



## **Costs of Implementing Environmental Protections on Highway Projects**

*Prepared for*  
**Division of Transportation System Development  
Bureau of Equity and Environmental Services**

*Prepared by*  
**CTC & Associates LLC  
WisDOT Research & Library Unit**

**June 1, 2007**

*Transportation Literature Searches are prepared for WisDOT staff and investigators to identify completed research and other authoritative information in an area of interest. The citations below are representative, rather than exhaustive, of available English-language studies on the topic. Primary online resources for the literature searches are OCLC's [WorldCat](#) and [TLCat](#), U.S. DOT's [TRIS Online](#), the National Transportation Library ([NTL](#)), TRB's Research in Progress ([RiP](#)) database, and other academic, engineering and scientific databases as appropriate.*

*To request a literature search, contact the WisDOT Library at [library@dot.state.wi.us](mailto:library@dot.state.wi.us) or (608) 264-8142, or WisDOT Research at [research@dot.state.wi.us](mailto:research@dot.state.wi.us) or (608) 261-8198.*

**Topic/Problem Statement:** Develop and Pilot-Test a Model to Estimate Costs of Implementing Environmental Protections on Highway Projects in Wisconsin: Analyze Legislative Impacts on FDM and Selected Completed Projects.

### **Summary**

We located one pertinent citation, a study conducted by NCHRP.

### **Citations**

*Links to online copies of cited literature are provided when available. Contact the WisDOT Library to obtain hard copies of citations.*

**Title:** Right-of-Way and Environmental Mitigation Costs – Investment Needs Assessment

**Author(s):** Nathan Macek, AECOM Consult Inc., Arlington, Virginia

**Date:** August 2006

**Source/URL:** TRB, [http://www.trb.org/NotesDocs/20-24\(54\)\\_B\\_%20FR.pdf](http://www.trb.org/NotesDocs/20-24(54)_B_%20FR.pdf)

**Description:** 25 pp. plus appendices.

**Contents:** This study was requested by the American Association of State Highway and Transportation Officials (AASHTO), and conducted as part of NCHRP Project 20-24. The objective was to update and expand upon previous estimates of planning and environmental costs that currently are not explicitly captured in the FHWA and FTA cost accounting systems. A majority of states do not track environmental, community impact, and outreach costs separately. Consequently, a database of the full extent of environmental and community impact costs does not exist from which statistical costing can be applied. However, there are several states that have identified environmental and community impact costs. The procedures applied in these states are detailed in an effort to identify common elements that may evolve into a national standard for tracking these costs. Environmental mitigation costs as a percentage of total project costs excluding right-of-way for all projects, regardless of location, average 7.5% for the sample, and range between 2 and 12% for the typical project. However, for any given project the environmental mitigation cost as a percentage of total project cost excluding right-of-way may range anywhere from less than 1%

to as high as 25%. As a result the findings of this report, once again, should only be applied to estimate the scope of environmental mitigation costs relative to an overall program or for a hypothetical average project.