TRB Snap Search: Environment & Sustainability

TRB's involvement in research on Environment & Sustainability from 2018-2019

The Transportation Research Board (TRB) provides innovative, research-based solutions to improve how we move. TRB is part of the National Academies of Sciences, Engineering, and Medicine, an independent, non-profit institution that provides objective advice on scientific, engineering, and medical issues.

A resource to the nation and to the transportation community worldwide, TRB provides an extensive portfolio of services:

- Opportunities for information exchange on current transportation research and practice
- Management of cooperative research and other research programs
- Analyses of national transportation policy issues and guidance on federal and other research programs
- Publications and access to research information from around the world

All available Snap Searches can be accessed online here: [http://www.trb.org/InformationServices/Snap.aspx](http://www.trb.org/InformationServices/Snap.aspx)

TRB Research

TRID – The world’s largest and most comprehensive bibliographic source on all modes and disciplines of transportation

- Click here to view search results on TRB published research Environment & Sustainability within the past year.

Subject Webpage

- Environment Research at TRB

Specialty Webpage

- Climate Change

Specialty Report

- Critical Issues in Transportation 2018

Recent Reports & Publications

- Airport Cooperative Research Program (ACRP)
  - ACRP 02-80 - Quantifying Emissions Reductions at Airports from the Use of Alternative Jet Fuels
  - Conference Proceedings on the Web 23 - Economic and Social Sustainability at Airports
  - Report 198 - Wetland Mitigation, Volume 2, A Guidebook for Airports
  - Report 193 - Strategies for Airports to Reduce Local Stormwater Utility Fees
  - Report 188 - Using Existing Airport Management Systems to Manage Climate Risk
  - Report 185 - Airport Air Quality Management 101
  - Research Results Digest 28 - Thought Leader Forum Summary—Emerging Issues for ACRP
  - Synthesis 93 - Sustainability’s Role in Enhancing Airport Capacity
  - Synthesis 92 - Airport Waste Management and Recycling Practices
  - Synthesis 89 - Clean Vehicles, Fuels, and Practices for Airport Private Ground Transportation Providers
  - Web-Only Document 36 - Enhanced AEDT Modeling of Aircraft Arrival and Departure Profiles, Volume 1: Guidance
  - WebResource 4 - Airport Air Quality Resource Library

- National Cooperative Highway Research Program (NCHRP)
  - NCHRP 25-53 - Approaches for Determining and Complying with TMDL Requirements Related to Roadway Stormwater Runoff
  - NCHRP 25-49 - Development of a Highway Construction Noise Prediction Model
  - NCHRP 25-25/Task 111 - Environmental Management System Perspectives For State DOTs
• NCHRP 25-25/Task 109 - Successful Practices for Environmental Commitments in Public/Private Partnerships (P-3) and Design-Build (D-B) Contracts
• NCHRP 25-25/Task 102 - Artificial Bat Roost Mitigation Designs and Standardized Monitoring Criteria
• NCHRP 10-91A - Sustainable Highway Construction Practices
• NCHRP 08-36/Task 146 - Economic Resilience and Long-Term Highway/Transportation Infrastructure Investment
• Report 918 - Approaches for Determining and Complying with TMDL Requirements Related to Roadway Stormwater Runoff
• Report 909 - Guide to Truck Activity Data for Emissions Modeling
• Report 890 - Using Recycled Asphalt Shingles with Warm Mix Asphalt Technologies
• Report 870 - Field Performance of Corrugated Pipe Manufactured with Recycled Polyethylene Content
• Report 860 - Assessing the Environmental Justice Effects of Toll Implementation or Rate Changes: Guidebook and Toolbox
• Synthesis 524 - Aggregate Quality Requirements for Pavements
• Synthesis 519 - The Renewal of Stormwater Systems Using Trenchless Technologies
• Web-Only Document 246 - Volume 1: TRAQS User Guide
• Web-Only Document 246 - Volume 2: TRAQS: A Combined Interface for Project-Level Air Quality Analysis

• Transit Cooperative Research Program (TCRP)
  • Report 205 - Social and Economic Sustainability Performance Measures for Public Transportation
  • Report 197 - Tools for a Sustainable Transit Agency

• Transportation Research Circulars
  • E-Circular 244 - Mobility on Demand: A Smart, Sustainable, and Equitable Future
  • E-Circular 237 - Innovations in Asphalt Mixture Design Procedures

Current & Upcoming Projects

• Current Projects
  • ACRP 02-69 - Integrating Airport Sustainability and the NEPA Process
  • ACRP 02-71 - Guidebook and Decision Tool for Managing Airport Stormwater Containing Deicers
  • ACRP 02-72 - Developing a Comprehensive Renewable Resources Strategy
  • ACRP 02-73 - Interactive Tool for Understanding NEPA at General Aviation Airports
  • ACRP 02-75 - Benefit-Cost Analyses Guidebook for Airport Stormwater
  • ACRP 02-76 - Optimizing the Use of Electric Pre-Conditioned Air (PCA) and Ground Power Systems at Airports
  • ACRP 02-77 - Revolving Funds for Sustainability Projects at Airports
  • ACRP 02-79 - Improving AEDT Modeling for Aircraft Noise Reflection and Diffraction from Terrain and Manmade Structures
  • ACRP 02-81 - Commercial Space Operations Noise and Sonic Boom Measurements
  • ACRP 02-82 - Advancing Airport Transportation to Achieve Zero-Emissions Status
  • ACRP 02-83 - Measuring Quality of Life in Communities Surrounding Airports
  • ACRP 02-84 - High Resolution Spatiotemporal Population Distribution Data and Modeling for Aviation Noise Research Studies
  • ACRP 02-85 - Commercial Space Vehicle Emissions Modeling
  • ACRP 02-86 - Measuring the Impact of Temporary Flight Restrictions on Airports
  • ACRP 02-87 - Methods for Evaluating Airfield Pavement Deicer Contributions to Airport Stormwater Quality
  • ACRP 03-51 - Electric Aircraft on the Horizon -- An Airport Planning Perspective
  • ACRP 11-02/Task 32 - Research Roadmap on Environmental Issues
  • ACRP Synthesis 11-03/Topic S02-20 - Lessons Learned from Airport Greenhouse Gas Reduction Efforts
  • ACRP Synthesis 11-03/Topic S02-21 - Practices in Airport Renewable Energy Projects
  • NCHRP 14-39 - Using Vegetated Compost Blankets to Achieve Highway Runoff Volume and Pollutant Reduction
  • NCHRP 14-40 - Transforming Roadside Management and Technology Practices for the Benefit of Safety, Ecology, and Economy
  • NCHRP 15-68 - Effective Low-Noise Rumble Strips
  • NCHRP 17-88 - Roadside Encroachment Data for All Vehicle Types Across a Range of Traffic Volumes
  • NCHRP 17-87 - Enhancing Pedestrian Volume Estimation and Developing HCM Pedestrian Methodologies for Safe and Sustainable Communities
  • NCHRP 20-101 - Guidelines to Incorporate the Costs and Benefits of Adaptation Measures in Preparation for Extreme Weather Events and Climate Change
  • NCHRP 20-119 - Evaluating the Suitability of Roadway Corridors for Use by Monarch Butterflies
  • NCHRP 24-43 - Relationship Between Erodibility and Properties of Soils
  • NCHRP 25-25 - Research for the AASHTO Standing Committee on the Environment
NCHRP 25-25B - Research for the AASHTO Standing Committee on the Environment
NCHRP 25-25/Task 104 - Streamlining Carbon Monoxide Project-Level Air Quality Analyses with Programmatic Agreements
NCHRP 25-25/Task 108 - Creating Lookup Tables to Streamline the Determination of Emission Reductions for CMAQ Projects
NCHRP 25-25/Task 114 - Integrating Tribal Expertise into Processes to Identify, Evaluate, and Record Cultural Resources
NCHRP 25-25/Task 115 - Estimates of Emissions Reductions from Future Fleet Changes for Use in Air Quality Models
NCHRP 25-25/Task 117 - Valuing Wildlife Crossing Enhancements for Mitigation Credits
NCHRP 25-25/Task 119 - Enhancing the International Stormwater BMP Database to Serve as a Highway Specific BMP Database
NCHRP 25-51 - Limitations of the Infiltration Approach to Stormwater Management in the Highway Environment
NCHRP 25-54 - Field Testing of BMPs Using Granulated Ferric Oxide Media to Remove Dissolved Metals in Roadway Stormwater Runoff
NCHRP 25-55 - Assessment of Regulatory Air Pollution Dispersion Models to Quantify the Impacts of Transportation Sector Emissions
NCHRP 25-56 - Methods for State DOTs to Reduce Greenhouse Gas Emissions from the Transportation Sector
NCHRP 25-60 - Watershed Approach to Mitigating Hydrologic Impacts of Transportation Projects
NCHRP IDEA 20-30/IDEA 200 - Rapid Rehabilitation of Highway Slopes using Seeded Microbial Bio-Cement
NCHRP IDEA 20-30/IDEA 204 - Biomimetic Antifreeze Polymers: A Novel Biodegradable Deicing Salt Alternative
NCHRP IDEA 20-30/IDEA 207 - MILDGLASS: GFRP Strand for Resilient Mild Pre-Stressed Concrete
NCHRP IDEA 20-30/IDEA 211 - Reducing Stormwater Runoff and Pollutant Loading with Biochar Addition to Highway Greenways

- **Upcoming Projects**
  - NCHRP 08-124 - Quantifying the Impacts of Corridor Management
  - NCHRP 20-102(23) - Potential Impacts of Highly Automated Vehicles and Shared Mobility on Traveler Behavior
  - NCHRP 25-61 - Effective On-Bridge Treatment of Stormwater
  - NCHRP Synthesis 20-05/Topic 51-02 - Practices for Bridge Approach Pavement Details and Bridge Approach Pavement Support Details for Durability, Ride and Water Management
  - NCHRP Synthesis 20-05/Topic 51-08 - Practice and Performance of Cold In-Place Recycling and Cold Central Plant Recycling
  - NCHRP Synthesis 20-05/Topic 51-18 - Practices for Project-Level Analyses for Air Quality
  - TCRP J-11/Task 36 - An Update on Public Transportation's Impacts on Greenhouse Gas Emissions
  - TCRP J-11/Task 38 - An Analysis of Green Bond Financing in the Public Transportation Industry

Reports from the [National Academies Press](https://press.nationalacademies.org) on Environment & Sustainability

- Deploying Sustainable Energy During Transitions - Implications of Recovery, Renewal, and Rebuilding: Proceedings of a Workshop—in Brief
- U.S.-Iran Discussion on Environmental Trends - Proceedings of a Workshop—in Brief
- Protecting the Health and Well-Being of Communities in a Changing Climate
- Negative Emissions Technologies and Reliable Sequestration

Committees & Panels

Sign-up to be a committee "Friend"

**TRB Standing Committees** – Search by transportation mode and committee topic

- AD000 – Planning and Environment Group
- ADC00 – Environment and Energy
- ADC10 – Environmental Analysis in Transportation
- ADC20 – Transportation and Air Quality
- ADC30 – Ecology and Transportation
- ADC40 – Transportation-Related Noise and Vibration
- ADC50 – Historic and Archeological Preservation in Transportation
- ADC60 – Resource Conservation and Recovery
- ADC70 – Transportation Energy
- ADC80 – Alternative Transportation Fuels and Technologies
- ADD40 – Transportation and Sustainability
- ADD50 – Environmental Justice in Transportation
- AFB40 – Landscape and Environmental Design
Recent and Upcoming Events

Upcoming Conferences - Left hand menu "upcoming conferences by topic"
(Conferences cosponsored by TRB are denoted with an asterisk.)

**Workshop on Sustainable Resource Conservation and Recovery**
July 14, 2019
Washington, DC

**American Society of Civil Engineers (ASCE) 2019 Airfield and Highway Pavements Conference***
July 21, 2019
Chicago, Illinois

**NOISE-CON 2019***
August 25-28, 2019
San Diego, California

**2019 Texas Department of Transportation Annual Environmental Conference***
*September 10, 2019*
Austin, Texas

**2019 International Conference on Ecology and Transportation***
*September 22, 2019*
Sacramento, California

**A&WMA Conference on Freight and Environment: Ports of Entry***
*October 23, 2019*
Newark, New Jersey

**GeoMEast International Conference 2019: "Sustainable Civil Infrastructures: Beyond the Horizon"***
*November 10, 2019*
Cairo, Egypt

**Transportation Resilience 2019: 2nd International Conference on Transportation System Resilience to Natural Hazards and Extreme Weather**
*November 13, 2019*
Washington, D.C.

**Transportation, Environment, and Energy: An Integrated Research Symposium**
*July 12, 2020*
Denver, Colorado

Webinars – View upcoming webinars, suggest a webinar or add registration information
Past Webinars
  o Environment

**TRB’s Transportation Research Information Services (TRIS)**

TRIS includes the [TRB Library](#) and the [TRIS Databases](#) (listed below) which are available free on TRB’s website.

The TRB Library provides information services to TRB staff, sponsors, TRB Committee members and panels and researchers. Access to the TRB Library is a benefit to TRB sponsors and TRB committee members.

In cooperation with your State DOT Library or Information Service, the TRB Library provides:

- Reference and research assistance
- Literature searches
- Articles for TRB Committee work

The TRB Library provides training on effective and efficient use of the following TRIS resources:

**TRID** – The world’s largest and most comprehensive bibliographic source on all modes and disciplines of transportation - [trid.trb.org](#)

**Publications Index (PubsIndex) Database** – The papers, articles and reports published by the Transportation Research Board, Highway Research Board, Strategic Highway Research Programs or the Marine Board - [pubsindex.trb.org](#)

**Research in Progress (RiP) Database** – Current or recently completed transportation research projects - [riptrb.org](#)

**Research Needs Statements (RNS)** – Research needs as identified by TRB Technical Activities standing committees - [rns.trb.org](#)

Contact the Library at [TRBLibrary@nas.edu](mailto:TRBLibrary@nas.edu) or I (202) 334-2989