

# TRANSPORTATION, ENVIRONMENT, AND ENERGY: AN INTEGRATED RESEARCH SYMPOSIUM

July 12-15, 2020 | Denver, Colorado

The National Academies of  
SCIENCES • ENGINEERING • MEDICINE

  
TRANSPORTATION RESEARCH BOARD

Call for Presentations

## Instructions for Responding to this Call

**Submit your  
presentation  
abstract by  
APRIL 15th**

- 1) Review the following proposed topics to be addressed in symposium sessions, which are organized based on the 5 main subject-areas where concurrent sessions are being organized
- 2) Prepare an up to 400 word abstract summarizing the presentation you propose to give
- 3) Submit your abstract via the [Call for Presentations website](#). You will need to create a login (if you do not have one) and must select one of the 5 main subject-areas that best correlates to the presentation topic you are proposing. Multiple abstracts can be submitted if you wish to propose more than one presentation topic.

**[CLICK HERE TO SUBMIT YOUR ABSTRACT](#)**

### Environmental Analysis

- Climate Change, Risk Assessment and Resilience Considerations in NEPA Documents, Planning, and Project Development
- Environmental and Health Impact in Life Cycle Cost Analysis
- Environmental and Health Impacts from Increasing Community Density, Transit Oriented Development, Walkable Cities and Other Innovative Land Use Initiatives
- The Impact of Emerging Technologies on Environment Analysis and the NEPA process
- Accounting for Health Impacts in NEPA and other Environmental Analysis
- The Role of Big Data, Remote Sensing, Alternative Measurement Techniques, and New Data Collection Technologies, in Environmental Analysis and Management
- Linkage of NEPA and the Transportation Planning Process
- Development, Implementation or Application of Environmental Analysis Procedures and Best Practices in Other Countries
- The Role of Environmental Considerations or Analysis as Part of Disaster Preparedness Planning
- Environmental Analysis and Compliance in a Budget-Constrained World
- Section 4(f) Compliance – Individual, Programmatic, De Minimis or Finding of No Use
- Effective Consideration of Indirect and Cumulative Effects

### Ecology

- Climate change adaptation and resilience
- Leveraging technology: Innovations that improve understanding of interactions between natural and transportation systems
- Geospatial modeling and decision-making tools
- Cross-cutting strategies: Looking to other fields and practices for applications in transportation and ecology
- Understanding, avoiding, and minimizing transportation impacts on terrestrial and aquatic habitat connectivity and improving ecological function through effective mitigation measures
- The economic, legal, and social effects of wildlife-vehicle conflicts
- Identifying, measuring, and employing the transportation-effect zone in assessment, planning, and decision-making
- Improving environmental quality and reducing roadside maintenance and management costs through the promotion and investment in native landscaping elements
- Acoustic and artificial lighting impacts on fish, wildlife, and natural areas

### Noise and Vibration

- Rumble strip noise
- Transportation noise policies/updates
- Life cycle cost analyses/cost benefit analyses
- Challenges for design build projects
- Practical Applications of NCHRP Report 791
- Enhancement of aviation noise prediction and modeling validation
- Noise source characterization of emerging air vehicle types
- Innovative approaches to managing community noise

### Resource Conservation and Recovery

- Recycling/upcycling, reuse, and repurposing of waste and industrial byproducts
- Renewable energy alternatives in roadway design
- Alternative and innovative use of transportation right-of-ways
- Climate change driven sustainable and resilient transportation system design
- Life-cycle sustainability of transportation infrastructure/systems
- Multimodal transportation and sustainability practices
- Contamination risk management
- Environmental management systems
- Stormwater management
- Winter roadway Maintenance and risk mitigation (including salt-impact assessment and remediation)
- Emerging contaminants in transportation

### Air Quality, Energy and Alternative Fuels & Technologies

Sessions will be organized around three themes: Urban mobility/multi-modal transportation; Freight and exposure; and Electrification and infrastructure. Researchers and practitioners are invited to submit presentation abstracts that help address the following questions related to these themes.

- What are the methods and tools that transportation and air quality practitioners can use to understand and inform policy decisions about infrastructure investments to support transformative transportation technology (e.g., emissions, air quality, health, resilience to technology change, etc.)?
- Transformational transportation on both vehicle technology and roadway or digital infrastructure. Technology change happens rapidly, but infrastructure decisions and investments last decades, and long-term investments in infrastructure should be informed by forecasts of future benefits and impacts.
- How can policies (e.g., local government policies, regulations, incentives) guide the introduction and adoption of transformative transportation technologies and steer travel behavior to favor the environment and equity?

See our [Symposium Website](#) for more information about the event