TRB Snap Search: Environment & Sustainability

TRB's involvement in research on Environment & Sustainability from 2020-2021

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

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.

Specialty Webpages

- Environment Research at TRB
- Climate Change

Specialty Report

- Critical Issues in Transportation 2019
- COVID-19 Addendum to Critical Issues in Transportation

Recent Reports & Publications

- **Airport Cooperative Research Program (ACRP)**
  - ACRP 02-87 - Determining Airfield Pavement Deicer and Anti-Icer Contributions to Airport Stormwater
  - Report 221 - Measuring Quality of Life in Communities Surrounding Airports
  - Report 211 - Guidance for Using the Interactive Tool for Understanding NEPA at General Aviation Airports
  - Synthesis 110 - Airport Renewable Energy Projects Inventory and Case Examples
  - Synthesis 100 - Airport Greenhouse Gas Reduction Efforts
  - Web-Only Document 51 - Commercial Space Vehicle Emissions Modeling
  - Web-Only Document 48 - Evaluating the Use of Spatially Precise Diurnal Population Data in Aviation Noise Studies
  - Web-Only Document 47 - Commercial Space Operations Noise and Sonic Boom Measurements
  - Web-Only Document 46 - Recovering International Recyclables from In-Flight Service
  - Web-Only Document 45 - Airport Environmental Research Roadmap Narrative Report

- **National Cooperative Highway Research Program (NCHRP)**
  - IDEA Report 200 - Rapid Rehabilitation of Highway Slopes Using Seeded Microbial Bio-Cement
  - NCHRP 25-25/Task 119 - Enhancing the International Stormwater BMP Database to Serve as a Highway Specific BMP Database
  - NCHRP 25-25/Task 104 - Streamlining Carbon Monoxide Project-Level Air Quality Analyses with Programmatic Agreements
  - Report 973 - Long-Term Aging of Asphalt Mixtures for Performance Testing and Prediction: Phase III Results
  - Report 942 - Evaluating the Suitability of Roadway Corridors for Use by Monarch Butterflies
  - Report 938 - Incorporating the Costs and Benefits of Adaptation Measures in Preparation for Extreme Weather Events and Climate Change—Guidebook
  - Report 932 - A Research Roadmap for Transportation and Public Health Management
  - Report 927 - Evaluating the Effects of Recycling Agents on Asphalt Mixtures with High RAS and RAP Binder
• **Web-Only Document 281** - Integrating Tribal Expertise into Processes to Identify, Evaluate, and Record Cultural Resources
• **Web-Only Document 280** - Valuing Wildlife Crossings and Enhancements for Mitigation Credits

• **Special Reports**
  • **Report 338** - Modernizing the U.S. Offshore Oil and Gas Inspection Program for Increased Agility and Safety Vigilance
  • **Report 337** - The Role of Transit, Shared Modes, and Public Policy in the New Mobility Landscape

• **Transit Cooperative Research Program (TCRP)**
  • **Report 226** - An Update on Public Transportation's Impacts on Greenhouse Gas Emissions
  • **Report 222** - Analysis of Green Bond Financing in the Public Transportation Industry
  • **Report 219** - Guidebook for Deploying Zero-Emission Transit Buses
  • **Report 214** - Equity Analysis in Regional Transportation Planning Processes, Volume 2: Research Overview

• **Transportation Research Circulars**
  • E-Circular 271 - Critical Issues in Aviation and the Environment 2021
  • E-Circular 270 - Opportunities for Research on Transportation and Equity
  • E-Circular 265 - Transportation Resilience 2019: 2nd International Conference on Resilience to Natural Hazards and Extreme Weather

**Current & Upcoming Projects**

• **Current Projects**
  • ACRP 02-90 - Development of Airport Construction Emission Inventory Tool (ACEIT) Version 2.0
  • ACRP 03-51 - Electric Aircraft on the Horizon -- An Airport Planning Perspective
  • ACRP 07-18 - Develop Airfield Design Guidelines for Large Unmanned Aerial Systems (UAS)
  • ACRP Synthesis 11-03/Topic S10-18 - Considerations for Establishing and Maintaining Successful Bee Programs on Airports
  • NCHRP 05-22A - Gaps and Emerging Technologies in the Application of Solid-State Roadway Lighting
  • NCHRP 08-124 - Quantifying the Impacts of Corridor Management
  • NCHRP 09-66 - Performance Properties of Laboratory Produced Recycled Plastic Modified (RPM) Asphalt Binders and Mixtures
  • NCHRP 09-65 - Capturing Durability of High Recycled Binder Ratio (RBR) Asphalt Mixture
  • 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 15-80 - Design Guide and Standards for Infrastructure Resilience
  • 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 20-06/Topic 25-07 - Review of Statutory and Case Law on Planning and Environmental Linkages
  • NCHRP 20-44(23) - Pilot Test of Climate Change Design Practices Guide for Hydrology and Hydraulics
  • NCHRP 20-44(24) - Pilot Test of Proposed Standard Practice for Recycling Agents in Asphalt Mixtures Incorporating RAP and RAS
  • NCHRP 24-50 - Rewrite of the AASHTO Drainage Manual
  • NCHRP 25-64 - Considering Greenhouse Gas Emissions and Climate Change in Environmental Reviews: Resources for State DOTs
  • NCHRP 25-25B - Research for the AASHTO Standing Committee on the Environment
  • 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 25-61 - Development of On-Bridge Stormwater Treatment Practices
  • NCHRP IDEA 20-30/IDEA 211 - Reducing Stormwater Runoff and Pollutant Loading with Biochar Addition to Highway Greenways
  • 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
- **NCHRP Synthesis 20-05/Topic 52-17** - Use of Recycling Agents in Asphalt Concrete Mixtures
- **TCRP A-46** - Quantitative Procedures for Designing and Operating Ferry Transit Services
- **Transit IDEA J-04/IDEA 96** - Multi-stage Planning for Electrifying Transit Bus Systems with Multiformat Charging Facilities

- **Upcoming Projects**
  - **ACRP 02-94** - Update ACRP WebResource 4: Airport Air Quality Resource Library
  - **ACRP 02-95** - Update ACRP Report 135: Understanding Airport Air Quality and Public Health Studies Related to Airports
  - **ACRP 02-96** - Update ACRP Report 99: Guidance for Treatment of Airport Stormwater Containing Deicers
  - **NCHRP 08-158** - Communicating the Value, Interactions, and Impacts of Freight to Stakeholders
  - **NCHRP 09-68** - Considering Binder Availability of Recycled Asphalt Materials
  - **NCHRP 09-69** - Recommended Procedures for Verifying Material Quantities at Asphalt Mix Plants
  - **NCHRP 15-61A** - Updates to the Design Practices Guide for Applying Climate Change Information to Hydrologic and Coastal Design of Transportation Infrastructure
  - **NCHRP 20-24(138)** - Collective and Individual Actions for State Departments of Transportation Envisioning and Realizing the Next Era of America’s Transportation Infrastructure – Phase I
  - **NCHRP 20-102(23)** - Potential Impacts of Highly Automated Vehicles and Shared Mobility on Traveler Behavior
  - **NCHRP Synthesis 20-05/Topic 53-05** - Practices for Stormwater Bioretention
  - **NCHRP Synthesis 20-05/Topic 53-09** - Use of Unmanned Aerial Systems for Highway Stormwater Inspections
  - **NCHRP Synthesis 20-05/Topic 53-11** - Resilient Design with Distributed Rainfall Modeling
  - **TCRP E-13** - COVID-19 and Transit Air Quality Protections (Insight Event)

**Reports from the National Academies Press on Environment & Sustainability**
- **Assessment of Technologies for Improving Light-Duty Vehicle Fuel Economy—2025-2035**
- **Global Change Research Needs and Opportunities for 2022-2031**
- **The Challenge of Feeding the World Sustainably**
- **The Use of Systematic Review in EPA’s Toxic Substances Control Act Risk Evaluations**
- **Implications of the California Wildfires for Health, Communities, and Preparedness**
- **Effectiveness and Impacts of Dust Control Measures for Owens Lake**
- **Climate Change: Evidence and Causes: Update 2020**
- **Advancing Urban Sustainability in China and the United States**
- **Reducing Fuel Consumption and Greenhouse Gas Emissions of Medium- and Heavy-Duty Vehicles, Phase Two**
- **The Use of Dispersants in Marine Oil Spill Response**

**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
- **ADC20** – Transportation and Air Quality
- **ADC70** – Transportation Energy
- **ADD40** – Transportation and Sustainability
- **AEP70** – Environmental Analysis and Ecology
- **AEP80** – Transportation-Related Noise and Vibration
- **AIL50** – Environmental Issues in Transportation Law
- **AKD40** – Landscape and Environmental Design
- **AKD50** – Hydrology, Hydraulics, and Stormwater
- **AME10** – Equity in Transportation
- **AME60** – Historic and Archeological Preservation in Transportation
- **AMS20** – Resource Conservation and Recovery
- **AMS40** – Alternative Fuels and Technologies
- **AT040** – Transportation of Hazardous Materials
- **AV030** – Environmental Impacts of Aviation
- **AW030** – Marine Environment

**Task Forces** - Search for task force under committee here
- **A0020T** – Climate Change and Energy
- **ADD5ST** – Arterials and Public Health
CRP Panels
  - Project Panels Related to Environment

Councils
  - A001C – Young Member Coordinating Council

Policy Study
  - B0140 - Committee on Offshore Oil and Gas Safety Culture: A Framing Study

Recent and Upcoming Events

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

- National Conference on Transportation Asset Management
  August 10, 2021
  online

- GeoChina 2021 International Conference*
  September 18-19, 2021
  NanChang, Jiangxi, China

- Geo-Extreme Conference*
  November 7, 2021
  Savannah, GA

- Conference on Sustainability and Emerging Transportation Technology
  March 15, 2022
  Irvine, CA

- American Society of Civil Engineers (ASCE) Geo-Congress 2022*
  March 20, 2022
  Charlotte, NC

- 18th Biennial National Harbor Safety Committee Conference
  June 13, 2022
  Boston, MA

Webinars – View upcoming webinars, suggest a webinar or add registration information
Past Webinars
  - 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:

- Transportation Research International Documentation (TRID) – trid.trb.org - The world’s largest and most comprehensive bibliographic source on all modes and disciplines of transportation
- Transportation Research Thesaurus (TRT) – trt.trb.org - A tool to improve the indexing and retrieval of transportation information.
- Research in Progress (RiP) Database – rip.trb.org - Current or recently completed transportation research projects
- Research Needs Statements (RNS) – rns.trb.org - Research needs as identified by TRB Technical Activities standing committees
- **Publications Index (PubsIndex) Database** – pubsindex.trb.org - The papers, articles and reports published by the Transportation Research Board, Strategic Highway Research Programs or the Marine Board

**Contact or Questions:** TRBLibrary@nas.edu