

research for winter highway maintenance

### Agenda Clear Roads 2013 Fall Meeting:

Pooled Fund #TPF-5 (218): Test and Evaluation of Materials, Equipment and Methods for Winter Highway Maintenance

#### Monday – Thursday September 9-12, 2013 The Red Lion Hotel, Vancouver, WA

The Red Lion Hotel, Vancouver, WA Monday and Thursday - East River I Tuesday and Wednesday – West River I and II; East River I

#### Monday, September 9, 2013 - 7:00 AM to 4:30 PM

Time	Presenter	Topic/ Description
7:00 to 8:00		Breakfast Breakfast will be served at West River I
Noon to 1:00		Lunch Lunch will be served at West River I
1:00 to 1:15	David Wieder	Welcome and Meeting Objectives
		Dave will review the objectives for the day and introduce first-time attendees.
1:15 to 1:45	David Wieder	Sharing Clear Roads Resources
		Discuss whether and/or how to share project deliverables, expertise and other Clear Roads resources with non-Members.
1:45 to 2:00	David Wieder	Operating Procedures: Vote on Subcommittees
		In keeping with the new Operating Procedures, the TAC will vote upon the new subcommittees created for the projects selected for funding in 2013.
2:00 to 2:15	Colleen Bos	Budget
		Overview of the Clear Roads budget, including any changes that have taken place in membership contributions and expenses since May.
2:15 to 2:45	Lynn Bernhard	State Report
		Lynn Bernhard will provide an update on winter maintenance activities and innovations in Utah.
2:45 to 3:00		Break
3:00 to 4:30	Lee Smithson	Joint Session with Aurora, Clear Roads, and AASHTO WMTSP/SICOP
		Meet jointly to coordinate details for the Peer Exchange and to consolidate/assign new research needs statements (RNS).
		Dinner
		On your own

### Tuesday, September 10, 2013 - 7:00 AM to 7:00 PM

Time	Presenter	Topic/ Description
7:00 to 8:00		Breakfast
		Breakfast will be served in the Centennial Center
8:00 to 8:30	Washington DOT	Welcome
	Consortia Chairs	Welcoming remarks and Peer Exchange expectations
8:30 to 9:30	Gabriel Guevara,	Overview of Map-21
	FHWA,	This opening session will provide an overview of MAP-21 and its impact on
	Transportation	winter maintenance. MAP-21 is the first long-term highway authorization
	Specialist	enacted by Congress since 2005. It is a performance and outcome-based
		program designed to improve maintenance of the infrastructure, reduce traffic
		congestion, improve efficiency of the system and freight movement, and protect the environment. Section 1203 "Performance Management" of MAP-
		21 relates to maintenance and particularly winter maintenance operations
		(safety, congestion reduction, system reliability, and environmental
		sustainability. The session will conclude with a presentation on FHWA's
		"Sustainable Highway's Self-Evaluation Tool" and the use of OM-9: Snow
		and Ice Control for assisting State DOTs with minimizing environmental
		impacts while providing continued or better level of service.
9:30 to 10:00		Break and time with vendors
10:00 to 11:00	Laura Fay	NCHRP Project 25-25(04), Revised Chapter 8 (NCHRP 20-07/Task 318)
	Research	Winter Maintenance Operations and Salt, Sand, and Chemical
	Scientist	Management.
	Western	NCHRP Project 25-25(04) Environmental Stewardship Practices, Procedures,
	Transportation	and Policies for Highway Construction and Maintenance, Revised Chapter 8
	Institute	(NCHRP 20-07/Task 318) Winter Maintenance Operations and Salt, Sand,
		and Chemical Management. This work will be completed in spring 2013.
		This presentation will provide an overview of the Revised Chapter, review
		some of the best practices and discuss how to keep the Chapter updated.
		The report identifies knowledge gaps and areas with limited or little research
		and provides suggested research recommendations.
11:00 to Noon	Gabriel Guevara	FHWA Report on the Road Weather Management Program (RWMP)
	Cabilei Guevala	FHWA reports on the Road Weather Management Program (RWMP) which
		would include updates on the <i>Clarus</i> Transition Plan, Data Sharing
		Agreements, Road Weather Messages, Best Practices for Road Weather
Noon to 1:00		Agreements, Road Weather Messages, Best Practices for Road Weather Management, Performance Measures, Connected Vehicle, Update on RWMP
		Agreements, Road Weather Messages, Best Practices for Road Weather Management, Performance Measures, Connected Vehicle, Update on RWMP Roadmap/Funding, and Future Directions. Lunch Lunch will be served in the Centennial Center
Noon to 1:00 1:00 to 2:30	Consortia/	Agreements, Road Weather Messages, Best Practices for Road Weather Management, Performance Measures, Connected Vehicle, Update on RWMP Roadmap/Funding, and Future Directions. Lunch Lunch will be served in the Centennial Center Research Consortia: Progress Reports
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### Wednesday, September 11, 2013 - 7:00 AM to 5:30 PM

Time	Presenter	Topic/ Description	
7:00 to 8:00		Breakfast	
		Breakfast will be served in the Centennial Center	
8:00 to 10:00	Allen Williams,	Best Practices Presentations	
	VDOT	Presentation of best method practices and processes currently being used by	
		selected state DOTs. These practices/processes will be selected from those	
		provided by state DOTs in Question #3 of the "Survey Questions, (February	
		25, 2013), 2013 National Winter Maintenance Peer Exchange"	
10:00 to 10:30		Break and time with vendors	
10:30 to Noon	Allen Williams	Best Practices Presentations (continued)	
Noon to 1:00		Lunch	
		Lunch will be served in the Centennial Center	
1:00 to 1:45	Chris Albrecht	Open Discussion: Techniques for Improving Technology Transfer	
	Colleen Bos	Present some options that are currently being used for technology transfer (ie,	
		webinars [EPA's Stormwater Pollution Prevention Webinar Series: Road Salt	
		Pollution Prevention Strategies, SHRP2 Webinars: SHRP2 Rollout, FHWA	
		Best Practices Webinars, Road Weather Management, etc], CBTs, SICOP List	
		Serve, newsletters, private sector webinars, snow warriors, corner state	
		shoulder to shoulder demonstrations, snow conferences, etc), obtain input	
		from attendees about the effectiveness of these current practices, and identify	
		other techniques they believe would be effective in getting the word out to the	
		field and putting research results into practice.	
1:45 to 2:00	Wilf Nixon,	Instructions: Breakout Sessions	
	Professor	Instructions for organizing and conducting "role-based" Breakout Sessions.	
	University of		
	lowa		
2:00 to 2:30		Break and time with vendors	
2:30 to 4:30	Wilf Nixon,	Breakout Sessions	
	facilitator	Three breakout sessions will be structured to include input from state DOTs as	
		listed in Question #4 of the "Survey Questions, (February 25, 2013), 2013	
		National Winter Maintenance Peer Exchange". Preliminary breakout sessions	
	#1. Curt Pape, MN	topics might include:	
	DOT & Jason Norville, PA DOT	1. Management Breakout Session topics such as: Emergency Declarations;	
		Communications (use of social media, damage control, etc.); Sustainable	
		Operations; Staff Training; Best Method Practices; etc.	
	#2. Monty Mills,	2. Maintenance Operations Breakout Session: Training; Use of Decision	
	WA DOT & Mike	Support Systems; Equipment Needs/Calibration; Anti-icing; Material	
	Adams, WI DOT	Storage; Material Selection; etc.	
	#2 Tipe Orecreticity	3. Roadway Weather Systems Breakout Session: Sensor accuracy;	
	#3. Tina Greenfield, IA DOT & Jeff	Integration with MDSS; etc.	
	Williams, UT DOT		
4:30 to 5:00		Open Discussion	
4:30 to 5:00	Wilf Nixon	<b>Open Discussion</b> Open discussion and review of materials presented on September 10 <sup>th</sup> and	
4:30 to 5:00		Open discussion and review of materials presented on September 10 <sup>th</sup> and	
	Wilf Nixon	Open discussion and review of materials presented on September 10 <sup>th</sup> and expectations for September 11 <sup>th</sup> .	
4:30 to 5:00 5:00 to 5:30	Wilf Nixon Consortia	Open discussion and review of materials presented on September 10 <sup>th</sup> and expectations for September 11 <sup>th</sup> . Breakout Session Summary Reports	
	Wilf Nixon	Open discussion and review of materials presented on September 10 <sup>th</sup> and expectations for September 11 <sup>th</sup> . <b>Breakout Session Summary Reports</b> Representative from each Breakout Session will summarize the results of their	
	Wilf Nixon Consortia	Open discussion and review of materials presented on September 10 <sup>th</sup> and expectations for September 11 <sup>th</sup> . Breakout Session Summary Reports	

#### Thursday, September 12, 2013 – 7:00 AM to 5:00 PM

Time	Presenter	Topic/ Description	
7:00 to 8:00		Breakfast	
		Breakfast will be served in West River I.	
8:00 to 8:15	David Wieder	<b>Meeting Objectives</b> Dave will review the objectives for the day.	
8:15 to 8:45	David Wieder	Peer Exchange Follow Ups	
0.15 (0 0.45	David Wieder	Review the outcomes of the Peer Exchange. Identify action items and assign responsibilities for follow up.	
8:45 to 9:15	Scott Lucas	Status of Implementation and Technology Transfer Efforts Review the survey results on the status of implementation efforts for all Clear Roads completed projects and discuss recommendations regarding future technology transfer efforts.	
9:15 to 9:45	Caleb Dobbins	State Report Caleb Dobbins will provide an update on winter maintenance activities and innovations in New Hampshire.	
9:45 to 10:00		Break	
10:00 to 10:30	Tim Chojnacki	State Report Tim Chojnacki will provide an update on winter maintenance activities and innovations in Missouri.	
10:30 to 11:00	Colleen Bos, Monty Mills, Ron Wright, Mike Sproul, Mike Mattison	<ul> <li>Update on Funded Projects Not Yet Under Contract</li> <li>Best Practices for the Prevention of Corrosion to DOT Equipment: A User's Manual</li> <li>Snowplow Operator and Supervisor Training</li> <li>Developing Test Bed Software to Qualify Plug and Play Technology</li> <li>Cost Benefit Analysis of Various Winter Maintenance Strategies</li> <li>Understanding the Effectiveness of Non-Chloride Liquid Agricultural By-Products and Solid Complex Chloride</li> </ul>	
11:00 to 11:30	David Wieder/ Colleen Bos	<ul> <li>Proposal Discussions</li> <li>Review and discuss proposals for:</li> <li>Snow and Ice Control Environmental Best Management Practices Manual</li> </ul>	
11:30 to 12:00	David Wieder	State Report David Wieder will provide an update on winter maintenance activities and innovations in Colorado.	
12:00 to 1:00		Lunch Lunch will be served in West River I.	
1:00 to 2:45	Colleen Bos, Monty Mills, Mike Lashmet, Justin Droste, Allen Williams, David Wieder, Cliff	<ul> <li>Update on Projects in Progress</li> <li>Establishing Effective Salt and Anti-icing Application Rates</li> <li>Understanding the Chemical and Mechanical Performance of Snow and Ice Control Agents on Porous or Permeable Pavements</li> <li>Comparison of Materials Distribution Systems</li> <li>Environmental Factors Causing Fatigue in Snowplow Operators</li> <li>Determining the Toxicity of Deicing Materials</li> </ul>	

	Spoonemore	<ul> <li>Development of a Totally Automated Spreading System</li> <li>Understanding the True Costs of Snow and Ice Control Operations</li> <li>Plug and Play Initiative</li> <li>Pacific Northwest Snowfighters</li> </ul>	
2:45 to 3:00	Colleen Bos	Product Experience Survey Results	
		Share the latest Product Experience Survey results and discuss any changes for the 2012-13 season.	
3:00 to 3:15		Break	
3:15 to 3:45	Justin Droste	State Report Justin Droste will provide an update on winter maintenance activities and innovations in Michigan.	
3:45 to 4:45	Justin Droste	<b>GPS/ AVL</b> Review the survey results and have a roundtable discussion about GPS/AVL technology.	
4:45 to 5:00	Colleen Bos/ David Wieder	<b>Future Meetings</b> Review the plans for the Spring 2014 and Fall 2014 meetings.	
5:00	David Wieder	Wrap Up	

## Clear Roads Meeting Location

### Red Lion Hotel Vancouver at the Quay 100 Columbia Street Vancouver, WA 98660 (307) 733-5200 http://www.redlion.com/vancouver

### Hotel Confirmation Numbers:

Adams	3 nights (25372686)
Bernhard	5 nights (25414489)
Bos	5 nights (25390519)
Bucci	5 nights (25372676)
Caswell	3 nights (25372688)
Chojnacki	5 nights (25372677)
Dobbins	4 nights (25372684)
Droste	5 nights (25372689)
Frame	4 nights (25390526)
Gray	5 nights (25372678)
Juelfs	4 nights (25372685)
Kisse	5 nights (25390516)
Lashmet	4 nights (25372681)

Lucas	5 nights (25414514)
Mattison	4 nights (25390528)
Mills	5 nights (25390509)
Peters (Tim)	3 nights (25414515)
Peters (Tom)	4 nights (25390525)
Roman	5 nights (25414512)
Spoonemore	5 nights (25372679)
Sproul	4 nights (25372680)
Stolings	5 nights (25372424)
Wieder	4 nights (25390524)
Williams	5 nights (25372675)
Wright	4 nights (25372683)

# If you are flying:

#### Shuttle

The Red Lion provides a shuttle free of charge from the airport. Please call (360) 694-8341 when you land and the Red Lion will send their shuttle over and give you further directions about where to meet them.

If you have any trouble, please call me at (608) 628-3792.

# If you are driving:

Parking

The Red Lion provides complimentary parking for guests.