



# Conference on Transportation and Federal Lands: Enhancing Access, Mobility, Sustainability, and Connections

---

**September 15-17, 2014**

**The National Academy of Sciences Building  
2101 Constitution Ave, NW  
Washington, D.C.**

**Organized by**

Transportation Research Board  
Transportation Needs of National Parks and Public Lands (ADA40)

**Supported by**

**Silver Sponsors**

Atkins  
VHB

**Bronze Sponsors**

Kimley Horn  
National Parks Conservation Association

### **Planning Committee**

Steve Albert, Western Transportation Institute, Co-Chair  
Katie Turnbull, Texas A&M Transportation Institute, Co-Chair  
Jaime Edswick, Western Transportation Institute  
Lewis Grimm, Federal Highway Administration  
Laura Loomis, National Parks Conservation Association  
Jason Newman, National Park Service  
Adam Schildge, Federal Transit Administration  
Jeremy Schroeder, Battelle Memorial Institute  
Phil Shapiro, Shapiro Transportation Consulting, LLC  
Steve Suder, U.S. Fish and Wildlife Service  
Carol Zimmerman, Battelle Memorial Institute

### **TRB Staff**

Kim Fisher  
Mary Kissi  
Ted Jamele

### **Supported by**

#### **Silver Sponsors**

**ATKINS**



#### **Bronze Sponsors**

**Kimley»»Horn**





## Final Program

---

### Monday, September 15

**7:00 a.m. – 9:00 p.m. - *Breakfast On Own***

**8:00 a.m. – 5:00 p.m.; *Great Hall***

Registration

**9:00 a.m. – 12:00 Noon - *Lecture Room***

TRB Committee on Transportation Needs of National Parks and Public Lands Mid-Year Meeting  
Steven Suder, U.S. Fish and Wildlife Service, and Committee Chair, Presiding

**12:00 Noon – 1:00 p.m.; *Lunch On Own***

**1:00 p.m. – 2:00 p.m.; *Concurrent Workshops***

**Concurrent Workshop 1A; *Lecture Room***

Roundtable – [Implementing the Federal Lands Access Program](#), Frances Ramirez, Federal Highway Administration, Moderator

#### **Panelists**

Allen Grasmick, Central Federal Lands

David Payne, Eastern Federal Lands

Lewis Grimm, Eastern Federal Lands

Susan Law, Western Federal Lands

The Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21), established the Federal Lands Access Program (Access Program) under 23 U.S.C. 204 to improve transportation facilities that provide access to, are adjacent to, or are located within federal lands. The Access Program project's emphasis is on high-use recreation sites and economic generators. The programming decisions in each state are performed by a Programming Decision Committee (PDC). Each PDC can determine the project selection process to prioritize local needs, additional match requirements, and other administrative tasks. This provides program flexibility, local involvement, and allows for a wide range of transportation projects to be considered. The PDCs cooperate with the Federal Land Management Agencies (FLMA) before the final programming decisions are made. Due to the PDC diversities (FLMA coordination, project administration, match, and stewardship and oversight requirements), the implementation of the Access Program presents new challenges to the Federal Lands Highway (FLH) Divisions. In this roundtable session representatives from Headquarters, Central, Eastern, and Western FLH Divisions will discuss their challenges, efforts, and lessons learned during the Access Program implementation phase and their attempt to resolve many questions across the FLH Divisions that arose from the FLMA partners, states, and local governments.

## **Workshop 1B; Room 120**

Alternative Transportation Systems (ATS) Business Models, Ann Joslin, Center for Urban Transportation Research; and [Jaime Eidswick](#) and [Jenni West](#), [Western Transportation Institute](#)

Alternative Transportation Systems (ATS) Business Models are a cohesive set of strategies FLMAs use to deliver transportation services that alleviate the negative impacts of personal auto travel to and within federal lands or allow for visitation to otherwise inaccessible areas. Informing FLMA staff members about the ATS Business Model options and alternatives (Commercial Services, Partnerships, Service Contracts, and Owned and Operated) enhances opportunities for constructive transportation system development. In this workshop, three new resources created by the Paul S. Sarbanes Transit in Parks Technical Assistance Center (TRIPTAC) will be highlighted including the ATS Business Models Evaluation, the ATS Business Model Decision Support Tool, and the ATS Business Models Selection Guidance Tool Training. These three resources provide an overview, evaluation, and examples of the four general business model categories; discuss the legal and regulatory framework for each business model category (which impacts selection and implementation of the various business models); provide an analysis of different types of contracts and agreements; shows an overview of the decision support tool; and provides real case studies of each business model. Participants will leave with a better understanding of the various options for ATS business models, as well as tools they can use to select and implement the most appropriate and effective business model(s) for their individual agencies and circumstances.

**2:00 p.m. – 2:15 p.m.; Great Hall**

Break

**2:15 p.m. – 3:15 p.m. Concurrent Workshops**

### **Workshop 2A; Room 120**

Roundtable – Use of Existing Datasets, Kevin Kilcullen, U.S. Fish and Wildlife Service; [Don English](#), U.S. Forest Service; and [Steven Morse](#), Western Carolina University

FLMAs manage over 600 million acres of land and water and interact with nearly 1 billion people each year. Net visitation to parks and public lands is projected to grow over the next decade by 3-to-5 percent annually, thereby creating even greater challenges to meet visitor demands. Given this trend, this roundtable will discuss how FLMAs can use existing (and potential) national data sets and research to better understand visitor expectations, changing demographics, and preferred modes of travel to build transportation management capacity and leverage partnerships to deliver quality programs in a sustainable way.

## **Workshop 2B; Lecture Room**

Lessons from the National Park Service Long-Range Transportation Plan, Alexander S. Linthicum, Volpe National Transportation Systems Center; and Kevin Percival, Bryce Lloyd, and Tracy Atkins, National Park Service.

The National Park Service is entrusted to protect America's most treasured natural and cultural resources while providing high quality visitor experiences. Transportation facilities and services are paramount to achieving both objectives. In accordance with federal law, MAP-21, agency policies, and transportation planning best practices, the NPS is completing its inaugural national long-range transportation plan (NL RTP). The NL RTP process incorporated discussion and input from over 80 subject matter experts from a broad variety of program areas to address the five goal areas of financial planning, facility management, safety, visitor experience, and resource protection. The plan explores the full life-cycle needs of the transportation facility and service portfolio, and investigates the results of various financial scenarios on cost effectiveness, deferred maintenance, and facility condition. This workshop shares the results of the NL RTP, discusses process and methodological challenges (and how they were addressed), shares best practices which have shaped the NPS NL RTP planning program, and presents next steps. This material is relevant to FL MAs and their constituent regions and units that are considering or currently developing LRTPs.

### **3:30 p.m. – 5:30 p.m.; *Gather in Great Hall***

Walking Tour of the National Mall

Often called American's front yard, participants on this ranger-led tour will visit some of the major monuments along the National Mall. Participants will also learn about how changes in transportation influenced the development of the city and sites around the Tidal Basin. Participants will leave from The National Academies' Building at 3:30 p.m. and return at approximately 5:30 p.m.

### **6:30 p.m. – 7:30 p.m.; *Churchill Hotel***

Hotel Guest Reception

## Tuesday, September 16

**7:30 a.m. – 5:00 p.m.; *Great Hall***

Registration

**8:00 a.m. – 9:00 a.m.; *Great Hall***

Continental Breakfast

**9:00 a.m. – 10:15 a.m.; *Auditorium***

**Opening Session, Katherine F. Turnbull, Texas A&M Transportation Institute, Presiding**

Welcome, TRB Committee Activities, and Conference Overview – Katherine F. Turnbull, Texas A&M Transportation Institute

Keynote Speakers

Greg Winfree, Assistant Secretary for Research and Technology, U.S. Department of Transportation

Jon Jarvis, Director, National Park Service

**10:15 a.m. – 10:45 a.m.; *Great Hall***

Break

**10:45 a.m. – Noon; *Auditorium***

**Trends in Tourism, Recreation, and Travel – Implications for the National Park Service and Federal Lands, Steve Albert, Western Transportation Institute, Presiding**

Panel Discussion on changing trends in tourism, recreation, and travel, and the implications of these changes on national parks and federal lands.

**Panelists**

[Alan Pisarski, Consultant](#)

Todd Davidson, Travel Oregon

Art Guzzetti, American Public Transportation Association

Jana Lynott, American Association of Retired Persons Public Policy Institute

**Noon – 1:45 p.m.; *Great Hall***

Lunch

**1:00 p.m. – 1:30 p.m.; *Lecture Room***

**Luncheon Speaker – A History of America’s National Parks Roads and Parkways, Tim Davis, National Park Service.** Bring your lunch into the Lecture Room and enjoy a presentation on the history of the National Parks Roads. Dr. Davis is a historian for the US National Park Service. His writings on parks, parkways and other aspects of the American landscape have appeared in many scholarly and popular journals.

**1:45 p.m. – 3:15 p.m. – Breakout Sessions**

**Innovative Transit Services – *Auditorium***

**Adam Schildge, Federal Transit Administration, Presiding**

[Making the Case for Innovative Partnerships – Expanding the D.C. Circulator to the National Mall, Ellen Jones, D.C. Surface Transit, Inc., Eliza Voigt, National Park Service](#)

[Evaluating the Long-Term Sustainability of Shuttle Service on Mount Rainier National Park, Steve Lawson and Brett Kiser, Resource Systems Group; Bryan Bowden and Barbara Samora, Mount Rainier National Park, National Park Service; Dianne Croal, Pacific West Region, National Park Service; Pat Sacks, Denver Service Center, National Park Service;](#)

Darryll Johnson, University of Washington and National Park Service, Retired; and Henrietta DeGroot, National Park Service

[Muir Woods National Monument Parking and Shuttle Reservation System](#), Darren Brown, National Park Service, Golden Gate National Recreation Area

[Lessons Learned from Four Alternative Transportation System Partnership Endeavors in Public Lands](#), Jaime Eidswick and Jenni West, Western Transportation Institute

### **Transportation Studies and Projects – Room 120**

**Jeremy Schroeder, Battelle Memorial Institute, Presiding**

[Going-to-the-Sun Road Rehabilitation](#), Michael Baron, Western Federal Lands Highway Division

Manassas National Battlefield Park Transportation Study, Stacy Cook, Cambridge Systematics, Inc.

Rehabilitate Historic Cave Trails – Mammoth Cave National Park, Vik Desai and Timothy Hogan, VHB and Douglas Mettler, Carlton Abbott and Partners, P.C.

[Partnering for Shuttle Access – City of Farmington and Aztec Ruins National Monument](#), Duane Wakan, Farmington Metropolitan Planning Organization

### **Roadway Improvements – Members Room**

**Aung Gye, Federal Highway Administration, Presiding**

[A Storm Damage Risk Reduction Guide for Forest Roads](#), Gordon Keller, U.S. Forest Service, Plumas National Forest, Retired

Road-Stream Crossing Flood in the Green Mountain National Forest Due to Tropical Storm Irene, Nathaniel Gillespie, USDA Forest Service

Benefits of Stream Simulation Designed Road-Stream Crossings: Flood Resiliency, Improved Food Web Function, and Economic Savings, Sue Eggert, U.S. Forest Service, Northern Research Station

Improving Environmental Data on Dust Control for Federal Agencies: BioPreferred Road Product Study, Bethany Kunz and Edward Little, U.S. Geological Survey, and Vincent Barandino, U.S. Forest Service – San Dimas Technology and Development Center

[Reducing Damage to Low Volume Roads on Federal Lands in Seasonal Frost Areas](#), Maureen A. Kestler, U.S. Forest Service – San Dimas Technology and Development Center

### **ITS and Advanced Technologies – Lecture Room**

**Carol Zimmerman, Battelle Memorial Institute, Presiding**

[Mississippi National River and Recreation Area Interactive Trip Planner](#), Logan Nash, Volpe Center

[Refuge Visitor Information Program](#), Fred Burchett, Kimley-Horn and Associates  
[U.S. Forest Service Mobile Map App](#), Betsy Kanalley, U.S. Forest Service

[Island Explorer – Real Time Bus Information](#), Paul Murphy, Island Explorer

**3:15 p.m. – 3:45 p.m.; Great Hall**

Break



**3:45 p.m. – 5:00 p.m. – Breakout Sessions**

**Transit to Address Diverse Needs - Auditorium**

**Nathan Caldwell, U.S. Fish and Wildlife Service, Presiding**

[Yurok Tribal Transit Service: River Ferry System and Bald Hills Road](#), Joseph James and Isaac Kinney, Yurok Tribe

[Improving Gateways to Cape Lookout National Seashore: A New Passenger Ferry System](#), Tracy Hamm Littell, VHB

[Evaluation Process for Alternative Transportation Systems on and Around Federal Lands](#), Jenni West, Western Transportation Institute; Phil Shapiro, Shapiro Transportation Consulting, LLC; and John Daigle, University of Maine

**Multimodal Planning and Agency Cooperation – Room 120**

**Tom Brigham, HDR Engineering, Inc., Presiding**

[Mt. Hood Multimodal Transportation Plan](#), Susan Law, Western Federal Lands; and Kirsten Pennington, Oregon Department of Transportation

[Collaborative Long-Range Transportation Plans: Multi-Agency Approaches in the Pacific Northwest](#), Roxanne Bash, Western Federal Lands

[A New Approach to Park Transportation Planning: The Golden Gate National Recreation Area Long-Range Transportation Plan](#), Darren Brown, Golden Gate National Recreation Area; and Matthew Ridgeway, Fehr & Peers

[Federal Lands Management Agencies in State, Regional, and Local Transportation Planning Processes: Novel Opportunities for Funding and Collaboration](#), Kevin McCoy, David Daddio, and Alex Linthicum, Volpe National Transportation Systems Center

**Enhancing Access to National Parks for Changing Demographics – Lecture Room**

**Nola Chavez, National Park Service, Presiding**

[Bridge or Barrier? The Role of Transportation in Visiting National Parks by Racial/Ethnic Minorities](#), Elizabeth Perry, University of Vermont

[Progress Lessons Learned, and Next Steps for CAR-LESS California](#), Benjamin Rasmussen, Volpe Center; and Emilyn Sheffield, California State University, Chico

[Connecting to Youth the National Parks and Public Lands](#), Katherine F. Turnbull and Shawn Turner, Texas A&M Transportation Institute

[Collaborative Visitor Transportation Survey: Incorporating User Feedback into Federal Land Management Agency Transportation Planning and Performance Management](#), Margaret Petrella, Volpe National Transportation Systems Center

**5:00 p.m. – 6:00 p.m.; Great Hall**

Reception



## Wednesday, September 17

**7:00 a.m. – 4:00 p.m.; *Great Hall***

Registration

**7:15 a.m. – 8:15 a.m.; *Great Hall***

Continental Breakfast

**8:15 a.m. – 9:30 a.m. – Breakout Sessions**

**Expanding Bicycle Transportation Options in National Parks and Federal Lands –  
*Auditorium***

**Shawn Turner, Texas A&M Transportation Institute, Presiding**

[Cape Cod National Seashore Bicycle Feasibility Study](#), Chris DeWitt, VHB

[Exploring Bicycle Sharing and Rental Programs for Federal Lands](#), Rebecca Gleason, Western Transportation Institute

[20-Year Evaluation of Blackstone River Bikeway in Rhode Island and Massachusetts](#), William DeSantis, VHB

[Developing and Operating Bike Paths at Grand Tetons National Park and Glacier National Park](#), Gary Danczyk, U.S. Forest Service

**Innovative Planning Methods and Performance Measures – *Lecture Room***

**Eric Plosky, Office of the Assistant Secretary of Transportation for Research and Technology, U.S. Department of Transportation, Presiding**

[Quantitative Approaches to Calibrate Performance Measures for Transportation and Recreation on Public Lands](#), Xiao Xiao, University of Vermont

[Integrated Modeling of System Functions and User Experiences at Multiple Scales for Public Land Transportation](#), Jeremy Wimpey, Applied Trails Research; and Nathan Reigner, University of Vermont

[U.S. Fish and Wildlife Service Station Transportation Analysis Tool](#), Steve Hoover, Atkins North America; and [Roxanne Bash](#), Federal Highway Administration, Western Federal Lands

[Do You Know What Your Objectives Are?](#) Phillip Shapiro, Shapiro Transportation Consulting, LLC

**Transportation and the Environment – *Room 120***

**Maarit Moran, Texas A&M Transportation Institute, Presiding**

[Why Transit Reduces Transportation Impacts to Wildlife on Public Lands](#), Sandra Jacobson, USDA Forest Service and Steve Suder, U.S. Fish and Wildlife Service

[Estimating Greenhouse Gas Emissions from Visitor Travel Within and Around U.S. Fish and Wildlife Service Wildlife Refuges](#), Chris Steuer, ICF International; and Steve Suder, U.S. Fish and Wildlife Service

[Climate Change Vulnerability Assessment of Transportation Infrastructure for Alaska](#), Amit Armstrong and Susan Law, Western Federal Lands Highway Division; and Michael Flood, Parsons Brinckerhoff

[U.S. Department of Energy – Clean Cities National Parks Initiative](#), Andrew Hudgins, National Renewable Energy Laboratory

**9:30 a.m. – 9:45 a.m.; *Great Hall***

Break

**9:45 a.m. – 11:00 a.m. – Breakout Sessions**

**Multi-Use Loops and Trails - *Auditorium***

**Phillip Shapiro, Shapiro Transportation Consulting, LLC, Presiding**

[Bandelier National Monument Regional Multi-Use Loop, Lucy Gent Foma, National Park Foundation Transportation Scholar](#)

[Connecting Urban Refuges to the Denver Greenway Trail Network Feasibility Study, Elijah Henley, Central Federal Lands Highways Division; and Jamie Archambeau, Atkins](#)

[Planning and Engineering for A Multiuse Trail in Rocky Mountain National Park, Dirk Grotenhuis, Steve Lawson, and Grace Wu, Resource Systems Group; Tracy Hamm Littell, VHB; Larry Gamble, Mark Kougl, and Sheri Fedorchak, Rocky Mountain National Park, National Park Service; and Nola Chavez, Denver Service Center, National Park Service](#)

[Rails-to-Trails: Creating Sustainable Access to America's Federal Lands, Kelly Pack, Rails-to-Trails Conservancy](#)

**ITS and Advanced Monitoring Technologies – *Room 120***

**Christoph Jaeschke, Eastern Federal Lands Highways, Presiding**

[ITS Implementations at Chincoteague National Wildlife Refuge, Kevin Smith, Kimley-Horn and Associates](#)

[Advancing Congestion Management in the National Park Service, Linda MacIntyre, National Park Service](#)

[Wireless Traffic Counts, Vincent Barandino, USDA Forest Service – San Dimas Technology and Development Center, Ryan Kinskey, AirSage](#)

[Bicycle and Pedestrian Traffic Counters, Shawn Turner, Texas A&M Transportation Institute](#)

**Safety, Congestion, and Visibility - *Lecture Room***

**Rosana Barkawi, U.S. Forest Service, Presiding**

[Safety Management Pilot Study for the U.S. Forest Service, Thomas Fowler, Kimley-Horn and Associates](#)

[Minimum Sign Retro-reflectivity Requirements in the Manual on Uniform Traffic Control Devices, Paul Carlson, Texas A&M Transportation Institute](#)

[Using Park and Refuge Asset Management Systems to Screen for Extreme Weather Vulnerability, Cassandra Snow, ICF International](#)

[Using Road Safety Audits to Address Bicycle and Pedestrian Safety and Accessibility to Federal Land Management Agencies, Dan Nabors, VHB](#)

**11:15 a.m. – Noon; Auditorium**

**Closing General Session – The Buzz Inside the Beltway, Steven Suder, U.S. Fish and Wildlife Service, Presiding**

Jim Jenson, Director of Congressional and Government Affairs, National Academies

Laura Loomis, Deputy Vice President, Government Affairs, National Parks Conservation Association

**Noon – 12:30 p.m.; Great Hall**

Pick-Up Box Lunches

**Optional Tours – Gather in Great Hall**

**12:30 p.m. – 3:00 p.m. – Theodore Roosevelt Island**

Participants on this tour will visit Theodore Roosevelt Island. Landscape architects in the 1930s transformed Mason's Island from neglected, overgrown farmland into Theodore Roosevelt Island, a memorial to America's 26th president. Frederick Law Olmsted, Jr. developed the initial plans for the island, with the Civilian Conservation Corps (CCC) completing the work. In 1967, an Eric Gugler designed Memorial Plaza and a sculpture by Paul Manship were dedicated. The walking tour will include the Memorial Plaza and parts of the trail system. Information on the natural features of the island, use of the trails and other activities, the regional transportation network and its impacts to the island, and the lasting legacy of the memorial will be discussed. Tour participants will share taxis from the NAS to the Island footbridge along the George Washington Memorial Parkway. After the tour, participants will walk to the Roslyn Metro stop and take Metro back to the NAS, to the airport, or to other locations, or take a taxi from one of the hotels in Roslyn.

**12:30 p.m. – 5:00 p.m. – Patuxent Research Refuge**

Participants on this tour will visit the U.S. Fish and Wildlife Service Patuxent Research Refuge in Laurel, Maryland. Established by executive order of President Franklin D. Roosevelt in 1936, the Patuxent Research Refuge is the only national wildlife refuge created to support wildlife research. Comprising 12,841 acres, Patuxent's mission focuses on conserving and protecting the nation's wildlife and habitat through research and wildlife management techniques. Participants will tour the National Wildlife Visitor Center, the tram, the whooping crane observatory (non-breeders available for limited public viewing), the restored historic Duvall Bridge, and selected research areas. Patuxent staff will discuss the setting, the urban interface, the challenges of balancing research and public use, and current projects and partnerships. The bus will stop at the Greenbelt Metro Stop on the return trip at approximately 4:00 p.m. and will arrive at the NAS Building at approximately 5:00 p.m.

# Churchill Hotel Shuttle Schedule

Day	AM	PM
Monday	7:45 and 8:00	4:00 and 6:00
Tuesday	7:00 and 7:15	6:15 and 6:30
Wednesday	7:00 and 7:15	3:15 and 5:15

