

# State Planning and Research Program Quarterly Report

**PROJECT TITLE:** Clear Roads Administration, Research Support and Information Services

**OBJECTIVES:** Clear Roads is a pooled fund research project aimed at rigorous testing of winter maintenance materials, equipment and methods for use by highway maintenance crews. The Clear Roads Technical Advisory Committee contracted with CTC & Associates LLC to perform the administrative functions associated with maintaining the pooled fund project as well as information services that support technology transfer. This report summarizes activities conducted under this contract over the last three months.

**PERIOD COVERED:** July through September 2013

**PARTICIPATING AGENCIES:** Minnesota Department of Transportation

**PROJECT MANAGER:** Debra Fick

**SP&R PROJECT NO:**

**PROJECT IS:**

Contract #02337

Planning

Research & Development

**LEAD AGENCY:** MnDOT

**PRINCIPAL INVESTIGATOR:**

CTC & Associates LLC

**ANNUAL BUDGET:** \$224,900

**PROJECT EXPENDITURES TO DATE:** \$43,169.30

## WORK COMPLETED:

### TAC Meetings

- Coordinated a face-to-face meeting of the Clear Roads Technical Advisory Committee on September 9-13 in Vancouver, Washington, held in conjunction with the 2013 Winter Maintenance Peer Exchange. This included communication with TAC members; coordinating with members of AASHTO, Aurora and PNS; meeting logistics; and agenda development.
- Began planning for a face-to-face meeting of the Clear Roads Technical Advisory Committee on March 25-27, 2014 in Portland, Maine. Planning includes all preparations for the meeting such as communication with TAC members, meeting logistics, agenda and meeting materials.
- Drafted meeting minutes and followed up on action items from the Fall 2013 meeting.

### Administration and Marketing

- Updated the Clear Roads website with current TAC members, project status and meeting information.
- Maintained and updated commitment, obligation, and overall budget information for the pooled fund in coordination with MnDOT.
- Supported efforts of TAC members in recruiting new members and talking about Clear Roads at conferences.

### Information Services

- Researched and wrote content for the winter maintenance news published in August.
- Drafted an article for *Roads & Bridges* magazine on the completed Clear Roads project on Cost-Benefit Toolkit Phase II.
- Drafted an article for *TR News* on the Clear Roads pooled fund's history, development and accomplishments.
- Drafted a two-page brief for the completed research project on deicer toxicity
- Distributed Clear Roads updates (final reports, RFPs, newsletters, etc.) to the Clear Roads distribution list using Constant Contact.
- Finalized and posted the results of the 2012-13 product experience survey on the Clear Roads website.

## Research Support

### *New projects*

- Worked with the subcommittees to develop the scopes of work and formal RFPs for the following 5 research projects selected by the TAC for funding in May 2013:
  - Best Practices for the Prevention of Corrosion to DOT Equipment: A User's Manual
  - Developing Test Bed Software to Qualify Plug and Play Technology
  - Snow and Ice Control Environmental Best Management Practices Manual
  - Understanding the Effectiveness of Non-Chlorine Liquid Agricultural By-Products and Solid Complex Chloride/Mineral Products Used in Snow and Ice Control Operations
  - Cost Benefit Analysis of Various Winter Maintenance Strategies
- Worked with the subcommittee to develop the scope of work and formal RFPs for the Training for Supervisors and Operators project funded in 2012. This also included facilitating the review of existing training materials.

### *Research in progress*

- Continued Coordination with the PI and subcommittee to schedule check-in teleconferences and facilitate the review of interim and final deliverables for:
  - Establishing Effective Salt and Anti-icing Application Rates
  - Understanding the Chemical and Mechanical Performance of Snow and Ice Control Agents on Porous or Permeable Pavements
  - Comparison of Materials Distribution Systems
  - Environmental Factors Causing Fatigue in Snowplow Operators
  - Determining the Toxicity of Deicing Materials
  - Development of a Totally Automated Spreading System
  - Understanding the True Costs of Snow and Ice Control Operations
- Plug and Play Initiative: Coordinated with the project subcommittees and other stakeholders.
- Winter Maintenance Knowledge Base: Gathered Clear Roads discussion threads to have posted as a resource for others.

### *Implementation*

- Developed a survey to assess the level of implementation within Clear Roads member states of the Clear Roads completed research.
- Coordinated with the Technology Transfer Committee to develop new recommendations for technology transfer tools both to share project results with non-members and to aid members in implementation.

## **SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:**

- Research, write and publish the November Winter Maintenance E-News.
- Develop the 2013-2014 Product Experience Survey.
- Continue planning for a face-to-face meeting of the Clear Roads Technical Advisory Committee on March 25-27 in Portland, Maine: travel logistics, agenda, etc.
- Continue to coordinate and support the RFP development, evaluation and contracting processes for:
  - Best Practices for the Prevention of Corrosion to DOT Equipment: A User's Manual
  - Developing Test Bed Software to Qualify Plug and Play Technology
  - Snow and Ice Control Environmental Best Management Practices Manual
  - Understanding the Effectiveness of Non-Chlorine Liquid Agricultural By-Products and Solid Complex Chloride/Mineral Products Used in Snow and Ice Control Operations
  - Cost Benefit Analysis of Various Winter Maintenance Strategies
- Continue to coordinate with investigators and the Clear Roads subcommittees on projects in progress. Distribute interim and final deliverables. Coordinate final webinar presentations for that are completing.
- Write two-page brief for the completing projects.
- Maintain the Clear Roads website and budget.
- Redesign the Clear Roads website to provide a fresh look using a content management system.
- Provide support for the review and processing of investigator invoices, as needed.
- Begin planning for the Fall 2014 Clear Roads TAC meeting (conference facilities, travel arrangements, vendor selection, etc.).

## **STATUS AND COMPLETION DATE:**

As expected, the funds expended are a little ahead of schedule due to the fall meeting and peer exchange, RFP development activities, and multiple article submissions, all of which are temporary activities. CTC will expend fewer hours in the next quarter as our focus turns primarily to research project support. The contract is scheduled to end August 31, 2015.