



South Carolina Department of Transportation

Project Screening Tool (PST)



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Background

- To better integrate NEPA into the Transportation Decision-making, SCDOT has started preparing an Advanced Project Planning Report (APPR) for most projects.
- SCDOT's Office of Planning and Environmental, in cooperation with various resource agencies and the FHWA, prepares the APPR.
- The APPR assists with:
 - Providing MPOs and COGs information for determining a project's benefit and its impact to the human and natural environment.
 - Aids the SCDOT's Regional Production Groups (RPG) with identifying human and environmental issues of concern at preconstruction level.
 - Provide cost estimates.



PST Application Drivers

- Improve the APPR Process by allowing project input via internet
- Provide easy access to GIS data
- Allow uploads and downloads of project files
- Allow comments from agencies and public
- Share customized analysis with other users via online database
- Show project impacts on map
- Improve communication tool during transportation planning



Development

- **To improve the (APPR) process Project Screening Tool (PST) was developed.**

- Web based tool.
- Allows project comments to be added through the website.
- Incorporates GIS data (provided by resource agencies) to aid in identifying impacts to a project.
- Maps can be redlined in order to add or document comments.

- **Impacts assigned to four categories (with maps):**

- Natural Resources
- Environmental/DHEC Resources
- Cultural Resources
- and Socioeconomic/Other Resources



Development

- GIS data organized and assigned to each category.
- User selects one or all of the categories of interest to view the features on the map.
- PST allows non-GIS users to use spatial data easily.
- Additional Improvements with future phases.



PST – Welcome Screen

- Credentialed login
- Provides:
 - Base map
 - Project search
 - Project review
 - Project files
- Outside agencies can search and comment

The screenshot shows a Windows Internet Explorer browser window displaying the SCDOT Project Screening Tool (PST) welcome screen. The browser's address bar shows the URL <http://smpitms/pstweb/>. The page title is "PST:Home". The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The browser's toolbar shows a home button, a search bar with "Google" text, and buttons for Home, Feeds (1), Print, Page, and Tools. The page content features the SCDOT logo and the text "SCDOT Project Screening Tool". A user is logged in as "Nick Vakili-Rad" with the role "SCDOT (ProjectAdmin)". A dark blue banner with the word "Welcome" is prominent. Below the banner, there are three main sections: "Home" with links for "Project Search", "Projects to Review", and "Create New Project"; "About Project Screening Tool" which explains that the PST aids in assessing potential projects included in the regional Long Range Transportation Plans (LRTP), allowing stakeholders to review, comment, and upload documents; and "Finding A Project" which instructs users to use the Project Search feature, which can be filtered by location, county, or commission districts. At the bottom of the page is a map of South Carolina with major highways (I-85, I-95, I-77, I-26, I-165, I-385) and county names labeled. The SCDOT logo is overlaid on the map. The browser's status bar shows "Done", "Local intranet", and "100%". The Windows taskbar at the bottom shows the Start button, several open applications (Inbox - Micr..., 2 Windows..., APPR Text.d..., Windows Me..., Microsoft Po...), and the PST:Home window. The system clock shows "11:05 AM".

PST – Project Search

- Search by:
 - Location
 - County
 - MPO
 - COG
 - RPG
 - District
 - Name
 - PCN
 - Impact

The screenshot shows a web browser window titled "PST::Project Search - Windows Internet Explorer" with the address bar containing "http://smpitms/PSTWeb/ProjectSearch.aspx?". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The page content features the SCDOT logo and the text "SCDOT Project Screening Tool" and "Logged in as Nick Vakili-Rad SCDOT (ProjectAdmin)". A dark blue banner reads "Find a Project". Below this, a section titled "Find a Project By:" lists search criteria: Location, County, MPO, COG, RPG, Commission District, Engineering District, Project Name, PCN, and Impact. A sub-section "Find Projects By MPO" contains a text box with "ANATS" selected in a dropdown menu and a "Search" button. The footer of the page states "Copyright © 2010, South Carolina Department of Transportation." The Windows taskbar at the bottom shows the Start button and several open applications, including "Inbox - Mic...", "2 Window...", "APPR Text...", "Windows Me...", "Microsoft Po...", and "PST::Project...". The system tray shows "Local intranet", "100%", and the time "11:10 AM".

PST – Project Search Results

PST::Project Search - Windows Internet Explorer

http://smpitms/PSTWeb/ProjectSearch.aspx?

File Edit View Favorites Tools Help

PST::Project Search Home Feeds (3) Print Page Tools

Project Search Results

Project Name	PCN	Status	Start Date	Functions
Proposed Widening of SC 707		Active	3/25/2010	Edit Delete
US 701, Georgetown and Horry Counties		Active	3/22/2010	Edit Delete
East Coast Greenway in city of Georgetown, Georgetown County		Active	2/10/2010	Edit Delete
SC 261		Inactive	2/10/2010	Edit Restore
SC 65		Active	1/25/2010	Edit Delete
Atlantic Beach Connection at 2nd Avenue		Active	1/22/2010	Edit Delete
SC 90 Extension, Horry County		Active	1/19/2010	Edit Delete
Proposed Widening of US 378, Marion and Horry Counties		Active	11/2/2009	Edit Delete

Done Local intranet 100%

start Inbox - Microsoft ... 3 Microsoft Offic... Document1 - Micro... Project Screening ... PST::Project Search... 11:28 AM

PST – Project Data

■ Provides:

- General details
- Description
- Purpose & Need
- Milestones
- Impact summary
- Link to project file
- Alternatives
- Projected AADT
- Functional Class
- Study Area

The screenshot shows a Windows Internet Explorer browser window displaying the PST Project Details page. The address bar shows the URL: <http://smpitms/PSTWeb/ProjectInfo.aspx?id=276>. The page content includes:

- email:** Radnv@SCDOT.org
- Commission District:** 1
- Edit Project** link
- Description:** The extension of SC 90 from US 501 Bus. to US 501
- Purpose and Need:** The purpose of the project is to relieve congestion on US 501 Business through historic downtown Conway. US 501 Business is currently a LOS F and is projected to be a LOS F in 2030 with 75,269 average daily trips in the peak season.
- Milestones:** A table with one entry:

#	Milestone	Date
1	Project Review Started	Tuesday, January 19, 2010

 Includes [View Milestone Details](#) and [Add New](#) links.
- Impact Summary:** No Impacts Assigned. Includes [Add Impacts](#) link.
- Project Files:** A table with one entry:

Date	Document (click to download)	Description	Milestone	From	Functions
	Draft APPR SC 90				

 Includes [Add File](#) link.

PST – Impact Summary

Assign impact rating for:

- Community/ Socioeconomic
- Cultural
- Environmental
- Natural Resources

PST::Project Details - Windows Internet Explorer

http://smpitms/pstweb/ProjectInfo.aspx?id=268

File Edit View Favorites Tools Help

PST::Project Details

Purpose and Need

The purpose and need of the project is to relieve existing and future traffic congestion, and provide improved facilities for bicyclists and pedestrians.

Milestones

#	Milestone	Date
1	Project Review Started	Tuesday, October 13, 2009

[Add New](#)
[View Milestone Details](#)

Impact Summary

[Add Impacts](#)

	Cultural Resources		Environmental DHEC Resources	Natural Resources		Socioeconomic Others Resources
	Archeological Sites	Historic Sites	Underground Storage Tanks	Threatened and Endangered Species	Wetlands	Churches / Cemetery and Noise
0 None 1 Minimal 2 Moderate 3 Substantial 4 Potential Dispute NA Not Applicable UK Unknown	3	1	2	UK	2	2

Alternative 1:
Widening of Roper Mountain Road to five lanes
[View the Impact Details](#)

Click a rating above to view the impacts for that issue.

Local intranet 100%

start | Inbox - Mic... | 2 Window... | APPR Text... | Windows Me... | Microsoft Po... | 2 Internet ... | 11:15 AM

PST – Impact Details

■ Review of Project Comments

UK Dept. of Health and Environmental Control (7/2/2010) by Mark Giffin, Dept. of Health and Environmental Control
Effect on Water Quality and Quantity: Unknown

Identified Resources and Level of Importance:
 Congaree Creek

Comments of Effects to Resources:
 Triple box culvert may need to be enlarged to accommodate flows under widened road due to bend in Creek. Stormwater from Creek crossing and approaches should be routed to upland detention structures prior to discharge.

3 Substantial	Historic Site	Water Quality Quantity
4 Potential Dispute		
NA Not Applicable		
UK Unknown		
Alternative 1: Widening SC 6 to Five Lanes View the Impact Details	0	UK

Click a rating above to view the impacts for that issue.

Project Files

[Add File](#)

PST – Project Files and AADT Projections

- Ability to upload and download project files

PST::Project Details - Windows Internet Explorer

http://smpitms/pstweb/ProjectInfo.aspx?id=268

File Edit View Favorites Tools Help

PST::Project Details

[Add File](#)

Date	Document (click to download)	Description	Milestone	From	Functions
10/15/2009	Archives Comments.pdf (240 Kb)	Archives Comments	--	Nick Vakili-Rad SCDOT	Delete
10/15/2009	Army Corp Comments.pdf (357 Kb)	Army Corps Comments	--	Nick Vakili-Rad SCDOT	Delete
10/15/2009	DHEC Comments.pdf (549 Kb)	DHEC Comments	--	Nick Vakili-Rad SCDOT	Delete
10/15/2009	Environmental Comments.pdf (16 Kb)	SCDOT Environmental Comments	--	Nick Vakili-Rad SCDOT	Delete
10/15/2009	Plans.pdf (683 Kb)	Plans	--	Nick Vakili-Rad SCDOT	Delete

Alternatives

Alternative 1 [View Map](#)

Description: Widening of Roper Mountain Road to five lanes

Length: 0.6 mi. **Estimated Cost:** \$5,600,000

Type: Widening **Urban Service Area:** In/Out

Functional Class: Urban -- Collector

	Base Conditions	Needs Plan Conditions
Year	2009	2029
AADT	11,500	23,100
Lanes	2	5
Config	Lanes Undivided	Lanes Undivided

Funding Source: GPATS 2007-2012 STIP

Local intranet 100%

start | Inbox - Micr... | 2 Window... | APPR Text... | Windows Me... | Microsoft Po... | 2 Internet ... | 11:16 AM

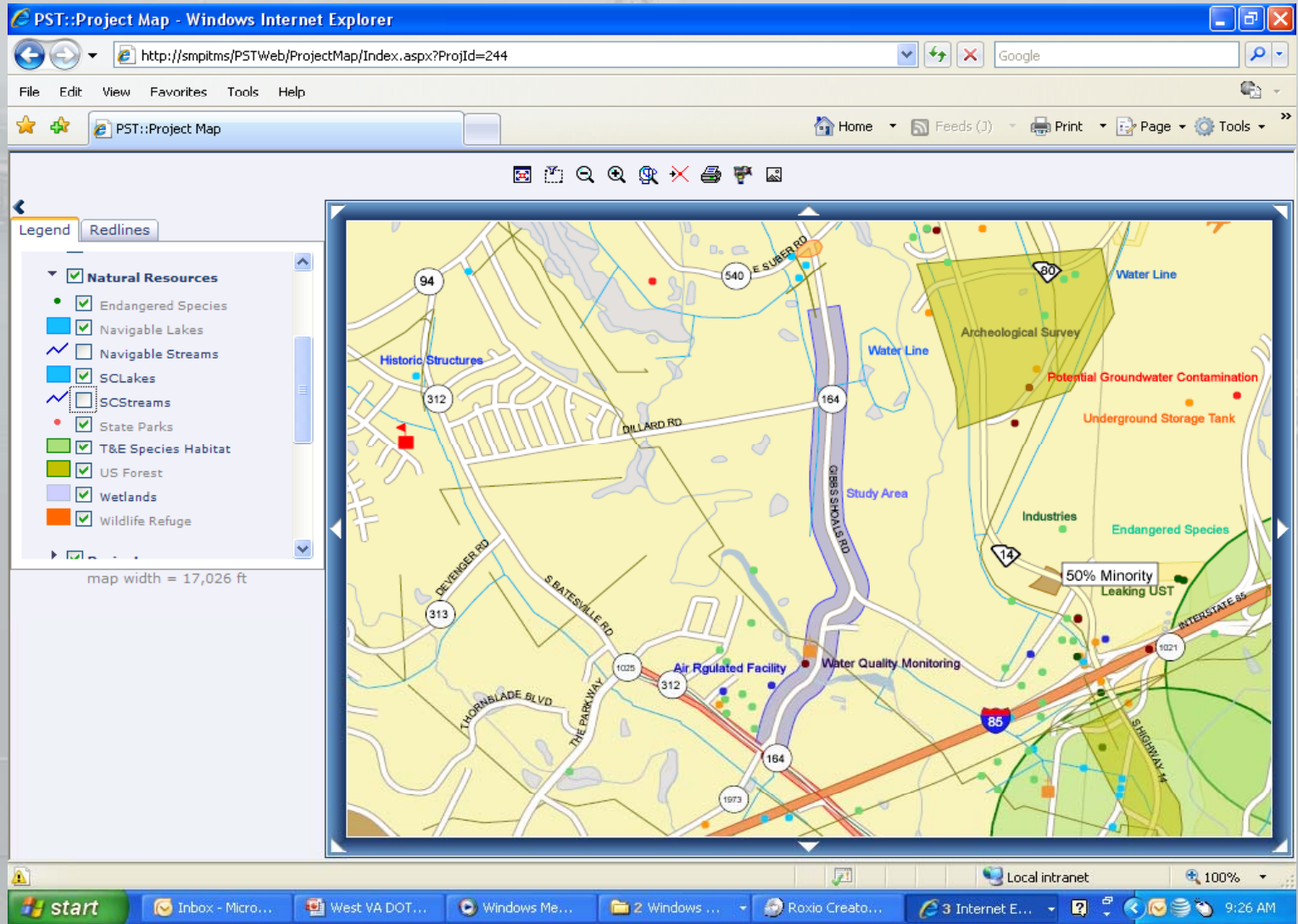
PST – Evaluating Alternatives

- Ability to create & evaluate alternatives
- View map of alternative

The screenshot displays a web browser window titled "PST::Project Map - Windows Internet Explorer". The address bar shows the URL "http://smpitms/PSTWeb/ProjectMap/Index.aspx?ProjId=302". The browser interface includes a menu bar (File, Edit, View, Favorites, Tools, Help) and a toolbar with navigation and utility icons. The main content area is a web application for project mapping. On the left, there is a legend titled "Legend" with a "Redlines" tab selected. The legend lists various resource categories with checkboxes: Boundaries, Cultural Resources, Env/DHEC Resources, Hydrology (checked), Infrastructure, Landbase (checked), Natural Resources, Projects (checked), Redlines (checked), Routes (checked), and SocioEcon/Other Resources. Below the legend is a "Help" section with instructions on how to use the checkboxes to control feature visibility. The main map area shows a network of roads and project alternatives. Labels on the map include "HORNSBORO RD", "PAGELAND", "MOUNT CROGHAN", "RUBY", and "ANGELUS RD". The status bar at the bottom of the browser window indicates "map width = 81,060 ft" and "Local intranet". The Windows taskbar at the very bottom shows the Start button and several open applications, including Microsoft Office and Internet Explorer, with the system clock showing 1:29 PM.

PST – Location of Resources

- Identifying Impacts at planning stage



PST – Aerials

- Identifying Resources or Impacts within the study area from Aerial Photos

The screenshot displays a web browser window titled "PST::Project Map - Windows Internet Explorer". The address bar shows the URL "http://smpitms/PSTWeb/ProjectMap/Index.aspx?ProjId=268". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The address bar also contains "PST::Project Map" and navigation icons for Home, Feeds, Print, Page, and Tools.

The main content area features a map interface with a legend on the left and a map window on the right. The legend is titled "Legend" and "Redlines" and includes the following categories and items:

- Boundaries
- Cultural Resources
- Env/DHEC Resources
- Hydrology
- Infrastructure
- Landbase
- Natural Resources
- Projects
 - Alternative 1
 - Impact Area for Alternative 1
 - Impact Area for Other Projects
 - Other Projects
- Redlines
- Routes
- SocioEcon/Other Resources

Below the legend, there is a "Help" section with the text: "feature not displayed at this scale. Zoom in to view the feature. Place your mouse over the checkbox to view the visible range." At the bottom of the legend, it says "map width = 3,694 ft".

The map window shows an aerial photograph of a residential and industrial area. Overlaid on the map are various colored lines and shapes representing the legend items. A blue line represents the "Impact Area for Alternative 1", and a red line represents the "Impact Area for Other Projects". Other features include roads labeled "ROPER MTN RD", "SHEPHERD", "ROPER MOUNTAIN CT", "FEASTER RD", and "333". A building is labeled "Industries - Wilbert Burial Vault Co Inc". The map also shows a pond and various residential structures.

The browser's taskbar at the bottom shows the "start" button, several open applications including "Inbox - Microsoft ...", "3 Microsoft Offic...", "Document1 - Micro...", "Project Screening ...", and "3 Internet Explorer". The system tray shows "Local intranet", "100%", and the time "1:36 PM".

PST – Pavement Data

- Evaluating Existing Pavement Conditions

RIMS Pavement Viewer - Windows Internet Explorer

Stop at Intersections

County: GREENVILLE Rt. Type: Secondary road Route: 548 Aux.: Main Line 2008 AADT Avg. (Dirs. Combined): 10700
 BMP: 1.600 EMP: 4.100 Direction: EAST Pavement Data Year: 2008 Image MP: 2.902 Image Date: 8/11/2008

Pavement Averages: PQI: 3.30 IRI: 151.89 RUT: 0.29 PSI: 2.74 PDI: 3.69 Length: 2.500

BMP	EMP	AVG IRI	AVG RUT	PSI	PDI	PQI	2008 AADT (Dirs. Comb.)	Pvmnt. Type
2.610	2.700	160.70	0.35	2.63	3.45	3.11	10700	BIT
2.700	2.750	155.50	0.33	2.68	3.94	3.45	10700	BIT
2.750	2.800	155.50	0.33	2.68	3.94	3.45	10700	BIT
2.800	2.900	145.65	0.33	2.79	3.94	3.48	10700	BIT
2.900	3.000	169.50	0.42	2.54	3.71	3.26	10700	BIT
3.000	3.100	129.30	0.33	2.98	3.92	3.51	10700	BIT
3.100	3.200	111.45	0.42	3.20	3.71	3.42	10700	BIT
3.200	3.300	121.75	0.44	3.07	3.67	3.36	10700	BIT

PDI **PQI**

map width: 575px

Local intranet 100%

start | Inbox - Micr... | 2 Window... | APPR Text... | Windows Me... | Microsoft Po... | 4 Internet ... | 11:22 AM

Summary

The PST provides SCDOT the following benefits:

- Enhances the level of detail during the planning process for Project Development.
- Provides the Preconstruction unit with useful information to expedite project development.
- Identifies "show stoppers" early on during the planning phase to reduce delay and save money.
- Creates a tool to engage Resource and Federal agencies early on in the planning process.
- Provides a GIS application for non-technical staff.
- Enhances the STIP process by providing a pre NEPA screening prior to obligating Federal funds.





Questions?