



An Inventory and Asset Management System For Completed NEPA Projects

Prepared for
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Bureau of Equity and Environmental Services**

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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 or (608) 264-8142, or WisDOT Research at research@dot.state.wi.us or (608) 261-8198.

Topic/Problem Statement: Develop an Inventory and Asset Management System for Completed NEPA-Required Environmental Mitigation Projects in Wisconsin.

Keywords: NEPA asset management, NEPA inventory, EIMS, electronic asset management.

Summary

We located two citations that document relevant NCHRP research.

Citations

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

Title: NCHRP Research Results Digest 317: Prototype Software for an Environmental Information Management and Decision Support System

Author(s): This digest summarizes the results of NCHRP Project 25-23(2), *Software for an Environmental Information Management and Decision Support System*, conducted by Cambridge Systematics Inc. with Parsons Brinckerhoff and Venner Consulting Inc.

Date: March 2007

Source/URL: TRB, http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rrd_317.pdf

Description: 21 pp.

Contents: This digest describes the results of NCHRP Project 25-23, a multiyear research effort to design, test and demonstrate a prototype software program for an EIMS that state DOTs and others could use to support their environmental decision making throughout the transportation system management process, from long-range planning through project development, construction, operations and maintenance. Points of interest in the report include:

- Section 2, the Prototype EIMS Software (page 3 of the PDF) –
The prototypical EIMS is a tailored information management system with a web-based user interface, relational

database, and map interface. The system supports the following functionality:

Project development, including definition of projects and related environmental management data; definition of alternatives associated with projects; management of data related to any environmental analyses performed for a project alternative and data related to impacts indicated by an analysis; management of public involvement steps and actions for a project or project alternative; and association of projects with specific assets.

Asset definition, including definition of up to three types of assets, such as roads, bridges, and maintenance facilities or other assets; definition of any environmental management data or other data associated with an asset; and association of an asset with map features.

Requirements/best practices, including definition of specific requirements and/or best practices related to environmental management; grouping of requirements/best practices into sets; and association of plan, project, or asset alternatives with a specific requirement/ best practice set.

In the system, one can define links to a wide variety of resource documents. For example, one can create links to photos of an asset or project site, or to PDF versions of planning reports or detailed environmental analyses. List and detail views may be used to gain access to data. In list views, one can view data on long-term plans, projects, and assets, as well as other environmental features, and select objects for editing using a map.

- Appendix: Representative Environmental Management Initiatives (pages 9 to 20 of the PDF) – The research team outlines examples of environmental information management system efforts undertaken by a number of state DOTs including Wisconsin.

Title: NCHRP Research Results Digest 304: Technologies to Improve Consideration of Environmental Concerns in Transportation Decisions

Author(s): This digest presents the results of NCHRP Project 25-22(02), *Technologies to Improve Consideration of Environmental Concerns in Transportation Decisions*. The study was conducted by CH2M Hill -- Marcy Schwartz was the Principal Investigator.

Date: June 2006

Source/URL: TRB, http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rrd_304.pdf

Description: 38 pp.

Contents: This digest describes eight technologies that can be used by transportation agencies to improve the consideration of environmental concerns in transportation decisions. The technologies include the Electronic Asset Management System, wherein database software establishes a repository of information on transportation infrastructure assets and facilitates access to that information for management decision making. Tools integrate information from multiple sources to characterize individual assets and asset groups and their condition, facilitate updating with field inspection data, and support preparation of maintenance work orders. The second section of the report provides brief descriptions of the technologies and their applications, as well as factors leading to their developments.