TECHNOLOGY TRANSFER REGIONAL RESOURCE LIBRARY PROJECT

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Background and Objective

This report highlights a cooperative project between the Mountain-Plains Consortium universities and the Region 8 Technology Transfer Centers. Region 8 consists of six states: Wyoming, Montana, Colorado, North Dakota, South Dakota, and Utah. Each of these states has a Transportation Technology Transfer Center at a state university, which perform various functions. They primarily act as a resource for the numerous transportation-related firms and local agencies throughout their respective state. The centers provide workshops that inform and train people on the most up-to-date information, practices, and procedures on different transportation topics. In addition, these centers have libraries that provide free publications, loan references, and loan videos on transportation topics. Each center throughout the region has developed its own library to provide the latest technologies and other road and street technology transfer information to local agencies. The T^2 Centers in FHWA Region 8 did not evaluate the effectiveness of the publications that had been incorporated into the free and lending libraries of the centers. This project was to cooperatively develop library resources which are current in state of the art practice. This project evaluated the existing centers' publications and resulted in an opportunity for all regional centers to develop a listing of publications for the latest methods and procedures.

Procedure

This regional resource library project involved establishing regional topic areas, categorizing the publications, and reviewing the publications to sort out obsolete or inactive resources. The first step involved establishing regional topic areas and categories to sort the publications. This was necessary to break the publications into smaller groups so they could be reviewed. The following is a list of the categories that were chosen for this process:

Category 5 Career/Personal Development
Resumes, Time Management, Communication, Leadership

- 5.17 Career
- 5.18 Personnel

Category 10 Conferences, Annual Meetings, Annual Reports

Category 11 Administration
Finance, Legislation, Policy

- 11.1 Risk Management
- 11.2 Tort Liability

Category 12 Planning, ROW, Research
Highway Statistics, Surveying, Access Management

- 12.1 Planning
- 12.2 Right of Way
- 12.3 Research

Category 17 Energy and Environment
Pollution, Recycling, Wetlands, Hazardous Materials

- 17.1 Energy
- 17.2 Environment

Category 20 Design-General
Roadway Design

Category 22 Hydrology and Hydraulics
Fluid Mechanics, Drainage, Culverts

Category 24 Pavement Design and Performance
Friction, Skid Resistance, Joints, Overlays, Pavement Management

- 24.1 Asphalt Pavement
- 24.2 Concrete Pavement
- 24.3 Unpaved Roads

Category 25 Structures Design and Performance
Bridge Decks, Bridge Management

Category 30 Materials and Construction
Steel, Aluminum, Timber, Plastic

- 30.1 Construction Materials (non-soil)
- 30.2 Construction Methods

Category 31 Bituminous Materials and Mixes
Hot Mix, Cold Mix, Crumb Rubber

Category 32 Cement and Concrete
Fly Ash, Reinforced Concrete, Prestressed Concrete

Category 40 Maintenance and Construction
Potholes, Patching, Vegetation Control

- 40.1 Road Maintenance
- 40.2 Equipment Maintenance
- 40.3 Weather Related Maintenance

Category 50 Traffic Operations and Safety
Pavement Markings, Guardrails, Traffic Signals, HOV

- 50.1 Traffic operations
- 50.2 Safety

50.21 Equipment Safety
50.22 Worker Safety

Category 55 ITS
Intelligent Transportation Systems

Category 60 Soils, Geology, and Foundations
Soil Stabilization, Retaining Walls

Category 70 Miscellaneous
Metrication, Telecommuting, Metrology

Category 80 Bicycles and Pedestrians

Category 90 Aviation

Category 100 Reference
Code of Federal Regulations, Dictionaries, Atlases, Encyclopedias

These categories were chosen by the regional T^2 centers in committee meetings held over the Tel-8 system. The categories were formed based on the Transportation Research Board's categories and were modified to best fit this project.

Then it was time to find reviewers for all of the different categories in the database. The reviewers consisted of personnel from five of the Technology Transfer Centers throughout the region and personnel from the Federal Highway Administration. The reviewers for each category were selected to maximize the reviewer's familiarity/expertise with the category. They were mailed publication lists for their respective category. After reviewing, they returned the list of publications having marked each publication as good, bad, or uncertain. This information was used to create lists for each center showing the ratings of their resources. This information could then be used by each center to sort out obsolete/inactive resources.

The next step was to develop an Access database of publications and to obtain library listings from each Technology Transfer Center in the region. All of the databases were edited to make them consistent, and then combined into one regional database. All of the duplicate

entries for resources possessed by more than one center were deleted, and the locations of the publication were noted under one listing. The entire regional database was then sorted by category.

The following is the format of the regional database:

Publication Name	Category	Pub. Type	Publisher	Pub. Date	Location	Good	Bad	?
Maintenance Management	40	Free	NACE	1992	WY, UT, ND	X		
Pavement Design	24	Loan	TRB	1988	MT, SD			X

Alternatives

Traditional libraries eliminate resources based on use and replacements of new editions. In the T^2 centers a similar practice also is a possibility. However, one difficulty is in how to provide only current state-of-practice material. Latest editions of reference manuals help to provide this quality control. However, articles discussing practice often are not reflective of changes that occur over time. Another alternative is to review publications over five years old for inaccuracies due to state-of-practice changes. It is difficult to devise a system to eliminate old references. This alternative also assumes that local T^2 expertise exists on the categories of the references. When adding a new reference to a library, also check the current library topic area for materials that are obsolete or inactive. This, however, also has the inherent problem of needed expertise to review the old materials.

During this study, no alternative approach to keeping a library current with only state-of-practice publications or video tapes surfaced. Summarized are benefits derived from this project and a discussion of the problems encountered.

Benefits

Cooperating as a region was one of the major benefits of the project. It brought together the MPC universities and the state T^2 centers. Using the Tel 8 system for several meetings included the T^2 centers of Montana and South Dakota, which do not have direct local access to Tel 8, but were able to use the DOT sites. The centers learned about the libraries of the other centers. The project also resulted in the regional T^2 centers addressing the issue of resource validity.

Problems Encountered

Resource validity should have resulted in a common library and a means to keep the T^2 libraries current. However, this did not occur. Also, all topics were not reviewed in the full detail envisioned by the project. After the initial review, the plan had been to mail publications that were in the questionable or uncertain category to the reviewers. Due to the number of reviewers who did not complete the initial review, it was decided to terminate the project.

During the course of the project, one T^2 center turned its library over to the state DOT. This also added to the termination of the project.

Summary

Each state in the region that participated in this project has been sent a list of their publications and the reviewers' indications for each of the publications that were reviewed. The state T^2 centers will hopefully use this to eliminate obsolete or inactive resources.

The need to validate references is a continuing issue. As a result of this project the Wyoming T^2 center is publishing a new resource catalog. The resource catalog has a current listing of free publications and the loan publications listing has been reduced to include only key references. It is now the center's practice to check if existing references are obsolete when adding a new publication to the library. Loan references have been sub-classified and a limited listing has resulted in a more manageable reference listing. Special user requests will take advantage of library search procedures that exist in the T^2 center's library, such as using the Access database to find resources for a certain

topic area.