

Transportation Toolkit for Federal Land Managers: Phase II

Executive Summary

by

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Background

The Federal government manages significant portions of rural land, much of which serves as destinations for tourism and recreation. Unlike many tourist destinations, Federal lands are typically bound by significant legal constraints based on their need to preserve and protect natural, cultural and historical resources. Maintaining the balance between the demand for increased visitation and the need to preserve resources can be challenging.

For example, federal land managers face unique challenges when establishing, maintaining or expanding the transportation system within a national park, federal recreation area, national forest or other land unit. Within a Federal land, there may be significant constraints on the transportation infrastructure, including gate capacity, vehicle length and weight restrictions, right-of-way limits, lack of ability to expand parking and similar issues. A variety of problems may result from these constraints, including potential resource damage, slower emergency response, and a degraded visitation experience.

While these issues may be, to a certain extent, addressed within a particular Federal land, many potential solutions will not be effective without integration and coordination with adjacent federal lands, gateway communities and surrounding counties. The primary mission of managers of the Federal lands is to preserve the resources and provide for the public enjoyment of the resources within their boundaries. Staffing decisions are typically made on this basis, with most lands focusing on adding staff specialized in wildlife, botanical, and archeological fields with generally little background in transportation. The lack of background in transportation may hinder Federal land managers from appreciating and implementing various transportation solutions – both “traditional” traffic engineering measures as well as advanced technology or intelligent transportation systems (ITS) solutions – that may allow for both increased visitation and resource preservation.

Traditional solutions have had some implementation in rural settings including Federal lands in recent decades; nevertheless, these solutions may not be well known to those who have not been trained in transportation. ITS solutions will likely have little recognition among Federal lands managers, because these systems have typically been deployed in urban areas to address congestion, safety and traveler information.

Previous Research – Phase 1

Beginning in 2003, the Central Federal Lands Highway Division sponsored the first phase of this project. The objective was to develop an interactive decision support system software “toolkit,” which would help Federal land managers to analyze and resolve transportation challenges in their respective units.

The intention of the project was neither to replace engineering judgment required for any transportation improvement in a Federal land nor to comprehensively address all challenges that a Federal land may have. Rather, the Toolkit was created to be a “clearinghouse” of information providing a decision support system, challenges-solution matrix, and fact sheets, along with up-to-date contact information.

The toolkit was originally conceived as an interactive CD-rom. Over the course of the project, it evolved into a web-based toolkit. The original version of the toolkit was completed in 2006, and launched on the Central Federal Lands Highway Division website in January 2007.

Project Scope and Objectives

At the end of 2006, the Central Federal Lands Highway Division agreed to partner with WTI for a second phase of this project. The overall goal was to identify and implement potential upgrades and expansions to the Toolkit.

Specific objectives included:

- collect users’ feedback on the Transportation Toolkit,
- conduct limited modifications to the Toolkit package as new technologies become available, and
- position the Toolkit as a clearinghouse of transportation-related information for Federal Land Managers.

Project Activities

Collect Comments

When the toolkit was launched on the CFLHD website, it included a “Comment” feature which allowed for input on the Toolkit from Federal Land Managers. Researchers monitored feedback during the comment period, in order to collect and prioritize recommendations for potential changes and additions to the toolkit.

Identify Additional Resources and Content

Researchers explored activities and documents from other agencies that would complement the resources of the toolkit, and encourage coordination and collaboration.

Update Toolkit

The updated toolkit is online and functional. It is available on the Central Federal Lands Highway Division website: <http://www.cflhd.gov/ttoolkit/flt/default.htm>

Deliverables: Current Status of Toolkit

The completed toolkit includes the following major components:

- **Challenges-Solutions Matrix.** The Challenges-Solutions Matrix allows users to locate potential solutions to specific transportation challenges. After selecting an item from a list of challenges, the user is linked to several potential solutions. Solutions are described in “Fact Sheets” that provide a definition of each solution, list areas where the solution has been implemented (focusing on Federal lands wherever possible), review implementation requirements, highlight advantages and disadvantages, present general cost information.
- **Decision Support System.** The Decision Support System provides guidance to federal land managers who need assistance understanding and characterizing the transportation challenges they face. Users answer a series of questions, which help identify their specific issues, and lead them to potential solutions (presented as the “Fact Sheets” described above).
- **Fact Sheets.** Users can also link to the lists of fact sheets directly, which are organized in four categories: Infrastructure (the built environment), Intelligent Transportation Systems (“ITS” or electronic solutions), Policy (the management of assets and systems), and Transit (alternative transportation modes).
- **Planning Process.** The toolkit includes an eight-step planning process that can be adapted to most transportation-related projects on federal lands.
- **Additional Resources.** The toolkit provides links to agencies and materials that can provide users with additional information and assistance.

Next Steps

CFLHD and WTI will continue to look for opportunities to make the toolkit available to federal land managers as an educational and technical assistance resource.

In 2009, the Federal Transit Administration (FTA) selected a team led by WTI to create and implement the National Technical Assistance Center (TAC) for the Paul S. Sarbanes Transit in Parks program. The TAC will assist federal land managers who are developing alternative transportation projects. WTI is exploring whether the Toolkit can be used by TAC staff as a preliminary, step-by-step process for identifying potential projects that fit the needs of managers who contact the TAC for assistance.