WELCOME

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Welcome to San Antonio!

On behalf of the planning committee of the *2008 Road Dust Management Practices and Future Needs Conference*, we would like to welcome you to San Antonio, Texas. As the first conference of its kind, this conference is bringing together experts from industry, research and the environment to present, discuss and prioritize current and future road dust management best practices. We have crafted an agenda which will present the issues, engage you in dialogue and be holistic in examining the realistic solutions for the future. With your help we will reach our goal of drafting a road map to the future for dust management. We would like to recognize and thank the sponsors and partners for their vision for bringing this conference together. We hope you find the conference enjoyable and productive.

Steve Albert, Co-Chair
Western Transportation Institute

Roger Surdahl, Co-Chair
FHWA Central Federal Lands

Special Thanks

Planning Committee - Many individuals have come together to help make this event a success. In addition to those individuals speaking and moderating at the conference, we want to extend a special thank you to our conference planning committee:

Steve Albert, Western Transportation Institute
Brian Allen, FHWA Federal Lands Highway
Amit Armstrong, FHWA Western Federal Lands
Gary Brown, FHWA Eastern Federal Lands
Matt Duran, Envirotech Services, Inc.
Laura Fay, Western Transportation Institute
Susan Finger, USGS, Columbia Environmental Research Center
Sean Furnis, Fish and Wildlife Service
Tony Giancola, National Association of County Engineers
David James, University of Nevada, Las Vegas
David Jones, University of California Pavement Research Center
Rodney Langston, Department of Air Quality & Environmental Management, Clark County, Nevada
Ed Little, US Geological Survey
Mark Nahra, Delaware County
Ken Skorseth, South Dakota State University
Roger Surdhal, FHWA Central Federal Lands
Bob Vitale, Midwest Industrial Supply
Dale Wegner, Coconino County
Dan Williams, Western Transportation Institute
Ron Wright, Idaho Transportation Department
Alan Yamada, USDA Forest Service

Conference Proceedings

Presentations and papers available prior to the conference have been assembled and placed on thumb drives for attendees to pickup at the close of the conference. Every attempt will be made to collect additional presentations onsite for loading on the subject drives. However, it is likely that some presentations will not be available. As such, presentations, papers, podcasts and proceedings information from the conference will also be made available on the Western Transportation Institute's website at http://www.wti.montana.edu/TechnologyTransfer/Conferences.aspx. It is anticipated that information will be available via the website beginning December 1, 2008.

Vendors

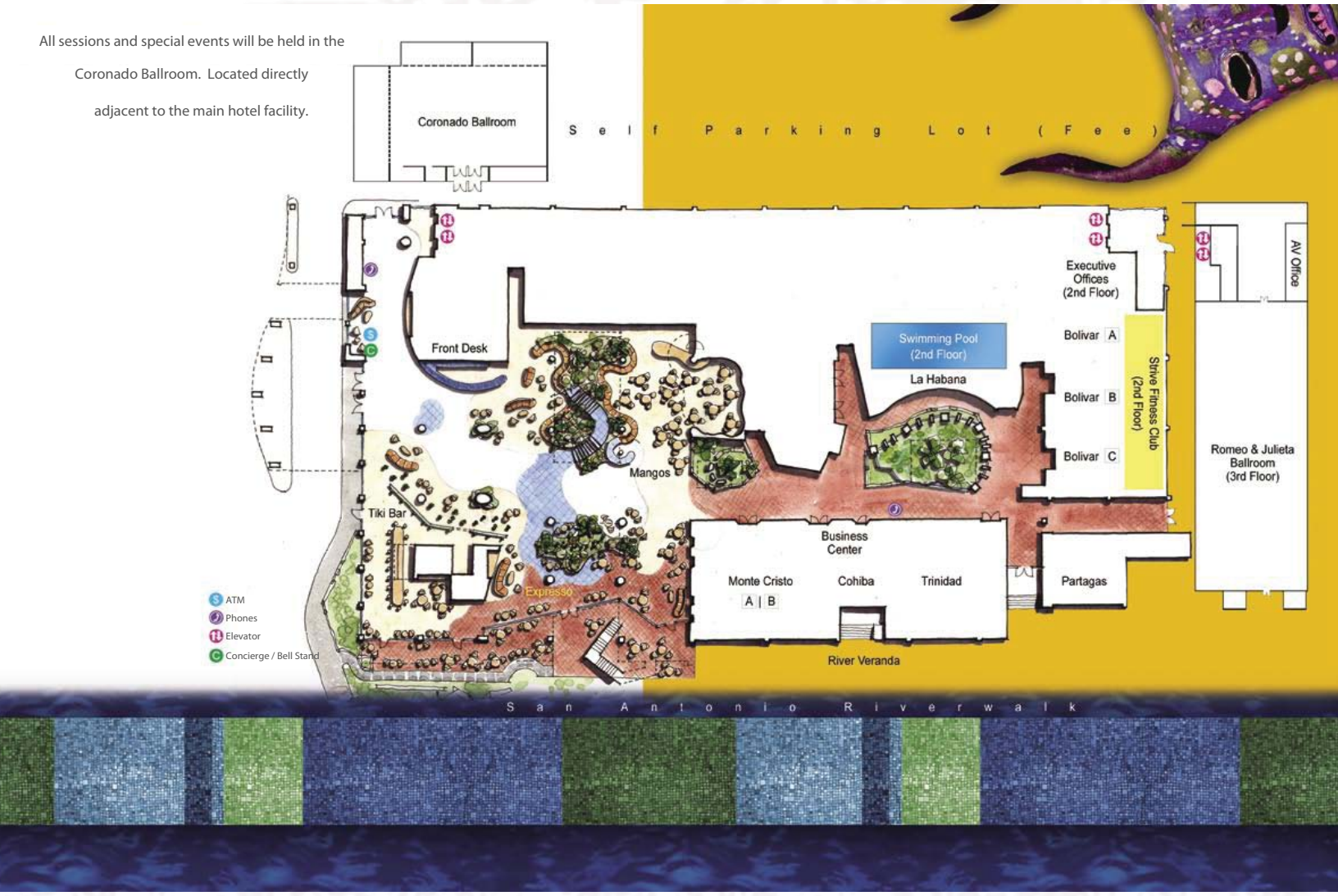
The following vendors will have displays setup in Section E of the Coronado Ballroom beginning at 8:00 am, Thursday, November 13th and continuing through 3:30 pm Friday, Novemer 14th.

- CBR Plus, LLC
- EnviRoad
- Midwest Industrial Supply, Inc.
- North American Salt, Inc.
- Soilworks, LLC

A poster session and vendor reception will be held from 4:30 - 6:00 pm on Thursday, November 13th in Section E of the Coronado Ballroom. Hors d'oeuvres will be served and a cash bar will be open for attendees and guests to enjoy. This will be a wonderful opportunity to see the new products that are available and network with peers. There will be plenty of time to enjoy dinner on your own at one of the many fine Riverwalk restaurants following the reception.

Site Map

All sessions and special events will be held in the Coronado Ballroom. Located directly adjacent to the main hotel facility.



Schedule at a Glance

Thursday, November 13, 2008

7:00 am	Registration/Continental Breakfast/Vendor Area Opens	
8:30 am	Opening Session	
9:30 am	BREAK	
10:00 am	Session A: Dust Suppression	
12:00 pm	LUNCH, sponsored by North American Salt	
1:00 pm	Session B: Dust Stabilization	
2:30 pm	BREAK	
2:45 pm	Concurrent Sessions (C)	
	Session C1: Environmental Impacts of Dust Suppressants to Control Dust	Session C2: Planning and Design for the Future
4:15 pm	Sessions Adjourn	
4:30 - 6:00 pm	Poster Session and Vendor Reception	

Friday, November 14, 2008

7:30 am	Registration/Continental Breakfast/Vendor Area Opens			
8:30 am	Concurrent Sessions - Summary of Future Needs and Roadmap			
	Session D1: Environmental Impacts of Dust Suppressants to Control Dust (guided discussion)	Session D2: Dust Suppression (guided discussion)	Session D3: Dust Stabilization - Benefits from Soil Stabiliza-tion (guided discussion)	Session D4: Planning and Design for the Future (guided discussion)
10:00 am	BREAK			
10:30 am	Summary of Ideas from Morning Session			
12:00 pm	LUNCH			
1:30 pm	Vote Results and Outline of the Road Map to the Future			
3:30 pm	End of Conference			

Sponsors

This event is sponsored in part by the Bureau of Indian Affairs, EnviroTech Services, Inc., FHWA - Federal Lands Highway, National Park Service, North American Salt, United States Fish and Wildlife Service, United States Forest Service, and the Western Transportation Institute - Montana State University. Special thanks to the United States Geological Survey, National Association of County Engineers, University of Nevada at Las Vegas, University of California at Davis, Department of Environmental Quality & Environmental Management in Clark County, Nevada, Local Technical Assistance Program, San Diego State University, Idaho Transportation Department, and Midwest Industrial Supply, Inc. for their input and assistance in planning this event.

Conference Background

There are millions of miles of unsealed roads around the world which are managed by a wide assortment of national, state, and local authorities as well as private entities. Unacceptable levels of dust, poor riding quality, and impassability in wet weather are experienced on much of this global unsealed road network. Although it is acknowledged that these roads are fundamental to the economies of almost every country in the world, many of the management practices followed leave much to be desired, with programs for dust control, chemical stabilization, low-cost upgrading, etc., largely overlooked.

Chemical dust control on unsealed roads has been researched for decades and there are numerous published papers documenting the establishment and monitoring of experiments. However, much of this has been agency-specific and there are no comprehensive guidelines or specifications available to help practitioners with establishing longer-term dust control programs, identifying which type of additive would be most appropriate for a specific application, undertaking life-cycle analyses, quantifying negative environmental impacts and positive social benefits, designing appropriate treatments, applying the additive, and maintaining the treated road.

Increasing concerns with regard to deteriorating air quality, the sustainability of repeatedly replacing gravel on unsealed roads, and the increasing cost of asphalt binders used for sealing roads have placed renewed interest on road dust management. Attendees of this conference will be provided a brief current status of global road dust management together with some points for consideration that may lead to wider implementation of dust control programs in unsealed road management initiatives. Discussions on the extent of unsealed road networks, the volume of dust generated, the consequences of dust, categorization of road additives, environmental considerations, and dust control research will also be held.

The ultimate goal for this event is to generate a roadmap for achieving wider, environmentally sustainable, and cost-effective implementation of dust control Best Management Practices on unsealed roads and adjacent areas.

How will this goal be achieved? A series of invited keynote speaker presentations will provide attendees with critical background information on past, continuing and new dust management efforts. Supplemented with paper and poster presentations, participant workshops and roundtable discussions, attendees will learn about:

(1) Environmental Impacts of Dust Suppressants - including air quality, human health, and impacts to vegetation, soil and wildlife, water quality, as well as impacts from products and suppressant chemistry.

(2) Topical Dust Suppression - including Best Management Practices for topical applications of dust-control additives such as current methods, available products, application and construction procedures, and implementation of experimental findings.

(3) Soil Stabilization - including Best Management Practices for mix-in applications of dust-control additives and surface stabilizers such as current methods, available products, applications, construction and engineering procedures, and implementation of experimental findings.

(4) Planning and Design for the Future - including implementation of dust-control programs as unsealed-road management strategies, design procedures, additive certification, performance evaluation techniques considering current/future average daily traffic, cost/benefit analysis, and models for unsealed road management systems.

Portions of the above taken from *Road Dust Management: State of the Practice* by David Jones, University of California Pavement Research Center, David James, University of Nevada, and Robert Vitale, Midwest Industrial Supply. This document will be presented at the Conference.

Agenda

THURSDAY, NOVEMBER 13TH

All events are held in the Coronado Ballroom at the El Tropicano Riverwalk in San Antonio. It is a separate building directly behind the hotel adjacent to the self parking lot.

7:00 am
REGISTRATION, *Coronado E*

The Registration Desk will open at 7:00 am. Attendees should pickup their registration packets prior to attending the continental breakfast.

7:00 am
CONTINENTAL BREAKFAST, *Coronado E*
This event sponsored by EnviroTech Services, Inc.

7:00 am
VENDOR AREA OPENS, *Coronado E*

8:30 am
OPENING SESSION, *Coronado E*

Welcome/Overview

- Steve Albert, Western Transportation Institute
- David Jones, University of California Pavement Research Center

Keynotes

- Michael Long, Chair, TRB LVR Committee, Oregon Department of Transportation
- David James, University of Nevada, Las Vegas
- Ron Wright, Idaho Transportation Department
- Ken Skorseth, South Dakota State University

Keynote speakers will provide insight from four perspectives: (1) national, (2) research, (3) vendor/construction, and (4) maintenance.

9:30 am
BREAK, *Coronado E*

10:00 am
SESSION A: DUST SUPPRESSION, *Coronado E*
Moderator: David James, University of Nevada, Las Vegas

Chatten Cowherd, Midwest Research Institute
Road Dust Control Performance Monitoring

Tom Sanders, Colorado State University
Road Dust Suppressants Research Results

Dennis Fitz, University of California Riverside
Evaluation of Dust Control Suppressants on Unpaved Roads Using Mobile Sampling

This session will highlight the current methods, available products, and aggregates used in Dust Suppression. What works and what does not work as well as road base preparation will be discussed. New technologies and ecological impacts from a research based perspective will also be presented.

12:00 pm
LUNCH, *Coronado E*
This lunch sponsored by North American Salt.

1:00 pm
SESSION B: DUST STABILIZATION, *Coronado E*
Moderator: Roger Surdahl, Central Federal Lands Highway Division

Stan Vitton, Department of Civil and Environmental Engineering, Michigan Technological University
The Use of Paper Sludge for Dust Stabilization on Mine Haul Roads and Tailing Impoundments

Hiene Junge, South Dakota Pennington County Highway Department
Magnesium Chloride Stabilization and Spot Dust Control

Melvin Main, Midwest Industrial Supply
The Predictable Nature of Materials Stabilized with Polymer Agents

This session will highlight the current methods, available products, and aggregates used in Soil Stabilization. What works and what does not work as well as road base preparation will be discussed. New technologies will also be presented.

2:30 pm
BREAK, *Coronado E*

Agenda

2:45 pm
CONCURRENT SESSIONS

Session C1: Environmental Impacts of Dust Suppressants to Control Dust, *Coronado A/B*
Moderator: Susan Finger, Columbia Environmental Research Center

Fred Hall, US Environmental Protection Agency
Investigation of Water Runoff and Leaching Impacts from Dust Suppressants

Rodney Langston, Department of Air Quality & Environmental Management, Clark County Nevada
What to do if You Have PM 10 Issues

Susan Finger, Columbia Environmental Research Center
Determining Ecological Effects of Dust Suppressant Chemicals on Terrestrial and Aquatic Resources

This session will cover air quality, human health and impacts to vegetation, soil and wildlife, water quality and impacts from products as well as suppressant chemistry.

Session C2: Planning and Design for the Future, *Coronado C/D*
Moderator: Dave Jones, University of California Pavement Research Center

Pete Bolander, US Department of Agriculture, Forest Service
US Forest Service Perspective on Planning and Design for the Future

Ken Skorseth, South Dakota State University
County Engineers' Perspective on Planning and Design for the Future

John Rushing, US Army Engineer Research and Development Center
US Army Corps of Engineers' Perspective on Planning and Design for the Future

Steve Bytnar, EnviroTech Services
Additive Industry Perspective on Planning and Design for the Future

Dave Jones, University of California Pavement Research Center
Research/Academia Perspective on Planning and Design for the Future

This session will cover planning projects from conception to completion as well as dust control based on ADT. Cost analysis of dust control versus dust stabilization will also be given.

4:15 pm
Sessions conclude for the day.

4:30 - 6:00 pm
Poster Session and Vendor Reception, *Coronado E*

Welcome to the *Poster Session and Vendor Reception*! Enjoy some hors d'oeuvres while visiting with poster session authors and vendors. A wonderful opportunity to see the new products that are available and network with peers.

POSTER PRESENTATIONS:

Chatten Cowherd, Midwest Research Institute
Mobile Monitoring of Unpaved Road Dust Emissions

P. Poulin et al, Civil Engineering Department, Universite Laval, Quebec
Field Study Evaluation of Granular Materials Treated with Dust Suppressants - Behavior Evolution under Traffic and Climate

Stan Vitton, Department of Civil and Environmental Engineering, Michigan Technological University
Cold Weather Dusting: Its Generation, Testing and Control

L. Beaulieu et al, Civil Engineering Department, Universite Laval, Quebec
Field Test Program of Stabilization on a Principle Forest Road

Eddie Johnson et al, Minnesota Department of Transportation
Investigation of Dust Control Practices in Minnesota

George Huntington et al, Wyoming Technology Transfer Center
Dust Suppression by Incorporating Reclaimed Asphalt Pavement (RAP) into Gravel Road Surfacing

Tom Sanders et al, Colorado State University
Mobile Dust Measuring Devices - Dustometer System

Dennis Fitz, University of California Riverside
Mobile Dust Measuring Devices - SCAMPER System

Vic Etyemezian, Desert Research Institute
Measurement of Road Dust Emissions: The TRAKER and PI-SWERL Tools

Agenda

FRIDAY, NOVEMBER 14TH

7:30 am
REGISTRATION/CONTINENTAL BREAKFAST/VENDOR AREA OPENS, *Coronado E*

8:30 am
CONCURRENT SESSIONS

Session D1: Environmental Impacts of Dust Suppressants to Control Dust (guided discussion), *Coronado A*
Moderator: Susan Finger, Columbia Environmental Research Center

Panelists
- Bob Vitale, Midwest Industrial Supply
- Ron Wright, Idaho Transportation Department
- Sean Furniss, US Fish & Wildlife Service

This session is a follow-up to Thursday and will feature a panel of experts and audience participation.

Session D2: Dust Suppression (guided discussion), *Coronado B*
Moderator: David James, University of Nevada, Las Vegas

Panelists
- John Bosch, US Environmental Protection Agency
- Chatten Cowherd, Midwest Research Institute
- Rodney Langston, Department of Air Quality & Environmental Management, Clark County Nevada
- Dennis Fitz, University of California Riverside

This session is a follow-up to Thursday and will feature a panel of experts and audience participation.

Session D3: Dust Stabilization - Benefits from Soil Stabilization (guided discussion), *Coronado C*
Moderator: Roger Surdahl, Central Federal Lands Highway Division

Panelists
- Melvin Main, Midwest Industrial Supply
- Tom Sanders, Colorado State University
- Pete Bolander, US Department of Agriculture, Forest Service

This session is a follow-up to Thursday and will feature a panel of experts and audience participation.

Session D4: Planning and Design for the Future (guided discussion), *Coronado D*
Moderator: Dave Jones, University of California Pavement Research Center

Panelists
- Pete Bolander, US Department of Agriculture, Forest Service
- Ken Skorseth, South Dakota State University
- John Rushing, US Army Engineer Research and Development Center
- Steve Bytnar, EnviroTech Services

This session is a follow-up to Thursday and will feature a panel of experts and audience participation.

10:00 am
BREAK, *Coronado E*

10:30 am
SUMMARY OF IDEAS FROM MORNING SESSION, *Coronado E*
Moderator: Steve Albert, Western Transportation Institute

12:00 am
LUNCH, *Coronado E*

1:30 pm
VOTE RESULTS AND OUTLINE OF THE ROAD MAP TO THE FUTURE, *Coronado E*
Moderator: Steve Albert, Western Transportation Institute

3:30 pm
Conference adjourns.

Speaker Bios

BEAULIEU, LUC
Universite Laval, Quebec

Luc Beaulieu obtained his Bachelor of Science degree from Université Laval (Québec) in June 2008. He is now a graduate student at the Department of Civil Engineering at Université Laval under the supervision of the researcher Pascale Pierre. His master subject deals with the mineralogy and grading influence on granular aggregate stabilized or treated with dust suppressant.

BOLANDER, PETE
USDA Forest Service

Pete Bolander is a civil engineer with 27 years of experience with the USDA Forest Service in providing technical assistance on road surfacing and geotechnical engineering for the design, construction and maintenance of Forest Service roads in the Pacific Northwest. He has written a USDA-FS publication entitled "Dust Palliative Selection and Application Guide", presented three papers at the TRB Low Volume Roads Conference concerning dust abatement, and was a panel member of EPA's "Potential Environmental Impacts of Dust Suppressants: Avoiding Another Times Beach" in 2002.

BOSCH, JOHN
US Enviromental Protection Agency

Since 1971 Mr. Bosch has worked in the national air programs within the U.S. Environmental Protection Agency located in Research Triangle Park in North Carolina. Prior to joining EPA, he obtained his M.S. degree in Chemical Engineering from the University of Washington in Seattle and worked as an environmental consultant in Vancouver, British Columbia. Mr. Bosch developed and implemented both EPA's AP-42 emission factor program and the engineering protocols for estimating emissions which are still in use by Federal, State, and local environmental agencies throughout the country. For the past fourteen years, he has focused on advancing new concepts and technologies related to quantifying air emissions for purposes of both research and compliance measurements. He has been EPA's liaison with the Department of Defense and the USARMY on research programs relating to the air issues challenging military installations, of which fugitive fine-particulate emissions are an important part. One of his main recent interests is to further agency and national acceptance of new, more accurate, more inexpensive, and more streamlined ways to estimate fugitive dust emissions from paved and unpaved roads.

BYTNAR, STEVE
Envirotech Services, Inc.

Steve Bytnar is the Director of Research and Quality for Envirotech Services, Inc. He has been involved in the development of products for dust control and soil stabilization since 1998. Through the work at Envirotech the research team has spent countless hours testing and evaluating different road bases from throughout North America. The data gathered in analyzing the varying road bases has become an invaluable tool in developing new products and application techniques for dust control and road base stabilization.

The focus of Mr. Bytnar and his team at Envirotech is to develop new high performance products with keen attention to the environmental impacts of such products. Mr. Bytnar and his group at Envirotech have multiple patents (issued and pending) in the arenas of dust control, soil stabilization, erosion control and highway de-icing.

COWHERD, CHATTEN, PHD
Midwest Research Institute

Dr Cowherd is internationally known for his work on the characterization and control of open source particulate matter (PM) emissions, including fugitive dust. He specializes in field and laboratory studies of the kinetics and mechanisms of particle entrainment from stabilized and unstabilized surfaces. He has performed extensive field studies of dust plume generation and dispersion using fixed and mobile monitors, with a recent focus on airborne particle capture by vegetation and other types of groundcover.

Dr. Cowherd pioneered the isokinetic exposure profiling technique, which became the EPA-preferred method for quantifying particulate emissions from line or moving point sources such as roadway traffic. In addition, he has been instrumental in the recent development of mobile monitoring strategies for mapping road dust emission potential and the effectiveness of dust control measures.

Dr. Cowherd received his Ph.D. in Chemical Engineering from the Johns Hopkins University. He has coauthored more than 100 technical publications and papers during his career of more than 30 years. He is a Fellow Member of the Air and Waste Management Association and has served on the AWMA national board of directors. He maintains certification as a Qualified Environmental Professional by the Institute of Professional Environmental Practice (No. 11940135).

Speaker Bios

FINGER, SUSAN
Columbia Enviromental Research Center

Susan is an aquatic toxicologist with the Biological Resources Division of the US Geological Survey. She has over 25 years of experience assessing the effects of contaminants on aquatic resources. In her position as Program Coordinator for the Columbia Environmental Research Center, she provides guidance in the identification and implementation of new research areas for the Center and its field stations. She has led research studies assessing the effects of irrigation drain water on endangered fish species in the western United States, in studies evaluating the effects of oil spills on freshwater ecosystems, and in a multi-year study to determine the effects of contaminants on striped bass survival in tributaries of Chesapeake Bay. During the past 15 years, she has also been involved in investigations to determine the ecological effects of fire-fighting chemicals on the terrestrial and aquatic environment. She currently serves as the USGS Science Advisor for the Department of Interior's Natural Resource Damage Assessment and Restoration Program and plays an active role in the design and review of scientific studies to evaluate biological injury and ecological recovery at over 30 historically contaminated sites nationwide. She will be actively involved in the recently initiated US Geological Survey's study for assessing potential responses of terrestrial and aquatic organisms to dust suppressant chemical application in critical habitats including those managed by the US Fish and Wildlife Service National Wildlife Refuge Systems.

FITZ, DENNIS
University of California Riverside

Mr. Fitz has a Masters Degrees in both Chemistry and Applied Sciences from the University of California, Riverside. He is currently the manager of the Atmospheric Processes Group and Deputy Director at the College of Engineering-Center for Environmental Research and Technology (CE-CERT) at that institution. Mr. Fitz has more than 30 years of experience in managing air quality measurement studies. The Atmospheric Processes group conducts research to determine the fate of air pollutants after they are emitted into the atmosphere using measurements and modeling. The current research includes determining the reactivity of VOC to form ozone and particulate matter in smog chambers and evaluating and developing measurement methods to better characterize products formed in photochemical air pollution. The group also conducts studies to determine emission rates from fugitive sources into the atmosphere.

Mr. Fitz's research focuses on developing and applying methods to accurately measure trace pollutants in the atmosphere. He is currently the Principal Investigator on projects to evaluate ammonia emission rates from dairies, measure PM emission rates from vehicles on paved roads using on-board sensing instruments and evaluate methods to minimize particulate organic carbon collection artifacts. Mr. Fitz has also conducted studies to evaluate the exposure to pollutants when riding in school buses and how to minimize that exposure. He has over 30 publications in peer-reviewed journals.

HALL, FRED
US Enviromental Protection Agency

Fred Hall is a Senior Project Manager and Engineer for Environmental Quality Management, Inc. headquartered in Cincinnati, Ohio with eleven other offices, including Las Vegas. His major areas of experience are in projects dealing with control technology evaluation, fugitive dust measurement and control, evaluation of control strategies, and environmental control costs. He received his undergraduate degree in Chemical Engineering from the University of Kentucky and a Masters in Business Administration from Xavier University. He is a registered Professional Engineer in several states.

HUNTINGTON, GEORGE
Wyoming Technology Transfer Center

Mr. Huntington has a Bachelor's Degree in Earth Science from Dartmouth College and Bachelor's and Master's degrees in Civil Engineering from the University of Wyoming. He spent eight years with the Wyoming Department of Transportation, including five years as a materials research engineer in Cheyenne and three years as a project engineer in Sundance and Rawlins. In 2003 he went to work with the Wyoming T^2/LTAP Center where he has taught workshops on erosion and sediment control, soils, work zone traffic control, pavement design, and other topics. He has also worked extensively on the Center's asset management project. He has served on NLTAPA's Executive Committee for the past two and a half years where he co-chairs the Products and Services workgroup.

JAMES, DAVID, PHD
University of Nevada, Las Vegas

David James is currently Associate Vice Provost for Academic Programs and Associate Professor of Civil Engineering at the University of Nevada Las Vegas. He is a licensed Civil Engineer in the state of Nevada. Dave earned a B.A. in Chemistry from the University of Nevada, Las Vegas, and MS and Ph.D. degrees in Environmental Engineering Science from the California Institute of Technology. Dave has worked on dust emissions and controls since the mid-1990's, and has evaluated the long-term weathering performance of dust suppressants on vacant lands, the effects of water on dust-emission potential of desert soils, and measured dust emissions from paved roads in support of the Clark County Department of Air Quality and Environmental Management's efforts to develop and maintain a State Implementation Plan for particulate matter.

Speaker Bios

JOHNSON, EDDIE
Minnesota Department of Transportation

Eddie Johnson is a research project engineer with the Minnesota Department of Transportation. He holds a Masters in Civil Engineering from the University of Minnesota. He is specifically interested in aggregate roads, asphalt mixtures, and recycled materials and has authored or co-authored several publications and reports including: *Investigation of Winter Pavement Tenting; Investigation of Superpave Fine Aggregate Angularity Criterion for Asphalt Concrete; Flexibly Slurry-Microsurfacing System for Overlay Preparation: Construction and Seasonal Monitoring at Minnesota Road Research Project;* and *Special Practices for Design and Construction of Subgrades in Poor, Wet and/or Saturated Soil Conditions.*

JONES, DAVID, PHD
University of California Pavement Research Center

Dr. David Jones is a Project Scientist at the University of California Pavement Research Center (UC Davis and UC Berkeley), on assignment from the Council for Scientific and Industrial Research in South Africa. He manages the UCPRC Accelerated Pavement Testing facility and related research, as well as all research related to sustainability in the design, construction, and maintenance of transportation infrastructure. He maintains close involvement in unsealed road research in South Africa and other countries.

JUNGE, HIENE
South Dakota Pennington County Highway Department

Hiene started his career in road and bridge construction in 1968. He has been employed as a highway superintendent for 25 years. He is currently the Highway Superintendent of Pennington County, Rapid City, SD.

Pennington County covers 2,783 square miles and has a population of approximately 92,776. He is responsible for 1,800 lane miles of road, 138 bridges and supervises 50 employees.

Hiene is a past president of the National Association of County Engineers (NACE) 2006-2007 and has been a member of NACE since 1988.

He was President of the South Dakota Association of Highway Superintendents in 1990-1991, is chairman of their certification committee and is a member of the South Dakota Transportation Hall of Honor committee.

He has three children and just last month celebrated his 44th year of marriage to his wife LaVonne.

LANGSTON, RODNEY
Department of Air Quality & Environmental Management, Clark County, Nevada

Mr. Langston holds the position of Principal Planner with the Clark County (Nevada) Department of Air Quality and Environmental Management. Mr. Langston's work experience includes State Implementation Plan development, fugitive dust control measure development, air pollution control regulation development, and emission factor development over a sixteen-year period with air regulatory agencies in California and Nevada. He is an active participant in the Best Available Control Measures Working Group, the STAPPA/ALAPCO Criteria Pollutants Committee, and the Western Regional Air Partnership Dust Emissions Joint Forum. Mr. Langston holds a B.S. Degree in Biology with Environmental Studies Concentration and a Master of City and Regional Planning degree.

LONG, MICHAEL
TRB LVR Committee
Oregon Department of Transportation

For the past three years, Mr. Long has been the Project Delivery Manager for the Oregon Department of Transportation, Region 2, which includes 13,000 square miles of western Oregon. Mr. Long manages a program that includes project development and community affairs, engineering design, and construction, with a staff of 200 employees and a program budget of over $300 Million. His primary responsibilities are to keep over 150 projects on time and under budget, and to coordinate issues with locally elected officials and the public.

Prior to this assignment, he spent six years as the manager of the Oregon D.O.T. statewide Geo-Environmental Section in Technical Serves. His section was responsible for technical design standards, and regulatory agency coordination. During the previous ten years, he served as the geotechnical services manager, with the U.S. Forest Service, for six National Forests in Oregon. Prior to that, he worked six years as a project geologist with both the Oregon D.O.T. and the U.S. Forest Service.

Mr. Long holds undergraduate degrees in Geography and Geology from the University of Oregon and the State University of New York, Cortland, respectively. He was appointed by the Governor of Oregon to two three-year terms on the Oregon State Board of Geologist Examiners, and is a registered professional geologist and a certified engineering geologist in Oregon and Washington. He has published over a dozen professional papers, co-authored the National Slope Stability Design Guide for the U.S. Forest Service, and was featured in three Oregon Public Television programs on the environment.

Mr. Long currently serves on the National Academies, Transportation Research Board, as Chair of the Committee on Low-Volume Roads, and was Chair for the Ninth International Conference on Low-Volume Roads held in Austin, Texas in June 2007. Mr. Long is a Vietnam veteran and is married with four children (two of which are still at home). He enjoys boating and holds a Black Belt in Tae Kwon Do.

Speaker Bios

MAIN, MELVIN
Midwest Industrial Supply

Melvin Main has an undergraduate and graduate education in physics. He has spent over thirty years designing, developing and manufacturing complex electro-mechanical systems for both military and commercial applications.

Germane to this meeting is Mel's ten years of experience with the stiffness and modulus-based evaluation of geotechnical materials. He has initiated the use of such evaluation and corresponding QA/QC methods in support of the application of stabilized materials by numerous state and local DOTs.

POULIN, PHILIPPE
Universite Lavel, Quebec

Philippe Poulin obtained his Bachelor of Science degree from Université Laval (Québec) in August 2008. He is now a graduate student at the Department of Civil Engineering at Université Laval under the supervision of the researcher Pascale Pierre. His master subject deals with the performance of unpaved roads stabilized or treated with dust suppressants in a northern context

RUSHING, JOHN
US Army Engineer Research and Development Center

John has been employed by the Airfields and Pavements branch of the Geotechnical and Structures Laboratory at the U.S. Army Engineer Research and Development Center in Vicksburg, MS since 2003.

He received a B.S. in Polymer Science from The University of Southern Mississippi in 2003. John is currently finishing a M.S. in Civil Engineering from Mississippi State University.

His research areas include dust mitigation, asphalt pavement materials, pavement evaluation, soil stabilization, and contingency airfield preparation

SANDERS, TOM
Colorado State University

Not available at time of printing.

SKORSETH, KEN
South Dakota State University

Ken Skorseth has studied unpaved roads across the US and as far away as New Zealand. He has lectured on the subjects of Gravel Road Maintenance and Low Volume Road Maintenance to audiences of engineers, managers, elected officials and maintenance workers over the past 15 years. Ken first developed a Gravel Road Maintenance Course in 1989 and has lectured on that subject in many states since that time. He also served as the lead author of the FHWA *Gravel Roads* Manual and has presented the course to over 3000 participants. Ken has assisted in developing several other courses related to low volume road maintenance.

Ken has served on the Executive Board of the South Dakota Association of County Highway Superintendents (SDACHS), as the Region Eight representative on the Executive Committee of the National Local Transportation Assistance Program Association (NLTAPA), and is currently serving as the NLTAPA liaison to the National Association of County Engineers. He has also served on several SDDOT Research Review panels, the SDACHS Certification Committee, and as Coordinator of the annual Region County Road Conference.

Ken has spent nineteen years as the Field Services Manager at the South Dakota Local Transportation Assistance Program at South Dakota State University in Brookings, SD and is currently the Program Manager. He has twelve years experience in the highway and heavy construction industry and eight years as a County Highway Superintendent in Deuel County, SD. Ken is a graduate of Associated Schools of Miami, FL and Minnesota West Technical College, Canby, MN.

SURDAHL, ROGER
Central Federal Lands Highway Division

Roger Surdahl has worked since 1987 for the Federal Highway Administration (FHWA) in Baton Rouge, Louisiana; McLean, Virginia; Baltimore, Maryland; Washington, DC; and is now in Lakewood, Colorado with the FHWA's Central Federal Lands Highway Division Office.

He holds a Civil Engineering Master's Degree from Montana State University, and is a Registered Professional Civil Engineer in Colorado. Roger has been a construction inspector, material sampler and tester, construction supervisor, material engineer, and most recently, a Technology Deployment Engineer.

The Technology Program managed by Mr. Surdahl focuses on deploying solutions for transportation problems encountered on low volume roads. For results of his deployment studies visit www.cflhd.gov/techDevelopment. While Roger has a broad range of knowledge in many areas, his key interests are promoting geophysical imaging methods, preventing alkali-silica reactivity in concrete, stabilizing and controlling dust on unsurfaced roads.

Speaker Bios

VITALE, BOB
Midwest Industrial Supply

Bob Vitale founded Midwest Industrial Supply, Inc in 1975 and has spent the past 33 years providing the company its leadership and vision for providing the market with dust control and stabilization solutions that assist in the achievement of air quality and water quality goals.

In addition to his responsibilities of managing business basics Bob is responsible for the company's product development activities and has been responsible for the introduction of more than 35 innovative products. The company's emphasis has been environmental efficacy and reliable, predictable performance. In this role, he has had the company's products participate in and support programs including the US EPA Environmental Technology Verification Program, Canada Environmental Technology Verification Program, CalCert California Environmental Technology Certification Program, and Pennsylvania DEQ Dirt and Gravel Roads Program. He has included the new products in testing performed for US EPA by Midwest Research Institute, Desert Research Institute, San Diego State University, RTI International and for the US military by US Army Engineer Research and Development Center.

VITTON, STAN, PHD, PE
Department of Civil and Environmental Engineering, Michigan Technological University

Dr. Vitton has been at Michigan Tech for 14 years. Prior to Michigan Tech he was an Assistant Professor at the University of Alabama. He spent eight years with the Shell Oil Company in their mining company. He was the Engineering Manager for Shell's R&F Coal Mine located in Cadiz, OH for approximately four years. His first four years at Shell were spent on the development of surface coal mines located in the Powder River Basin. Dr. Vitton's PhD is in Civil Engineering (Geotechnical Engineering) from the University of Michigan, his MSE is in Mining Engineering (rock mechanics) and his BSE is in Geological Engineering both from Michigan Techchnological University.

WRIGHT, RON
Idaho Transportation Department

Ron Wright has over 30 years experience in laboratory operations. He has worked as a Bench Chemist, Quality Control Coordinator, Chief Chemist, Laboratory Manager, and Chemist Consultant for both independent and governmental laboratories. Ron graduated with a Bachelor of Sciences Degree in Chemistry from the University of Idaho in 1978. He is a participating member of the American Chemical Society, Steel Structures Painting Council, and the National Association of Corrosion Engineers. Ron is a founding member of the Pacific Northwest Snowfighters, which has developed chemical specifications for snow and ice control products. Ron has participated on several research pool fund projects either as a member of the Steering Committee or the Technical Advisory Committee. He has experience in the fields of analytical, environmental, and materials chemistry. Ron has worked for the Idaho Transportation Department since 1989 in the Materials and Research Laboratory. He currently manages the operations of the Chemistry Laboratory, Materials Section, within the Division of Highways for the State of Idaho.