

SOLUTIONS



RESEARCH PROGRAMS FALL 2005

IN THIS ISSUE

PROJECT HIGHLIGHTS

Experimental Project in the Use of High-Density Polyethylene Pipe in Mainline Applications

[Research Peer Exchange](#)

[Research Project: Idea to Product](#)

[LIBRARY CORNER](#)

[DID YOU KNOW?](#)

[CALENDAR OF EVENTS](#)

[NEW RESEARCH REPORTS](#)

[NEW RESEARCH PROJECTS](#)

[CONTACT US](#)

PROJECT HIGHLIGHTS

HIGH-DENSITY POLYETHYLENE PIPE IN MAINLINE APPLICATIONS

<http://www.mdt.mt.gov/research/projects/angela.shtml>

The Montana Department of Transportation will be installing high density polyethylene pipe (HDPE) culverts on a new construction project in Rosebud County on Highway 59 during the spring of 2006. This will be the first time the Department has chosen to use HDPE on a mainline application. The type of pipe selected is the ADS N-12 WT IB with diameters of 750 mm (30"), 900 mm (35.5"), and 1200 mm (47"). The Department's Research Program will document the installation of this product and conduct semi-annual performance inspections for a minimum of five years. Elements of performance to be documented are crack and oxidation resistance, and deflection.

For more information, contact Craig Abernathy at 406-444-6269 or cabernathy@mt.gov.





RESEARCH PEER EXCHANGE

All state departments of transportation are required, under 23 CFR, Section 420.207(b), to host a peer exchange every three years. Peer exchanges are a practical and effective tool to foster excellence and provide an opportunity for participants to share best practices and management innovations through an open exchange of ideas, knowledge, and brainstorming.

The Montana Department of Transportation (MDT) hosted its second peer exchange in October. The focus of this exchange was research information services. The objectives were to:

- Identify strengths, challenges, and opportunities for the information services component of MDT's Research Program.
- Determine most pressing information needs of MDT staff.
- Determine how best to meet these needs.
- Explore potential areas of cooperation regionally and nationally to improve exchange and use of transportation information.
- Discuss progress with the Midwest Transportation Knowledge Network, AASHTO sponsored Transportation Information Policy Study, Transportation Library Connectivity Pooled-Fund Study, and future directions.
- Identify useful ideas each member of the peer exchange team can apply practically in his or her own organization.



The peer exchange team consisted of (from left to right above) Bob Burkhardt of the Montana Division of the Federal Highway Administration (FHWA), Frank Darmiento of the Arizona Department of Transportation, Barbara Harder of B. T. Harder, Inc. (team leader), Sue Sillick of the Montana Department of Transportation (MDT), Sandy Tucker of the Texas Transportation Institute, and Ken Winter of the Virginia Transportation Research Council.

During the exchange, team members identified needs and critical information services issues experienced in their respective organizations and highlighted successful practices used to accomplish information services. The team discussed information needs with MDT staff, and, collaboratively with the staff, identified a number of pressing needs and considered how to best meet these needs. The full peer exchange report can be found at http://www.mdt.mt.gov/research/docs/peer/2005_report.pdf.



Peer exchanges have been used in areas other than research to great effect. In fact the Wisconsin Department of Transportation alone has hosted 4 recent peer exchanges. In addition to their research peer exchange, they have hosted peer exchanges on the indirect and cumulative effects of transportation projects, real estate, and Disadvantaged Business Enterprise Programs. Also, a number of states have held Local Technical Assistance Program (LTAP) peer exchanges, including the Pennsylvania Department of Transportation. Finally, the Transportation Research Board (TRB) conducted

an asset management and environmental spatial information for transportation peer exchange. These are just a sampling of the other areas in transportation that have conducted peer exchanges.

Peer exchanges offer a unique opportunity to engage in discussion, share experiences and lessons learned, and identify areas for additional advancement through research, technical assistance, and other activities. For more information, contact Sue Sillick at 406-444-7693 or ssillick@mt.gov.

RESEARCH PROJECTS: IDEA TO PRODUCT

Have you ever wondered how your research ideas become research projects? The chart on page 4 diagrams the process. Projects can enter the process through any of the shaded boxes in the diagram; however, most enter through our annual research solicitation. Research ideas can be submitted at any time, but are formally requested in November and are due by December 31st of each year (see <http://www.mdt.mt.gov/research/unique/solicit.shtml>).

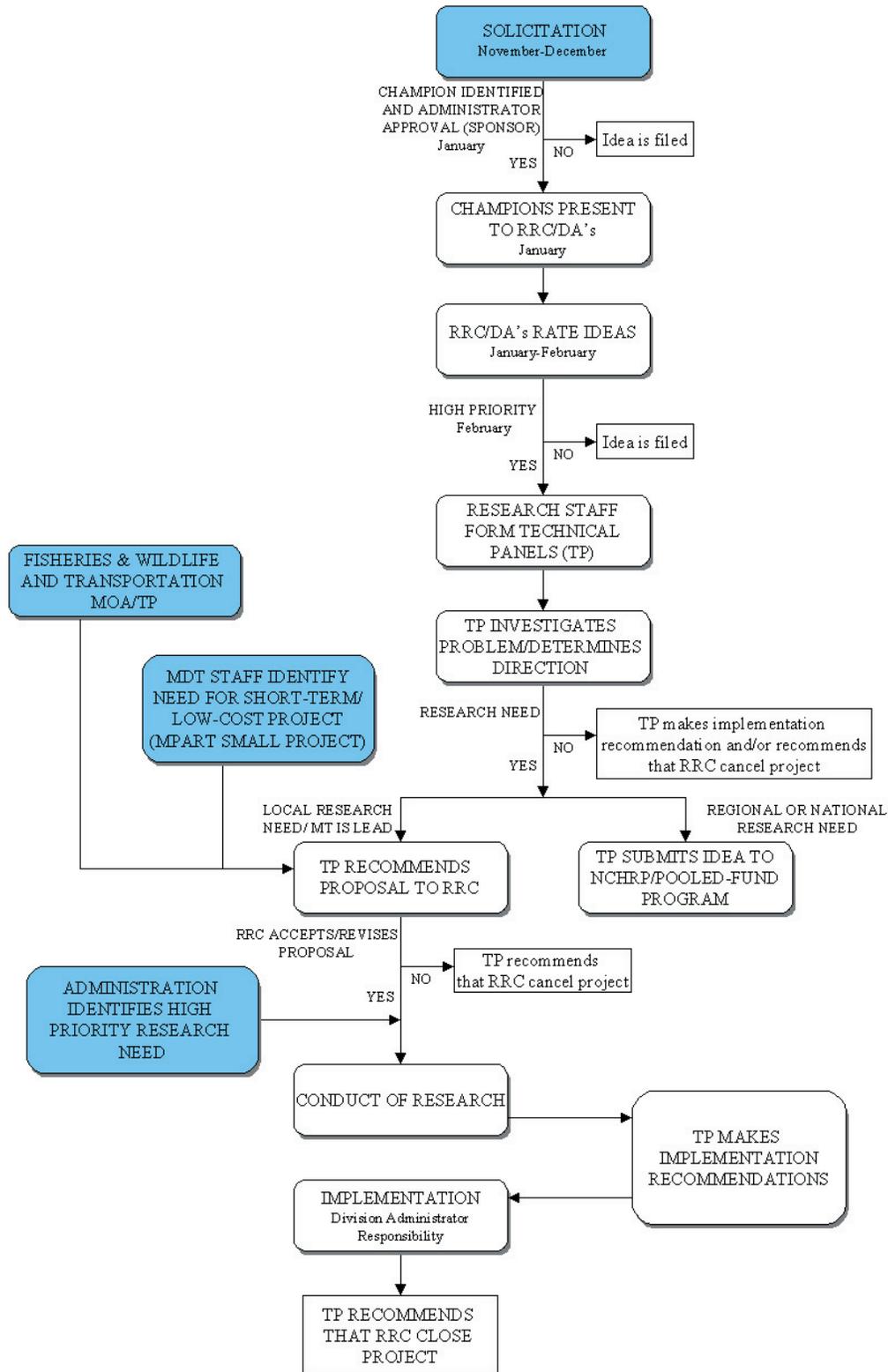
All research ideas must have a champion and a sponsor before moving forward to the prioritization process. A champion can be any MDT staff who feels strongly that the research will benefit the Department, is willing to chair the Technical Panel, and oversee the project as it progresses. A sponsor is the Division Administrator(s) responsible for implementation of the particular research results. Champions for those research ideas with a sponsor present their topics to the Department's Research Review

Committee (RRC) and District Administrators (DA's) at the January RRC meeting. The RRC (see http://www.mdt.mt.gov/research/research_review.shtml) and DA's rate each idea with regards to worth, timeliness, and attainability. The RRC then decides which projects will move forward to the technical panel stage at their February meeting.

Technical panels are formed to investigate the problem and determine its direction. First, technical panels determine if a research need truly exists, who should conduct the research, and, if the research is funded by the RRC, makes sure the research stays on track and the results are implemented as appropriate.

Currently MDT is conducting a research project for the purpose of evaluating its research project solicitation, prioritization, and selection processes.

For more information, contact Sue Sillick at 406-444-7693 or ssillick@mt.gov.



Research Project Process



LIBRARY CORNER

Accessible, reliable, and timely information is central to quality performance for all transportation agencies and stakeholders. Yet, a vast amount of transportation-related information is neither collected nor made available for use by others. Technology transfer activities – converting information into knowledge – are crucial for getting information into the hands of decision-makers.

Library and information services currently are an underutilized resource within the technology transfer process. Library services are integral because they capture information and enable customers to access it when needed. Without library and research services, this information is simply irretrievable.

The Transportation Library Connectivity Pooled Fund Study's (<http://www.pooledfund.org/projectdetails.asp?id=337&status=4>) goal is to make the transfer of information and knowledge an integral part of transportation and library information services. This project will support the effort of state, federal, academic, and private sector libraries to institutionalize a systematic infrastructure

for the transfer of transportation information resources. There are 11 different partners from 10 different states, including Montana, participating in this project to make sure this goal is achieved.

Anticipated benefits include:

- Access to a vast and diverse pool of transportation-related information, much of which is not currently available on the Internet;
- Reduced costs through sharing of resources and reduced service fees;
- Better coordination with regional and national entities for effective distribution of information; and
- Cost savings through avoiding the duplication of research efforts.

MDT participates in a number of pooled-fund studies (see the Did You Know Article at http://www.mdt.mt.gov/research/docs/library/news_spring05.pdf for a discussion of pooled-fund studies). For more information, contact Sue Sillick at 406-444-7693 or ssillick@mt.gov.

Watch future newsletter issues for Library Corner articles on:

- Montana Library Network Group Catalog
- Library Staff
- Literature Searches



DID YOU KNOW?

National Cooperative Highway Research Program

The Transportation Research Board (TRB) manages a number of cooperative research programs, including: transit, airport, freight, hazardous materials, environmental and planning, and highway. The focus of this article is the National Cooperative Highway Research Program (NCHRP).

NCHRP (<http://www4.nas.edu/trb/crp.nsf/reference%5Cappendices/NCHRP+Overview>) was created in 1962 as a means to conduct research in acute problem areas that affect highway planning, design, construction, operation, and maintenance nationwide. It is administered by TRB and sponsored by the member departments (i.e., individual state departments of transportation) of the American Association of State Highway and Transportation Officials (AASHTO), in cooperation with the Federal Highway Administration (FHWA).

Each year in early July, the AASHTO Standing Committee on Research (SCOR) solicits problems from four authorized sources: (1) the chief administrative officers of the member highway and transportation departments, (2) the chairs of AASHTO's committees and subcommittees, (3) AASHTO's Board of Directors, and (4) the Federal Highway Administrator. Problem statements are due September 15 of the same year. On receipt, FHWA and NCHRP evaluations are performed. These evaluations are sent

to submitters around mid-November, and submitters have until early December to comment on the evaluations or withdraw the problem statement.

Late each December, ballots are sent to the SCOR and the AASHTO Research Advisory Committee (RAC) for rating the problems according to priority. MDT Administrative Chiefs are requested to rate each of the NCHRP problem statements. It is important for MDT staff to rate each and every problem statement so that MDT's priorities are considered. Be on the lookout for these new problem statements requiring ratings in late December/early January.

The ratings are returned to the SCOR Secretary (i.e., the Director of the Cooperative Research Programs) and are translated into priority rankings based on the average ratings of SCOR and RAC. SCOR determines final priorities and formulates a program.

TRB also manages NCHRP Synthesis of Practice projects (<http://www4.nationalacademies.org/trb/synthesis.nsf/Reference/NCHRP+Overview>). These projects of much smaller scope than the standard NCHRP projects and include a survey of the literature and states. Synthesis topics are due January 31 of each year.

For more information, contact Sue Sillick at 406-444-7693 or ssillick@mt.gov.



CALENDAR OF EVENTS

December

MDT Research External/Internal Solicitation for
Research Ideas Ends – 12/31
NCHRP Ballot on New Projects Distributed to
SCOR and RAC

January

RAC/SCOR Meet During TRB Annual Meeting
– 1/22
TRB Annual Meeting in Washington, D.C. – 1/22-
1/26
MDT RRC Meeting (1/31) – Solicitation Research
Ideas to be Rated
NCHRP Synthesis of Practice Topics Due – 1/31
TCRP Panel Nominations Due

February

MDT RRC Meeting (2/27) – Champions Present
Research Ideas
NCHRP Ballots on New Problem Statements Due
Obligation of NCHRP Funding Due (month may
vary)

March

MDT RRC Meeting – 3/28
NCHRP Summary of Ballots Distributed to SCOR
Schedule and Guidance for TRB Annual State
Visits Distributed
SCOR Selects New NCHRP Projects
TRB Core Program Contributions Due
TCRP Synthesis of Practice Topics Due
Nominations for New AASHTO TIG Topics Due

April

MDT RRC Meeting – 4/25
Preliminary NCHRP Program Announced

May

MDT RRC Meeting – 5/30
NCHRP Synthesis of Practice Topics Selected
NCHRP Panel Member Nominations Due
TCRP Synthesis of Practice Topics Selected
TIG Request for Topics

NEW RESEARCH REPORTS

Research Peer Exchange

http://www.mdt.mt.gov/research/docs/peer/2005_report.pdf

A listing of all past and current projects can be found at:
www.mdt.mt.gov/research/projects/sub_listing.shtml.



NEW RESEARCH PROJECTS

Experimental Assessment of Aggregate Surfacing Materials
http://www.mdt.mt.gov/research/projects/mat/exp_assess.shtml

Habitat Connectivity and Rural Context Sensitive Design within the Northern Rockies and Upper Great Plains: A Synthesis of Practice
<http://www.mdt.mt.gov/research/projects/env/habitat.shtml>

Pacific Northwest Snowfighters Pooled-Fund Study
<http://www.pooledfund.org/projectdetails.asp?id=302&status=4>

A listing of all past and current projects can be found at:
www.mdt.mt.gov/research/projects/sub_listing.shtml.

REMINDER

Information on research services and products, such as research and experimental project processes and reports, and technology transfer services, including our library catalog can be found on the Research web site at www.mdt.mt.gov/research.

CONTACT US

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