choices and possibilities. It is true that we need help with some traffic issues. This gets some folks behind the project until they realize that, as currently planned, this highway offers very few benefits for Morgan County and poses many serious threats to well-being, health, safety, economy, environment, and rural nature of our community that are the basis of our tourism industry. Specific concerns for this project are detailed in the enclosed documents but just to mention some top contenders, there are predictions of higher flooding levels, huge increases in overloaded trucks carrying hazardous waste products, 1.4 million additional vehicles every year, four lanes ending on a decrepit two lane bridge over the Potomac (that is probably not safe for current levels of traffic, much less a massive increase in cars and heavy trucks). These are just for starters.<br><br>We need some local traffic fixes that fully account for our County and Community needs without doing the inevitable damage of the proposed highway. There are entanglements and roads here that I doubt any of us really want to go down.<br><br>But this gives us all the opportunity to be part of creating a new model of government and community working together to come up with inventive solutions. One option: we could create new traffic problem solving teams with DOH and Community participants cooperating working teams to figure this out.<br>Imagine what we could do if we really committed to work together to resolve these issues - deal with traffic AND support the well-being of this community.<br>There is too much divisiveness in our world. We won't always agree, but let's work together for the best possible outcomes for all of us. |
| 370 | 5-18-18 | On December 13, 2000, the Morgan County Citizens Coalition (MCCC) responded to State Project U233-522-0. 02 (02) Federal Project STP-0522 (007) regarding the proposed US 522 Berkeley Springs Bypass.<br><br>MCCC is hereby formally resubmitting our previous response due to the fact that the highway design is too similar to the previous one. We are very concerned that none of the many important issues that we raised have been addressed or resolved. These issues are about the health, safety, and well-being of our community—issues including (but not limited to):<br>• Negative impact on the local environment<br>• Increased potential flooding<br>• Safety of at-grade crossings, such as those near schools and hospitals<br>• 1.4 million additional vehicles annually passing through, going from a high-speed interstate highway funneling down to a two-lane bridge at the Potomac River<br>• Through-trucks carrying hazardous waste<br>• Detriments to local business and tourist economy<br>• Reduced quality of life for the Town of Bath and the surrounding area of Berkeley Springs.<br><br>In fact, all of the effort expended by the citizens of Morgan County to offer meaningful suggestions for a simpler design that would not invite increased through-traffic to descend upon our small town was not even considered. The original ultimate goal of building a 4-lane |

| No. | Date Received | View/Comment |
|---|---|---|
| | | interstate throughway has been retained. This results in the same problems for Berkeley Springs and, in particular, for the detriment of the Town of Bath.<br><br>While MCCC agrees with the concept of a bypass around the Town of Bath and our historic Berkeley Springs for pass-through tractor trailer trucks, it is the opinion of residents and transportation and other experts (see attachments) that the design proposed by the WV DOH would fail to resolve the issue of safety from hazards due to unregulated interstate trucking through our area.<br><br>MCCC strongly feels that the design should be simplified to a two-lane truck bypass around the Town of Bath, incorporating a WV Inspection Station, and adequate crossroad overpasses to accommodate local safe traffic passage between town and eastern Morgan County. The primary commercial objective is to leave pass-through passenger vehicles on the original US 522.<br><br>The existing commercial viability of tourism, along with thriving local shops and restaurants in the Town of Bath, is attractive to these pass-through travelers, and encourages them to stop, shop, and return for a visit. Out-of-state income resulting from tourism is the lifeblood for our local business economy. Whereas the proposed bypass design and impending strip-mall development tends to pull money out of the local economy and into out of state chain store conglomerates.<br><br>The standard design for bypass highways to facilitate interstate transport and travel has resulted in development patterns that encourage conglomerate strip malls and increase traffic congestion.<br>This design pattern has proven to be not only disastrous for rural businesses and local economies, but also exceedingly ugly, monotonous, and depressing to the quality of life for people seeking comfort, simplicity, uniqueness, connectedness, natural beauty, and self-sufficiency of local communities. Working together, we can be creative and make this work for Morgan County.<br><br>Attachments:<br>- Morgan County Citizen's Coalition Response to the Final Environmental Impact Statement (FEIS) December 13, 2000<br>- The Neily Report |
| 371 | 5-21-18 | On behalf of the Morgan County EDA, let me express our appreciation to the WV DOH and your project team for hosting the US522 Public Workshop Meeting in Berkeley Springs. This project is essential to the economic development and quality of life for our County and has been pending for many years.<br>The MC EDA feels that modest modifications to the current design for the 522 Bypass can be made without causing undue delays or additional costs to accommodate the a6ove mentioned goals. A Chamber of Commerce Task Force has identified several improvements to the plan and we have met with them to discuss the concerns from local businesses.<br><br>MCEDA supports the suggestion for a redesign or modification to the bypass plan to allow north and southbound traffic to more easily stay on existing US522; and take steps to insure safety in the neighborhoods surrounding the bypass intersections especially in regard to the quality of local access roads. |

| No. | Date Received | View/Comment |
|---|---|---|
| | | Please feel free to contact me if you need additional information or if we ran help in any way. |
| 372 | 5-19-18 | We support the bypass. Concerning the Fairview Connector, prefer the Option 2. It looks like on the diagram that option would be the least disruptive to existing homes. In any case would hope that the WV Division of Highways would love the speed limit on Fairview Drive, also would install proper signing to alert drivers of the hospital and the possibility of encountering emergency vehicles. Dangerous situations now exist because there is no appropriate signing now. |
| 373 | 5-16-18 | We respectfully submit the following for consideration:<br>We live directly across from War Memorial Hospital and a possible design of the Fairview Connector Road is our worry. This design will have a major impact on our lives and we are asking for your consideration of the following:<br>1. We request that we be kept apprised of any changes/plans regarding the Fairview Connector and/or the Berkeley Springs Bypass. In the past various County/State agencies have not informed us of major changes that would occur until the week they occurred, i.e., the construction of the new hospital.<br>2. We request that you consider our safety as a major part of your process. We are directly caught in the hospital traffic and cross traffic using Fairview Drive as a major thoroughfare to their destination. Any time of the day, any day of the week you can observe almost all vehicles not obeying the speed limit. In standing at the end of our properties, we can be caught in a dangerous situation if we were not to move completely out of the way. We are unable to grass trim, get the mail, or drive out of our driveway without extreme caution because of the negligence of drivers and the fact that they seem nonchalant about the safety of this area even with a hospital located here. A connector road coming to Fairview Drive would make this neighborhood considerably dangerous.<br>Excluding local residents that live in this immediate area, drivers are careless and negligent in their driving and we regretfully feel that this situation could be a bad accident waiting to happen.<br>3. We ask that you consider making a connector road to the back of the hospital that would not affect any neighborhood. Why is it not possible for the hospital to use their 70 or 80 acres that they were supposed to use to build War Memorial Hospital? Instead they built a cost-efficient hospital too close to Fairview and placed a large entry sign and driveway within 10 to 14 yards of our driveways creating a neighborhood safety issue. We knew nothing of their plans until the day machinery showed up to start cutting hundreds of trees. A little consideration and yes, a higher cost, could have put the hospital many acres in on their land with a safe driveway for patients and everyone concerned.<br>4. We know you will have many letters to review and many complaints to consider. We know we will not be able to stop the progress of the bypass, nor would we want to do anything that would keep Berkeley Springs from moving into the future. What we are asking is for consideration of where the Fairview Connector Road will be placed, to<br>consider the impact on our neighborhood, and the safety of those driving and living here. |
| 374 | 6-20-18 (email) | As Superintendent of Morgan County Schools, I wanted to reach out to you in regards to the bypass proposed for Berkeley Springs. Our central office has heard from a few parents and community members who have safety concerns about the proposed route of the planned bypass. |

| No. | Date Received | View/Comment |
|---|---|---|
| | | So I write today to ask that our school buses, their routes, and their bus stops be considered when planning the bypass and its exits and access points. I don't know that the current proposal poses a threat to our students; I am just asking that our riders and drivers factor into the planning process.<br><br>Please let me know if you or your department require any additional information from Morgan County Schools. I can be reached at (304) 258-2430. Our transportation director is Tammy Painter. Her email is tpainter@k12.wv.us. Thank you for your consideration and understanding.<br><br>Erich |
| 375 | 6-12-18 (letter) | Dear Mr. Scites:<br>On behalf of the Town of Bath, let me express our appreciation to the WV DOH and your project team for moving the 522 Bypass project closer to a reality. This project, essential to the economic development and quality of life for our Town, has been under consideration for many years. We can't tell you how pleased we are to see the progress DOH and your team of engineers have made to make this actually happen.<br><br>We applaud the design your team has developed. The Town of Bath desires that as the result of the 522 Bypass, the economic viability of the Town's downtown business district along the current 522 be preserved. We further hope that the 522 Bypass will secure the safety and well-being of all residents of the neighborhoods, and travelers along the streets and byways intersected by the 522 Bypass.<br><br>The Town along with Morgan County Commission feel that modest modifications to the current design for the 522 Bypass can be made without causing undue delays or additional costs to accommodate the above-mentioned goals. We respectfully offer, for your consideration, the following suggested modifications to the current design:<br><br>1. Allow non-truck traffic heading north to proceed along the current 522 to downtown Berkeley Springs and beyond without being forced to exit on to the southernmost entrance to the 522 Bypass and thereafter having to return to 522 via the various turnoffs that the current design provides;<br>2. Allow non-truck traffic heading south to proceed along the current 522 to downtown Berkeley Springs and beyond without being forced to exit on to the northernmost entrance to the 522 Bypass and thereafter having to return to 522 via the various turnoffs that the current design provides;<br>3. Implement appropriate signage, traffic control, speed limits, weight restrictions for traffic exiting the 522 Bypass - along with maintenance of appropriate road width and quality near those exits - to ensure the safety of residents, drivers and pedestrians in the neighborhoods adjacent to Myers Road, Sugar Hollow Road, Johnson Mills Road, and other local roads or byways likely to experience added traffic as a result of the 522 Bypass. |

| No. | Date Received | View/Comment |
|---|---|---|
| | | While we have some specific proposals to offer on how these goals could better be achieved, we will wait to share our ideas with your team at an appropriate time and place of your choosing.<br><br>As always, we respect the engineering experience and expertise of your team. We also appreciate the unique opportunity Morgan County and the Town of Bath has to build the Bypass in the near future and wish to do nothing to jeopardize the project. However, we do feel that it's critical to consider reasonable modifications to the current design in order to realize the full potential the Bypass has to offer our County, as well as the rest of the state of West Virginia.<br><br>Many thanks for your consideration. |

# NOTICE

# OF

# INFORMATIONAL WORKSHOP PUBLIC MEETING

## STATE PROJECT U333-522-11.92 SEC 02
## FEDERAL PROJECT NFA-2317(005)D

## US 522 - BERKELEY SPRINGS BYPASS and FAIRVIEW CONNECTOR PROJECT
## MORGAN COUNTY

The West Virginia Division of Highways (WVDOH) will hold an informational public meeting on Thursday, April 19, 2018, in the cafeteria at Berkeley Springs High School, located at 149 Concord Ave., Berkeley Springs, Morgan County, West Virginia on the proposed US 522 Project. This project proposes to construct the Berkeley Springs Bypass and the Fairview Connector. The project begins at Winchester Road (County Route 13) to Sandmine Road (County Route 38/1), including a connector from US 522 to Fairview Drive (near War Memorial Hospital) for a distance of approximately 4 miles. This meeting complies with the public involvement requirements of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act.

**NO FORMAL PRESENTATION WILL BE MADE**. The scheduled public meeting is from 4:00 to 7:00 p.m. and the public will be afforded the opportunity to ask questions and give written comments on the project throughout the meeting. A handout with project details will be available at the meeting and on the WVDOH Website.

Those wishing to file written comments may send them to Mr. RJ Scites, P.E., Director, Engineering Division, West Virginia Division of Highways, 1334 Smith Street, Charleston, West Virginia 25301 on or before Monday, May 21, 2018. Visit the WVDOH Website at http://go.wv.gov/dotcomment for project information and the opportunity to comment on the project.

**The West Virginia Department of Transportation will, upon request, provide reasonable accommodations including auxiliary aids and services necessary to afford an individual with a disability an equal opportunity to participate in our services, programs and activities. Please contact us at (304) 558-3931. Persons with hearing or speech impairments can reach all state agencies by calling (800) 982-8772 (voice to TDD) or (800) 982-8771 (TDD to voice), toll free.**

**Open House Public Meeting**
**Thursday, April 19, 2018**
**4:00PM to 7:00PM**
**Berkeley Springs High School**
**149 Concord Avenue, Berkeley Springs, West Virginia**

# US 522—Berkeley Springs Bypass and Fairview Connector Project

**State Project U333-522-11.92 SEC 02, Federal Project NFA-2317(005)D**
**Morgan County, WV**

Join the West Virginia Division of Highways (WVDOH) on Thursday, April 19, 2018 at the Berkeley Springs High School in Berkeley Springs, WV for an open house on the proposed US 522 Project. Representatives from the WVDOH and Federal Highway Administration will be available between 4:00PM and 7:00PM to discuss the proposed project and answer questions. There will be no formal presentation, however project maps and other materials will be available for your review. This meeting complies with the public involvement requirements of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act.

## Project Summary

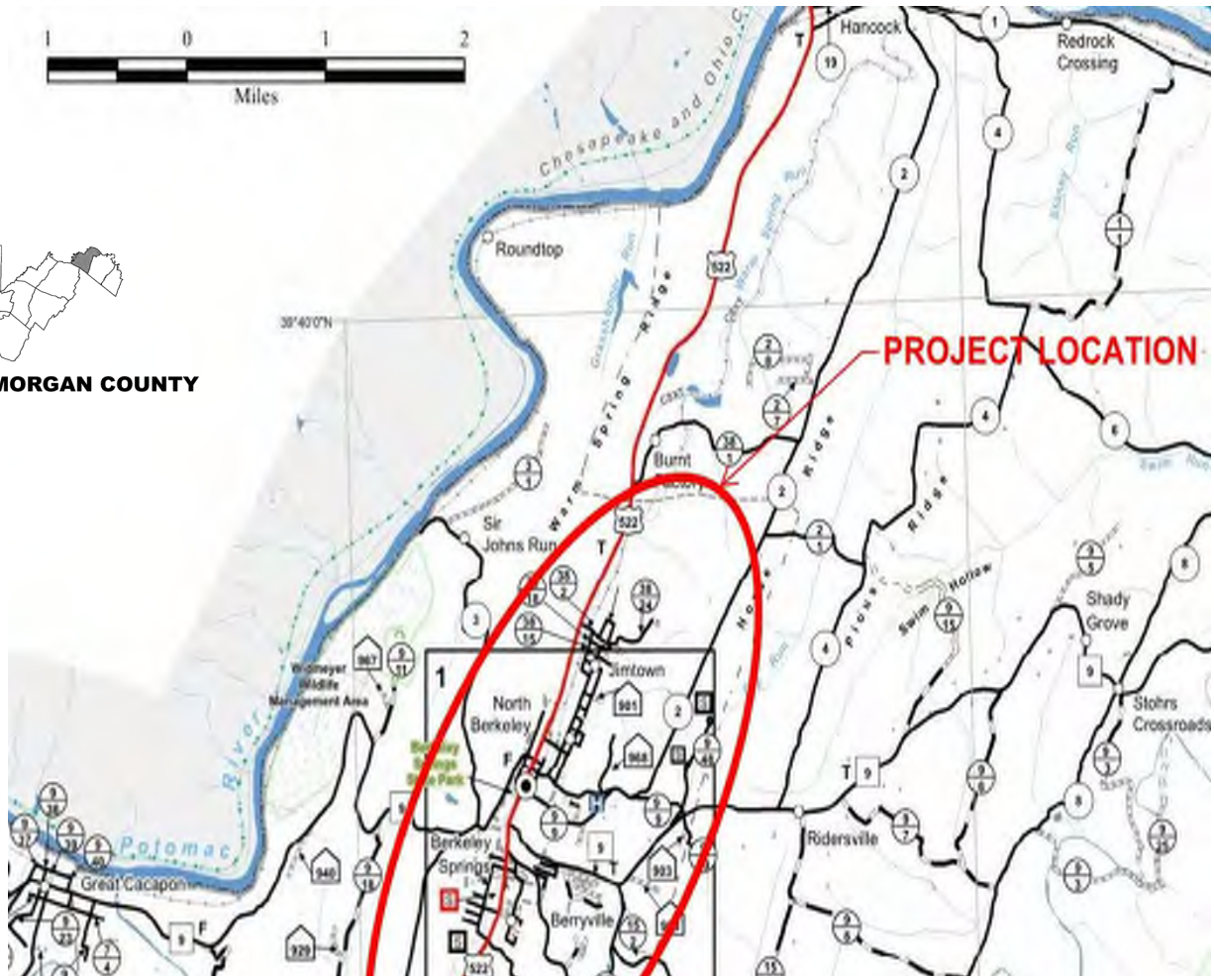
This project proposes to construct the Berkeley Springs Bypass and the Fairview Connector. The project begins at Winchester Road (County Route 13) to Sandmine Road (County Route 38/1), including a connector from US 522 to Fairview Drive (near War Memorial Hospital) for a distance of approximately 4 miles. The Berkeley Springs Bypass will be a four-lane, controlled access expressway with a grassed median and a design speed of 65 miles per hour.

This Berkeley Springs Bypass project is part of the US 522 project that was studied in the mid-1990s to early 2000s. That project consists of a four-lane roadway on a new alignment from the Virginia/ West Virginia state line to the Maryland state line for a distance of approximately 19 miles.

## Proposed Schedule

| | 2018 | 2019 | 2020 |
|---|---|---|---|
| Public Information Meeting | *April 19, 2018* | | |
| Comments Due | *May 21, 2018* | | |
| Right-of-Way Acquisition | | *2019* | |
| Construction | | | *2020* |

## Project Location




## To Comment on the Project

Comments can be submitted at the meeting or mailed to:

**Mr. RJ Scites, P.E.**
**Director, Engineering Division**
**West Virginia Division of Highways**
**1334 Smith Street**
**Charleston, West Virginia 25301**

Comments may also be submitted via our website at:

**http://go.wv.gov/dotcomment**

Click on the blue tab "Engineering Projects", then click "Open", then click on "US 522—Berkeley Springs Bypass and Fairview Connector"

## *Comments are due May 21, 2018*

*Upon request, WVDOH will provide reasonable accommodations including auxiliary aids and services necessary to afford an individual with a disability an equal opportunity to participate in our services, programs and activities. Please contact us at (304) 558-3931. Persons with hearing or speech impairments can reach all state agencies by calling (800) 982-8772 (voice to TDD) or (800) 982-8771 (TDD to voice), toll free.*

# US 522—Berkeley Springs Bypass and Fairview Connector

**State Project U333-522-11.92 SEC 02 | Federal Project NFA-2317(005)D**

**Morgan County, West Virginia**

## Public Meeting

## Thursday, April 19, 2018

## WELCOME!

Welcome to the public meeting for the US 522—Berkeley Springs Bypass and Fairview Connector. The West Virginia Division of Highways (WVDOH) is conducting this public informational workshop to present the proposed project improvements, answer your questions, and listen to your ideas or concerns. This public meeting initiates the NEPA Reevaluation of the 2000 Final EIS and 2001 Record of Decision. This meeting complies with the public involvement requirements of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act.

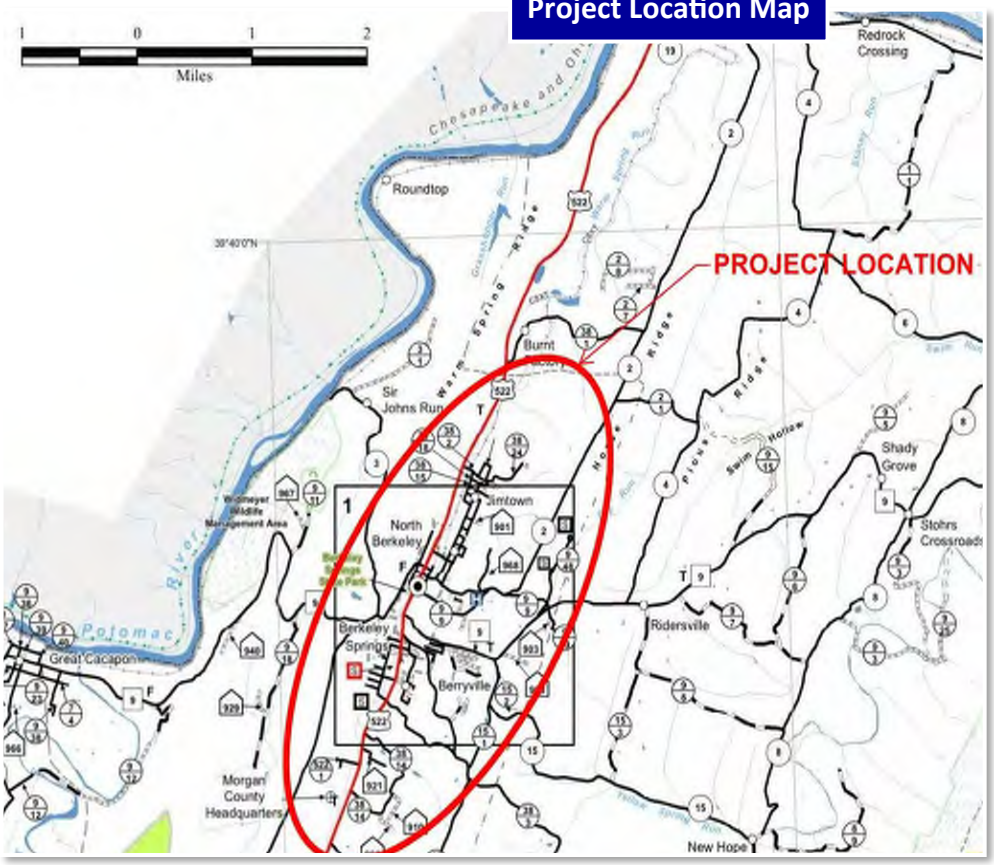
***The purpose of the proposed project is to improve and upgrade US 522 to restore capacity to an acceptable level of service to accommodate increased traffic and improve safety.***

## Project Description

This project proposes to construct the Berkeley Springs Bypass and the Fairview Connector. The project begins at Winchester Road (County Route 13) to Sandmine Road (County Route 38/1), including a connector from US 522 to Fairview Drive (near War Memorial Hospital) for a distance of approximately 4 miles. The Berkeley Springs Bypass will be a four-lane, controlled access expressway with a grassed median and a design speed of 65 miles per hour.

This Berkeley Springs Bypass project is part of the US 522 project that was studied in the mid-1990s to early 2000s. That project consists of a four-lane roadway on a new alignment from the Virginia/West Virginia state line to the Maryland state line for a distance of approximately 19 miles.

**Project Location Map**



## Proposed Schedule

| | 2018 | 2019 | 2020 |
|---|---|---|---|
| Public Information Meeting | *April 19, 2018* | | |
| Comments Due | *May 21, 2018* | | |
| NEPA Reevaluation Approved | | *Late 2018* | |
| Right-of-Way Acquisition | | *2019* | |
| Construction | | | *2020* |

Comments can be submitted at the meeting or mailed to:

**Mr. RJ Scites, P.E.**
**Director, Engineering Division**
**West Virginia Division of Highways**
**1334 Smith Street**
**Charleston, West Virginia 25301**

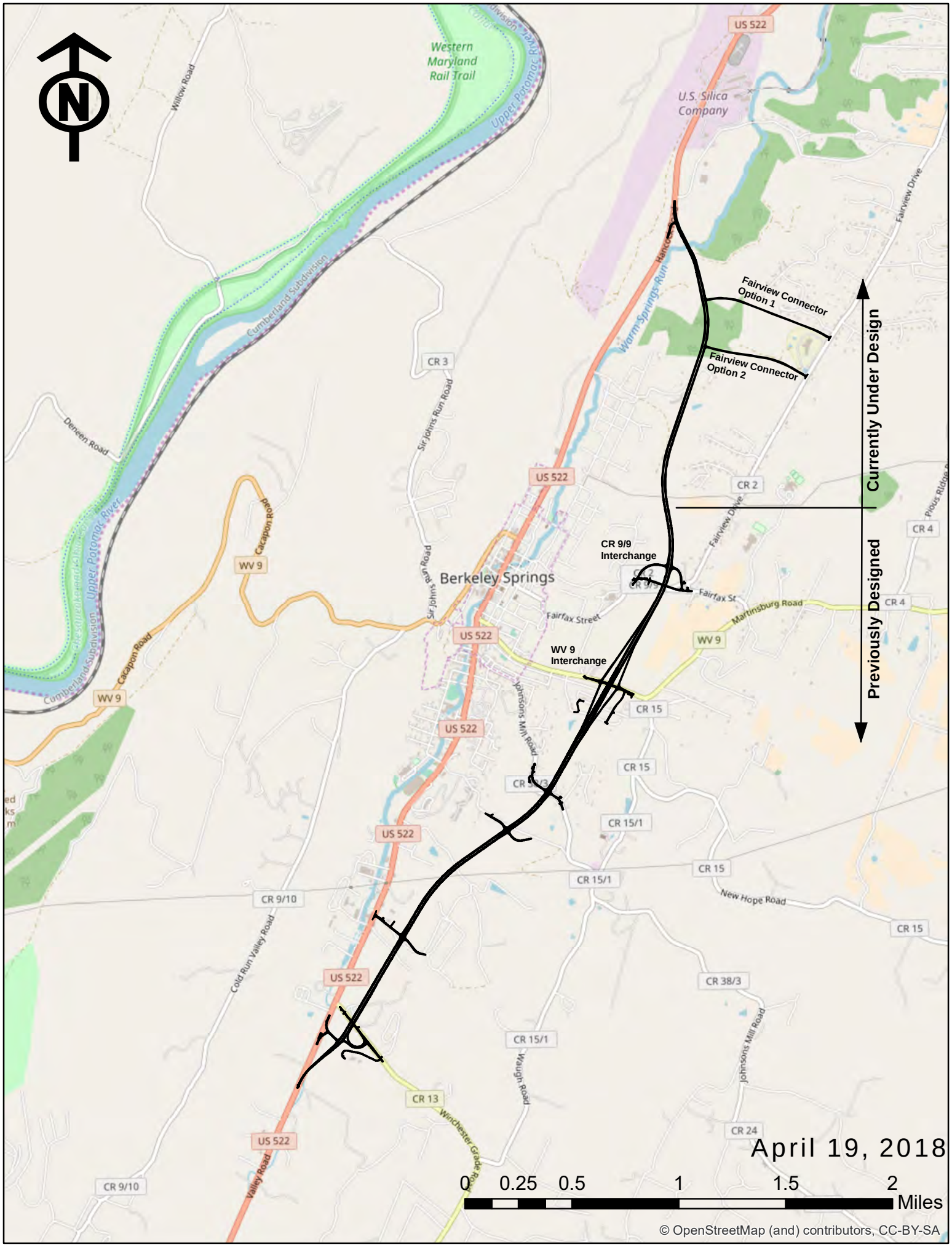
Comments may also be submitted via our website at:

**http://go.wv.gov/dotcomment**

Click on the blue tab "Engineering Projects", then click "Open", then click on "US 522—Berkeley Springs Bypass and Fairview Connector"

***Comments are due May 21, 2018***

***Thank you for attending our meeting! Your interest in the project is greatly appreciated.***


N
Western Maryland Rail Trail
Upper Potomac River
Cumberland Subdivision
Willow Road
Deneen Road
Cacapon Road
WV 9
US 522
CR 3
Sir Johns Run Road
Berkeley Springs
Fairfax Street
Warm Springs Run
U.S. Silica Company
Fairview Drive
Fairview Connector Option 1
Fairview Connector Option 2
CR 2
CR 4
CR 9/9 Interchange
Fairfax St
Martinsburg Road
WV 9 Interchange
Johnsons Mill Road
CR 15
CR 15/1
New Hope Road
CR 9/10
Cold Run Valley Road
CR 38/3
Waugh Road
CR 13
Winchester Grade Road
CR 24
Valley Road
Currently Under Design
Previously Designed
April 19, 2018
0 0.25 0.5 1 1.5 2
Miles
© OpenStreetMap (and) contributors, CC-BY-SA

WVDOT-DOH Morgan County Headquarters
Best Western
Food Lion
Rankin Fitness
Skeeter's
Blue Flame
DQ
Clarks
Gemini Centre
Foxs Pizza
CNB
McDonalds
Rite Aid
522
Appraisal Services
Antiques
Rocs
Valley Car Wash
13
38
14
Calvary Bible Church
Eastridge Health Systems
Angus & Ale
Sugar Hollow Road
Winchester Grade Road
Matchline Sheet 2

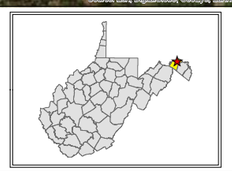
**Legend**

- State Police

# US 522 Relocation and Improvement

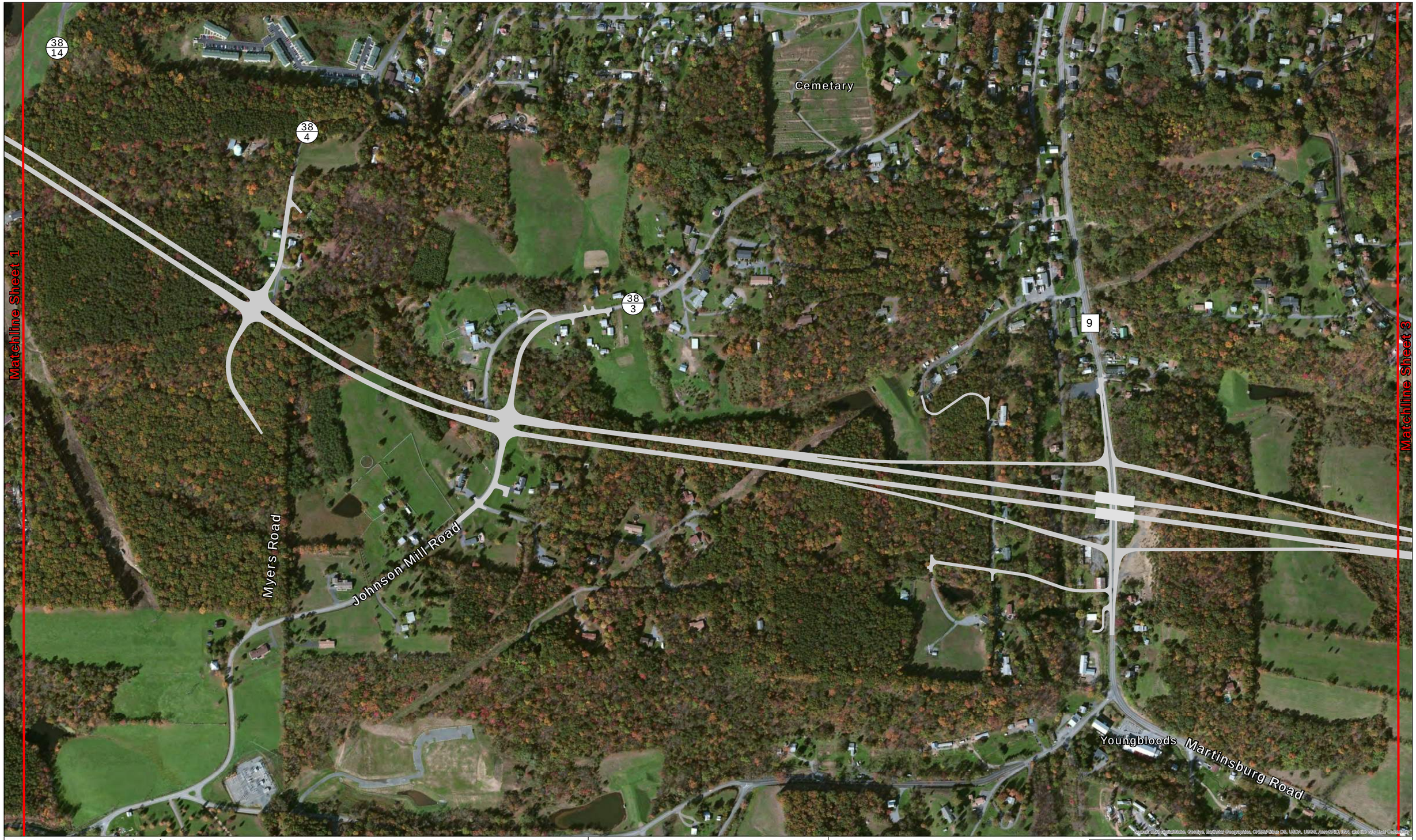
Notes:

0 200 400 600 800 Feet



US 522
Morgan County WV
**Sheet 1**

April 19, 2018




**Legend**

# US 522 Relocation and Improvement

Notes:

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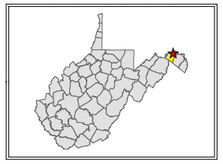

US 522
Morgan County WV
**Sheet 2**

April 19, 2018

Morgan County School Board Office

Berkeley Club Beverages

Harrison Avenue

Berkeley Springs

N. Laurel Avenue

Previously Designed

Currently Under Design

N. Berkeley Street

Sherrill Lane

Matchline Sheet 2

Matchline Sheet 4

2

Davis Road

Morgan Lane

9
9

Fairfax Street

38
2

Martinsburg Road

Maggies Lane

2

Fairview Drive

Woodside Lane

Sunset Drive

9
9

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

**Legend**

N

# US 522 Relocation and Improvement

Notes:

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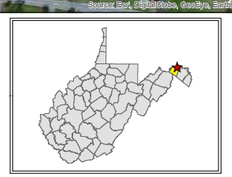

US 522
Morgan County WV
**Sheet 3**

April 19, 2018

Legend

N

**US 522 Relocation and Improvement**

Notes:

0 200 400 600 800 Feet

US 522
Morgan County WV
**Sheet 4**

April 19, 2018

# US 522 – Berkeley Springs Bypass and Fairview Connector | Comment Sheet

Mr. RJ Scites, P.E.
Director, Engineering Division
West Virginia Division of Highways
1334 Smith Street
Charleston, West Virginia 25301

Date: _____

**Date:** **Thursday, April 19, 2018**
**Location:** **Berkeley Springs High School**
**Subject:** **INFORMATIONAL WORKSHOP PUBLIC MEETING**
**Project:** **US 522—Berkeley Springs Bypass and Fairview Connector**
**State Project No. U333-522-11.92 SEC 02**
**Federal Project No. NFA-2317(005)D**

**Comments Due By:** **Monday, May 21, 2018**

Please consider the following comments:

_____

_____

_____

_____

_____

_____

_____

_____

_____

(Please print the following information):

Name:

Address:

Email:

Organization (If Any):

How did you hear about the Informational Workshop Public Meeting?

Project Information and Comment Sheets can be found online at the WVDOH website http://go.wv.gov/dotcomment. Click on the blue tab "Engineering Projects", then click "Open", then click on "US 522—Berkeley Springs Bypass and Fairview Connector".

Completed comment forms may be handed to a WVDOH official tonight, submitted via the WVDOH website, or mailed to the address above.

BREAKING NEWS Bypass public meeting is this Thursday, April 19 (https://www.morganmessenger.com/2018/04/18/bypass-public-meeting-is-this-thursday-april-19/)

Contact Us (https://www.morganmessenger.com/contact-us/) E-Edition (https://1947.newstogo.us/editionviewer/default.aspx?Publication=edd3889a-e6f1-4d72-ba8b-643db946d82c)

Subscribe (https://1947.newstogo.us/editionviewer/default.aspx?Publication=edd3889a-e6f1-4d72-ba8b-643db946d82c&view=subscribe)

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(https://www.facebook.com/Morgan-Messenger-322886411314384/) (mailto:editor@morganmessenger.com)

The Morgan Messenger

Founded in 1893 by S.S. Buzzerd

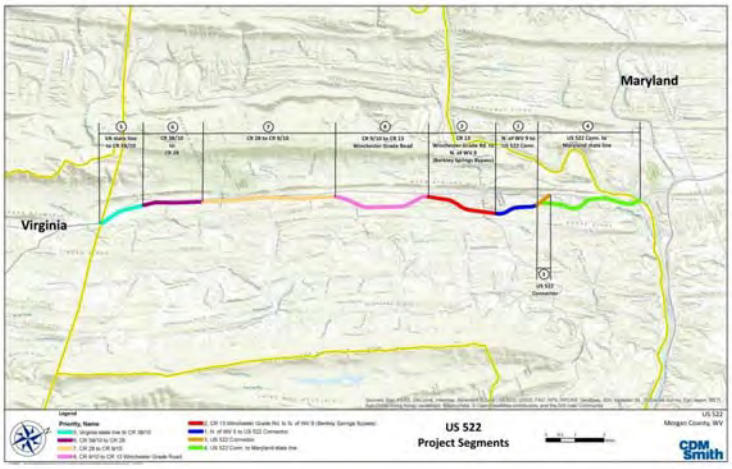
(https://www.morganmessenger.com)

Search

59° Berkeley Springs
LIGHT RAIN
(http://www.wunderground.com/q/25411)

# State sets public meeting on 522 bypass project

By Editor (https://www.morganmessenger.com/author/editor/) | March 27, 2018 | 23 (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/#comments)




WV DOH map of bypass project

us522segments_fig_11x17 (https://www.morganmessenger.com/wp-content/uploads/2018/03/us522segments_fig_11x17.pdf)

UPDATED April 3 with DOH Bypass project map

by KATE SHUNNEY

The West Virginia Division of Highways (DOH) has set a public meeting on April 19 to gather comments and offer project details about a proposed U.S. 522 bypass around Berkeley Springs and a connector road from U.S. 522 to Fairview Drive toward War Memorial Hospital.

A legal notice about the meeting will be published in the next two editions of The Morgan Messenger.

The bypass project was one of 15 Morgan County projects that highway officials said are planned and county be funded through a special Road Bond, which voters approved during an October 2017 special election.

According to the DOH, the bypass project would involve reconstructing U.S. 522 as a four-lane highway around Berkeley Springs at a cost of roughly $40 million. The long-planned and debated bypass would begin at Winchester Grade Road and end at Sandmine Road, according to the DOH meeting announcement.

Construction of a two-lane connector road between U.S. 522 and Fairview Drive in the area of War Memorial Hospital is expected to cost $6 million. That roadway was been on the drawing board for more than a decade.

DOH officials will hold an information meeting on Thursday, April 19 at Berkeley Springs High School from 4 p.m. to 7 p.m. No formal presentations by highways officials will be made, but information packets will be available to attendees. The public will have a chance to ask questions and give written comments on the project.

Information about the project will also be posted on the West Virginia DOH website, and comments can be submitted through that website and by mail through Monday, May 21. At press time, project information was not posted on the state website.

(/#facebook) (/#twitter) (/#google_plus)

(https://www.addtoany.com/share#url=https%3A%2F%2Fwww.morganmesse
sets-public-meeting-on-522-bypass-
project%2F&title=State%20sets%20public%20meeting%20on%20522%20by

*Posted in News (https://www.morganmessenger.com/category/news/)*

## 23 Comments

**David Willis** on March 27, 2018 at 1:29 pm

If completed this will have a great positive effect on downtown. It might actually be pleasant to eat at a sidewalk table in front ot Teri's.

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=8#respond)

**Carol Miller** on March 27, 2018 at 2:05 pm

If approved this will kill the downtown. Nobody will drive through to see the park, the hotel, the restaurants, the stores. They will take the bypass to avoid traffic signals. I have seen this happen to many small towns. If you don't like the trucks simply put a weigh station north and south of town. Strictly enforce the laws regarding them. Fewer will want to deal with the hassle and you will still get the tourist trade. THINK about more than yourselves, think about what will happen to this town. Personally, I would be happier if they spent this kind of money on our schools.

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=9#respond)

**George** on March 27, 2018 at 2:19 pm

What is it with people and big trucks. If trucks stop America stops. US highway 522 is a US highway they are allowed to drive on it.

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=11#respond)

**George** on March 27, 2018 at 2:17 pm

If this does happen everybody that is going around town is not going to stop in town so therefore the businesses are going to suffer. Proof???? Look at Hancock after that bypass was built they took a hit.

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=10#respond)

**Mike** on March 28, 2018 at 5:01 am

Hancock as a town was basically people gathered around an intersection. Not a tourist destination. Berkeley Springs would be better compared to Summersville. How did that bypass impact the county?

As as a community we say how we would love to have a downtown like Winchester. Yet we put up a fight when people talk about doing things that could bring that style of downtown to Berkeley Springs.

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=15#respond)

**Marc** on March 30, 2018 at 12:59 pm

residents of Hancock would dispute that it isn't a tourist town — they have many popular attractions….

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=24#respond)

**Lisa** on March 27, 2018 at 3:05 pm

Bring it on! To the people saying that it will kill downtown, hogwash! This town is well known and if people want to come they will! Every trip I take out of town when people ask where I'm from, I say BS and they know it instantly. I for one do not like sitting in traffic every single time I need to get somewhere. The weekends in the summer are the worst. It takes 40 minutes sometimes to get through those lights starting at Food Lion. When you walk along the sidewalks all you hear and see are vehicles and yes big trucks, you can't hear yourself think let alone talk to whoever you're walking with. This is a positive thing and much needed. The big trucks destroy any paving job that gets done in town. Starting at The Warm Springs diner, look at how bad the road is at the old Sheetz. They pave the big trucks drive over and it is ruined within days, it actually looks like the road has melted.

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=12#respond)

**Lisa** on March 27, 2018 at 3:13 pm

And I also think alot of people don't stop because of all the traffic. I've watched people try to get out of their vehicle and couldn't even open the door because of all the cars going by. The congestion at each and every light makes it hard to look for parking.. I hope this passes, I will be the first to sit outside and celebrate with a nice meal from Tari's.

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=13#respond)

**Doris Fleece** on March 27, 2018 at 5:17 pm

You people and trucks make me very upset !! Have you ever been in a funeral procession and looked that who pulls over and stops till it passes, not many cars,but all trucks ! They don"t do 522 because they are over weight, or driving junk, it is to save time and get home to their family !! All of them go through a very rigid inspection to be on the roads ! also the road taxes they have to pay every state they drive through !! I am a little bias, my husband drove a truck for 41 years, no speeding tickets and no wrecks !!

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=14#respond)

**Louie Somers** on April 3, 2018 at 6:08 pm

They whole overweight thing cracks me up. There's no scales for them to dodge on that stretch of 81 and 70!

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=32#respond)

**Jan Didawick** on March 28, 2018 at 5:11 am

People complain about the trucks all of the time….now they complain about the possibility of finally seeing the bypass come to be. So funny.

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=16#respond)

**brenda dill** on March 28, 2018 at 7:56 am

I hope we get the by pass, I know personally I avoid going down town because of the congestion and believe less truck traffic would mean more visitor traffic.

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=17#respond)

**Marc** on March 29, 2018 at 3:06 pm

what kind of bypass is border-to-border????

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=18#respond)

**Marc** on March 29, 2018 at 3:11 pm

a real solution would be a regional approach. a bridge to connect I-70 in MD near Clear Spring, with a Rt. 9 extension improvement north of Hedgesville, would drastically cut drive time and distance between Hancock and Winchester.

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=19#respond)

**alan** on April 3, 2018 at 10:14 am

spot on

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=29#respond)

**Marc** on March 29, 2018 at 3:18 pm

they would have to completely redo the EIS from scratch, which was so full of holes the first time around…

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=20#respond)

**Marc** on March 29, 2018 at 3:53 pm

this project was previously projected to cost nearly a quarter billion dollars in the '90s. would cost much more now..

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=21#respond)

**Tracy Greiner** on March 30, 2018 at 5:39 am

We bought a mile outside of the Town of Bath 5 years ago as a weekend place and eventually retire to. I could see it if the rest of 522 was being widened from VA state line to 70 in MD. Look at the businesses and restaurants that have closed in the last 5 years. When I tell people that we go up to BS, yes people know of it but most have never been. We have watched the Studio Tour diminish as there is no draw for new artists. The Town of Bath is NOT pedestrian friendly. Tourist projects started and never finished (Train Depot). There is nothing in place to regulate speeding trucks in either direction coming into town. I have been out at 6:00 AM and watched them blow through town at 45 mph or higher with the only thing that slows them down is if the traffic lights are red. Then there is human nature – how many big rigs have ended up on bridges through out the county that they end up damaging because they are looking for the fastest/shortest route. The bypass will not eliminate big rigs from going through town.

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=23#respond)

**john (http://the%20morgan%20messenger)** on March 30, 2018 at 8:46 pm

Well it will be a good thing for the town,as you will see the arts district and restaurant/entertainment industry grow,as people will be able to come visit without all the traffic clogging up the town,myself I am really sorry but I did buy around here 3yrs ago,knowing there was a good chance this could happen,so it will take a small part of my property,but a large piece of my quality of life as the highway will be right on top of me,so I am glad that I dragged my feet about opening up a business here or nearby as I had been looking at some things,because I will not be comfortable next to 4 lanes of traffic,,so time to move on, ",GO WEST YOUNG MAN" ,more than likely you will start to see some of the run down homes and properties improve and values go up as this is becoming a retirement area for more and more people. So deeper into the country I will search !!

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=27#respond)

**Louie Somers** on April 3, 2018 at 6:11 pm

Build it! Yesterday!

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=33#respond)

**Vonda Clipp** on April 4, 2018 at 8:06 am

I would like to know where they are planning to bring the bypass on Fairview Dr. I live there, and they are saying it my place is where they will be bringing the bypass… anyone know the plan?

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=34#respond)

**Frank Rainieri** on April 7, 2018 at 7:37 pm

Infrastructure is progress

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=38#respond)

**Marc** on April 8, 2018 at 2:47 pm

see how the DOH is using subterfuge against us and our local paper?

Reply (https://www.morganmessenger.com/2018/03/27/state-sets-public-meeting-on-522-bypass-project/?replytocom=39#respond)

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# Bypass public meeting is this Thursday, April 19

By Editor (https://www.morganmessenger.com/author/editor/) | April 18, 2018 | 1 (https://www.morganmessenger.com/2018/04/18/bypass-public-meeting-is-this-thursday-april-19/#comments)

An open house public meeting on the proposed U.S. 522 Berkeley Springs Bypass and Fairview Connector Project will be discussed by the West Virginia Division of Highways (DOH) this Thursday, April 19 at Berkeley Springs High School.

Representatives from the DOH and the Federal Highway Administration will be available between 4-7 p.m. to discuss the project and answer questions.

There will be no formal presentation, but project maps and other materials will be available.

The project proposes to construct the bypass and the Fairview connector. The project is to begin at Winchester Grade Road to Sandmine Road including a connector from U.S. 522 to Fairview Drive (near War Memorial Hospital) for a distance of about four miles.

The bypass will be a four-lane, controlled access expressway with a grassed median and a design speed of 65 mph, according to the West Virginia Department of Transportation (WVDOT) website.

Information about the project is posted on the West Virginia DOH website, and comments can be submitted through that website (http://go.wv.gov/dotcomment) and by mail through Monday, May 21.

Link to PDF map of US522 (https://www.morganmessenger.com/wp-content/uploads/2018/04/US522.pdf) bypass project

DOH map of 522 bypass project

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## 1 Comment

**Melissa** on April 22, 2018 at 9:05 pm

Bypass needs to go in! Its needed severely as people drive in the worse possible condition here. Too many tractor trailer on this road.

Reply (https://www.morganmessenger.com/2018/04/18/bypass-public-meeting-is-this-thursday-april-19/?replytocom=46#respond)

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# Impacts on homes, businesses top 522 bypass questions

By Editor (https://www.morganmessenger.com/author/editor/) | April 25, 2018 | 0 (https://www.morganmessenger.com/2018/04/25/impacts-on-homes-businesses-top-522-bypass-questions/#respond)

by KATE EVANS

A number of residents and business owners at last Thursday's public meeting about the U.S. Route 522 bypass project voiced concerns about the project's impact on businesses, home and property owners and the town's environment.

Many who spoke with *The Morgan Messenger* opposed the current bypass design and several opposed the project. One couple noted that everyone would be sitting on their front porches listening to the roar of trucks and vehicles gunning down the high-speed four-lane bypass.

Several people said they were in favor of the bypass.

**A nightmare**

Star Theater owner Jeanne Mozier said the worst thing she'd heard about the bypass plans was that U.S. 522 South would be cut off at Winchester Grade Road and traffic would be forced there to get on the bypass, using various exits to come into town.

"It's a nightmare. Did they talk to anyone?" Mozier asked.

Mozier said that people's GPS directions will put them on the bypass and they'll have to make a serious conscious decision to get off the bypass and come into town. She wanted to change the whole bypass design.

Mozier was told the southern design was already approved but can be changed depending on public input. Traffic coming from Hancock on the north end of U.S. 522 would also be forced onto the bypass by U.S. Silica with a similar preliminary design.

Country Inn owner Matt Omps had major concerns about local businesses being impacted by the bypass. He thought the southern part of the bypass should be redesigned so that people aren't forced to get on the bypass.

"It's a stupid move," said David Miller of forcing traffic onto the bypass on the southern and northern ends. He also had concerns for local businesses.

**Business loss**

Business owner Barb Wolfe said that at least a third of her business at her gift shop on U.S. 522 in the middle of town is drive-through traffic that stops for lunch.

“I don’t know any businesses that can afford to lose a quarter to a third of their business,” she said.

Wolfe said state engineers couldn’t say the expected start date for the bypass, the time length for the project’s completion and what properties would be impacted. She was told the bypass would increase businesses coming here but wondered where they’ll get their water. Wolfe said she didn’t believe the county or town is prepared for what’s coming with infrastructure.

Alisa Stine said her Martinsburg Road financial services business is right in the path of the bypass and officials hadn’t even knocked on her door yet. She just upgraded her business location.

Stine was concerned about the bypass going from two to four lanes and said local roads needed to be widened and repaired to accommodate it. She wanted to know if local highway resources would go toward clearing and repairing the bypass, making care of other roads worse.

Abby Porter said the current bypass design would impact businesses and will eliminate shoppers that have driven through the town for 10 years that finally decided to stop. She was concerned about the increased noise and pollution from bypass traffic fumes. Porter also felt going from a four-lane to a two-lane bypass for the northern end doesn’t make sense without a solution like a new Hancock Bridge.

**For the bypass**

RAG Shop owner Trish Shunney said she is in favor of the bypass just to get the traffic out of town. She sees 20 vehicles pass before customers can pull out in front of her shop or walk across the street. People come here expecting Berkeley Springs to be a quaint, quiet little town. Her shop windows rattle from the trucks’ brakes.

Real estate agent and homeowner Victoria Luttrell said she had no concerns and felt the bypass is needed. The town has got to do something and the bypass “will affect everyone in different ways.”

State highways worker Brian McClintock said he thinks the bypass is a good thing and felt sure it would bring more state highways jobs and equipment to the area to help maintain it.

**Will have to move**

Resident Bob Meinhardt said the proposed bypass is coming through the middle of the three-acre property where he and his wife and also his wife’s niece live in two separate homes on Sherill Lane in North Berkeley. The property is owned by their niece, who has serious health issues, as does Meinhardt, who is 82 years old.

They came to the meeting to find out the construction time frame because they may have to move—a concern with their health issues. They live very close to War Memorial Hospital.

Meinhardt noted the serious terrain drop-off around their property on the map and said that they’ll have “a nasty bunch of fill” to bring in for the bypass there.

Nancy Dickey said her Johnson Mill property won’t be affected but one of her neighbors will have to move. There’s so much noise in town from traffic but she’s not convinced the bypass is the solution.

**Access concerns**

Eric LaRue lives on Sugar Hollow Road and said the current bypass design would block access for him and his neighbors by forcing them to come out the other end of the road. Sugar Hollow Road has sharp turns. He thought that construction equipment could never make the turns if they needed backhoes or driveway paved. LaRue wondered how a school bus could navigate it.

**Other suggestions**

Linda McGraw said she’d like the bypass to be a toll road like it is on the Outer Banks of Virginia and North Carolina. At the last exit there before the toll roads begin all the cars get off and come to town and the trucks continue on the toll road because they all have electronic toll passes, she said.

Carol Miller and her husband Eric Miller wanted officials to first try low impact solutions to the tractor-trailer traffic through Berkeley Springs like truck weigh stations at the north and south ends of town, speed bumps and enforced speed limits before a bypass is constructed. These measures have been successfully used in different historic towns in Virginia from Winchester City all the way to Dulles, Eric Miller said.

Where they lived in Delaware, I-95 ended in their back yard and was basically a parking lot with bumper-to-bumper traffic from the increased vehicles it attracted, he said. A one-hour commute turned into two hours, said Carol Miller.

“We moved here to get away from all that,” she emphasized.

**Their worries**

The Millers expressed bypass concerns about increased traffic from I-81 and I-70 and more traffic accidents and local fatalities from the higher speeds and truckers falling asleep at the wheel. They worried about increased drug traffic and illegal activity and potential gang activity, which is a big problem in Winchester where Eric Miller teaches.

Friends and neighbors will lose their homes and the project will destroy people’s livelihoods, Eric Miller said. The Millers, who are veterans, have lived in lots of places with bypasses and said it kills the towns and increases traffic long-term.

They noted that the $64 million that will be spent on the bypass could help West Virginia with other things like the opioid crisis, public schools and veterans.

**Put comments in writing**

Missy Shumaker, State Division of Highways Right-of- Way engineer, said that public meeting concerns were mostly about diverting traffic away from town and individual concerns about how the project will affect people’s homes, yards and roads.

Comments Shumaker heard were about 50% for and 50% against the project. She encouraged people to submit their comments about the project’s designs in writing by mail or online as soon as possible while the project’s scope can still be changed.

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# 522 bypass design outlined at public meeting

By Editor (https://www.morganmessenger.com/author/editor/) | April 25, 2018 | 0
(https://www.morganmessenger.com/2018/04/25/522-bypass-design-outlined-at-public-meeting/#respond)

by TRISH RUDDER

About 220 people who wanted to learn more about the proposed U.S. 522 Berkeley Springs Bypass and the Fairview Connector road to War Memorial Hospital attended the state highway department's open house public meeting last Thursday, April 19.

In the Berkeley Springs High School cafeteria, maps of the proposed bypass from Winchester Grade Road to Sand Mine Road were set up on easels for the public to view. No formal presentation was made by the West Virginia Department of Transportation's Division of Highways personnel, but project managers from the DOH engineering division were on hand to answer questions.

**Timeline**

Construction of the bypass is set for 2020, according to the DOH proposed schedule, but the project has to be reevaluated to meet environment impact standards by late 2018, according to the DOH schedule.

It is estimated to take about two years to construct the bypass.

Krista Goodin, a project manager in environmental planning, said the proposed bypass met the National Environmental Policy Act (NEPA) standards in 2001, but the impact study has expired and must be reapproved.

Goodin said they will be rechecking the environmental impact of the bypass, including the human impact regarding location, noise, air quality and traffic.

The majority of local people who will be affected by the bypass construction reside on the east side of Berkeley Springs.

The right-of-way acquisitions are scheduled to be met in 2019 so construction can begin in 2020, according to the

proposed schedule.

All the rights-of-way properties have not yet been acquired. The environmental impact assessment has to be updated and will be by the end of 2018 or early 2019, “so we can go forward in 2020,” said DOH project engineer Dirar Ahmad.

Lee Thorne, the DOH District 5 Engineer, said the only rights-of-way properties in place for bypass construction were purchased from landowners who wanted to sell and approached them.

District 5 Realty/Right-of-Way agent Missy Shumaker added that a number of parcels have been acquired through advance acquisition and the remainder of the property owners will be contacted.

DOH Right-of-Way Manager Todd Wilson said on Monday that about 25 parcels were acquired through advance acquisition, and the total number needed to build the bypass are 150 parcels.

The Berkeley Springs Bypass and the Fairview Connector are estimated to cost $64 million, said Delegate Daryl Cowles, who represents the 58th District in Morgan County. Cowles is also the executive director of the county’s Economic Development Authority.

He said the $1.6 billion bond amendment to the state constitution was approved by West Virginia voters in October 2017 and the Berkeley Springs Bypass construction — “realignment to 522,” he said — is one of the projects to be funded through the bond.

**Points of entry/exit**

The proposed bypass has six entrance/exit points.

“Six intersections are needed for easy access for everyone along the route,” Ahmad said.

The big exchanges are on Winchester Grade Road, and on Route 9 (Martinsburg Road), said DOH project manager, Feras Tolaymat. They will both have an overpass, Ahmad said.

After Winchester Grade Road, the next roads going north that intersect with the bypass are Sugar Hollow Road, Myers Road, Johnsons Mill Road, Route 9 (Martinsburg Road), and Fairfax Street.

The Fairview Connector road between U.S. 522 and War Memorial Hospital is still being designed, according to the bypass map.

Construction for the U.S. 522 bypass will begin about a half a mile south of Winchester Grade Road, according to DOH maps.

“It will be incredibly easy to use this bypass,” Cowles said.

For instance, drivers going north from Cacapon State Park on U.S. 522 will need to enter the bypass before Winchester Grade Road. They could exit at Winchester Grade Road to get back to U.S. 522 North right away. Drivers going to Berkeley Springs State Park or the courthouse could exit the bypass with a left turn at Sugar Hollow Road to get back to U.S. 522 or use any of the exits off the bypass to get on back on U.S. 522 to get to downtown Berkeley Springs.

According to the current design, drivers going south on U.S. 522 from Hancock must enter the bypass and can exit back to U.S. 522 South at any of the exits beginning at Fairfax Street.

Drivers cannot travel from Hancock to Winchester without being on the bypass briefly, Cowles said.

Cowles said the engineers are reluctant to build a “Y” at the north and south points of entry and exit. The reason is because of the danger of high-speed traffic merging from four lanes to two lanes.

DOH project manager Chris Francis said the four-lane proposed bypass will have four 12-foot-wide lanes with a 40-foot-wide median strip, plus inside shoulders four feet wide and outside shoulders 10 feet wide.

Some of the people Francis spoke to at the meeting said they want the bypass to rid the truck traffic, but others said they don’t want the bypass because it will kill downtown businesses. He encouraged people to send in their comments to the DOH.

One person at the Thursday meeting who did not want to be named said that people in Lewisburg, W.Va. fought the bypass at first, and after it was built, the town prospered. She said she had a relative who lived there and she visited her often.

“It’s a great town, and it did not suffer after the bypass was built. I think the people there were kicking and screaming about it just like the people here,” she said.

Bill Clark, executive director of the Eastern Panhandle Regional Planning and Development Council (Region 9), said people need to send in their comments and weigh in on the proposed bypass. He said people should talk to each other about it and get a better understanding of the bypass.

Clark said one of his concerns was the road from Virginia feeds straight into the bypass road instead of feeding straight onto U.S. 522.

“We want to encourage people to get into town,” instead of bypassing it, Clark said.

**Public comments needed**

The project managers also stressed the importance for the public to submit comments in writing, which are due by May 21 to Mr. RJ Scites, P.E. Director, Engineering Division, WVDOH, 1334 Smith St., Charleston, WV 25301. Comments can also be submitted at its website of http://go.wv.gov/dotcomment (http://go.wv.gov/dotcomment). Click on the blue tab “Engineering Projects,” then click “Open,” then click on “US 522 – Berkeley Springs Bypass and Fairview Connector.”

No commitment was given by the project managers to schedule a second public meeting on the highway project.

# APPENDIX C

# NRCS AD FORM 1006

U.S. Department of Agriculture

# FARMLAND CONVERSION IMPACT RATING

| | | | |
|---|---|---|---|
| **PART I** *(To be completed by Federal Agency)* | Date Of Land Evaluation Request | | |
| Name of Project | Federal Agency Involved | | |
| Proposed Land Use | County and State | | |
| **PART II** *(To be completed by NRCS)* | Date Request Received By NRCS | Person Completing Form: | |
| Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)* | YES ☐ NO ☐ | Acres Irrigated | Average Farm Size |
| Major Crop(s) | Farmable Land In Govt. Jurisdiction Acres: % | Amount of Farmland As Defined in FPPA Acres: % | |
| Name of Land Evaluation System Used | Name of State or Local Site Assessment System | Date Land Evaluation Returned by NRCS | |

| **PART III** *(To be completed by Federal Agency)* | Alternative Site Rating | | | |
|---|---|---|---|---|
| | Site A | Site B | Site C | Site D |
| A. Total Acres To Be Converted Directly | | | | |
| B. Total Acres To Be Converted Indirectly | | | | |
| C. Total Acres In Site | | | | |
| **PART IV** *(To be completed by NRCS)* Land Evaluation Information | | | | |
| A. Total Acres Prime And Unique Farmland | | | | |
| B. Total Acres Statewide Important or Local Important Farmland | | | | |
| C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted | | | | |
| D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value | | | | |
| **PART V** (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points) | | | | |

| **PART VI** *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)* | **Maximum Points** | Site A | Site B | Site C | Site D |
|---|---|---|---|---|---|
| 1. Area In Non-urban Use | (15) | | | | |
| 2. Perimeter In Non-urban Use | (10) | | | | |
| 3. Percent Of Site Being Farmed | (20) | | | | |
| 4. Protection Provided By State and Local Government | (20) | | | | |
| 5. Distance From Urban Built-up Area | (15) | | | | |
| 6. Distance To Urban Support Services | (15) | | | | |
| 7. Size Of Present Farm Unit Compared To Average | (10) | | | | |
| 8. Creation Of Non-farmable Farmland | (10) | | | | |
| 9. Availability Of Farm Support Services | (5) | | | | |
| 10. On-Farm Investments | (20) | | | | |
| 11. Effects Of Conversion On Farm Support Services | (10) | | | | |
| 12. Compatibility With Existing Agricultural Use | (10) | | | | |
| TOTAL SITE ASSESSMENT POINTS | 160 | | | | |
| **PART VII** ***(To be completed by Federal Agency)*** | | | | | |
| Relative Value Of Farmland *(From Part V)* | 100 | | | | |
| Total Site Assessment *(From Part VI above or local site assessment)* | 160 | | | | |
| **TOTAL POINTS *(Total of above 2 lines)*** | 260 | | | | |

| | | |
|---|---|---|
| Site Selected: | Date Of Selection | Was A Local Site Assessment Used? YES ☐ NO ☐ |

Reason For Selection:

| | |
|---|---|
| Name of Federal agency representative completing this form: | Date: |

***(See Instructions on reverse side)*** **Form AD-1006 (03-02)**

## STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map**,** or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

## INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

*(For Federal Agency)*

**Part I**: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

**Part III**: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

**Part VI**: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

**Part VII:** In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

U.S. Department of Agriculture

# FARMLAND CONVERSION IMPACT RATING

| | | | |
|---|---|---|---|
| **PART I** *(To be completed by Federal Agency)* | Date Of Land Evaluation Request | | |
| Name of Project | Federal Agency Involved | | |
| Proposed Land Use | County and State | | |
| **PART II** *(To be completed by NRCS)* | Date Request Received By NRCS | Person Completing Form: | |
| Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)* | YES ☐ NO ☐ | Acres Irrigated | Average Farm Size |
| Major Crop(s) | Farmable Land In Govt. Jurisdiction Acres: % | Amount of Farmland As Defined in FPPA Acres: % | |
| Name of Land Evaluation System Used | Name of State or Local Site Assessment System | Date Land Evaluation Returned by NRCS | |

| **PART III** *(To be completed by Federal Agency)* | Alternative Site Rating | | | |
|---|---|---|---|---|
| | Site A | Site B | Site C | Site D |
| A. Total Acres To Be Converted Directly | | | | |
| B. Total Acres To Be Converted Indirectly | | | | |
| C. Total Acres In Site | | | | |
| **PART IV** *(To be completed by NRCS)* Land Evaluation Information | | | | |
| A. Total Acres Prime And Unique Farmland | | | | |
| B. Total Acres Statewide Important or Local Important Farmland | | | | |
| C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted | | | | |
| D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value | | | | |
| **PART V** (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points) | | | | |

| **PART VI** *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)* | **Maximum Points** | Site A | Site B | Site C | Site D |
|---|---|---|---|---|---|
| 1. Area In Non-urban Use | (15) | | | | |
| 2. Perimeter In Non-urban Use | (10) | | | | |
| 3. Percent Of Site Being Farmed | (20) | | | | |
| 4. Protection Provided By State and Local Government | (20) | | | | |
| 5. Distance From Urban Built-up Area | (15) | | | | |
| 6. Distance To Urban Support Services | (15) | | | | |
| 7. Size Of Present Farm Unit Compared To Average | (10) | | | | |
| 8. Creation Of Non-farmable Farmland | (10) | | | | |
| 9. Availability Of Farm Support Services | (5) | | | | |
| 10. On-Farm Investments | (20) | | | | |
| 11. Effects Of Conversion On Farm Support Services | (10) | | | | |
| 12. Compatibility With Existing Agricultural Use | (10) | | | | |
| TOTAL SITE ASSESSMENT POINTS | 160 | | | | |
| **PART VII** ***(To be completed by Federal Agency)*** | | | | | |
| Relative Value Of Farmland *(From Part V)* | 100 | | | | |
| Total Site Assessment *(From Part VI above or local site assessment)* | 160 | | | | |
| **TOTAL POINTS *(Total of above 2 lines)*** | 260 | | | | |

| | | |
|---|---|---|
| Site Selected: | Date Of Selection | Was A Local Site Assessment Used? YES ☐ NO ☐ |

Reason For Selection:

| | |
|---|---|
| Name of Federal agency representative completing this form: | Date: |

***(See Instructions on reverse side)*** **Form AD-1006 (03-02)**

## STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

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Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

## INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

*(For Federal Agency)*

**Part I**: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

**Part III**: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

**Part VI**: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

**Part VII:** In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

# APPENDIX D

# AGENCY CORRESPONDENCE

# United States Department of the Interior

FISH AND WILDLIFE SERVICE

West Virginia Field Office
694 Beverly Pike
Elkins, West Virginia 26241

**Concurrence Form for Myotid Bat Survey Reports**

Contact Name: Traci Cummings

Email Address or Fax Number: traci.l.cummings@wv.gov

FWS File #: 2019-I-0095 **All future correspondence should clearly reference this FWS File #.**

Project: US 522 Berkeley Springs Bypass Project, Morgan County

The U.S. Fish and Wildlife Service (Service) has reviewed the report on the bat **mist net** survey conducted in the proposed project area and submitted on October 26, 2018. The survey followed the protocol outlined in the current Range-wide Indiana Bat Summer Survey Guidelines. These Guidelines are acceptable to address the endangered Indiana bat (*Myotis sodalis*) and the threatened northern long-eared bat (*Myotis septentrionalis*) (NLEB). The survey covered 8.25 acres/kilometers of potential bat habitat and was conducted at 11 net sites from 6/4-14, 7/7-12, to 7/31 & 8/11, 2018. No Indiana bats were captured.

No NLEB were captured and none were tracked during this survey.

Surveys are considered current for 5 years (the summer they are completed and the following four summer seasons). In this case, the survey will expire on May 15, 2023. If a significant amendment is proposed to change or expand this project, or if timber will be removed after that date, a new survey may be necessary and the Service should be contacted.

The area was surveyed for caves and abandoned mine portals and none were found in the project area.

Based on the information provided to us, the Service has concluded that no Indiana bats or NLEB are expected to be adversely affected by the project. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. If there is a Federal nexus for the project (e.g., Federal funding provided, Federal permits required to construct), no tree clearing or any project construction activities on any portion of the parcel should occur until consultation under section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U. S. C. 1531 et seq.),

between the Service and the Federal action agency, is completed. Section 7 consultation is not complete until the Federal action agency submits a determination of effects to this office, and the Service concurs with the Federal action agency's determination. If there is no Federal nexus associated with this project, then no further coordination with this office is required.

Should project plans change or amendments be proposed that we have not considered in your proposed action, or if additional information on listed and proposed species becomes available, or if new species become listed or critical habitat is designated, this determination may be reconsidered.

If you have any questions regarding these comments, please contact the biologist listed below at (304) 636-6586 or at the letterhead address.

Liz Stout Date: 11/13/2018
Biologist

John E. Schmidt Date: 11/15/2018
Field Supervisor

WEST VIRGINIA
Division of Culture and History

*The Culture Center*
1900 Kanawha Blvd., E.
Charleston, WV 25305-0300
**Randall Reid-Smith, Commissioner**
Phone 304.558.0220 • www.wvculture.org
Fax 304.558.2779 • TDD 304.558.3562
EEO/AA Employer

April 15, 2019

Mr. Ben L. Hark
Environmental Section Head
Engineering Division
West Virginia Division of Highways
1334 Smith Street
Charleston, West Virginia 25305

RE: US 522–Fairview Connector Project
Morgan County, West Virginia
Federal Project No. N/A
State Project No. U333-522-11.92
FR: 19-370-MN-1

Dear Mr. Hark:

We received your submission dated March 15, 2019, which your office prepared to facilitate our review of the aforementioned project. As required by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR § 800: "Protection of Historic Properties," we submit our comments.

According to submitted information, West Virginia Department of Transportation, Division of Highways (WVDOH) proposes to construct a new US 522 roadway to the east of Berkeley Springs and a Fairview Connector just north of Berkeley Springs in Morgan County, West Virginia. The project consultant, Cultural Resource Analysts, Inc. (CRA) documented a total of 123 properties within the proposed undertaking's area of potential effects. As the submission did not address archaeological resources, we expect to receive a separate submission to that effect in the future.

Architectural Resources:
We have completed our review of the proposed US 522–Fairview Connector Project. The consultant surveyed the undertaking with an area of potential effects (APE) of 1,000 feet on either side of the project centerline. As noted in our previous letter, this decision was made without consulting with our office; however, after review of the submitted information, aerial imagery, and topographic mapping, we accepted the proposed APE. It appears that the surrounding topography and vegetation growth will shield significant views that the Town of Bath Historic District might have of the undertaking.

Generally, we concur with the consultant's recommendations regarding the eligibility of the 123 properties documented for the undertaking. The large majority of those properties are residential

dwellings that have experienced a significant loss of historical integrity of materials and workmanship. According to the consultant, research and documentation identified no associations for the 123 properties with significant patterns or individuals that have influenced the broad patterns of our nation's history. Furthermore, the consultant argues none of the properties embody the distinctive characteristics of any type, period, or method of construction. We concur with these findings, except in the cases of seven (7) resources.

Regarding the Pines for Crippled Children/War Memorial Hospital (MN-0011-0102), it is our opinion additional information would be needed to make a comprehensive determination of eligibility for that property, especially under Criteria A and C. Certainly the Nurses' Dormitory (MN-0011-0104) retains some integrity as well as the possibility of being considered eligible under those Criteria. The same concerns extend to the US Silica Headquarters along Sand Mine Road (MN-0351).

The submitted information indicated the home at 178 Rugby Lane (MN-0273) is not eligible due to extensive renovations that occurred in 1940. But the report and inventory form failed to consider whether those changes are historic in their own right. Additional documentation and evaluation would be necessary to adequately consider the potential eligibility of that property.

Lastly, the submitted photographs struggled to document the homes located at 220 Dhayer Lane (MN-0289), 1479 Valley Road (MN-0298), and along Fairfax Street (MN-0342). Those three (3) properties were shielded from public view due to extensive vegetation growth and topography in the area. While it appears MN-0342 is likely not eligible for inclusion in the National Register, we are unable to come to the same conclusion regarding the other two properties.

There is also a small handful of properties, that, if a district were identified in the area, would contribute to that listing. The submitted report indicated no such district exists in the area, which would render those properties not eligible for inclusion in the National Register under any Criteria or property type.

After assessing the surrounding topography, nature of the undertaking, the locations of the aforementioned seven (7) properties, and the location of proposed construction work in relation to those properties, it is our opinion the project will have *no adverse effect* on those resources, even if some of them were deemed eligible for inclusion in the National Register. Surrounding construction, vegetation, and topography will shield most of the proposed work from those properties. Furthermore, it is unlikely research will reveal association any of those properties might share with patterns or individuals that have influenced the broad patterns of our nation's history. Under such circumstances, the aspect of setting would not contribute to those properties' eligibility, which is the only aspect of integrity that would be affected by the undertaking. Thus, no further consultation is necessary regarding architectural resources; however, we ask that you contact our office if your project should change.

We appreciate the opportunity to be of service. *If you have questions regarding our comments or the Section 106 process, please contact Mitchell K. Schaefer, Structural Historian, at (304) 558-0240.*

Sincerely,

Jennifer Brennan for

Susan M. Pierce
Deputy State Historic Preservation Officer

SMP/MKS

WEST VIRGINIA
Division of Culture and History

*The Culture Center*
1900 Kanawha Blvd., E.
Charleston, WV 25305-0300
**Randall Reid-Smith, Commissioner**
Phone 304.558.0220 • www.wvculture.org
Fax 304.558.2779 • TDD 304.558.3562
EEO/AA Employer

July 9, 2019

Mr. Ben L. Hark
Environmental Section Head
Engineering Division
West Virginia Division of Highways
1334 Smith Street
Charleston, West Virginia 25305

RE: US 522 – Berkeley Springs Bypass and Fairview Connector Project
Morgan County, West Virginia
State Project No. U333-522-11.92; Federal Project No. N/A
FR: 19-370-MN-2

Dear Mr. Hark:

We have reviewed the Phase I archaeological survey report, which your office submitted to facilitate our review of the aforementioned project. As required by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR § 800: "Protection of Historic Properties," we submit our comments.

According to submitted information, the West Virginia Department of Transportation, Division of Highways (WVDOH) proposes to construct a new segment of US 522 to the east of Berkeley Springs and the Fairview Connector to the north of Berkeley Springs. The proposed connector would link Fairview Road to the new section of US 522.

Archaeological Resources:
The area of potential effect (APE) is defined as the proposed limits of disturbance (LOD) for the proposed project and consists of 11 discrete tracts located between Sandmine Road (CR 38/1) and Green Gate Road (CR 38/11). It includes the Fairview Connector 1 and Fairview Connector 2. Archaeological survey of the APE included pedestrian reconnaissance and the excavation of 598 shovel test pits. The fieldwork resulted in the identification of six new archaeological sites, 46MN187, 46MN188, 46MN189, 46MN190, 46MN191, and 46MN192.

Sites 46MN187 and 46MN189 are described as twentieth century residential sites consisting of the remnants of dwellings and outbuildings and low-density scatters of associated architectural and domestic materials. Site 46MN187 also produced one pink plastic toy fragment. Both sites exhibited evidence of prior mechanical disturbance. Due to the limited nature of the material remains, the lack of evidence for intact midden deposits and subsurface cultural features, and the sites' diminished integrity, we concur that 46MN187 and 46MN189 are not eligible for inclusion in the National Register of Historic Places.

Site 46MN188 consists of two segments (north and south) of an abandoned railroad of the Baltimore & Ohio Railroad Company and the former Berkeley Springs & Potomac Railroad Company. The north segment consists of a distinct elevated bed comprised of soil, coal, cinders and rock. The south segment appears to

have been converted into a modern access road. The railroad continues beyond the boundary of the APE. No evidence of rails, rail ties, or associated architectural or engineering features was discovered within the APE. We concur with the recommendation that the portions of 46MN188 located within the APE do not contribute to the National Register eligibility of the larger resource.

Site 46MN190 is a low-density scatter of historic era artifacts. The items recovered include flat glass, stoneware drainage pipes, fragments of yellowware and whiteware, and fragments of container glass. All materials were recovered from recent alluvial soils and likely represent a secondary deposit. Due to its lack of integrity, we concur that 46MN190 is not eligible for inclusion in the National Register of Historic Places.

Site 46MN191 consists of a low-density prehistoric lithic scatter of unknown age and cultural affiliation. The assemblage is comprised of three pieces of debitage made of chert and jasper recovered from plowzone deposits. No thermally altered rock, flaked or ground stone tools, or ceramics were recovered. Due to the limited nature of the material remains and the lack of evidence for cultural features, midden, and stratified deposits, we concur that 46MN191 is not eligible for inclusion in the National Register of Historic Places.

Site 46MN192 is described as the remains of an historic era industrial complex comprised of concrete and stone structural remnants, a concrete water impoundment dam, and an associated pond. It is our understanding that a large portion of the site is located outside of the APE. Archival evidence suggests the site represents the remains of a former sand plant that was constructed and operated between 1905 and 1927 by the Speer White Sand Company of Berkeley Springs. Shovel test pits encountered deep, unnatural deposits of sand. No artifacts were recovered. In addition, little to no surface debris was observed, indicating that the associated machinery was removed from the area once the plant ceased operations. We concur that the portion of 46MN192 located within the APE does not contribute to the National Register eligibility of the larger site.

In conclusion, we concur with recommendations made in the report. Sites 46MN187, 46MN189, 46MN190, and 46MN191 are not eligible for inclusion in the National Register of Historic Places. As well, the portions of sites 46MN188 and 46MN192 located within the APE do not contribute to the National Register eligibility of the larger sites. We also concur that no additional archaeological investigations are necessary within the APE as currently designed.

We appreciate the opportunity to be of service. *If you have questions regarding our comments or the Section 106 process, please contact Lora A. Lamarre-DeMott, Senior Archaeologist, at (304) 558-0240.*

Sincerely,

Susan M. Pierce

Susan M. Pierce
Deputy State Historic Preservation Officer

SMP/LLD

**DIVISION OF NATURAL RESOURCES**
**Wildlife Resources Section**
**Elkins Operations Center**
**738 Ward Rd., PO Box 67**
**Elkins, WV 26241**
**Telephone 304-637-0245**
**Fax 304-637-0250**

**Stephen S. McDaniel**
**Director**

RECEIVED
MAY 09 2018
ENGINEERING DIVISION

May 3, 2018

Mr. Ben Hark
Division of Highways
Engineering Division
1334 Smith Street
Charleston, WV 25301

Dear Mr. Hark:

We have reviewed Natural Heritage Program files for information on rare, threatened and endangered (RTE) species and natural trout streams for the area of the proposed highway project:

State Project U333-522-11.92 02
Federal Project NFA-2317(005)D
Berkeley Springs Bypass and Fairview Connector
Morgan County

We have no known records of any RTE species or natural trout streams within the project area. The Wildlife Resources Section knows of no surveys that have been conducted in the area for rare species or rare species habitat. Consequently, this response is based on information currently available and should not be considered a comprehensive survey of the area under review.

Thank you for your inquiry, and should you have any questions please feel free to contact me at the above number, extension 2048.

Sincerely,

Barbara Sargent
Environmental Resources Specialist
Environmental Coordination
Operations Unit

**From:** Mullins, Sondra L
**To:** Clegg, Larry P; Goodin, Krista R.
**Subject:** FW: Berkeley Springs By-Pass Project/ Winchester Grade Road to Davis Road, Morgan County, West Virginia
**Date:** Tuesday, July 3, 2018 2:13:08 PM

---

See Email below

---

**From:** Hark, Ben L
**Sent:** Tuesday, July 3, 2018 1:41 PM
**To:** Kimberly Penrod <kpenrod@delawarenation.com>
**Cc:** Mullins, Sondra L <Sondra.L.Mullins@wv.gov>; Facemire, Lovell R <Lovell.R.Facemire@wv.gov>; Demott, Rodney C <Rodney.C.Demott@wv.gov>
**Subject:** RE: Berkeley Springs By-Pass Project/ Winchester Grade Road to Davis Road, Morgan County, West Virginia

Kim,

Thank you for your comments.

Ben

---

**From:** Kimberly Penrod <kpenrod@delawarenation.com>
**Sent:** Tuesday, July 3, 2018 10:52 AM
**To:** Hark, Ben L <Ben.L.Hark@wv.gov>
**Subject:** RE: Berkeley Springs By-Pass Project/ Winchester Grade Road to Davis Road, Morgan County, West Virginia

Ben,
The protection of our tribal cultural resources and tribal trust resources will take all of us working together.
We look forward to working with you and your agency.
With the information you have submitted we can concur at present with this proposed plan and request to be a consulting party with this project.

As with any new project, we never know what may come to light until work begins.
The Delaware Nation asks that you keep us up to date on the progress of this project and if any discoveries arise please contact us immediately.

Our department is trying to go as paper free as possible. If it is at all feasible for your office to send email correspondence we would greatly appreciate.

If you need anything additional from me please do not hesitate to contact me.

*Respectfully,*

*Kim Penrod*
*Delaware Nation*
*Director, Cultural Resources/106*
*Archives, Library and Museum*
*31064 State Highway 281*
*PO Box 825*
*Anadarko, OK 73005*
*(405)-247-2448 Ext. 1403 Office*
*(405)-924-9485 Cell*
*kpenrod@delawarenation.com*

*Unless someone like you cares a whole awful lot, nothing is going to get better. It's not. ~Dr. Seuss*

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# APPENDIX E

# TRAFFIC NOISE STUDY

# US 522
# BERKELEY SPRINGS BYPASS AND FAIRVIEW CONNECTOR PROJECT

STATE PROJECT U333-522-11.92 SEC 02
FEDERAL PROJECT NFA-2317(005)D

# NOISE STUDY

AUGUST 2019

**US 522 – BERKELEY SPRINGS BYPASS AND FAIRVIEW CONNECTOR PROJECT**

STATE PROJECT U333-522-11.92 SEC 02 | FEDERAL PROJECT NFA-2317(005)D

# NOISE STUDY

Prepared for:

U.S. Department of Transportation, Federal Highway Administration

West Virginia Department of Transportation, Division of Highways

Prepared by:

CDM Smith

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**Appendix A: Noise Field Notes**

**Appendix B: Receiver Sites**

**Appendix C: Noise Meter and Calibration Certificates**

**Appendix D: Traffic Data**

# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| CFR | Code of Federal Regulations |
| CNE | Common Noise Environment |
| dB | decibel |
| dB(A) | A-weighted sound level in decibels |
| FHWA | Federal Highway Administration |
| Hz | Hertz |
| $L_{eq}$ | equivalent sound pressure level |
| NAC | Noise Abatement Criteria |
| WVDOH | West Virginia Division of Highways |
| NW | Noise Wall |
| SPL | sound pressure level |
| TIP | Transportation Improvement Program |
| TNM 2.5 | FHWA Traffic Noise Model Version 2.5 |
| USDOT | United States Department of Transportation |

# Section 1. Summary

The West Virginia Department of Transportation Division of Highways is considering the improvements and updates to US 522 through Morgan County, West Virginia. The West Virginia Division of Highways (WVDOH) has requested a re-evaluation of the US 522 FEIS and ROD for construction of the Berkeley Springs Bypass. The Berkeley Spring Bypass project is part of the US 522 project that consists of a four-lane roadway on new alignment from the Virginia/West Virginia state line to the Maryland state line for a distance of approximately 19 miles. This project includes the portion of US 522 beginning just south of CR 13, Winchester Grade Road, to the north of WV 9 (Segment 1) and the portion from north of WV 9 including a connection to existing US 522 and the Fairview Connector, which connects Fairview Drive to US 522 (Segment 2). This Traffic Noise Impact Study identifies all potential traffic noise impacts and follows guidelines established by the Federal Highway Administration (FHWA) relative to environmental studies for Type I roadway improvement projects. Ambient (existing) field noise levels were monitored following the FHWA procedures described in *Sound Procedures for Monitoring Highway Noise*. The noise analysis procedure used to project traffic noise was the TNM 2.5 computer model developed by the FHWA.

TNM 2.5 was used to estimate both existing and future noise levels associated with the proposed alignment. Input data needed for the noise level analysis included roadway coordinates, site location coordinates, receiver coordinates, traffic volumes, and vehicle speeds. Traffic volumes were obtained from the February 5, 2019, Traffic Study completed by CDM Smith. The report reflects 2018 existing traffic volumes and 2043 projected traffic volumes.

Noise-sensitive land uses were identified and grouped into nine unique Common Noise Environments (CNEs) to facilitate the analysis. A good correlation exists between monitored and modeled existing noise levels (3 decibels [dBA] or under) at most CNE locations, although some experienced a higher difference. The TNM 2.5 computer model does not take into account ambient noise sources (e.g., airplanes, dogs barking, people talking, and construction noise) other than vehicular traffic. These noise sources affect the overall monitored noise levels but cannot be modeled by TNM 2.5.

The analysis performed for this study followed the FHWA guidelines for traffic generated noise impacts. The FHWA traffic generated noise impacts are defined as "impacts which occur when the predicted noise levels approach or exceed the noise abatement criteria or when the predicted traffic noise levels substantially exceeds the existing noise levels" (title 23 Code of Federal Regulations Part 772 [23 CFR 772], *Procedures for Abatement of Highway Traffic Noise and Construction Noise*). In addition, WVDOH has developed guidelines to determine when substantial noise increases occur in *DD-253 Noise Analysis and Abatement Guidelines* (updated November 15, 2016).

Noise impact assessment sites (all residences, commercial uses, churches, motels, hotels, and hospitals) within 152 meters (500 feet) of the proposed segments were analyzed for noise impacts. A total of 181 receptors were analyzed using the above criteria in the model. All the sites along the proposed highway segments are classified as either Activity Category B, Category C or Category E of the FHWA Noise Abatement Criteria (NAC). Thus, if the noise level at a site was predicted to be 66 dBA (Category B and C)

or greater or 71 dBA (Category E) or greater, the FHWA NAC considers it as impacted, and noise abatement measures should be studied at the location. The sites were also analyzed for noise level increases. The increase in noise level was calculated by comparing the projected noise level to both the noise levels calculated by the existing condition TNM model, and the field monitored noise levels. There was no noise level increase of 15 dBA or greater; therefore, no "Substantial Impacts" occurred.

The preliminary analysis indicated that there were five sites that were identified as having sound level impacts. All five sites were sound level impacts. After the required right of way was established and applied to the impacts, three of the sites were identified as relocations.

In accordance with WVDOH's *DD-253 Noise Analysis and Abatement Guidelines* (updated November 15, 2016), noise abatement measures must be both reasonable and feasible. Feasibility deals primarily with engineering considerations (e.g., can a barrier be built given the topography of the location; can a substantial noise reduction be achieved given certain access, drainage, snow, safety or maintenance requirements; are other noise sources present in the area, etc.) Reasonableness is a more subjective criterion than feasibility. It implies that common sense and good judgment were applied in arriving at a decision.

For noise abatement measures for US 522, were reviewed for receptors A-6, A-7, B-8, D-3 and G-7. Receptors A-6 and A-7 are located along US 522, and noise barrier would not be feasible/reasonable and still allow access to the property. Receptor B-8, D-3, and G7 would be relocated due to right of way required for the proposed project. Due to the reasoning above no barrier, walls were modeled or recommended for construction as part of the Berkeley Springs Bypass project.

***Table 1.1: Impacted Receiver Locations***

| Receiver | Location Description | dBA Reading | Impact | Abatement Measure |
|---|---|---|---|---|
| A-6 | A residential lot, 75 feet from US 522, adjacent to the intersection of Winchester Grade Road. The property has direct access to US 522. | 66.7 | Sound Level | None Recommended |
| A-7 | A residential lot, 80 feet from US 522 (Valley Road). The property has direct access to US 522. | 66.2 | Sound Level | None Recommended |
| B-8 | On Dakota lane, 800 feet from US 522 (Valley Road) and approximately 790 feet from Winchester Grade Road. The structure appears to be an outbuilding and will be required to be relocated. | 67.5 | Sound Level | None Recommended |
| D-3 | Approximately 40 feet from Johnsons Mill Road, and approximately 50 feet from the US 522 Bypass. The residential structure will be required to be relocated due to the project. | 66 | Sound Level | None Recommended |
| G-7 | On Sherill Lane approximately 2280 feet from Fairview Road. The lot is residential and heavily wooded. This property access is being impacted by the US 522 Bypass and G-7 and G-8 will be required to be relocated due to the project. | 67.7 | Sound Level | None Recommended |

# Section 2. Introduction

This section describes the proposed project.

## 2.1 Project Description

The West Virginia Department of Transportation Division of Highways is considering the improvements and updates to US 522 through Morgan County, West Virginia. The West Virginia Division of Highways (WVDOH) has requested a re-evaluation of the US 522 FEIS and ROD for construction of the Berkeley Springs Bypass. The Berkeley Spring Bypass project is part of the US 522 project that consists of a four-lane roadway on new alignment from the Virginia/West Virginia state line to the Maryland state line for a distance of approximately 19 miles. This project includes the portion of US 522 beginning just south of CR 13, Winchester Grade Road, to north of WV 9 (Segment 1) and the portion from north of WV 9 including a connection to existing US 522 and the Fairview Connector, which connects Fairview Drive to US 522 (Segment 2) as shown in **Figure 2.1**

## 2.2 Procedures

The noise analysis identifies impacts associated with the construction of the Berkeley Springs Bypass along with realignments of several existing roads that result from the location of the proposed facility.

This analysis has been prepared in accordance with the FHWA's 23 CFR 772 and the *WVDOH's DD-253 Noise Analysis and Abatement Guidelines* (updated November 15, 2016).

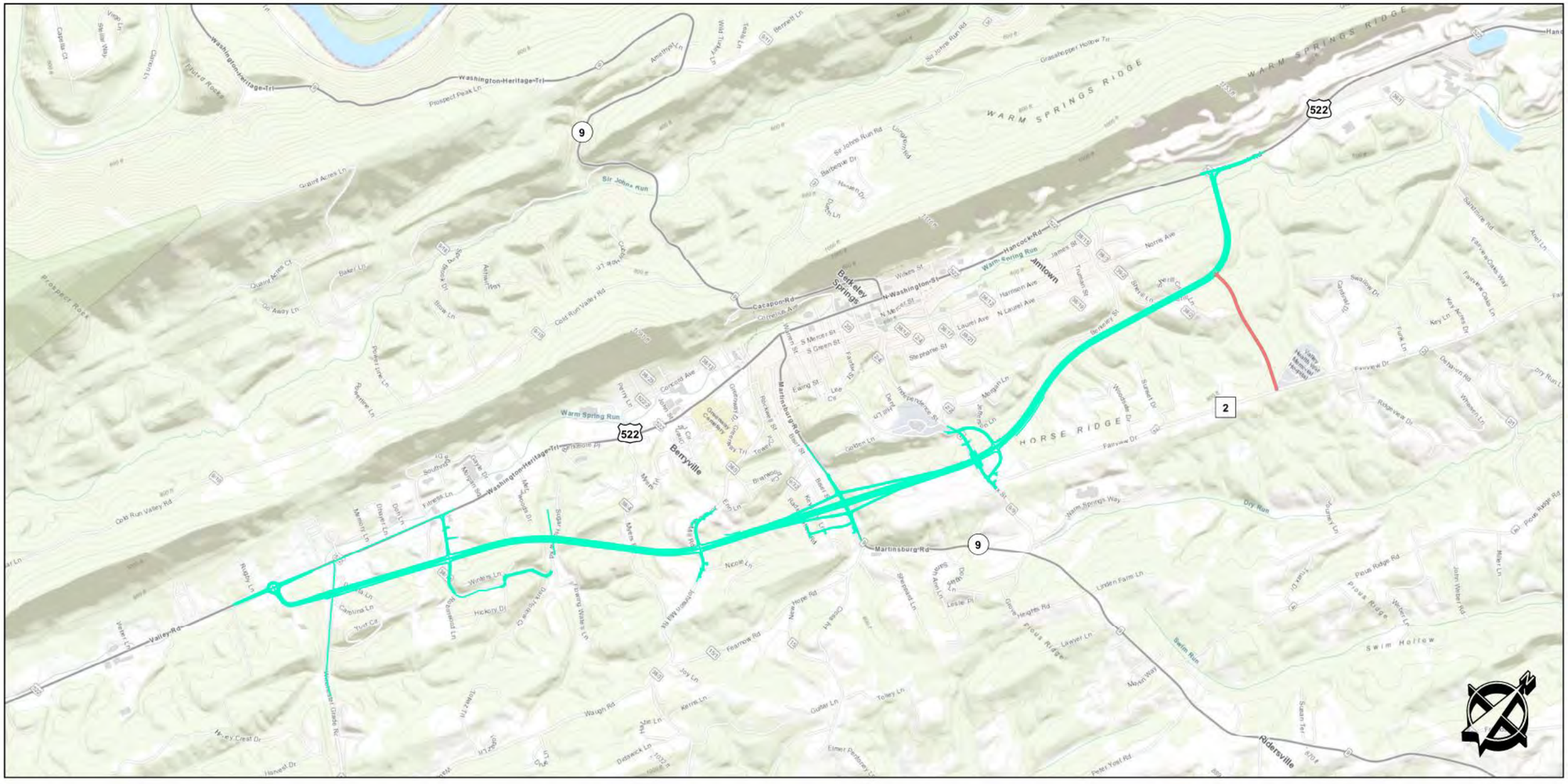
The analysis was conducted using data that was generated by FHWA's Traffic Noise Model (FHWA TNM V 2.5) to establish the Base Year 2018, and the predicted No-Build and Build scenarios for the year 2043. The model used peak hourly traffic volumes for both 2018 and 2043 that were provided by the Traffic Report (see Appendix D).

Noise sensitive land use within the study area is residential, commercial, and churches surrounded by agriculture and undeveloped land. A Type 2 SoundPro DL dosimeter was used to collect ambient noise readings in the field on May 24 and 25, 2018. Data collection occurred from 4:00 pm to 6:30 pm on May 24 and from 7:00 am to 9:00 am on May 25. The weather was dry on both days, with winds less than five miles per hour. Data collection was conducted at a total of ten sites, with the major noise source being traffic noise.

Data collected was incorporated into the existing scenario TNM models and used to establish the baseline conditions and model validations. These models were used to develop the final Existing (2018), No Build (2043), and Build (2043) models.

Three scenarios were modeled in the TNM: Existing, No-Build, and Build. Current design plans for sections US 522 Bypass were used for the Build scenario.

***Figure 2.1: Project Location Map***




## Legend

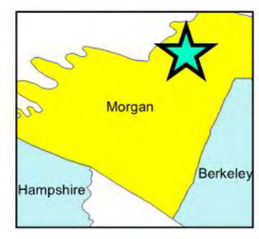
US 522 Bypass

Fairview Connector

## US 522 Re-evaluaton Noise Study Study Area Map

0 0.25 0.5 1 Miles

1 inch = 2,000 feet




| |
|---|
| US 522 Relocation |
| State Project: U333-522-11.92 |
| Federal Project: NFA-2317(005)D |
| Date: 7/31/2019 |

Traffic data obtained for the project was provided as peak hourly volumes and entered into the models. Since the project is on new location, many of the noise levels predicted by the Existing TNM model were lower than the noise levels recorded in the field. The minimum noise level collected in the field was 55.5 dBA; for those sites that did not reach 55.5 dBA in the Existing model, the average noise level of 55.5 dBA was used to set baseline decibel levels in the Build model.

During the analysis, the proposed design for the Berkeley Springs Bypass was overlaid on top of the existing receptors. It was determined that 17 receptors would be relocated due to the construction of the roadway, and these sites were removed from further analysis.

Noise abatement measures were analyzed for each impacted receptor.

## 2.3 Purpose and Need

The major north-south roadway traversing Morgan County and the Eastern Panhandle through the community of Berkeley Springs is US 522. The roadway is a two-lane highway that has variable shoulder widths and restricted passing areas. Segments of US 522 have high accident rates, and within Berkeley Springs high levels of traffic congestion are present.

The WVDOH is considering improvements and upgrading of US 522 in Morgan County. The improvements are intended to relieve traffic congestion in Berkeley Springs, reduce the accident rate on US 522 within West Virginia and increase the capacity of the road in general. Several alternative actions were considered to upgrade the 18.74 miles (30.2 kilometers) segment from the Virginia state line through Morgan County, West Virginia to the Maryland state line. The WVDOH has identified Build Alternate I as the selected alternative for this project.

## 2.4 Statement of Compliance

This analysis will follow the FHWA's 23 CFR 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise* and the *WVDOH's DD-253 Noise Analysis and Abatement Guidelines* (updated November 15, 2016).

According to FHWA and WVDOH, there are three types of projects:

- ***Type I Project*** - Noise abatement accomplished in conjunction with a construction or reconstruction project on a section of federal-aid highway, as designated in 23 CFR Part 772.
- ***Type II Project*** - Noise abatement on an existing section of a federal-aid highway which does not include construction or reconstruction, as designated in 23 CFR Part 772.
- ***Type III Project*** - A Federal or Federal-aid highway project that does not meet the classifications of a Type I or Type II project, as designated in 23 CFR Part 772.

The proposed project is designated as a Type I project due to the following:

- Construction of a roadway along new location;
- Increase in the number of through-traffic lanes on an existing highway;
- The addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange.

## 2.5 Date of Public Knowledge

The Date of Public Knowledge or the date of approval of the final environmental document for the Berkeley Springs Bypass was August 2001.

The criteria for determining when undeveloped land is "permitted" for development will be the approval date of a building permit for an individual lot. After the Date of Public Knowledge for the project, federal and state governments are no longer responsible for providing noise abatement measures for new development within the noise impact area of the proposed highway project. It is the responsibility of local governments and private landowners to ensure that noise compatible designs are used for development permitted after the Date of Public Knowledge.

The state and federal policy applies only to developed land and undeveloped land for which development is permitted before the project Date of Public Knowledge. Mitigation measures studied in this Traffic Noise Impact Study are evaluated for developed locations and undeveloped land permitted prior to the Date of Public Knowledge.

# Section 3. Fundamentals of Noise and Methodology

This section describes basic noise terminology and concepts, applicable regulations, the noise monitoring procedure, and measured noise levels in the study area.

## 3.1 Fundamentals of Noise

Noise can be defined as unwanted sound. Noise can disrupt normal activities when the noise reaches certain levels and when the noise is distinctly louder than the typical ambient noise environment. **Figure 3-1** shows some examples of common noise sources and their sound levels.

The magnitude of noise or the deviation from the ambient noise level is usually described by sound pressure. The magnitude of noise is usually described by a ratio of its sound pressure to a reference sound pressure, which is usually 20 micro-Pascals. A logarithmic scale is used to relate sound pressure to a common reference pressure, yielding the sound pressure level (SPL). SPL is measured in dimensionless units of decibels (dB) and are modified by frequency response of human hearing or weighting. The commonly accepted limits of human hearing to detect sound are between the threshold of hearing at 0 dB and the threshold of pain at 140 dB. Sound frequencies are represented in units of Hertz (Hz), which correspond to the number of vibrations per second of a given tone. Sound occurs over a wide range of frequencies.

Three weightings have been established for measuring sound pressure: A, B, and C. The commonly accepted audible frequency is between 20 Hz and 20,000 Hz, and human hearing is most sensitive to the frequencies between 1,000 Hz and 6,000 Hz. The A-weighted scale is adjusted to frequencies most sensitive to human ears. Sound levels that are measured using the A-weighted scale are often expressed as dB(A). All noise levels in this report will be expressed in dB(A).

A key concept in evaluating potential noise impacts is the perceived effect of incremental increases in existing noise levels. The relationships between changes in sound levels, loudness, and acoustic energy are presented in **Table 3-1**. For example, the table shows that an increase of 3 dB(A) is barely perceptible, an increase of 5 dB(A) is readily perceptible, and a 10 dB(A) increase would be perceived by someone to be a doubling of the noise level (loudness).

***Figure 3.1: Common Sound/Noise Levels***

| COMMON SOUND/NOISE LEVELS | | |
|---|---|---|
| **Outdoor** | **dBA** | **Indoor** |
| | 110 | Rock band at 5 meters |
| Jet flyover at 300 meters | | |
| Pneumatic hammer | 100 | Subway train |
| Gas lawn mower at 1 meter | | |
| | 90 | Food blender at 1 meter |
| | | |
| Downtown (large city) | 80 | Garbage disposal at 1 meter |
| | | Shouting at 1 meter |
| Lawn mower at 30 meters | 70 | Vacuum cleaner at 3 meters |
| Commercial area | | Normal speech at 1 meter |
| Air conditioning unit | 60 | Clothes dryer at 1 meter |
| Babbling brook | | Large business office |
| Quiet urban (daytime) | 50 | Dishwasher (next room) |
| | | |
| Quiet urban (nighttime) | 40 | Library |
| | | |
| | 30 | |
| | | |
| | 20 | |
| | | |
| | 10 | |
| | | Threshold of hearing |
| | 0 | |

*Source: FHWA 1980*

***Table-3.1: Relationships between Changes in Sound Levels, Loudness, and Acoustic Energy***

| Sound Level Change | Change in Loudness[1,2] | Relative Change in Acoustic Energy[3] |
|---|---|---|
| +30 dB(A) | Eight Times as Loud | 1,000 |
| +20 dB(A) | Four Times as Loud | 100 |
| +10 dB(A) | Twice as Loud | 10 |
| +5 dB(A) | Readily Perceptible | ~3 |
| +3 dB(A) | Barely Perceptible | 2 |
| 0 dB(A) | No Change | 0 |
| -3 dB(A) | Barely Perceptible | 1 / 2 |
| -5 dB(A) | Readily Perceptible | ~1 / 3 |
| -10 dB(A) | Half as Loud | 1 / 10 |
| -20 dB(A) | 1/4 as Loud | 1 / 100 |
| -30 dB(A) | 1/8 as Loud | 1 / 1000 |
| +30 dB(A) | Eight Times as Loud | 1,000 |

*Source: FHWA 2011*

*Notes:*

*[1] Loudness pertains only to the perceived magnitude of a sound or sounds. Loudness does not describe the tonal qualities of one or more sounds. Two sounds can have the same sound level magnitudes, and can sound "just as loud", and be distinguishable because of differing tones (frequencies).*

*[2] Relative to the loudness of an initial sound level (e.g. the loudness of a 63 dB(A) sound would be barely perceptible from the loudness of a 60 dB(A) sound. An 80 dB(A) sound would generally be perceived as four times as loud as a 60 dB(A) sound.)*

*[3] Relative to the acoustic energy of an initial sound level (e.g. a sound level of 63 dB(A) has twice the acoustic energy as an initial sound level of 60 dB(A). A sound level of 80 dB(A) has 100 times the acoustic energy as 60 dB(A).)*

The degree of disturbance or annoyance of unwanted sound depends on three conditions:

- The amount and nature of intruding noise;
- The relationship between the ambient noise and the intruding noise; and
- The type of activity occurring when the intruding noise is heard.

It is important to note that individuals have different hearing sensitivity to noise. Loud noises bother some people more than others, and some individuals become angered if an unwanted noise persists. The time patterns of noise also enter into a person's judgment of whether or not a noise is objectionable. For example, noises occurring during sleeping hours are usually considered to be more objectionable than the same noises in the daytime.

Individuals tend to judge the annoyance of an unwanted sound in terms of its relationship to noise from other sources (ambient noise). The blowing of a car horn at night, when ambient noise levels are approximately 45 dB(A), would generally be much more objectionable than the blowing of a car horn in the afternoon, when ambient noise levels might be 55 dB(A).

Over a period of time, individuals tend to accept the noises that intrude into their daily lives, particularly if the noises occur at predicted intervals and are expected. Attempts have been made to regulate many types of noises, including airplane noise, factory noise, railroad noise, and highway traffic noise.

Noise levels in this analysis are based on a $L_{eq}$ descriptor. The $L_{eq}$, or equivalent sound level, refers to the steady-state (constant sound) A-weighted sound level, which contains the same acoustic energy as the actual time-varying sound levels during the same time period. In other words, the fluctuating sound levels of the traffic noise over a period of time are represented in terms of a constant noise level with the same energy content. For this analysis, the time period used corresponds with the loudest hour of the day.

## 3.2 Traffic Noise and Propagation

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. Traffic noise can also be increased by defective mufflers or other faulty equipment on vehicles. Any condition (such as a steep incline) that causes heavy laboring of motor vehicle engines will also increase traffic noise levels.

Vehicle traffic sounds are generally considered to be unwanted, or noise, to most people. The level of highway traffic noise depends on three things:

- the volume of the traffic;
- the speed of the traffic; and
- the number of trucks in the flow of traffic.

Highway traffic noise is never constant. The noise level is always changing with the number, speed, and type of vehicles which produce the noise as well as the driving habits of the vehicle operator. Heavier traffic volumes, higher speeds, and a greater number of trucks increase traffic noise as shown in **Figure 3-2**.

As a person moves away from a highway, traffic noise levels are reduced by distance, terrain, vegetation, and natural and manmade obstacles. Noise emanating from a roadway can follow four paths to reach nearby receptors (**Figure 3-3**):

1. Direct Path: The noise follows a straight path from the source to the receptor.
2. Diffracted Path: The noise follows a path from the source to the top of a barrier and then is bent down toward the receptor.
3. Reflected path: The noise is bounced off of a barrier and concerns only the receptor on the opposite side of the roadway from the barrier.
4. Transmitted Path: The noise is transmitted directly through the barrier.

Thus, a wall, building, earth berm, hill, or any type of solid structure or terrain feature, if large enough, can serve as a sound barrier and can provide some reduction at receptors in the “shadow zone” created by the barrier. Maximum reduction is achieved by breaking the line of sight between the noise source and the receptor.

In some cases, refracted traffic noise transmission can be more annoying than direct transmission because the occurrence is generally inconsistent, and it introduces exposure to sounds that are different

than the source noise. This refraction is typically caused by wind and temperature gradients and can increase or decrease noise levels locally.

***Figure 3.2: Effect of Traffic Volume, Speed, and Vehicle Types on Noise Levels***

**How Volume Affects Traffic Noise**

2000 vehicles per hour sound twice as loud as

200 vehicles per hour

---

**How Speed Affects Traffic Noise**

Traffic at 65 miles per hour sounds twice as loud as

traffic at 30 miles per hour

---

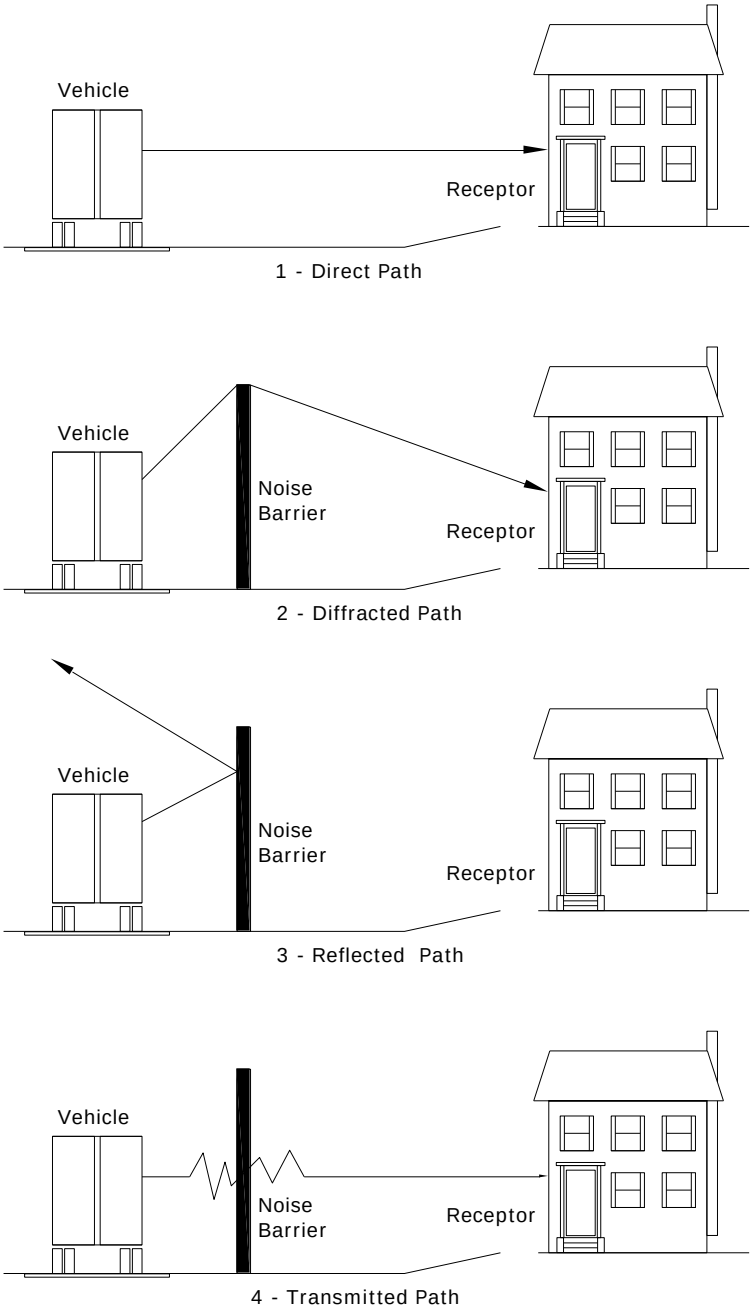
**How Trucks Affect Traffic Noise**

One truck at 55 miles per hour sounds as loud as

12 cars at 55 miles per hour

*Source: FHWA 1980*

***Figure 3-3.3: Different Paths Followed by Noise***




*Source: FHWA 1980*

# 3.3 Highway Noise Regulations

To determine if highway noise levels are compatible with various land uses, the FHWA has developed noise abatement criteria (NAC) and procedures to be used in the planning and design of highways. These abatement criteria and procedures are in accordance with 23 CFR Part 772. A summary of the federal NAC adopted by WVDOH for various land uses are presented in **Table 3-2**.

***Table 3.2: Noise Abatement Criteria Hour A-Weighted Sound Levels in Decibels***

| Activity Category | Activity $L_{eq}$(h) (dB(A)) | Evaluation Location | Activity Description |
|---|---|---|---|
| A | 57 | Exterior | Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. |
| B[1] | 67 | Exterior | Residential |
| C[1] | 67 | Exterior | Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings. |
| D | 52 | Interior | Auditoriums, daycare centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios. |
| E[1] | 72 | Exterior | Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F. |
| F | NA | NA | Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing. |
| G | NA | NA | Undeveloped lands that are not permitted for development. |

*Source: 23 CFR Part 772*

*Note: [1] Includes undeveloped lands permitted for this activity category.*

A receptor is defined as a discrete or representative location of a noise-sensitive area for any of the land uses listed in Table 3-2. Receptors are impacted if noise levels approach (within 1 dB(A)) or exceed the NAC, as defined by WVDOH in *DD-253 Noise Analysis and Abatement Guidelines* (updated November 15, 2016). Impacted receptors would benefit from noise mitigation measures that lower noise levels. In addition to the NAC, WVDOH uses a range of substantial increase criteria of 15 dB(A) or greater to define noise increase from the existing level.

# 3.4 Noise Abatement

When a traffic noise impact occurs, noise abatement measures must be considered. A noise abatement measure is any positive action taken to reduce the impact of traffic noise on an activity area, including

traffic management, alteration of alignments, acquisition of property to create a buffer zone, providing noise insulation and/or air conditioning of buildings, and constructing a noise barrier.

The feasibility and reasonableness of noise barriers are covered in detail in Section VI of WVDOH's *DD-253 Noise Analysis and Abatement Guidelines* (updated November 15, 2016). Feasibility of noise barriers is determined by their ability to achieve substantial noise reduction given the conditions of a specific location. Site conditions that can affect the ability of noise barriers to achieve an actual noise reduction include 1) topography; 2) animal migratory paths; 3) cultural resources such as historic places; 4) access requirements for driveways, ramps, etc.; 5) maintenance issues and utility encumberments; 6) the presence of local cross streets; or 7) other noise sources in the area, such as aircraft, trains, or industry. WVDOH does not consider a noise barrier to be feasible unless a noise reduction of at least 5 dBA can be achieved for an impacted receptor.

Reasonableness is more subjective than feasibility and implies that a decision regarding noise barriers has been based on common sense and good judgment as well as careful consideration of all of the specific circumstances of a particular project. WVDOH makes a final determination of reasonableness only after thorough consideration of a wide range of criteria, but will not approve the construction of noise barriers if a majority of benefited receptors do not want them. Viewpoints of benefited receptors are typically surveyed following the public meeting for the design phase of the project to determine if a noise barrier is desired.

According to 23 CFR 772, the following reasonableness factors must all be achieved in order for noise barriers to be deemed reasonable:

- The construction of a noise barrier is not reasonable unless a majority of residents and property owners of the benefited receptors (receptors that receive a noise reduction of 5 dBA or more from the noise barrier) want a noise barrier even if all other criteria indicate that a noise barrier is reasonable.

- The construction of a noise barrier is not reasonable if the cost is more than $30,000 per benefited receptor. The barrier cost will include the cost of construction (material and labor), the cost of additional right-of-way, the additional cost of relocating utilities, and any other costs associated with the barrier. The estimated cost of construction (material and labor) will be $25 per square foot. The allowable cost per benefited receptor and the cost for construction shall be re-analyzed every 5 years. All receptors with noise reductions of 5 dBA or more will be counted. Each house or apartment unit will be counted as one receptor. Every 100 linear feet of frontage will be counted as one receptor when considering parks, active sports areas, campgrounds, cemeteries, and other similar outdoor noise-sensitive land uses. For non-residential uses such as schools, places of worship, community centers and auditoriums, the following equation will be used to determine the equivalent number of receptors:

- Equivalent No. of Receptors = (no. of occupants/3) X (usage) where usage = (no. of hours used per day/24) X (no. of days used per year/365)

- Each barrier must reduce the noise level by at least 7 dBA at ten percent or more of the benefited receptors.

The following optional reasonableness factors may also be considered, but no single optional reasonableness factor can be used to determine reasonableness:

- The construction of a noise barrier is not reasonable if the impacted receptors were not constructed or the building permits were not issued before the date of public knowledge of the project.
- The date of development of impacted receptors should be an important part of the determination of reasonableness. More consideration will be given to impacted receptors that predated initial highway construction.
- More consideration will be given to impacted receptors with larger increases over existing noise levels. If the future build noise levels are at least 5 dBA greater than the existing noise levels, more consideration will be given.
- More consideration will be given to areas where larger changes in traffic noise levels are expected to occur if the project is constructed than if it is not. If the future build noise levels are at least 3 dBA greater than the future no-build noise levels, additional consideration will be given.
- More consideration will be given to benefited receptors with future build noise levels at or above the 23 CFR 772 Noise Abatement Criteria.

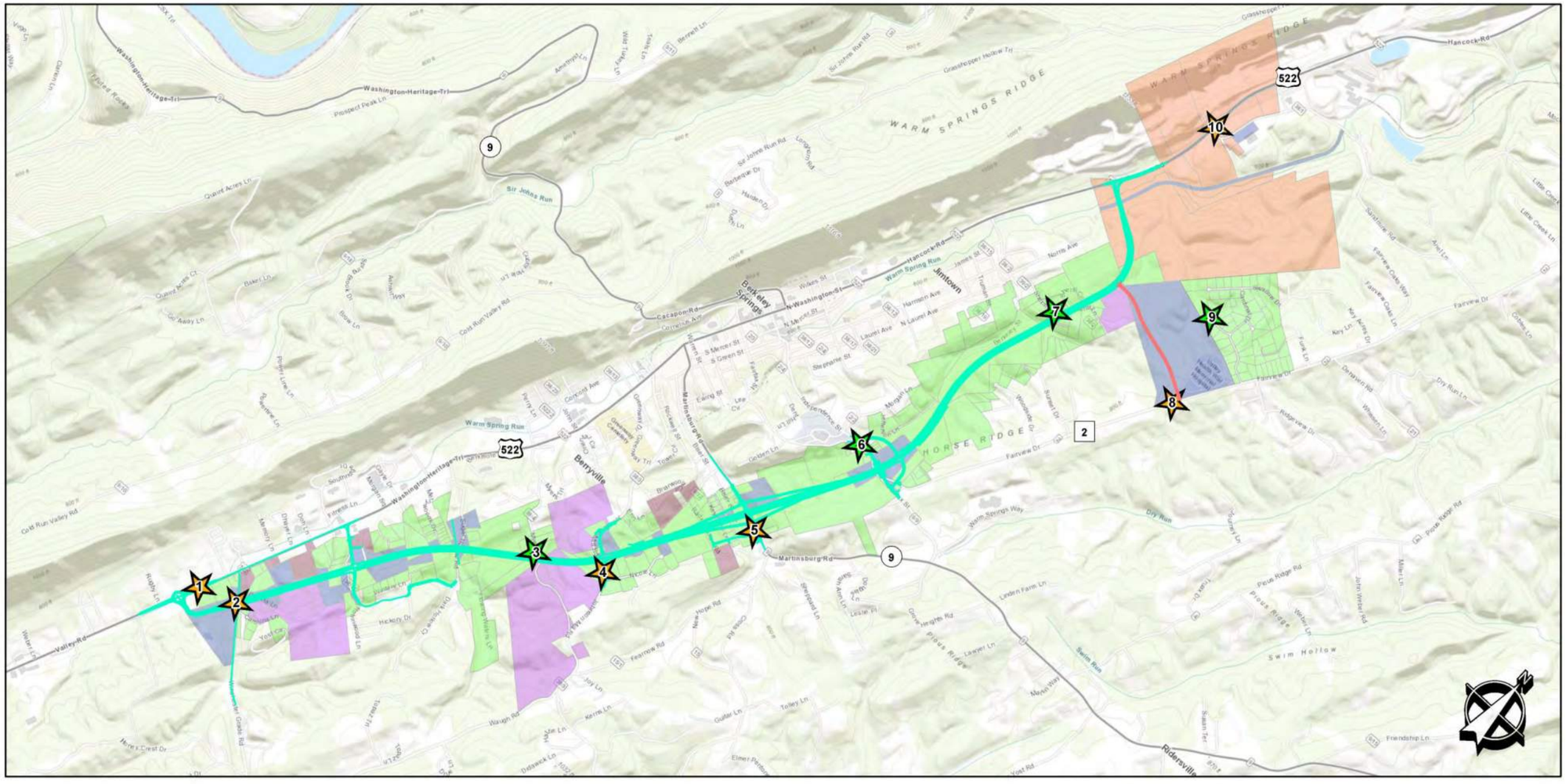
# 3.5 METHODOLOGY

## 3.5.1 Noise Monitoring Procedure

The initial step in a noise analysis involves measuring ambient noise levels at various locations throughout the study area. Noise from natural and mechanical sources and human activity typically constitute the ambient noise in an area. The purpose of the ambient noise level measurement is to quantify the existing acoustic environment and provide a baseline for assessing the impact of future noise levels to the receptors in the vicinity of the proposed action resulting from increased traffic and the new roadway alignment. Field measurements will also assist in evaluating the level of noise reduction that may be provided by existing elements such as fences and scattered vegetation that cannot be precisely modeled by the computer. This information will be an important consideration in the determination of noise impacts and the evaluation of any associated noise abatement measures for the project.

Noise levels were measured at 10 locations, as shown in **Figure 3-4**. Traffic volumes were collected during noise measurements at six of these locations (Sites 1, 2, 4, 5, 8, and 10). Traffic volumes and vehicle speeds were so low at Sites 3, 6, 7, and 9 that traffic noise was not the major noise source and, therefore; were used as part of the TNM model validation. However, the noise readings were used to determine the ambient noise levels within those CNE areas.

***Figure 3.4: Field Measurement and TNM Validation Locations***




**Legend**

- Field Locations TNM Validation
- Field Locations Base Readings
- US 522 Bypass
- Fairview Connector

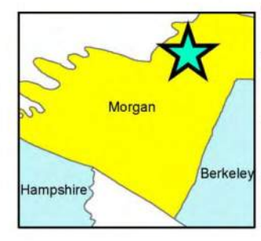
Landuse Type

- Commercial
- Exempt
- Farm
- Industrial
- Residential

# US 522 Re-evaluaton Noise Study Field Measurements and TNM Validation Locations

0 0.25 0.5 1 Miles

1 inch = 2,000 feet




| |
|---|
| US 522 Relocation |
| State Project: U333-522-11.92 |
| Federal Project: NFA-2317(005)D |
| Date: 8/2/2019 |

Outdoor measurements were taken using a Type 2 SoundPro DL sound level meter on May 24 and 25, 2018. The noise meters were placed four feet above the ground level. Noise levels were measured for 15 minutes at each ambient location. The equivalent steady-state sound level ($L_{eq}$) was collected for each site logged in one-minute intervals. One-minute data logging is important to determine any aberrant noise events at each site. The traffic counts at Sites 1, 2, 4, 5, 8, and 10 were categorized into automobiles, medium trucks, heavy trucks, buses, and motorcycles. Associated documents for the ambient noise measurements are provided in **Appendix A**. No interior noise level measurements were performed.

### 3.5.2 Noise Analysis Procedure

FHWA's Traffic Noise Model Version 2.5 (TNM 2.5) traffic noise prediction and analysis software is capable of predicting highway traffic noise. Released in April 2004, TNM 2.5 is the latest version currently available and is the required noise analysis software on all federal-aid highway projects. TNM 2.5 predicts noise levels at receptor locations based on vehicle volume, speed, fleet mix, distance to the receptor, and area terrain.

The traffic noise scenarios evaluated in this analysis include the following:

- Existing (2018) loudest-hour noise levels;
- Design year (2043) No-Build loudest-hour noise levels; and
- Design year (2043) Build loudest-hour noise levels.

Maximum design hour traffic volumes for major streets in the study area in 2018 and 2043 were obtained from WVDOH.

Receptors in the model were placed at every residential, institutional, commercial, and industrial property within the study area. A total of 181 receptors representing 181 receivers were modeled. Receptor locations are shown in **Appendix B**.

# Section 4. Existing Noise Environment

This section describes the short-term noise monitoring process, noise model validation, common noise environment determination, traffic data for noise prediction, and existing conditions in the study area.

## 4.1 Short-Term Noise Monitoring

A summary of measured noise levels is provided in **Table 4.1**. Measured noise levels ranged from 55.5 dB(A) to 72.1 dB(A). A summary of output from the noise meter at each monitoring location is included in **Appendix B**. Recorded traffic counts during the 15-minute noise measurement, and equivalent hourly volumes are summarized in **Table 4.2.** Light winds were observed during noise measurements, as noted in field data sheets provided in Appendix A.

***Table 4.1: Measured Noise Levels***

| Monitoring Location | Monitored Period | Location | Land Use | Leq (dB(A)) |
|---|---|---|---|---|
| 1 | 05/24/18 16:00 - 16:15 | US 522 | Commercial | 72.1 |
| 2 | 05/24/18 16:40 - 16:55 | Winchester Grade Road | Residential | 66.4 |
| 3 | 05/24/18 17:15 - 17:30 | Myers Road | Residential | 56.1 |
| 4 | 05/24/18 17:45 - 18:00 | Johnson Mill Road | Residential | 61.5 |
| 5 | 05/24/18 18:05 - 18:20 | Martinsburg Road | Residential | 66.3 |
| 6 | 05/25/18 08:45 - 09:00 | Fairfax Street | Residential | 63.1 |
| 7 | 05/25/18 08:20 - 08:35 | Sherill Lane | Residential | 60.0 |
| 8 | 05/25/18 07:50 - 08:05 | Fairview Drive | Hospital | 65.2 |
| 9 | 05/25/18 07:18 - 07:33 | Bluebird Court | Residential | 55.5 |
| 10 | 05/25/18 07:00 - 07:15 | US 522 | Industrial | 65.9 |

***Table 4.2: Traffic Volume Collected during Noise Monitoring***

| Monitoring Location | Road Name | Speed (mph) | Direction | 15-Minute Traffic Count | | | | | Equivalent Hourly Traffic Volume | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | A | MT | HT | B | M | A | MT | HT | B | M |
| 1 | US 522 | 45 | NB | 140 | 5 | 14 | 2 | 3 | 560 | 20 | 56 | 8 | 12 |
| | | | SB | 105 | 6 | 13 | 0 | 0 | 420 | 24 | 52 | 0 | 0 |
| 2 | Winchester Grade RD | 40 | EB | 31 | 0 | 0 | 0 | 0 | 124 | 0 | 0 | 0 | 0 |
| | | | WB | 53 | 2 | 0 | 1 | 0 | 212 | 8 | 0 | 4 | 0 |
| 4 | Johnson Mill RD | 35 | NB | 6 | 0 | 0 | 0 | 1 | 24 | 0 | 0 | 0 | 4 |
| | | | SB | 8 | 0 | 0 | 0 | 1 | 32 | 0 | 0 | 0 | 4 |
| 5 | Martinsburg RD | 55 | EB | 34 | 0 | 0 | 0 | 0 | 136 | 0 | 0 | 0 | 0 |
| | | | WB | 28 | 0 | 0 | 0 | 0 | 112 | 0 | 0 | 0 | 0 |
| 8 | Fairview Drive | 35 | NB | 16 | 0 | 0 | 0 | 0 | 64 | 0 | 0 | 0 | 0 |
| | | | SB | 23 | 0 | 0 | 0 | 0 | 92 | 0 | 0 | 0 | 0 |
| 10 | US 522 | 55 | NB | 58 | 3 | 8 | 1 | 0 | 232 | 12 | 32 | 4 | 0 |
| | | | SB | 49 | 3 | 11 | 0 | 0 | 196 | 12 | 44 | 0 | 0 |

*Key: A = automobile, B = bus, EB = eastbound, HT = heavy truck, M = motorcycle, MT = medium truck, NB = northbound, SB = southbound, WB = westbound*

## 4.2 Noise Model Validation

Modeled noise levels for the existing conditions using traffic volumes collected during noise monitoring were compared against monitored noise levels presented in Table 4-1 to evaluate the accuracy of the model setup. **Table 4.3** compares monitored noise levels and the respective modeled noise levels. The comparison was not made at ambient noise level monitoring locations.

***Table 4.3: Measured and Modeled Noise Levels***

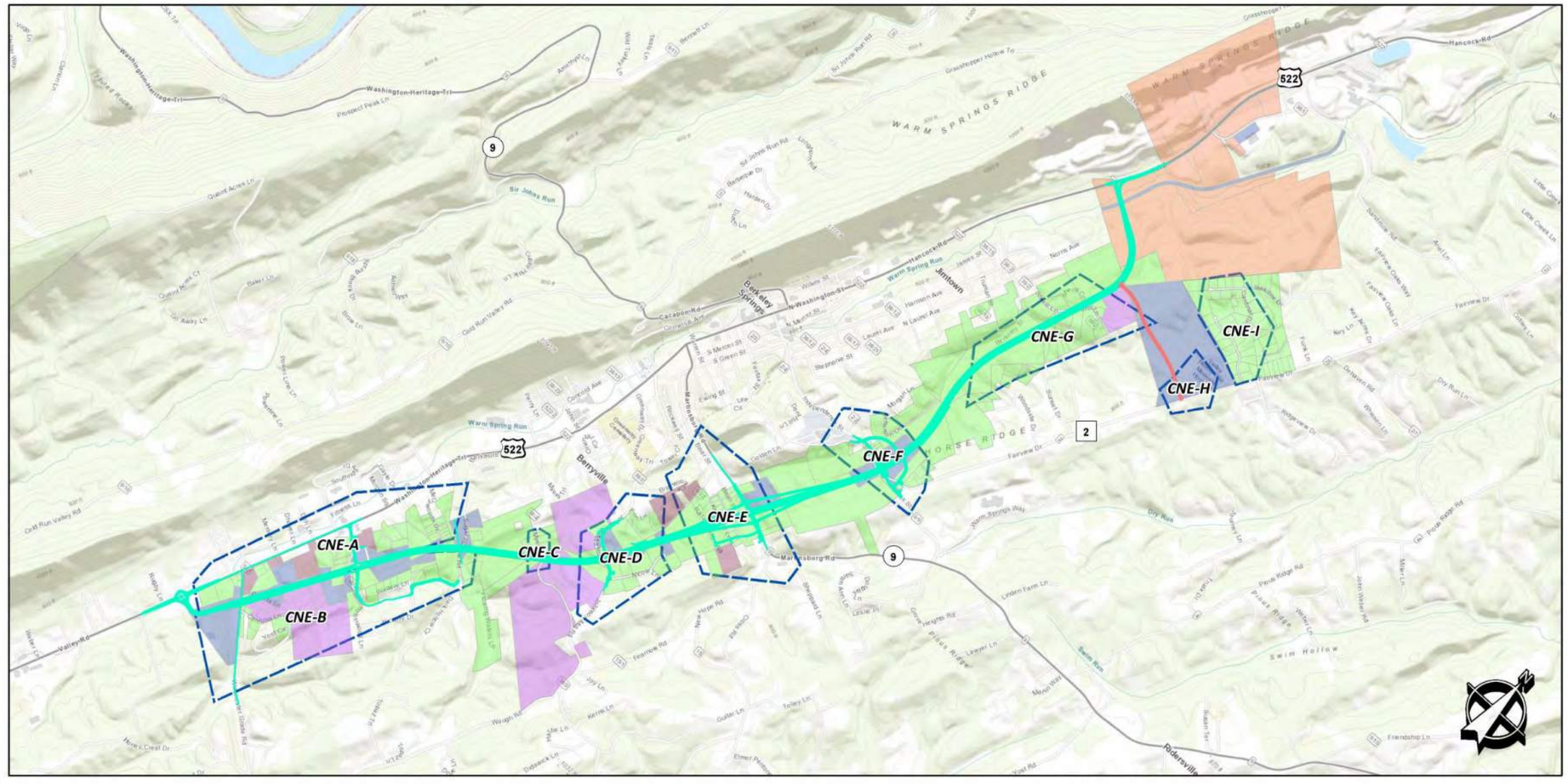
| Monitoring Location | Measured Leq (dB(A)) | Modeled Leq (dB(A)) | Difference (dB(A)) |
|---|---|---|---|
| 1 | 72.1 | 72.0 | -0.1 |
| 2 | 66.4 | 67.9 | 1.5 |
| 4 | 61.5 | 58.7 | -2.8 |
| 5 | 66.3 | 67.3 | 1.0 |
| 8 | 65.2 | 62.4 | -2.8 |
| 10 | 65.9 | 67.1 | 1.2 |

The FHWA and WVDOH accept modeled noise levels that are within +/- 3.0 dB(A). All locations evaluated are within the FHWA and WVDOH tolerance.

## 4.3 Common Noise Environment Determination

A common noise environment (CNE) is defined as a group of receptors that are exposed to similar noise sources and levels; traffic volumes, traffic mix, and speed; and topographic features. There are nine distinct geographic areas within the project area containing noise-sensitive land uses within 500 feet of the construction limits that can be considered similar in acoustical environment. The CNE's within the project area are shown in **Figure 4.1**.

***Figure 4.1: Common Noise Environments within the Project Area***




**Legend**

- US 522 Bypass
- Fairview Connector
- Common Noise Environment (CNE)

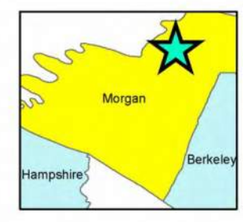
Landuse Type

- Commercial
- Exempt
- Farm
- Industrial
- Residential

**US 522 Re-evaluaton Noise Study**
**Common Noise Environments within the Project Area**

0 0.25 0.5 1 Miles

1 inch = 2,000 feet




| |
|---|
| US 522 Relocation |
| State Project: U333-522-11.92 |
| Federal Project: NFA-2317(005)D |
| Date: 8/2/2019 |

# 4.4 Traffic Data for Noise Prediction

Noise levels were predicted for existing (2018), and design year (2043) loudest-hour traffic volumes at receiver locations that represent 181 receivers in existing land uses. The number and types of predicted traffic noise impacts in each scenario and impact type are shown in **Table 4.4.** The magnitude of the predicted noise levels and their increase over existing levels determine if a noise impact occur and the type of impact, such as receivers exceeding FHWA NAC or substantial increase criteria.

Noise levels for the design year scenarios were calculated and compared to the existing noise levels. The increase in future traffic volumes and the addition of travel lanes closer to receptors would result in noise levels higher than the existing conditions. The modeled receivers currently experience noise levels between 28.1 and 66.3 dB(A) and two modeled receivers in the study area are exceeding the NAC. Based on field data, a minimum existing ambient hourly equivalent noise level threshold of 55.5 dB(A) was applied to all receptors that were modeled to be lower than 55.5 dB(A) for no-build and design year scenarios.

Noise levels in 2040 are expected to be 29 to 67.4 dB(A) if no change is made to the existing highway. Noise levels would approach or exceed the NAC at five residential receivers without the project. The average increase in noise levels in the design year is approximately 1 dB over existing levels without the project. The increase is due to growth in traffic volume between 2018 and 2043.

With the proposed project, the estimated range is 38.7 to 68.7 dB(A). Five residential receivers would be impacted by this scenario. Traffic volume increase would change the noise level at all receptors by an average of 3.5 dB(A). The noise impact summary for the existing year (2018) and design year (2043) are shown in **Table 4.4**.

A summary of the 2018 existing, 2043 No Build, and 2043 Build predicted noise levels by receiver number are also provided in **Appendix C**.

***Table 4.4: Traffic Noise Impact Summary***

| Scenario | Approximate # of Impacted Receivers Approaching or Exceeding the NAC | | | | Substantial Noise Level Increase[1] | Impacts due to Both Criteria[2] | Total Impacts per 23 CFR 772[3] |
|---|---|---|---|---|---|---|---|
| | A | B | C | E | | | |
| Existing | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| No-Build | 0 | 5 | 0 | 0 | 0 | 0 | 5 |
| Build | 0 | 5 | 0 | 0 | 0 | 0 | 5 |
| Total Modeled Receivers | 0 | 181 | 0 | 0 | N/A | N/A | 181 |

*Notes:*
*[1] Predicted WVDOH "substantial increase" traffic noise level impact.*
*[2] Predicted traffic noise level impact due to exceeding NAC and "substantial increase" in build noise levels.*
*[3] The total number of predicted impacts is not duplicated if receptors are predicted to be impacted by more than one criterion.*

# 4.5 Existing Conditions

A discussion of existing conditions for each CNE is provided below.

## 4.5.1 CNE A

CNE A is located in the southern portion of the project area on both sides of US 522 and west of the proposed alignment of the Berkeley Springs Bypass. It is primarily comprised of residential and commercial land uses, with property owned by the WVDOH, Calvary Bible Church, and Berkeley Baptist Church also located within its boundaries (see **Figure 4-2**). Noise monitoring occurred at the 19th Hole Café located immediately alongside US 522 where a traffic noise level of 72.1 dBA was measured, which is representative of the traffic noise levels within this CNE. Existing traffic noise levels were modeled between 34.8 and 66.3 dBA. The major noise source at this location is traffic traveling on US 522, where the posted speed limit is 45 miles per hour.

## 4.5.2 CNE B

CNE B is located adjacent to CNE A, east of the proposed Berkeley Springs Bypass and stretching north to Sugar Hollow Road. Residences and farmland comprise the majority of this CNE, but similar to CNE A, there are also properties owned by Berkeley Baptist Church and the WVDOH located within its boundaries (see Figure 4-2). A traffic noise level of 66.4 dBA was measured on Winchester Grade Road near Carolina Lane, with existing traffic noise levels modeled between 28.3 and 52.9 dBA in the TNM. Traffic traveling on Winchester Grade Road is the dominant noise source in CNE B and therefore the dominant component of the existing acoustic environment.

## 4.5.3 CNE C

CNE C is located east of US 522 near the intersection of Myers Road and the proposed alignment of the Berkeley Springs Bypass. One of the smallest CNEs, it is situated in a heavily wooded area with several residences found alongside Myers Road. Noise monitoring occurred near these residences, with a noise level of 56.1 dBA measured. Existing traffic noise levels were modeled between 47.6 dBA and 55.4 dBA. Traffic traveling on Myers Road is the dominant noise source in CNE C. The primary source of this traffic is an apartment complex located west of the CNE.

## 4.5.4 CNE D

CNE D is situated north of CNE C along Johnsons Mill Road near its intersection with the alignment of the proposed Berkeley Springs Bypass. This CNE is located among numerous residences, wooded area, and open farmland (see Figure 4-2). Traffic using Johnsons Mill Road is the dominant noise source, with noise monitoring near the intersection of Nicole Lane and Johnsons Mill Road providing a measurement of 61.5 dBA. Existing traffic noise levels modeled in the TNM ranged from 32.7 to 58.7 dBA.

## 4.5.5 CNE E

CNE E is located immediately north of CNE D. Martinsburg Road traverses this CNE in an east-west direction and is the dominant component of the existing noise environment. The alignment of the proposed bypass runs north-south through the CNE near the intersection of Martinsburg Road and Keystone Lane. Numerous residences are located in this heavily wooded area along with a few

properties owned by commercial enterprises and the WVDOH (see Figure 4-2). Noise measurement of 66.3 dBA was recorded along Martinsburg Road near Keystone Lane, with existing traffic noise levels modeled in the TNM ranging from 36.7 dBA to 66.3 dBA.

### 4.5.6 CNE F

CNE F is located toward the northern extent of the proposed Berkeley Springs Bypass. Fairfax Street, Independence Street, and Fairview Drive are the major roads that traverse it, with the Berkeley Springs Bypass running north-south near the intersection of Fairfax Street and Fairview Drive. CNE F is comprised of several residences situated within an area characterized by a combination of tree cover and open fields. Some properties are owned by the WVDOH (see Figure 4-2). Background noise in the CNE is minimal. Noise monitoring occurred near the intersection of Independence Street and Fairfax Street, with a noise measurement of 63.1 dBA being recorded. Existing traffic noise levels were modeled between 35.6 and 55.1 dBA.

### 4.5.7 CNE G

CNE G is the northernmost CNE located along the proposed alignment of the Berkeley Springs Bypass. Land use within the CNE is almost entirely residential, with the far northeast portion designated as farmland (see Figure 4-2). CNE G is densely wooded, with no major streets located within its boundaries. The Berkeley Springs Bypass would run north-south through the middle of the CNE. Noise measurement of 60.0 dBA was recorded at a noise monitoring site on Sherill Lane, which is a dead-end road. Background noise in this area is minimal. Existing traffic noise levels in CNE G were modeled between 28.2 and 31.4 dBA in the TNM.

### 4.5.8 CNE H

CNE H is located due east of the northern portion of CNE G. War Memorial Hospital is the primary landowner in this CNE, with a few residences located across from the hospital along Fairview Drive (see Figure 4-2). The major noise source is road traffic on Fairview Drive. Noise monitoring occurred near the hospital entrance at Healthy Way and Fairview Drive, where a noise measurement of 65.2 dBA was recorded. Modeled noise levels in the TNM ranged from 28.1 to 29.1 dBA.

### 4.5.9 CNE I

CNE I is located north of CNE H in an area comprised of residential development. The major noise sources are daily residential activities. Noise monitoring occurred in a cul de sac on Bluejay Court, where a noise measurement of 55.5 dBA was recorded. This area was located far enough away from the Fairview Connector, so no receptors were modeled in this area.

# Section 5. Design Year Conditions

WVDOH proposes to construct the Berkeley Springs Bypass and Fairview Connector. The bypass will begin at Winchester Road (County Route 13) and extend to Sandmine Road (County Route 38/1). The Fairview Connector will link US 522 to Fairview Drive near War Memorial Hospital, which are currently separated by a distance of approximately four miles. The Berkeley Springs Bypass will be a four-lane, controlled-access expressway with a grassed median and a design speed of 60 miles per hour. The Berkeley Springs Bypass is part of the US 522 project that was studied in the mid-1990s to early 2000s. That project consists of a four-lane roadway on a new alignment from the Virginia/ West Virginia state line to the Maryland state line for a distance of approximately 19 miles.

For this analysis, it is anticipated that traffic noise levels for the design year (2043) No-Build condition will increase compared to the existing noise environment. This is due to the projected growth in traffic volumes on the roadway network in the project area.

Current design engineering plans for the Berkeley Springs Bypass projected design year (2043) traffic volumes, and future terrain features were used to build the TNM for the design year (2043) Build condition. Noise levels predicted by the TNM for the existing (2018) condition, future design year (2043) No-Build condition, and future design year (2043) Build condition are provided in Appendix A. Design year conditions for each CNE are discussed below. As previously explained, because the Berkeley Springs Bypass project is on new location, many of the noise levels predicted by the Existing TNM were lower than the noise levels recorded in the field. The minimum noise level collected in the field was 55.5 dBA; for those sites that did not reach 55.5 dBA in the Existing model, the average noise level of 55.5 dBA was used to set baseline noise levels in the Build model. Potential noise impacts at receptor locations in the Build condition where this situation applied were identified by calculating noise level increases using the 55.5 dBA baseline.

The NAC used to determine noise impacts is either 66 or 71 dBA, depending on land use type for receptors located within each CNE. The NAC used for receptors located at residences, churches, and health offices located within each CNE is 66 dBA, and the NAC used for receptors located at restaurants and commercial enterprises is 71 dBA (see **Table 5.1**).

***Table 5.1: Traffic Noise Receptor Table***

| CNE | Receptor ID | Landuse | Noise Abatment Criteria (dBA) | 2017 Modeled Noise Level | 2018 Modeled Noise Level | % Change +/- |
|---|---|---|---|---|---|---|
| CNE - A | A-1 | Commercial | 71 | 64.2 | 64.3 | 0.1 |
| | A-2 | Residential | 66 | 60.8 | 62.2 | 1.4 |
| | A-3 | Residential | 66 | 56 | 60.2 | 4.2 |
| | A-4 | Residential | 66 | 58.9 | 60.8 | 1.9 |
| | A-5 | Residential | 66 | 57.6 | 62.2 | 4.6 |
| | A-6 | Residential | 66 | 66.3 | 66.8 | 0.5 |
| | A-7 | Residential | 66 | 65.5 | 66.2 | 0.7 |
| | A-8 | Commercial | 71 | 63 | 64.1 | 1.1 |
| | A-9 | Residential | 66 | 55.5* | 60.7 | 5.2 |
| | A-10 | Commercial | 71 | 65.9 | 66.6 | 0.7 |
| | A-11 | Residential | 66 | 64.3 | 65.2 | 0.9 |
| | A-12 | Residential | 66 | 60.1 | 61.5 | 1.4 |
| | A-13 | Residential | 66 | 59.2 | 60.6 | 1.4 |
| | A-14 | Church | 66 | 55.5* | 61.3 | 5.8 |
| | A-15 | Residential | 66 | 55.5* | 54.9 | 0 |
| | A-16 | Residential | 66 | 55.5* | 53.2 | 0 |
| | A-17 | Residential | 66 | 55.5* | 52.4 | 0 |
| | A-18 | Office | 66 | 55.5* | 51.7 | 0 |
| | A-19 | Commercial | 71 | 55.5* | 51.1 | 0 |
| | A-20 | Commercial | 71 | 55.5* | 50.3 | 0 |
| | A-21 | Restaurant | 71 | 55.5* | 49.8 | 0 |
| | A-22 | Commercial | 71 | 55.5* | 50.4 | 0 |
| | A-23 | Residential | 66 | 55.5* | 50.6 | 0 |
| | A-24 | Commercial | 71 | 55.5* | 51 | 0 |
| | A-25 | Commercial | 71 | 55.5* | 52.3 | 0 |
| | A-26 | Commercial | 71 | 55.5* | 53.6 | 0 |
| | A-27 | Residential | 66 | 55.5* | 58.1 | 2.6 |
| | A-28 | Residential | 66 | 55.5* | 61.3 | 5.8 |
| | A-29 | Commercial | 71 | 55.5* | 49.7 | 0 |
| | A-30 | Commercial | 71 | 55.5* | 49 | 0 |
| | A-31 | Commercial | 71 | 55.5* | 49.6 | 0 |
| | A-32 | Commercial | 71 | 55.5* | 51.4 | 0 |
| | A-33 | Office | 66 | 55.5* | 53.5 | 0 |
| | A-34 | Restaurant | 71 | 55.5* | 54.8 | 0 |
| | A-35 | Residential | 66 | 55.5* | 54.2 | 0 |
| | A-36 | Residential | 66 | 55.5* | 54.4 | 0 |
| | A-37 | Residential | 66 | 55.5* | 51.1 | 0 |
| | A-38 | Residential | 66 | 55.5* | 52.7 | 0 |
| | A-39 | Residential | 66 | 55.5* | 55.1 | 0 |
| | A-40 | Residential | 66 | 55.5* | 59.4 | 3.9 |
| | A-41 | Residential | 66 | 55.5* | 47.9 | 0 |
| CNE - B | B-1 | Commercial | 71 | 55.5* | 57.3 | 1.8 |
| | B-2 | Residential | 66 | 55.5* | 65.3 | 9.8 |
| | B-3 | Residential | 66 | 55.5* | 60.6 | 5.1 |
| | B-4 | Residential | 66 | 55.5* | 59.7 | 4.2 |
| | B-5 | Residential | 66 | 55.5* | 56.5 | 1 |
| | B-6 | Residential | 66 | 55.5* | 53.5 | 0 |
| | B-7 | Residential | 66 | 55.5* | 53.2 | 0 |
| | B-8 | Barn | 66 | 55.5* | 68.5 | 13 |
| | B-9 | Residential | 66 | 55.5* | 55.1 | 0 |
| | B-10 | Residential | 66 | 55.5* | 54.3 | 0 |

| CNE | Receptor ID | Landuse | Noise Abatment Criteria (dBA) | 2017 Modeled Noise Level | 2018 Modeled Noise Level | % Change +/- |
|---|---|---|---|---|---|---|
| | B-11 | Residential | 66 | 55.5* | 58.6 | 3.1 |
| | B-12 | Residential | 66 | 55.5* | 57.8 | 2.3 |
| | B-13 | Residential | 66 | 55.5* | 57 | 1.5 |
| | B-14 | Residential | 66 | 55.5* | 57.7 | 2.2 |
| | B-15 | Residential | 66 | 55.5* | 54.1 | 0 |
| | B-16 | Residential | 66 | 55.5* | 52.9 | 0 |
| | B-17 | Residential | 66 | 55.5* | 51 | 0 |
| | B-18 | Residential | 66 | 55.5* | 57.5 | 2 |
| | B-19 | Residential | 66 | 55.5* | 56.6 | 1.1 |
| | B-20 | Residential | 66 | 55.5* | 58.5 | 3 |
| | B-21 | Residential | 66 | 55.5* | 53.5 | 0 |
| | B-22 | Residential | 66 | 55.5* | 51 | 0 |
| | B-23 | Residential | 66 | 55.5* | 51.1 | 0 |
| | B-24 | Residential | 66 | 55.5* | 50.5 | 0 |
| | B-25 | Residential | 66 | 55.5* | 49.9 | 0 |
| | B-26 | Residential | 66 | 55.5* | 54.7 | 0 |
| | B-27 | Residential | 66 | 55.5* | 50.9 | 0 |
| | B-28 | Residential | 66 | 55.5* | 55.9 | 0.4 |
| CNE- C | C-1 | Residential | 66 | 55.5* | 60.6 | 5.1 |
| | C-2 | Residential | 66 | 55.5* | 59 | 3.5 |
| | C-3 | Residential | 66 | 55.4 | 65.1 | 9.7 |
| | C-4 | Residential | 66 | 55.5* | 65 | 9.5 |
| CNE - D | D-1 | Residential | 66 | 55.5* | 58 | 2.5 |
| | D-2 | Residential | 66 | 55.5* | 55.5 | 0 |
| | D-3 | Residential | 66 | 55.9 | 66.8 | 10.9 |
| | D-4 | Residential | 66 | 55.5* | 57.8 | 2.3 |
| | D-5 | Residential | 66 | 55.5* | 56.1 | 0.6 |
| | D-6 | Residential | 66 | 55.5* | 54.8 | 0 |
| | D-7 | Residential | 66 | 55.5* | 56.6 | 1.1 |
| | D-8 | Residential | 66 | 58.7 | 60.3 | 1.6 |
| | D-9 | Residential | 66 | 55.5* | 52.6 | 0 |
| | D-10 | Residential | 66 | 55.5* | 52.5 | 0 |
| | D-11 | Residential | 66 | 55.5* | 52.9 | 0 |
| | D-12 | Residential | 66 | 55.5* | 55.8 | 0.3 |
| | D-13 | Residential | 66 | 55.5* | 54.3 | 0 |
| | D-14 | Residential | 66 | 55.5* | 52.7 | 0 |
| | D-15 | Residential | 66 | 55.5* | 53.1 | 0 |
| | D-16 | Residential | 66 | 55.5* | 53.6 | 0 |
| | D-17 | Residential | 66 | 55.5* | 55.2 | 0 |
| | D-18 | Residential | 66 | 55.5* | 59 | 3.5 |
| | D-19 | Residential | 66 | 55.5* | 55.9 | 0.4 |
| | D-20 | Residential | 66 | 55.5* | 61.6 | 6.1 |
| | D-21 | Residential | 66 | 55.5* | 62.5 | 7 |
| | D-22 | Residential | 66 | 55.5* | 52.7 | 0 |
| | D-23 | Residential | 66 | 55.5* | 56.8 | 1.3 |
| | D-24 | Residential | 66 | 55.5* | 64.6 | 9.1 |
| | D-25 | Residential | 66 | 55.5* | 55.6 | 0.1 |
| CNE - E | E-1 | Residential | 66 | 66.3 | 63.2 | -3.1 |
| | E-2 | Residential | 66 | 55.5* | 54 | 0 |
| | E-3 | Residential | 66 | 65.3 | 62.5 | -2.8 |
| | E-4 | Residential | 66 | 65.1 | 62.5 | -2.6 |
| | E-5 | Residential | 66 | 55.5* | 51.1 | 0 |

| CNE | Receptor ID | Landuse | Noise Abatment Criteria (dBA) | 2017 Modeled Noise Level | 2018 Modeled Noise Level | % Change +/- |
|---|---|---|---|---|---|---|
| | E-6 | Residential | 66 | 55.5* | 51.3 | 0 |
| | E-7 | Residential | 66 | 55.5* | 52.7 | 0 |
| | E-8 | Residential | 66 | 55.5* | 54.5 | 0 |
| | E-9 | Residential | 66 | 60.9 | 58.4 | -2.5 |
| | E-10 | Residential | 66 | 59.2 | 57.2 | -2 |
| | E-11 | Residential | 66 | 55.5* | 53.3 | 0 |
| | E-12 | Residential | 66 | 55.5* | 52.2 | 0 |
| | E-13 | Residential | 66 | 55.5* | 53 | 0 |
| | E-14 | Residential | 66 | 55.5* | 54.6 | 0 |
| | E-15 | Residential | 66 | 55.5* | 54.7 | 0 |
| | E-16 | Residential | 66 | 55.5* | 60.3 | 4.8 |
| | E-17 | Commercial | 71 | 55.5* | 56.9 | 1.4 |
| | E-18 | Residential | 66 | 59.3 | 60.5 | 1.2 |
| | E-19 | Residential | 66 | 55.5* | 56.7 | 1.2 |
| | E-20 | Residential | 66 | 60.2 | 61.2 | 1 |
| | E-21 | Residential | 66 | 55.5* | 54.4 | 0 |
| | E-22 | Residential | 66 | 55.5* | 58.8 | 3.3 |
| | E-23 | Residential | 66 | 55.5* | 65 | 9.5 |
| | E-24 | Residential | 66 | 55.5* | 63.6 | 8.1 |
| | E-25 | Residential | 66 | 55.5* | 61.3 | 5.8 |
| | E-26 | Residential | 66 | 55.5* | 56.8 | 1.3 |
| | E-27 | Commercial | 71 | 55.5* | 57.2 | 1.7 |
| | E-28 | Residential | 66 | 55.5* | 58.1 | 2.6 |
| | E-29 | Residential | 66 | 60.5 | 57.8 | -2.7 |
| | E-30 | Commercial | 71 | 55.5* | 53.7 | 0 |
| | E-31 | Residential | 66 | 55.5* | 55.2 | 0 |
| | E-32 | Residential | 66 | 55.5* | 58.8 | 3.3 |
| | E-33 | Residential | 66 | 56.5 | 55 | -1.5 |
| | E-34 | Residential | 66 | 57.4 | 58.9 | 1.5 |
| | E-35 | Residential | 66 | 55.5* | 54 | 0 |
| CNE - F | F-1 | Commercial | 71 | 55.5* | 51.6 | 0 |
| | F-2 | Commercial | 71 | 55.5* | 56.7 | 1.2 |
| | F-3 | Residential | 66 | 55.5* | 52.8 | 0 |
| | F-4 | Residential | 66 | 55.5* | 56.7 | 1.2 |
| | F-5 | Residential | 66 | 55.5* | 52.3 | 0 |
| | F-6 | Residential | 66 | 55.5* | 52 | 0 |
| | F-7 | Residential | 66 | 55.5* | 52.1 | 0 |
| | F-8 | Residential | 66 | 55.5* | 52.7 | 0 |
| | F-9 | Residential | 66 | 55.5* | 59.4 | 3.9 |
| | F-10 | Residential | 66 | 55.5* | 53 | 0 |
| | F-11 | Residential | 66 | 55.5* | 58.1 | 2.6 |
| | F-12 | Residential | 66 | 55.5* | 56.7 | 1.2 |
| | F-13 | Residential | 66 | 55.5* | 59 | 3.5 |
| | F-14 | Residential | 66 | 55.5* | 55.4 | 0 |
| | F-15 | Residential | 66 | 55.5* | 55.9 | 0.4 |
| | F-16 | Residential | 66 | 55.5* | 57.3 | 1.8 |
| | F-17 | Residential | 66 | 55.5* | 57.4 | 1.9 |
| | F-18 | Residential | 66 | 55.5* | 58.1 | 2.6 |
| | F-19 | Residential | 66 | 55.5* | 63.2 | 7.7 |
| | F-20 | Residential | 66 | 55.5* | 59.1 | 3.6 |
| | F-21 | Residential | 66 | 55.5* | 54.7 | 0 |
| | F-22 | Residential | 66 | 55.5* | 53.9 | 0 |

| CNE | Receptor ID | Landuse | Noise Abatment Criteria (dBA) | 2017 Modeled Noise Level | 2018 Modeled Noise Level | % Change +/- |
|---|---|---|---|---|---|---|
| | F-23 | Residential | 66 | 55.5* | 55.2 | 0 |
| | F-24 | Residential | 66 | 55.5* | 57.6 | 2.1 |
| | F-25 | Residential | 66 | 55.5* | 54.7 | 0 |
| | F-26 | Residential | 66 | 55.5* | 55.1 | 0 |
| | F-27 | Residential | 66 | 55.1 | 59 | 3.9 |
| CNE - G | G-1 | Residential | 66 | 55.5* | 54.5 | 0 |
| | G-2 | Residential | 66 | 55.5* | 55 | 0 |
| | G-3 | Residential | 66 | 55.5* | 56.2 | 0.7 |
| | G-4 | Residential | 66 | 55.5* | 57.6 | 2.1 |
| | G-5 | Residential | 66 | 55.5* | 62.6 | 7.1 |
| | G-6 | Residential | 66 | 55.5* | 61.4 | 5.9 |
| | G-7 | Residential | 66 | 55.5* | 68.7 | 13.2 |
| | G-8 | Residential | 66 | 55.5* | 65.6 | 10.1 |
| | G-9 | Residential | 66 | 55.5* | 61.4 | 5.9 |
| | G-10 | Residential | 66 | 55.5* | 58.4 | 2.9 |
| | G-11 | Residential | 66 | 55.5* | 57 | 1.5 |
| | G-12 | Residential | 66 | 55.5* | 60.8 | 5.3 |
| | G-13 | Residential | 66 | 55.5* | 64.7 | 9.2 |
| | G-14 | Residential | 66 | 55.5* | 53.9 | 0 |
| CNE - H | H-1 | Commercial | 71 | 55.5* | 38.7 | 0 |
| | H-2 | Commercial | 71 | 55.5* | 47.1 | 0 |
| | H-3 | Residential | 66 | 55.5* | 46.5 | 0 |
| | H-4 | Residential | 66 | 55.5* | 47.4 | 0 |
| | H-5 | Residential | 66 | 55.5* | 46.3 | 0 |
| | H-6 | Residential | 66 | 55.5* | 41.4 | 0 |
| | H-7 | Residential | 66 | 55.5* | 40.4 | 0 |

** Based on field data, a minimum existing ambient hourly equivalent noise level threshold of 55.5 dB(A) was applied to all receptors that TNM predicted to be lower than 55.5 dB(A) for the existing baseline scenario.*

*Red Text indicated impacted receptor*

# 5.1 CNE A

For CNE A, existing noise levels were modeled to range between 34.8 and 66.3 dBA in the TNM, and design year (2043) traffic noise levels were modeled to range between 47.9 and 66.8 dBA. Traffic noise levels are predicted to range from a decrease of 7.6 dBA to an increase of 5.8 dBA at receptor locations throughout the CNE. Only two receptors, A-6 and A-7, both residences, are predicted to be impacted by noise increases exceeding the NAC of 66 dBA. The TNM predicts receptors A-6 and A-7 will experience noise increases of 0.5 dBA and 0.7 dBA, respectively. Noise abatement measures should be considered for receptors A-6 and A-7 within CNE A.

# 5.2 CNE B

For CNE B, existing noise levels were modeled to range between 28.3 and 52.9 dBA in the TNM, and design year (2043) traffic noise levels were modeled to range between 49.9 and 68.5 dBA. Traffic noise levels are predicted to range from a decrease of 5.6 dBA to an increase of 13.0 dBA at receptor locations throughout the CNE. The only receptor predicted to be impacted by noise exceeding the NAC of 66 dBA

is a barn located at receptor B-8. Receptor B-8 is predicted to experience a noise level increase of 13.0 dBA. Noise abatement measures should be considered for receptor B-8 within CNE B.

## 5.3 CNE C

For CNE C, existing noise levels were modeled to range between 47.6 and 55.4 dBA in the TNM, and design year (2043) traffic noise levels were modeled to range between 59 and 65.1 dBA. Traffic noise levels are predicted to increase from 3.5 dBA to 9.7 dBA at receptor locations throughout the CNE. No receptors are predicted to experience noise levels approaching or exceeding the NAC, so no noise abatement measures warrant consideration within CNE C.

## 5.4 CNE D

For CNE D, existing noise levels were modeled to range between 32.7 and 58.7 dBA in the TNM, and design year (2043) traffic noise levels were modeled to range between 52.5 and 66.8 dBA. Traffic noise levels are predicted to range from a decrease of 3 dBA to an increase of 10.9 dBA at receptor locations throughout the CNE. The only receptor predicted to be impacted by noise exceeding the NAC of 66 dBA is a residence located at receptor D-3. The TNM predicts receptor D-3 will experience noise increase of 10.9 dBA. Noise abatement measures should be considered for receptor D-3 within CNE D.

## 5.5 CNE E

Existing noise levels at CNE E were modeled to range between 36.7 and 66.3 dBA in the TNM, and design year (2043) traffic noise levels were modeled to range between 51.1 and 63.6 dBA. Traffic noise levels are predicted to range from a decrease of 4.4 dBA to an increase of 9.5 dBA at receptor locations throughout the CNE. No receptors are predicted to experience noise levels approaching or exceeding the NAC, so no noise abatement measures warrant consideration within CNE E.

## 5.6 CNE F

For CNE F, existing noise levels were modeled to range between 35.6 and 55.1 dBA in the TNM, and design year (2043) traffic noise levels were modeled to range between 51.6 and 63.2 dBA. Traffic noise levels are predicted to range from a decrease of 3.9 dBA to an increase of 7.7 dBA at receptor locations throughout the CNE. No receptors are predicted to experience noise levels approaching or exceeding the NAC, so no noise abatement measures warrant consideration within CNE F.

## 5.7 CNE G

For CNE G, existing noise levels were modeled to range between 28.2 and 31.4 dBA in the TNM, and design year (2043) traffic noise levels were modeled to range between 53.9 and 68.7 dBA. Traffic noise levels are predicted to range from a decrease of 1.6dBA to an increase of 13.2 dBA at receptor locations throughout the CNE. The only receptor predicted to be impacted by noise exceeding the NAC of 66 dBA

is a residence located at receptor G-7. The TNM predicts receptor G-7 will experience a noise increase of 13.2 dBA. Noise abatement measures should be considered for receptor G-7 within CNE G.

# 5.8 CNE H

For CNE H, existing noise levels were modeled to range between 28.1 and 29.1 dBA in the TNM, and design year (2043) traffic noise levels were modeled to range between 38.7 and 47.4 dBA. Traffic noise levels are predicted to decrease between 8.1 and 16.8 dBA at receptor locations throughout the CNE. No receptors are predicted to experience noise levels approaching or exceeding the NAC, so no noise abatement measures warrant consideration within CNE H.

# Section 6. Mitigation Alternatives and Consideration

## 6.1 Acceptable Noise Abatement Measures

Noise abatement measures are considered when predicted noise levels approach or exceed the FHWA noise abatement criteria or when predicted noise levels would substantially exceed existing noise levels. Abatement measures, such as noise walls, earth berms, and depressed roadway segments, are intended to reflect or absorb highway traffic noise to reduce noise to acceptable levels. The WVDOH noise policy discusses various measures that can be considered as a means for reducing or eliminating traffic noise impacts. Following is a discussion of measures considered for the proposed project for the impacted receptors within the study area:

### 6.1.1 Traffic Management Measures

Traffic management measures that limit vehicle type, speed, volume, and time of operations are often effective noise abatement measures. However, these types of measures are not considered appropriate for this project due to their effect on the capacity and level of service of the proposed alternatives and the fact that they would not meet the purpose of and need for the proposed project.

### 6.1.2 Roadway Alignment Selection

Roadway alignment selection involves the horizontal or vertical orientation of the proposed improvements in such a way to minimize noise impacts and costs. The selection of roadway alignments for noise abatement purposes must consider the balance between noise impacts and other engineering and environmental parameters. For noise abatement, horizontal alignment selection is primarily a matter of locating the roadway at a sufficient distance from noise-sensitive areas.

Changes in vertical alignment can be effective in limiting noise impacts of certain roadway facilities. Depressing or raising the highway elevations can create cut and fill slopes which may block the line of sight from a receptor to a road and provide shielding from traffic noise. Modifications to the currently proposed alignments for the reduction of traffic noise levels and traffic noise impacts will not be reasonable for this project.

### 6.1.3 Buffer Zones

In areas of impacted receptors where other abatement measures were considered and found to be not reasonable, a vegetative barrier could be considered for psychological and aesthetic screening. Vegetation that is high enough, wide enough, and dense enough it cannot be seen through, can decrease highway traffic noise. Studies have shown that a 200-foot (61-meters) width of dense vegetation can reduce noise levels by 10 dB(A). However, it is often impractical to plant this quantity of vegetation to achieve such reductions.

The development of buffer zones to provide noise mitigation was not considered appropriate as a noise abatement measure for this project. The amount of additional right-of-way required to create effective buffer zones would negatively impact existing adjacent residential land uses.

### 6.1.4 Noise Walls

This measure involves the construction of solid mass barriers to effectively diffract, absorb, and reflect highway traffic noise. A noise barrier must be high enough and long enough to shield the receptor from significant sections of the highway in order to provide sufficient noise reduction. Access openings in the barrier severely reduce the noise reduction provided by the barrier. It is economically unreasonable to construct a barrier for a small noise reduction. Safety at access openings (driveways, crossing streets, etc.) due to restricted sight distance is also a concern.

Furthermore, to provide a sufficient reduction, a barrier's length would normally be eight times the distance from the barrier to the receptor. For example, a receptor located 50 feet (15 meters) from the barrier would normally require a barrier of 400 feet (120 meters) long. An access opening of 40 feet (10 percent of the area) would limit its noise reduction to approximately 4 dB(A).

For noise abatement measures for US 522, were reviewed for receptors A-6, A-7, B-8, D-3 and G-7. Receptors A-6 and A-7 are located along US 522 and property access includes drives that connect to US 522. A noise barrier would not be feasible and still allow access to the property. Receptor B-8 appears to be an outbuilding associated with the residential structure that will be removed due to the proposed project and may include the removal of this structure. Receptor D-3 is a single isolated receptor and barriers for a single receptor are not cost-effective, in addition, the structure is located within 50 feet of the design of the US 522 Bypass, and it is anticipated that this structure will need to be removed. Receptor G-7 is located next to the US 522 Bypass and is anticipated as a relocation since its access is being impacted by the proposed design of the US 522 Bypass. Due to the reasoning above no barrier walls were modeled or recommended for construction as part of the Berkeley Springs Bypass project.

***Table 6.1: Impacted Receiver Locations***

| Receiver | Location Description | dBA Reading | Impact | Abatement Measure |
|---|---|---|---|---|
| A-6 | A residential lot, 75 feet from US 522, adjacent to the intersection of Winchester Grade Road. The property has direct access to US 522. | 66.7 | Sound Level | None Recommended |
| A-7 | A residential lot, 80 feet from US 522 (Valley Road). The property has direct access to US 522. | 66.2 | Sound Level | None Recommended |
| B-8 | On Dakota lane, 800 feet from US 522 (Valley Road) and approximately 790 feet from Winchester Grade Road. The structure appears to be an outbuilding and will be required to be relocated. | 67.5 | Sound Level | None Recommended |
| D-3 | Approximately 40 feet from Johnsons Mill Road, and approximately 50 feet from the US 522 Bypass. The residential structure will be required to be relocated due to the project. | 66 | Sound Level | None Recommended |
| G-7 | On Sherill Lane approximately 2280 feet from Fairview Road. The lot is residential and heavily wooded. This property access is being impacted by the US 522 Bypass and G-7 and G-8 will be required to be relocated due to the project. | 67.7 | Sound Level | None Recommended |

# Section 7. Construction Noise Abatement

The major construction activities for this project are expected to be earth removal, hauling, grading, and paving. Temporary and localized construction noise impacts will likely occur as a result of these activities. Temporary speech interference for passers-by and individuals living or working near the project can be expected. Noise levels in the study area will be increased during construction. The sound levels resulting from construction activities at nearby noise-sensitive receptors will be a function of the types of equipment utilized, the duration of the activities, and the distances between construction activities and nearby land uses. Default sound levels from construction equipment used in FHWA's Roadway Construction Noise Model (RCNM) are shown in **Table 7.1**.

Pile-drivers and impact-hammers will cause temporary, sporadic, and acute construction noise impacts. Other equipment, such as paving equipment, produce more steady noise levels and if operated at night, may interfere with sleep. Sporadic noise emissions from backup alarms and lift gate closures will be perceived as distinctly louder than the steady noise levels of construction equipment and will likely cause impacts to noise-sensitive receptors (residences).

Low-cost and easily implemented construction noise control measures should be incorporated into the project plans and specifications to the extent possible. These measures include but are not limited to, work-hour limits, equipment exhaust muffler requirements, haul-road locations, elimination of "tailgate banging," ambient-sensitive backup alarms, construction noise complaint mechanisms, and consistent and transparent community communication.

***Table 7.1: FHWA RCNM Default Noise Emission Reference Levels and Usage Factors***

| Equipment Description | Impact Device? | Acoustical Use Factor | Spec 721.560 Lmax @ 50ft (dB(A), slow) | Actual Measured Lmax @ 50 ft (dB(A), slow) |
|---|---|---|---|---|
| Auger Drill Rig | No | 20% | 85 | 84 |
| Backhoe | No | 40% | 80 | 78 |
| Boring Jack Power Unit | No | 50% | 80 | 83 |
| Chain Saw | No | 20% | 85 | 84 |
| Clam Shovel (dropping) | Yes | 20% | 93 | 87 |
| Compactor (ground) | No | 20% | 80 | 83 |
| Compressor (air) | No | 40% | 80 | 78 |
| Concrete Mixer Truck | No | 40% | 85 | 79 |
| Concrete Pump Truck | No | 20% | 82 | 81 |
| Concrete Saw | No | 20% | 90 | 90 |
| Crane | No | 16% | 85 | 81 |
| Dozer | No | 40% | 85 | 82 |
| Drill Rig Truck | No | 20% | 84 | 79 |
| Drum Mixer | No | 50% | 80 | 80 |
| Dump Truck | No | 40% | 84 | 76 |
| Excavator | No | 40% | 85 | 81 |
| Flat Bed Truck | No | 40% | 84 | 74 |
| Front End Loader | No | 40% | 80 | 79 |

| Equipment Description | Impact Device? | Acoustical Use Factor | Spec 721.560 Lmax @ 50ft (dB(A), slow) | Actual Measured Lmax @ 50 ft (dB(A), slow) |
|---|---|---|---|---|
| Generator | No | 50% | 82 | 81 |
| Generator (<25KVA, VMS signs) | No | 50% | 70 | 73 |
| Gradall | No | 40% | 85 | 83 |
| Grader | No | 40% | 85 | N/A |
| Grapple (on backhoe) | No | 40% | 85 | 87 |
| Horizontal Boring Hydr. Jack | No | 25% | 80 | 82 |
| Hydra Break Ram | Yes | 10% | 90 | N/A |
| Impact Pile Driver | Yes | 20% | 95 | 101 |
| Jackhammer | Yes | 20% | 85 | 89 |
| Man Lift | No | 20% | 85 | 75 |
| Mounted Impact Hammer (hoe ram) | Yes | 20% | 90 | 90 |
| Pavement Scarifier | No | 20% | 85 | 90 |
| Paver | No | 50% | 85 | 77 |
| Pickup Truck | No | 40% | 55 | 75 |
| Pneumatic Tools | No | 50% | 85 | 85 |
| Pumps | No | 50% | 77 | 81 |
| Rock Drill | No | 20% | 85 | 81 |
| Roller | No | 20% | 85 | 80 |
| Scraper | No | 40% | 85 | 84 |
| Shears (on backhoe) | No | 40% | 85 | 96 |
| Tractor | No | 40% | 84 | N/A |
| Vibratory Concrete Mixer | No | 20% | 80 | 80 |
| Vibratory Pile Driver | No | 20% | 95 | 101 |
| Warning Horn | No | 5% | 85 | 83 |
| Welder/Torch | No | 40% | 73 | 74 |

*Source: USDOT 2006*

# Section 8. Coordination with Local Officials

Highway traffic noise is often not considered as a component of future land use decision-making at the local level. Consideration of highway traffic noise by local planning and zoning officials can lead to mitigation efforts by developers and result in avoiding potential noise impacts. Local land-use planning and development decisions are an autonomous process for local governments; WVDOH can only encourage and coordinate with local officials and developers to consider highway traffic noise impacts during the development review process.

Local planning officials should use the information from this Traffic Noise Impact Study for preliminary identification of noise-sensitive receptors and to determine suitable future development and zoning. Local communities and developers are encouraged to use noise compatible land use planning in order to avoid future noise impacts.

The Date of Public Knowledge or the date of approval of the final environmental document and coordination with a local official for the Berkeley Springs Bypass was August 2001.

# Section 9. Conclusion

This Traffic Noise Impact Study documents the evaluation of existing ambient noise levels at ten noise monitoring locations and the assessment of predicted loudest -hour equivalent Existing, No Build, and Build condition traffic noise levels and traffic noise impacts for 181 noise sensitive receivers for the US 522 Bypass and Fairview Connector.

Only 5 noise impacts were identified for the proposed project. Two of the receptors were located along the existing US 522 and will be impacted whether the project is built or not. The remaining impacts are anticipated to be relocated due to their proximity to the proposed design for the US 522 Bypass. No residences adjacent to the Fairview Connector alignment are anticipated to be impacted. In accordance with WVDOH Traffic Noise Abatement Policy, abatement measures were considered for the benefit of all five predicted noise impacts under the Design Year 2040 Build-condition.

All abatement measures were determined not to be reasonable due to location of the sites and access issues associated with the properties.

A copy of this traffic noise analysis can be provided to local officials to ensure, to the maximum extent possible, future developments are planned, designed, and programmed in a manner that will avoid traffic noise impacts. The final decision for noise mitigation should be made upon completion of the project design and any additional public involvement process required for FHWA approval.

Construction noise impacts, some of them potentially extreme, will occur due to the proximity of numerous noise-sensitive receptors to project construction activities. It is the recommendation of this report that all reasonable efforts should be made to minimize exposure of noise-sensitive areas to construction noise impacts.

# Section 10. List of Preparers and Reviewers

**Michael L. Belvin**

**Senior Environmental Planner**

**CDM Smith**

**David W. Clawson**

**Senior Planner**

**CDM Smith**

**Wade F. Luther, II, AICP**

**Transportation Planner**

**CDM Smith**

**Ariel L. Weyandt, AICP**

**Planner**

**CDM Smith**

# Appendix A Noise Field Notes

CDM Smith

Project #:
County: MORGAN
Division:

Observer's Name IEZZI / POTTER

Date 05/24/18 Monitor Site # 01 US 522

# travel lanes 2 Direction of Lanes N/S

Speed limit 45 Surface Conditions DRY

Grade ~ 2% Wind Speed < 5 mph Humidity

Surrounding Land uses 19TH HOLE CAFE

Time monitoring began 1600 Time monitoring ended 1615

| Traffic # (15 min) | SB Lane | | | | NB Lane | | | |
|---|---|---|---|---|---|---|---|---|
| Cars | 105 | # | 420 | VPH | 140 | # | 560 | VPH |
| Medium Truck | 6 | # | 24 | VPH | 5 | # | 20 | VPH |
| Heavy Truck | 13 | # | 52 | VPH | 14 | # | 56 | VPH |
| Bus | 0 | # | 0 | VPH | 2 | # | 8 | VPH |
| Motorcycle | 0 | # | 0 | VPH | 3 | # | 12 | VPH |
| Total | 124 | # | 496 | VPH | 163 | # | 652 | VPH |

VPH (volume per hour) Multiply by 4 to get hourly volumes

Leq Noise Level L(avg) 72.1 dB Distance from Travel Lane 50 ft

Height above roadway 5 ft Height above Ground 4 ft

Site Sketch if needed

Background Noise

Major Noise Source ROAD TRAFFIC

Unusual Events PAVING PROJECT (MAJESTIC TO TABOR)

Comments

CDM Smith

Project #:
County: MORGAN
Division:

Observer's Name IELLA / POTTER

Date 05/24/18 Monitor Site # 02 Winchester Grade Road

# travel lanes 2 Direction of Lanes E/W

Speed limit 40 Surface Conditions DRY

Grade 2% Wind Speed < 5 MPH Humidity

Surrounding Land uses RESIDENTIAL

Time monitoring began 1640 Time monitoring ended 1700

| Traffic # (15 min) | EB Lane | | | | WB Lane | | | |
|---|---|---|---|---|---|---|---|---|
| Cars | 31 | # | 124 | VPH | 53 | # | 212 | VPH |
| Medium Truck | 0 | # | 0 | VPH | 2 | # | 8 | VPH |
| Heavy Truck | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Bus | 0 | # | 0 | VPH | 1 | # | 4 | VPH |
| Motorcycle | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Total | 31 | # | 124 | VPH | 56 | # | 224 | VPH |

VPH (volume per hour) Multiply by 4 to get hourly volumes

Leq Noise Level L(avg) 66.4 dB Distance from Travel Lane 20 ft

Height above roadway 5 ft Height above Ground 4 ft

Site Sketch if needed

Background Noise MINIMAL

Major Noise Source ROAD

Unusual Events NONE

Comments < 0.25 MI. TO SHEETZ & US522/CR15 I/S
@ ENTR TO BERKELEY BAPTIST CHURCH

CDM Smith

Project #:
County: MORGAN
Division:

Observer's Name IEZZI / POTTER

Date 05/24/18 Monitor Site # 03 Myers Road

# travel lanes _____ Direction of Lanes E/W

Speed limit 25 Surface Conditions DRY

Grade 5% Wind Speed < 5 MPH Humidity _____

Surrounding Land uses RESIDENTIAL

Time monitoring began 1715 Time monitoring ended 1730

Leq Noise Level L(avg) 56.1 dB Distance from Travel Lane 20 ft

Height above roadway 4 ft Height above Ground 4 ft

Site Sketch if needed

Background Noise MINIMAL

Major Noise Source ROAD

Unusual Events _____

Comments RESIDENT STATED PRIMARY SOURCE OF TRAFFIC IS APT COMPLEX TO THE WEST

CDM Smith

Project #:
County: MORGAN
Division:

Observer's Name IEZZI / POTTER

Date 05/24/18 Monitor Site # 04 Johnson Mill Road

# travel lanes 2 Direction of Lanes NE/SW

Speed limit 35? Surface Conditions DRY

Grade 3% Wind Speed <5 MPH Humidity

Surrounding Land uses RES

Time monitoring began 1745 Time monitoring ended 1800

| Traffic # (15 min) | NE Lane | | | | SW Lane | | | |
|---|---|---|---|---|---|---|---|---|
| Cars | 6 | # | 24 | VPH | 8 | # | 32 | VPH |
| Medium Truck | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Heavy Truck | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Bus | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Motorcycle | 1 | # | 4 | VPH | 1 | # | 4 | VPH |
| Total | 7 | # | 28 | VPH | 9 | # | 36 | VPH |

VPH (volume per hour) Multiply by 4 to get hourly volumes

Leq Noise Level L(avg) 61.5 dB Distance from Travel Lane 30 ft

Height above roadway 4 ft Height above Ground 4 ft

Site Sketch if needed

Background Noise CLOSE TO MAILBOXES

Major Noise Source ROAD

Unusual Events

Comments NICOLE LANE / JOHNSONS MILL RD

CDM Smith

Project #:
County: MORGAN
Division:

Observer's Name IEZZI / POTTER

Date 05/24/18 Monitor Site # 05 Martinsburg Road

# travel lanes 2 Direction of Lanes E/W

Speed limit 55 Surface Conditions DRY

Grade 2% Wind Speed 0 Humidity

Surrounding Land uses VACANT LOT

Time monitoring began 1805 Time monitoring ended 1820

| Traffic # (15 min) | WB | | Lane | EB | | Lane |
|---|---|---|---|---|---|---|
| Cars | 28 | # | 112 VPH | 34 | # | 136 VPH |
| Medium Truck | 0 | # | 0 VPH | 0 | # | 0 VPH |
| Heavy Truck | 0 | # | 0 VPH | 0 | # | 0 VPH |
| Bus | 0 | # | 0 VPH | 0 | # | 0 VPH |
| Motorcycle | 0 | # | 0 VPH | 0 | # | 0 VPH |
| Total | 28 | # | 112 VPH | 34 | # | 136 VPH |

VPH (volume per hour) Multiply by 4 to get hourly volumes

Leq Noise Level L(avg) 66.3 dB Distance from Travel Lane 25 ft

Height above roadway 4 ft Height above Ground 4 ft

Site Sketch if needed

Background Noise MINIMAL

Major Noise Source ROAD

Unusual Events

Comments

CDM Smith

Project #:
County: MORGAN
Division:

Observer's Name IEZZI / POTTER

Date 05/24/18 Monitor Site # 05

# travel lanes 2 Direction of Lanes E/W

Speed limit 55 Surface Conditions DRY

Grade 2% Wind Speed 0 Humidity

Surrounding Land uses VACANT LOT

Time monitoring began 1805 Time monitoring ended 1820

| Traffic # (15 min) | WB Lane | | | | EB Lane | | | |
|---|---|---|---|---|---|---|---|---|
| Cars | 28 | # | 112 | VPH | 34 | # | 136 | VPH |
| Medium Truck | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Heavy Truck | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Bus | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Motorcycle | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Total | 28 | # | 112 | VPH | 34 | # | 136 | VPH |

VPH (volume per hour) Multiply by 4 to get hourly volumes

Leq Noise Level L(avg) 66.3 dB Distance from Travel Lane 25 ft

Height above roadway 4 ft Height above Ground 4 ft

Site Sketch if needed

Background Noise MINIMAL

Major Noise Source ROAD

Unusual Events

Comments

CDM Smith

Project #:
County: MORGAN
Division:

Observer's Name IEZZI/ POTTER

Date 05/25/18 Monitor Site # 06 Fairfax Street

# travel lanes 2 Direction of Lanes E/W

Speed limit 25 Surface Conditions DRY

Grade 3% Wind Speed < 5 MPH Humidity

Surrounding Land uses RESIDENTIAL

Time monitoring began 0845 Time monitoring ended 0900

Leq Noise Level L(avg) 63.1 dB Distance from Travel Lane 40 ft

Height above roadway 4 ft Height above Ground 4 ft

Background Noise MINIMAL

Major Noise Source

Unusual Events

Comments STOP SIGN SB

CDM Smith

Project #:
County: MORGAN
Division:

Observer's Name IEZZI / POTTER

Date 05/25/10 Monitor Site # 07 Sherill Lane

# travel lanes 1 Direction of Lanes E/W

Speed limit 25? Surface Conditions DRY

Grade 5% Wind Speed <5 MPH Humidity

Surrounding Land uses RESIDENTIAL

Time monitoring began 0820 Time monitoring ended 0835

Leq Noise Level L(avg) 60.0 dB Distance from Travel Lane 10 ft

Height above roadway 3 ft Height above Ground 4 ft

Site Sketch if needed

Background Noise MINIMAL

Major Noise Source

Unusual Events

Comments DEAD END ROAD

CDM Smith

Project #:
County: MORGAN
Division:

Observer's Name IEZZI/POTTER

Date 05/25/18 Monitor Site # 08 Fairview Drive

# travel lanes 2 Direction of Lanes N/S

Speed limit 35 Surface Conditions DRY

Grade 3% Wind Speed <5 MPH Humidity

Surrounding Land uses HOSPITAL

Time monitoring began 0750 Time monitoring ended 0805

| Traffic # (15 min) | SB Lane | | | | NB Lane | | | |
|---|---|---|---|---|---|---|---|---|
| Cars | 23 | # | 92 | VPH | 16 | # | 64 | VPH |
| Medium Truck | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Heavy Truck | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Bus | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Motorcycle | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Total | 23 | # | 92 | VPH | 16 | # | 64 | VPH |

VPH (volume per hour) Multiply by 4 to get hourly volumes

Leq Noise Level L(avg) 65.2 dB Distance from Travel Lane 8 ft

Height above roadway 4 ft Height above Ground 4 ft

Site Sketch if needed

Background Noise

Major Noise Source ROAD TRAFFIC

Unusual Events

Comments NEAR HOSPITAL ENTRANCE/EXIT
DISTANT LOW "HUMMING" SOUND FROM HOSPITAL

CDM Smith

Project #:
County: MORGAN
Division:

Observer's Name IEZZI / POTTER

Date 05/25/18 Monitor Site # 09 Bluebird Court

# travel lanes 2 Direction of Lanes E/W

Speed limit 15 Surface Conditions DRY

Grade 2% Wind Speed < 5 MPH Humidity

Surrounding Land uses RESIDENTIAL

Time monitoring began 0718 Time monitoring ended 0733

Leq Noise Level L(avg) 55.5 dB Distance from Travel Lane 3 ft

Height above roadway 4 ft Height above Ground 4 ft

Site Sketch if needed

Background Noise MINIMAL

Major Noise Source BIRDS CHIRPING

Unusual Events

Comments DISTANT CONSTRUCTION EQUIPMENT AT PLANT
HELICOPTER PAD AT HOSPITAL (NOT USED DURING STUDY)
CONSTANT LOW "HUM" FROM HOSPITAL

CDM Smith

Project #:
County: MORGAN
Division:

Observer's Name IEZZI/ POTTER

Date 05/25/18 Monitor Site # 10 US 522

# travel lanes 2 Direction of Lanes NB/SB

Speed limit 55 Surface Conditions DRY

Grade 2% Wind Speed < 5 MPH Humidity

Surrounding Land uses INDUSTRIAL PLANT

Time monitoring began 0700 Time monitoring ended 0715

| Traffic # (15 min) | NB Lane | | | | SB Lane | | | |
|---|---|---|---|---|---|---|---|---|
| Cars | 58 | # | 232 | VPH | 49 | # | 196 | VPH |
| Medium Truck | 3 | # | 12 | VPH | 3 | # | 12 | VPH |
| Heavy Truck | 8 | # | 32 | VPH | 11 | # | 44 | VPH |
| Bus | 1 | # | 4 | VPH | 0 | # | 0 | VPH |
| Motorcycle | 0 | # | 0 | VPH | 0 | # | 0 | VPH |
| Total | 70 | # | 280 | VPH | 63 | # | 252 | VPH |

VPH (volume per hour) Multiply by 4 to get hourly volumes

Leq Noise Level L(avg) 65.9 dB Distance from Travel Lane 50 ft

Height above roadway 2 ft Height above Ground 4 ft

Site Sketch if needed

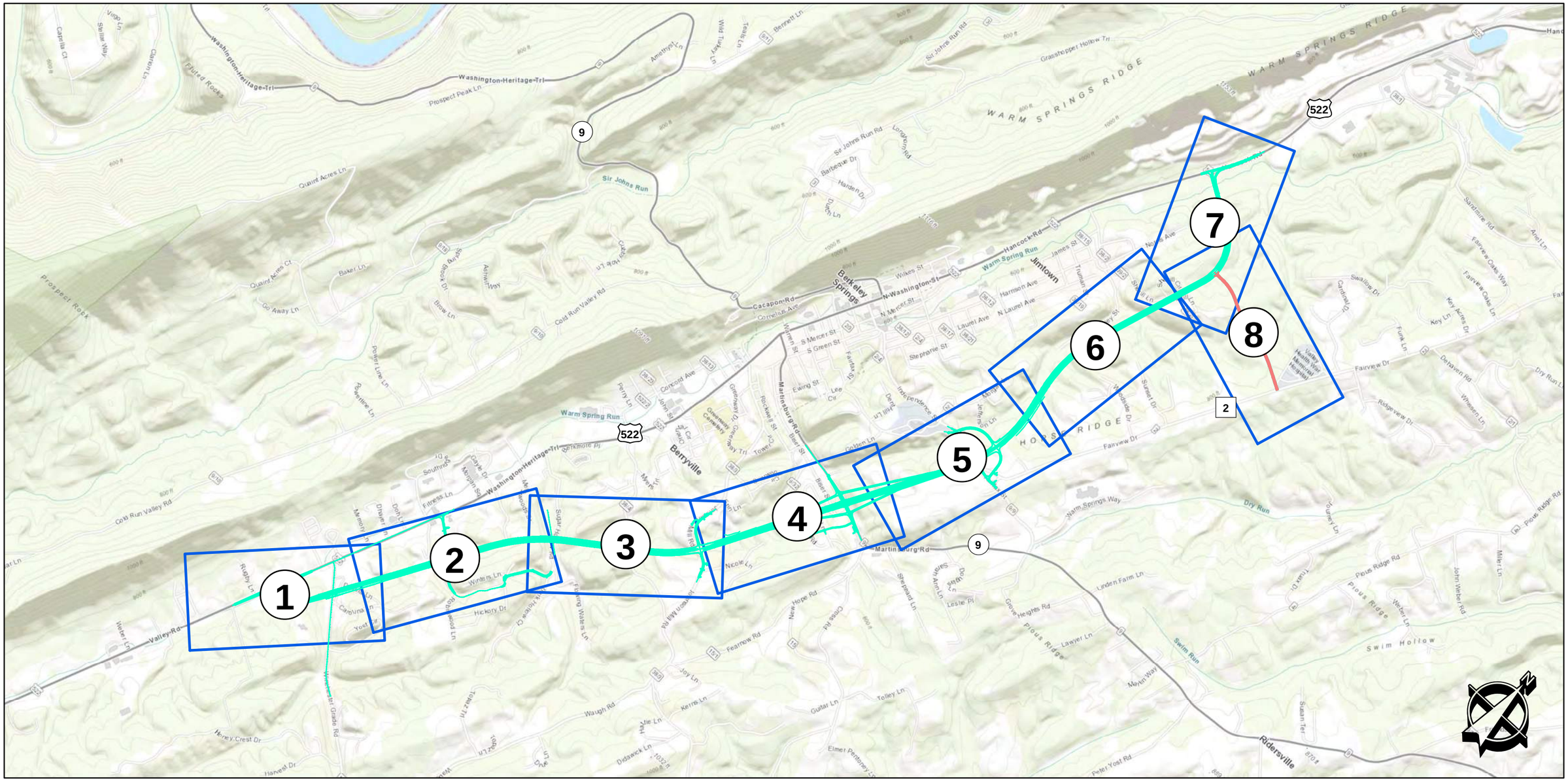
Background Noise

Major Noise Source ROAD TRAFFIC

Unusual Events GROUP OF TRUCKS LEAVING AT SAME TIME @ 0703

Comments

# Appendix B Receiver Sites



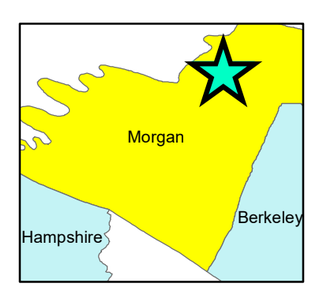

## Legend

- US 522 Bypass
- Fairview Connector
- Mapbook Page

# US 522 Re-evaluaton Noise Study Overview Map

0 0.25 0.5 1 Miles

1 inch = 2,000 feet

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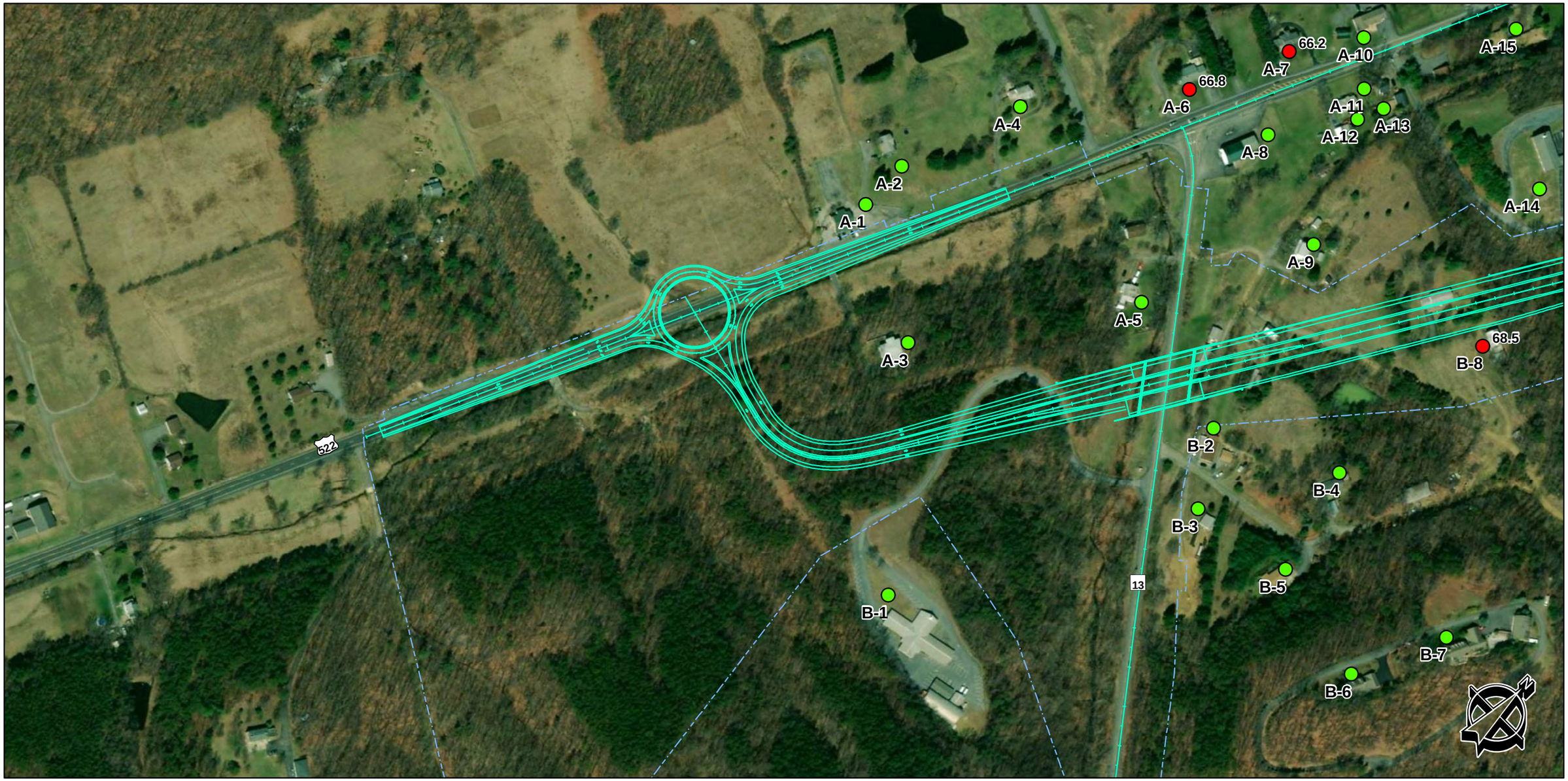
| Federal Project: NFA-2317(005)D |
| Date: 7/31/2019 |




## Legend

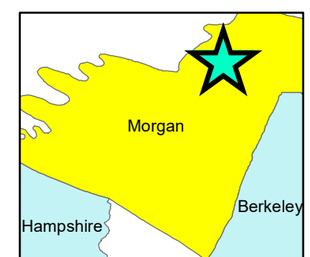
**Build Impact**

- No Impact
- Sound Level Impact
- US 522 Bypass
- Fairview Connector
- Right-of-Way

# US 522 Re-evaluaton Noise Study
# Build Impact Map

0 187.5 375 750 Feet

1 inch = 250 feet

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|---|
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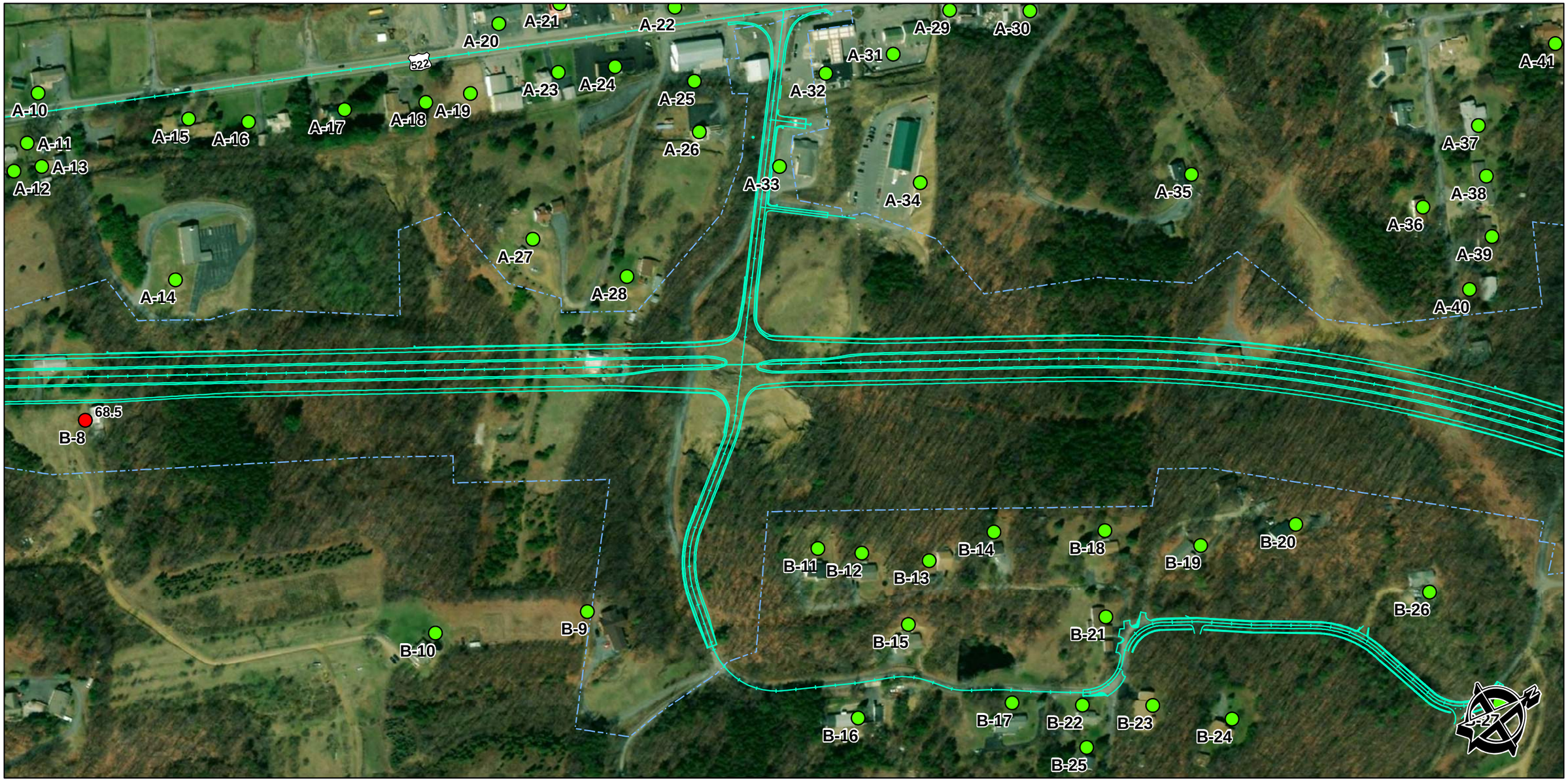
| State Project: U333-522-11.92 |
| Federal Project: NFA-2317(005)D |
| Date: 8/2/2019 |




## Legend

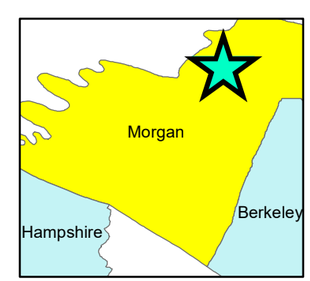
**Build Impact**

- No Impact
- Sound Level Impact
- US 522 Bypass
- Fairview Connector
- Right-of-Way

# US 522 Re-evaluaton Noise Study
# Build Impact Map

0 187.5 375 750 Feet

1 inch = 250 feet

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|---|
| US 522 Relocation |
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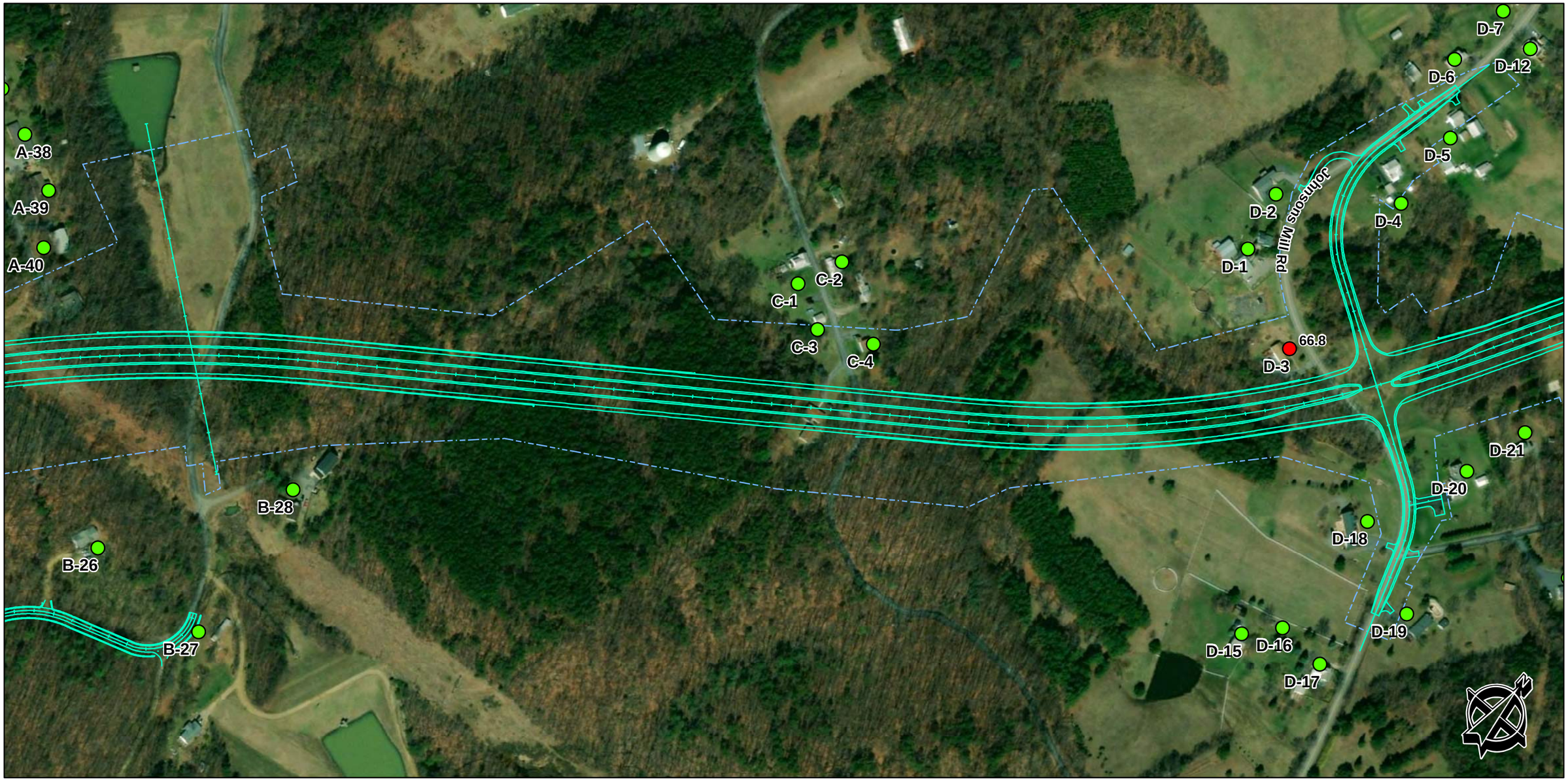
| Date: 8/2/2019 |




## Legend

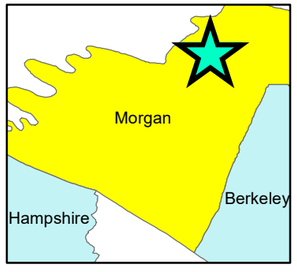
**Build Impact**

- No Impact
- Sound Level Impact
- US 522 Bypass
- Fairview Connector
- Right-of-Way

# US 522 Re-evaluaton Noise Study
# Build Impact Map

0 187.5 375 750 Feet

1 inch = 250 feet

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|---|
| US 522 Relocation |
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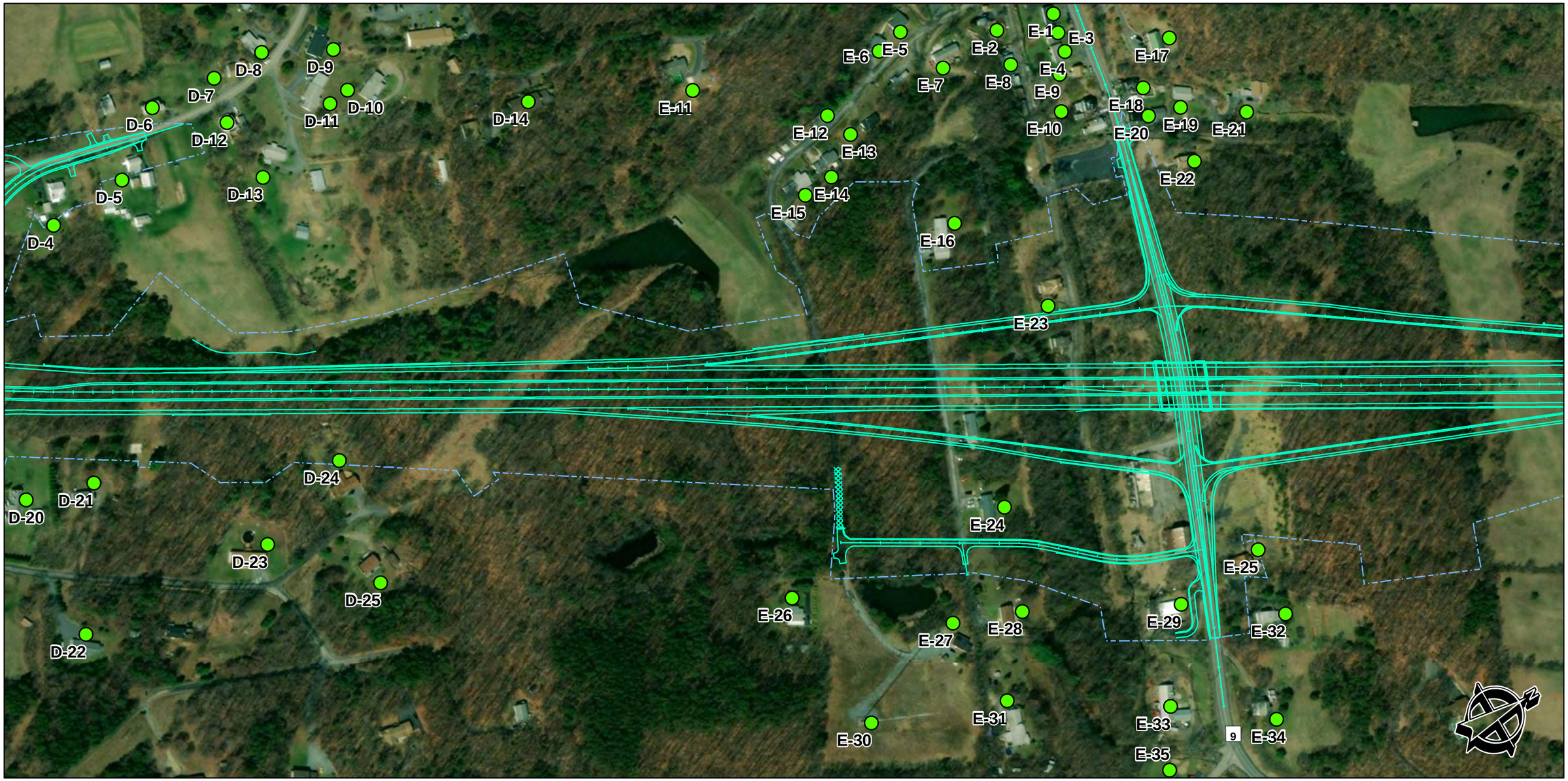
| Federal Project: NFA-2317(005)D |
| Date: 8/2/2019 |




## Legend

**Build Impact**

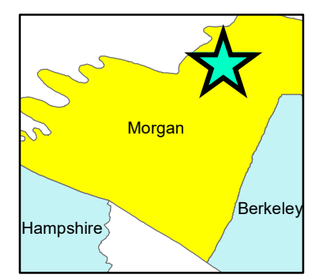
- No Impact
- Sound Level Impact

- US 522 Bypass
- Fairview Connector
- Right-of-Way

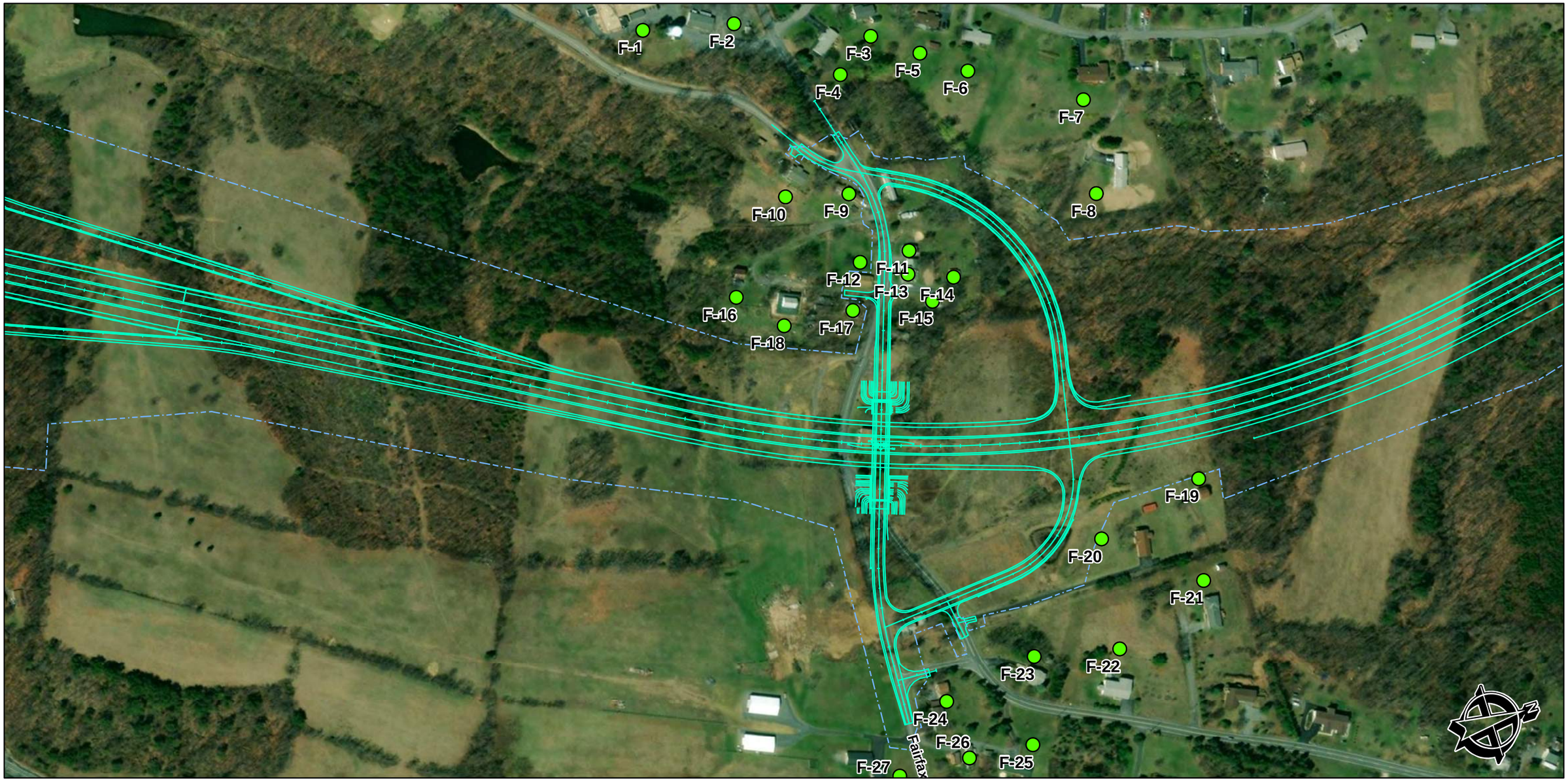
# US 522 Re-evaluaton Noise Study
# Build Impact Map

0 187.5 375 750 Feet

1 inch = 250 feet




| |
|---|
| US 522 Relocation |
| State Project: U333-522-11.92 |
| Federal Project: NFA-2317(005)D |
| Date: 8/2/2019 |




## Legend

**Build Impact**

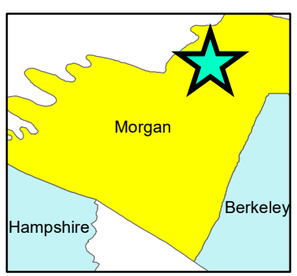
- No Impact
- Sound Level Impact

- US 522 Bypass
- Fairview Connector
- Right-of-Way

# US 522 Re-evaluaton Noise Study
# Build Impact Map

0 187.5 375 750 Feet

1 inch = 250 feet




| |
|---|
| US 522 Relocation |
| State Project: U333-522-11.92 |
| Federal Project: NFA-2317(005)D |
| Date: 8/2/2019 |

## Legend

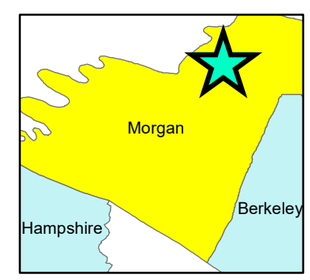
**Build Impact**

- No Impact
- Sound Level Impact
- US 522 Bypass
- Fairview Connector
- Right-of-Way

# US 522 Re-evaluaton Noise Study
# Build Impact Map

0 187.5 375 750 Feet

1 inch = 250 feet




| |
|---|
| US 522 Relocation |
| State Project: U333-522-11.92 |
| Federal Project: NFA-2317(005)D |
| Date: 8/2/2019 |

## Legend

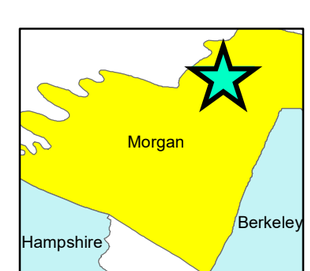
**Build Impact**

- No Impact
- Sound Level Impact
- US 522 Bypass
- Fairview Connector
- Right-of-Way

# US 522 Re-evaluaton Noise Study
# Build Impact Map

0 187.5 375 750 Feet

1 inch = 250 feet




| |
|---|
| US 522 Relocation |
| State Project: U333-522-11.92 |
| Federal Project: NFA-2317(005)D |
| Date: 8/2/2019 |

## Legend

**Build Impact**

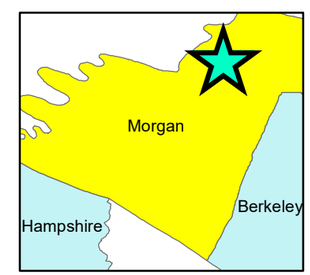
- No Impact
- Sound Level Impact

- US 522 Bypass
- Fairview Connector
- Right-of-Way

# US 522 Re-evaluaton Noise Study
# Build Impact Map

0 187.5 375 750 Feet

1 inch = 250 feet




| |
|---|
| US 522 Relocation |
| State Project: U333-522-11.92 |
| Federal Project: NFA-2317(005)D |
| Date: 8/2/2019 |

# Appendix C Noise Meter and Calibration Certificates

**PREMIER SAFETY**
CALIBRATION LABORATORY

# Calibration Certificate No. 1113320

| | | | |
|---|---|---|---|
| *Instrument:* | **Sound Level Meter** | *Date Calibrated:* **8/3/2017** | *Cal Due:* **8/03/2018** |
| *Model:* | **SoundPro SE_DL2** | *Status:* | **Received** / **Sent** |
| *Manufacturer:* | **Quest** | *In tolerance:* | **X** / **X** |
| *Serial number:* | **BIJ070006** | *Out of tolerance:* | |
| *Tested with:* | **Microphone QE7052 s/n 31531** | *See comments:* | |
| | **Preamplifier n/a s/n 0308 1757** | *Contains non-accredited tests:* __Yes _X_ No | |
| *Type (class):* | **2** | *Calibration service:* __ Basic _X_ Standard | |
| *Customer:* | | *Address:* | |
| *Tel/Fax:* | **/** | | |

**Tested in accordance with the following procedures and standards:**
Calibration of Sound Level Meters, Scantek Inc., Rev. 6/22/2012
SLM & Dosimeters – Acoustical Tests, Scantek Inc., Rev. 7/6/2011

**Instrumentation used for calibration:** Nor-1504 Norsonic Test System:

| Instrument - Manufacturer | Description | S/N | Cal. Date | Traceability evidence Cal. Lab / Accreditation | Cal. Due |
|---|---|---|---|---|---|
| 483B-Norsonic | SME Cal Unit | 31079 | June 22. 2017 | Norsonic SA | June 22, 2018 |
| DS-360-SRS | Function Generator | 123268 | June 22, 2017 | SRS | June 22, 2018 |
| 34401A-Agilent Technologies | Digital Voltmeter | MY53003818 | July 14, 2017 | Agilent Provider #93107 | July 14,2018 |
| SD700-Extech | Meteo Station | Q769118 | June 22,2017 | INNOCAL | June 22, 2018 |
| | | | | | |
| PC Program 1019 Norsonic | Calibration software | v.6.1T | Validated Nov 2014 | Scantek, Inc. | - |
| 1251-Norsonic | Calibrator | 34103 | July 18, 2017 | Scantek, Inc./ NVLAP | July 18, 2018 |

**Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK).**

**Environmental conditions:**

| Temperature (°C) | Barometric pressure (kPa) | Relative Humidity (%) |
|---|---|---|
| 23.0 | 101.00 | 42.0 |

| **Calibrated by:** | Steven Boertmann | **Authorized signatory:** | Dale Taylor |
|---|---|---|---|
| Signature | STEVEN BOERTMANN | Signature | DALE TAYLOR |
| Date | 8-3-17 | Date | 8-3-17 |

Calibration Certificates or Test Reports shall not be reproduced, except in full, without written approval of the laboratory.

**Results summary:** Device complies with following clauses of mentioned specifications:

| CLAUSES[1] FROM IEC/ANSI STANDARDS REFERENCED IN PROCEDURES: | RESULT[2,3] | EXPANDED UNCERTAINTY (coverage factor 2) [dB] |
|---|---|---|
| INDICATION AT THE CALIBRATION CHECK FREQUENCY - ANSI S1.4 CLAUSE 3.2 | Passed | 0.20.15 |
| FREQUENCY WEIGHTINGS: A NETWORK - IEC 61672-3 ED.1 CLAUSE 12 | Passed | 0.2 |
| FREQUENCY WEIGHTINGS: C NETWORK - IEC 61672-3 ED.1 CLAUSE 12 | Passed | 0.2 |
| FREQUENCY WEIGHTINGS: Z NETWORK - IEC 61672-3 ED.1 CLAUSE 12 | Passed | 0.2 |
| FREQUENCY AND TIME WEIGHTINGS AT 1 KHZ IEC 61672-3 ED.1 CLAUSE 13 | Passed | 0.2 |
| LEVEL LINEARITY ON THE REFERENCE LEVEL RANGE - IEC 61672-3 ED.1 CLAUSE 14 | Passed | 0.3 |
| LEVEL LINEARITY INCLUDING THE LEVEL RANGE CONTROL - IEC 61672-3 ED.1 CLAUSE 15 | Passed | 0.3 |
| TONEBURST RESPONSE - IEC 61672-3 ED.1 CLAUSE 16 | Passed | 0.3 |
| PEAK C SOUND LEVEL - IEC 61672-3 ED.1 CLAUSE 17 | Passed | 0.35 |
| FILTER TEST 1/1OCTAVE: FLAT FREQUENCY RESPONSE - IEC 61260, CLAUSE 4.10 & #5.9 | Passed | 0.25 |
| FILTER TEST 1/3OCTAVE: FLAT FREQUENCY RESPONSE - IEC 61260, CLAUSE 4.10 & #5.9 | Passed | 0.25 |
| | | |

1 The results of this calibration apply only to the instrument type with serial number identified in this report.

2 Parameters are certified at actual environmental conditions.

3

**Comments:** The instrument was tested and met all specifications found in the referenced procedures.

***Note:*** The instrument was tested for the parameters listed in the table above, using the test methods described in the listed standards. All tests were performed around the reference conditions. The test results were compared with the manufacturer's or with the standard's specifications, whichever are larger.
Compliance with any standard cannot be claimed based solely on the periodic tests.

**Tests made with the following attachments to the instrument:**

| | |
|---|---|
| Microphone: | Quest QE7052 s/n 31531 for acoustical test |
| Preamplifier: | Quest n/a s/n 0308 1757 for all tests |
| Other: line adaptor ADP005 (18pF) for electrical tests and 1448 (18pF) for noise test | |
| Accompanying acoustical calibrator: | Quest QC-20 s/n QOH040008 |
| Windscreen: | none |

**Measured Data:** in Test Report # of ... pages.

**Place of Calibration: Premier Safety**
46410 Continental Dr.
Chesterfield, MI 48047

Ph/Fax: 586-840-3220/ -3221
www.premier safety.com

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SoundPro SE_DL2 s/n: BIJ070006 ID:
Date: 8/3/2017 By: SB
Due: 8/03/2018

**Argus Hazco**
CALIBRATION LABORATORY

ARGUS·HAZCO
A better experience.

# Calibration Certificate 0004856

114 (1KHZ)

*Instrument:* **Acoustical Calibrator**
*Model:* **QC-20**
*Manufacturer:* **Quest**
*Serial number:* **QOH040008**
*Class (IEC 60942):* **1**
*Barometer type:*
*Barometer s/n:*

*Date Calibrated:* **8/3/2017** *Cal Due:* **8/03/2018**

| *Status:* | **Received** | **Sent** |
|---|---|---|
| *In tolerance:* | X | X |
| *Out of tolerance:* | | |
| *See comments:* | | |

*Contains non-accredited tests:* __**Yes** _X_ **No**

*Customer:*
*Tel/Fax:* /

*Address:*

**Tested in accordance with the following procedures and standards:**
Calibration of Noise Dosimeters, Sound Meters, and Calibratos., Rev. Chf 04

**Instrumentation used for calibration:** Nor-1504 Norsonic Test System:

| Instrument - Manufacturer | Description | S/N | Cal. Date | Traceability evidence Cal. Lab / Accreditation | Cal. Due |
|---|---|---|---|---|---|
| 483B-Norsonic | SME Cal Unit | 31079 | June 22. 2017 | Norsonic SA | June 22, 2018 |
| DS-360-SRS | Function Generator | 123268 | June 22, 2017 | SRS | June 22, 2018 |
| 34401A-Agilent Technologies | Digital Voltmeter | MY53003818 | July 14, 2017 | Agilent Provider #93107 | July 14,2018 |
| SD700-Extech | Meteo Station | Q769118 | June 22,2017 | INNOCAL | June 22, 2018 |
| | | | | | |
| 140-Norsonic | Real Time Analyzer | 1405966 | June 22, 2017 | Norsonic SA | June 22, 2018 |
| PC Program 1018 Norsonic | Calibration software | v.6.1T | Validated Nov 2014 | Scantek, Inc. | - |
| 40AG-GRAS | Microphone | 173539 | July 18, 2017 | Scantek, Inc. / NVLAP | July 18, 2018 |
| NN1203-Norsonic | Preamplifier | 138531 | July 18, 2017 | Norsonic SA | July 18, 2018 |

**Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK)**

| **Calibrated by:** | Steven Boertmann | **Authorized signatory:** | Dale Taylor |
|---|---|---|---|
| Signature | STEVEN BOERTMANN | Signature | DALE TAYLOR |
| Date | 8-3-17 | Date | 8-3-17 |

Calibration Certificates or Test Reports shall not be reproduced, except in full, without written approval of the laboratory.
This Calibration Certificate or Test Reports shall not be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the federal government.
Document stored as: C:\Nor1504\Cal\2014\Questc20-old-1k_QOH040008_M5.doc

**Results summary:** Device was tested and complies with following clauses of mentioned specifications:

| CLAUSES[1] FROM STANDARDS REFERENCED IN PROCEDURES: | MET[2] | NOT MET | COMMENTS |
|---|---|---|---|
| ***Manufacturer specifications*** | | | |
| Manufacturer specifications: Sound pressure level | X | | |
| Manufacturer specifications: Frequency | X | | |
| Manufacturer specifications: Total harmonic distortion | X | | |
| ***Current standards*** | | | |
| ANSI S1.40:2006 B.3 / IEC 60942: 2003 B.2 - Preliminary inspection | X | | Unit older than the standard |
| ANSI S1.40:2006 B.4.4 / IEC 60942: 2003 B.3.4 - Sound pressure level | X | | Unit older than the standard |
| ANSI S1.40:2006 A.5.4 / IEC 60942: 2003 A.4.4 - Sound pressure level stability | - | - | Unit older than the standard |
| ANSI S1.40:2006 B.4.5 / IEC 60942: 2003 B.3.5 - Frequency | X | | Unit older than the standard |
| ANSI S1.40:2006 B.4.6 / IEC 60942: 2003 B.3.6 - Total harmonic distortion | X | | Unit older than the standard |
| ***Older standards (obsolete)*** | | | |
| IEC 60942: 1997 B.2 - Preliminary inspection | X | | |
| IEC 60942: 1997 B.3.3 - Sound pressure level | X | | |
| IEC 60942: 1997 B.3.4 - Sound pressure level stability | X | | |
| IEC 60942: 1997 B.3.5 - Frequency | X | | |
| IEC 60942: 1997 B.3.6 - Total harmonic distortion | X | | |
| ANSI S1.40: 1984 (R1997) 4.4.2 Sound pressure level in the coupler | X | | Not applicable |
| ANSI S1.40: 1984 (R1997) 4.4 Frequency sound in the coupler | X | | Not applicable |
| ANSI S1.40: 1984 (R1997) 4.10 Total harmonic distortion | X | | Not applicable |

1 The results of this calibration apply only to the instrument type with serial number identified in this report.

2

**Main measured parameters [3]:**

| Measured[4]/Acceptable[5] Tone frequency (Hz): | Measured[4]/Acceptable[5] Total Harmonic Distortion (%): | Measured [4]/Acceptable Level[5] (dB): |
|---|---|---|
| 990.91 ± 0.99/1000.0 ± 10.0 | 0.00 ± 0.10/ < 3 | 114.07 ± 0.00/114.0 ± 0.4 |

3 The stated level is valid at reference conditions.

4 The above expanded uncertainties for frequency and distortion are calculated with a coverage factor k=2; for level k=2.00

5 Acceptable parameters values are from the current standards

| Barometer indication | Nominal indication |
|---|---|
| | |

**Environmental conditions:**

| Temperature (°C) | Barometric pressure (kPa) | Relative Humidity (%) |
|---|---|---|
| 23.0 ± 1.0 | 101.00 ± 0.001 | 42.0 ± 2.0 |

**Tests made with following attachments to instrument:**

| |
|---|
| Calibrator ½" Adaptor Type: |
| Other: |

**Adjustments:** Unit was not adjusted.
**Comments:** The instrument was tested and met all specifications found in the referenced procedures.

*Note:* The instrument was tested for the parameters listed in the table above, using the test methods described in the listed standards. All tests were performed around the reference conditions. The test results were compared with the manufacturer's or with the standard's specifications, whichever are larger.
Compliance with any standard cannot be claimed based solely on the periodic tests.

**Place of Calibration: Premier Safety**
46410 Continental Dr.
Chesterfield, MI 48047

Ph/Fax: 586-840-3220/ -3221
www.premier safety.com

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# Appendix D Traffic Data

| | | | | | Peak Hourly Volumes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Total | | | | Per Lane | | |
| | Road Name | Description | TNM Model | Lane# | Peak Hourly Volumes | Autos | Medium Trucks | Heavy Trucks | Direction Medium Autos | Direction Medium Trucks | Direction Heavy Trucks |
| Existing 2018 | US 522 (Valley Rd) | South of Winchester Grade Rd (NB) | US_522_South_NB | 1 | 414 | 360 | 27 | 27 | 360 | 27 | 27 |
| | US 522 (Valley Rd) | South of Winchester Grade Rd (SB) | US_522_South_SB | 1 | 429 | 352 | 39 | 39 | 352 | 39 | 39 |
| | US 522 (Valley Rd) | North of Winchester Grade Rd (NB) | US_522_South_NB | 1 | 428 | 372 | 28 | 28 | 372 | 28 | 28 |
| | US 522 (Valley Rd) | North of Winchester Grade Rd (SB) | US_522_South_SB | 1 | 493 | 404 | 44 | 44 | 404 | 44 | 44 |
| | Winchester Grade Rd | West leg of intersection | Winchester_Grade_Road_EB | 1 | 155 | 153 | 1 | 1 | 153 | 1 | 1 |
| | Winchester Grade Rd | East leg of intersection | Winchester_Grade_Road_WB | 1 | 105 | 103 | 1 | 1 | 103 | 1 | 1 |
| | Sugar Hollow Rd (38/14) | West leg of intersection | Sugar_Hollow_Road_EB | 1 | 11 | 9 | 1 | 1 | 9 | 1 | 1 |
| | Sugar Hollow Rd (38/14) | East leg of intersection | Sugar_Hollow_Road_WB | 1 | 30 | 28 | 1 | 1 | 28 | 1 | 1 |
| | Myers Rd (38/4) | West leg of intersection | Myers_Road_EB | 1 | 75 | 73 | 1 | 1 | 73 | 1 | 1 |
| | Myers Rd (38/4) | East leg of intersection | Myers_Road_WB | 1 | 84 | 82 | 1 | 1 | 82 | 1 | 1 |
| | Johnsons Mill Rd (38/3) | West leg of intersection | Johnson_Mill_Road_EB | 1 | 43 | 41 | 1 | 1 | 41 | 1 | 1 |
| | Johnsons Mill Rd (38/3) | East leg of intersection | Johnson_Mill_Road_WB | 1 | 24 | 22 | 1 | 1 | 22 | 1 | 1 |
| | Martinsburg Rd (9) | West leg of intersection | Martinsburg_Road_EB | 1 | 212 | 210 | 1 | 1 | 210 | 1 | 1 |
| | Martinsburg Rd (9) | East leg of intersection | Martinsburg_Road_WB | 1 | 212 | 210 | 1 | 1 | 210 | 1 | 1 |
| | Fairfax St (9/9) | West leg of intersection | Fairfax_Street_EB | 1 | 58 | 56 | 1 | 1 | 56 | 1 | 1 |
| | Fairfax St (9/9) | East leg of intersection | Fairfax_Street_WB | 1 | 100 | 98 | 1 | 1 | 98 | 1 | 1 |
| | Independence St | West leg of intersection | Fairview_Drive_EB | 1 | 39 | 37 | 1 | 1 | 37 | 1 | 1 |
| | Independence St | East leg of intersection | Fairview_Drive_WB | 1 | 46 | 44 | 1 | 1 | 44 | 1 | 1 |
| NoBuild 2043 | US 522 (Valley Rd) | South of Winchester Grade Rd (NB) | US_522_South_NB | 1 | 531 | 462 | 35 | 35 | 462 | 35 | 35 |
| | US 522 (Valley Rd) | South of Winchester Grade Rd (SB) | US_522_South_SB | 1 | 551 | 452 | 50 | 50 | 452 | 50 | 50 |
| | US 522 (Valley Rd) | North of Winchester Grade Rd (NB) | US_522_South_NB | 1 | 549 | 478 | 36 | 36 | 478 | 36 | 36 |
| | US 522 (Valley Rd) | North of Winchester Grade Rd (SB) | US_522_South_SB | 1 | 633 | 519 | 57 | 57 | 519 | 57 | 57 |
| | Winchester Grade Rd | West leg of intersection | Winchester_Grade_Road_EB | 1 | 199 | 197 | 1 | 1 | 197 | 1 | 1 |
| | Winchester Grade Rd | East leg of intersection | Winchester_Grade_Road_WB | 1 | 135 | 133 | 1 | 1 | 133 | 1 | 1 |
| | Sugar Hollow Rd (38/14) | West leg of intersection | Sugar_Hollow_Road_EB | 1 | 14 | 12 | 1 | 1 | 12 | 1 | 1 |
| | Sugar Hollow Rd (38/14) | East leg of intersection | Sugar_Hollow_Road_WB | 1 | 38 | 36 | 1 | 1 | 36 | 1 | 1 |
| | Myers Rd (38/4) | West leg of intersection | Myers_Road_EB | 1 | 97 | 95 | 1 | 1 | 95 | 1 | 1 |
| | Myers Rd (38/4) | East leg of intersection | Myers_Road_WB | 1 | 109 | 107 | 1 | 1 | 107 | 1 | 1 |
| | Johnsons Mill Rd (38/3) | West leg of intersection | Johnson_Mill_Road_EB | 1 | 55 | 53 | 1 | 1 | 53 | 1 | 1 |
| | Johnsons Mill Rd (38/3) | East leg of intersection | Johnson_Mill_Road_WB | 1 | 30 | 28 | 1 | 1 | 28 | 1 | 1 |
| | Martinsburg Rd (9) | West leg of intersection | Martinsburg_Road_EB | 1 | 272 | 270 | 1 | 1 | 270 | 1 | 1 |
| | Martinsburg Rd (9) | East leg of intersection | Martinsburg_Road_WB | 1 | 272 | 270 | 1 | 1 | 270 | 1 | 1 |
| | Fairfax St (9/9) | West leg of intersection | Fairfax_Street_EB | 1 | 75 | 73 | 1 | 1 | 73 | 1 | 1 |
| | Fairfax St (9/9) | East leg of intersection | Fairfax_Street_WB | 1 | 129 | 127 | 1 | 1 | 127 | 1 | 1 |
| | Independence St | West leg of intersection | Fairview_Drive_EB | 1 | 50 | 48 | 1 | 1 | 48 | 1 | 1 |
| | Independence St | East leg of intersection | Fairview_Drive_WB | 1 | 59 | 57 | 1 | 1 | 57 | 1 | 1 |
| Build 2043 | US 522 (Valley Rd) | South of Winchester Grade Rd (NB) | US_522_South_NB | 1 | 536 | 466 | 35 | 35 | 466 | 35 | 35 |
| | US 522 (Valley Rd) | South of Winchester Grade Rd (SB) | US_522_South_SB | 1 | 508 | 417 | 46 | 46 | 417 | 46 | 46 |
| | US 522 (Valley Rd) | North of Winchester Grade Rd (NB) | US_522_South_NB | 1 | 229 | 199 | 15 | 15 | 199 | 15 | 15 |
| | US 522 (Valley Rd) | North of Winchester Grade Rd (SB) | US_522_South_SB | 1 | 154 | 126 | 14 | 14 | 126 | 14 | 14 |
| | US 522 Bypass SB | Southern Roundabout to Martinsburg Rd | S-US-522-BP-SB-LN-01 &02 | 2 | 484 | 397 | 44 | 44 | 198 | 22 | 22 |
| | US 522 Bypass NB | Southern Roundabout to Martinsburg Rd | S-US-522-BP-NB-LN-01 &02 | 2 | 438 | 381 | 28 | 28 | 191 | 14 | 14 |
| | US 522 Bypass SB | Martinsburg Rd to Northern Roundabout | N-US-522-BP-SB-LN-01 & 02 | 2 | 453 | 394 | 29 | 29 | 197 | 15 | 15 |
| | US 522 Bypass NB | Martinsburg Rd to Northern Roundabout | N-US-522-BP-NB-LN-01 & 02 | 2 | 406 | 353 | 26 | 26 | 177 | 13 | 13 |
| | US 522 Bypass NB | Martinsburg Rd NB Off Ramp | Martinsburg_Rd_Ramp_D | 1 | 71 | 62 | 5 | 5 | 62 | 5 | 5 |
| | US 522 Bypass SB | Martinsburg Rd NB On Ramp | Martinsburg_Rd_Ramp_C | 1 | 35 | 29 | 3 | 3 | 29 | 3 | 3 |
| | US 522 Bypass NB | Martinsburg Rd SB Off Ramp | Martinsburg_Rd_Ramp_A | 1 | 70 | 61 | 5 | 5 | 61 | 5 | 5 |
| | US 522 Bypass SB | Martinsburg Rd SB On Ramp | Martinsburg_Rd_Ramp_B | 1 | 89 | 73 | 8 | 8 | 73 | 8 | 8 |
| | US 522 Bypass NB | Fairfax - NB Off Ramp | Fairfax_Ramp_B | 1 | 27 | 22 | 2 | 2 | 22 | 2 | 2 |
| | US 522 Bypass NB | Fairfax - NB On Ramp | Fairfax_Ramp_A | 1 | 47 | 39 | 4 | 4 | 39 | 4 | 4 |
| | US 522 Bypass SB | Fairfax - SB Off Ramp | Fairfax_Ramp_C | 1 | 26 | 21 | 2 | 2 | 21 | 2 | 2 |
| | US 522 Bypass SB | Fairfax - SB On Ramp | Fairfax_Ramp_D | 1 | 25 | 21 | 2 | 2 | 21 | 2 | 2 |
| | Winchester Grade Rd | West leg of intersection | Winchester_Grade_Road_EB | 1 | 201 | 199 | 1 | 1 | 199 | 1 | 1 |
| | Winchester Grade Rd | East leg of intersection | Winchester_Grade_Road_WB | 1 | 333 | 134 | 1 | 1 | 134 | 1 | 1 |
| | Sugar Hollow Rd (38/14) | West leg of intersection | Sugar_Hollow_Road_EB | 1 | 0 | 9 | 1 | 1 | 9 | 1 | 1 |
| | Sugar Hollow Rd (38/14) | East leg of intersection | Sugar_Hollow_Road_WB | 1 | 47 | 38 | 1 | 1 | 38 | 1 | 1 |
| | Myers Rd (38/4) | West leg of intersection | Myers_Road_EB | 1 | 204 | 96 | 1 | 1 | 96 | 1 | 1 |
| | Myers Rd (38/4) | East leg of intersection | Myers_Road_WB | 1 | 26 | 14 | 1 | 1 | 14 | 1 | 1 |
| | Johnsons Mill Rd (38/3) | West leg of intersection | Johnson_Mill_Road_EB | 1 | 0 | 71 | 0 | 0 | 71 | 0 | 0 |
| | Johnsons Mill Rd (38/3) | East leg of intersection | Johnson_Mill_Road_WB | 1 | 99 | 28 | 1 | 1 | 28 | 1 | 1 |
| | Martinsburg Rd (9) | West leg of intersection | Martinsburg_Road_EB | 1 | 0 | 151 | 0 | 0 | 151 | 0 | 0 |
| | Martinsburg Rd (9) | East leg of intersection | Martinsburg_Road_WB | 1 | 319 | 168 | 1 | 1 | 168 | 1 | 1 |
| | Fairfax St (9/9) | West leg of intersection | Fairfax_Street_EB | 1 | 65 | 63 | 1 | 1 | 63 | 1 | 1 |
| | Fairfax St (9/9) | East leg of intersection | Fairfax_Street_WB | 1 | 119 | 104 | 8 | 8 | 104 | 8 | 8 |
| | Independence St | West leg of intersection | Fairview_Drive_EB | 1 | 48 | 39 | 4 | 4 | 39 | 4 | 4 |
| | Independence St | East leg of intersection | Fairview_Drive_WB | 1 | 36 | 31 | 2 | 2 | 31 | 2 | 2 |
| | | | S to TC-US-522-BP-SB-LN-01 | 2 | 474 | 412 | 31 | 31 | 206 | 15 | 15 |
| | | | S to BP NB | 1 | 374 | 325 | 24 | 24 | 325 | 24 | 24 |
| | | | US_522_South-TC_NB-LN-01 | 2 | 536 | 466 | 35 | 35 | 233 | 17 | 17 |
| | Traffic Circle | | US_522_TC_SB-LN-01 & 02 | 2 | 508 | 442 | 33 | 33 | 221 | 17 | 17 |
| | | | US_522_TC_NB-LN-02 | 1 | 162 | 141 | 11 | 11 | 141 | 11 | 11 |
| | | | TC-NB US 522 | 1 | 67 | 58 | 4 | 4 | 58 | 4 | 4 |
| | | | US_522_North-TC_NB LN01 & 02 | 2 | 229 | 199 | 15 | 15 | 100 | 7 | 7 |
| | | | US_522_North-TC_SB LN01 & 02 | 2 | 154 | 134 | 10 | 10 | 67 | 5 | 5 |