TRB Snap Search: Air Quality & Climate Change

TRB’s involvement in research on Air Quality & Climate Change from 2021-2023

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 on Air Quality & Climate Change within the two past years.

Specialty Reports
- Critical Issues in Transportation for 2024 and Beyond
- Critical Issues in Transportation 2019
- COVID-19 Addendum to Critical Issues in Transportation
- Racial Equity Addendum to Critical Issues in Transportation

Recent Reports & Publications

- **Airport Cooperative Research Program (ACRP)**
  - Report 220 - Guidebook for Developing a Zero- or Low-Emissions Roadmap at Airports
  - Synthesis 127 - Airport Programs That Reduce Landside Vehicle Carbon Emissions

- **Consensus Study Reports**
  - Accelerating Decarbonization in the United States: Technology, Policy, and Societal Dimensions

- **National Cooperative Highway Research Program (NCHRP)**
  - Report 1058 - Assessing Air Pollution Dispersion Models for Emissions Regulation
  - Report 976 - Resilience Primer for Transportation Executives
  - Synthesis 602 - Resilient Design with Distributed Rainfall-Runoff Modeling
  - Synthesis 576 - Practices for Project-Level Analyses for Air Quality
  - Web-Only Document 308 - Methods for State DOTs to Reduce Greenhouse Gas Emissions from the Transportation Sector

- **Special Reports**
  - Report 336 - Options for Reducing Lead Emissions from Piston-Engine Aircraft

- **Transit Cooperative Research Program (TCRP)**
  - Report 226 - An Update on Public Transportation’s Impacts on Greenhouse Gas Emissions
  - Report 219 - Guidebook for Deploying Zero-Emission Transit Buses
  - Transportation Insights no. 2 – Air Quality in Transit Buses

- **Transportation Research Circulars**
  - E-Circular 279 - Advancing Low- and Zero-Emission Marine Vessel Technology Options Workshop
Current & Upcoming Projects

- **Current Projects**
  - ACRP 02-90 - Development of Airport Construction Emission Inventory Tool (ACEIT) Version 2.0
  - ACRP 02-94 - Update ACRP WebResource 4: Airport Air Quality Resource Library
  - ACRP 02-95 - Understanding Airport Air Quality and Public Health Studies Related to Airports: An Update to ACRP Report 135
  - ACRP 02-93 - Update to the Guidelines, Tools, and Resources Related to ACRP Reports 11, 147, and 160
  - ACRP Synthesis 11-03/Topic S02-22 - Airport Programs that Reduce Landside Vehicle Carbon Emissions
  - ACRP 02-102 - A Balanced Look at Local Airport Activity and Climate Change
  - NCHRP 15-80 - Design Guide and Standards for Infrastructure Resilience
  - NCHRP 23-26 - Measuring Impacts and Performance of State DOT Resilience Efforts
  - NCHRP 25-64 - Considering Greenhouse Gas Emissions and Climate Change in Environmental Reviews: Resources for State DOTs
  - NCHRP IDEA 20-30/IDEA 246 - Developing a Method for Selecting Low-Energy Mixing and Compaction Temperatures for Asphalt Mixtures Considering Asphalt Lubrication and Aggregate Characteristics
  - NCHRP Synthesis 20-05/Topic 54-21 - Practices in the Transportation Planning Process to Address Climate Resilience and GHG Emission Quantification and Reduction
  - TCRP E-13 - COVID-19 and Transit Air Quality Protections (Insight Event)

- **Upcoming Projects**
  - ACRP 03-77 - Incorporating Climate Change into Aviation Forecasts
  - ACRP 11-09[24-03] - ACRP Insight Event – Airport Energy Resiliency
  - NCHRP 01-62 - Impact of Flooding on the Resiliency of Pavement Systems
  - NCHRP 20-06/Topic 27-03 - Environmental and Planning Law and Transportation
  - NCHRP 20-44(44) - Implementing the Design Practices Guide for Applying Climate Change Information to Hydrologic and Coastal Design of Transportation Infrastructure
  - NCHRP 23-33 - Managed Retreat to Address Extreme Weather, Natural Hazards, and Climate Impacts
  - NCHRP 23-38 - Incorporating Risk Management into Maintenance Practice
  - NCHRP 15-61A - Hydrologic and Hydraulic Design Guide to Incorporate Climate Science in Transportation Infrastructure

Reports from the [National Academies Press](https://www.nap.edu) on Air Quality & Climate Change

- [Transportation and Infrastructure » Climate Change](https://www.nap.edu/content/transportation-and-infrastructure-climate-change)
- Integrating the Human Sciences to Scale Societal Responses to Environmental Change: Proceedings of a Workshop
- Review of the Draft Fifth National Climate Assessment
- Transforming EPA Science to Meet Today's and Tomorrow's Challenges
- Equitable and Resilient Infrastructure Investments
- Wildland Fires: Toward Improved Understanding and Forecasting of Air Quality Impacts
- Advancing the Framework for Assessing Causality of Health and Welfare Effects to Inform National Ambient Air Quality Standard Reviews
- Frameworks for Protecting Workers and the Public from Inhalation Hazards
- The Chemistry of Fires at the Wildland-Urban Interface
- Communities, Climate Change, and Health Equity
- Engineering Responses to Climate Change
- Biodiversity at Risk: Today’s Choices Matter
- A Research Strategy for Ocean-based Carbon Dioxide Removal and Sequestration
- Indoor Exposure to Fine Particulate Matter and Practical Mitigation Approaches
- Global Change Research Needs and Opportunities for 2022-2031
- Accelerating Decarbonization of the U.S. Energy System

Committees & Panels

Sign-up to be a committee "Friend"

[TRB Standing Committees](https://www.trb.org/committeeshäuser) – Search by transportation mode and committee topic

- [ABC991](https://www.trb.org/committees/häuser) - 12th National Conference on Transportation Asset Management

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ACP20 - Freeway Operations
ACP35 - Managed Lanes
AEP70 - Standing Committee on Environmental Analysis and Ecology
AIL50 - Standing Committee on Environmental Issues in Transportation Law
AMR50 - Extreme Weather and Climate Change Adaptation
AMS10 - Air Quality and Greenhouse Gas Mitigation
AMS40 - Alternative Fuels and Technologies
AV030 - Standing Committee on Environmental Issues in Aviation
AW030 - Standing Committee on Marine Environment

**Project Panels** - Select CRP Panel and Synthesis Panel under Committee Type
- D1561 - Applying Climate Change Information to Hydrologic and Hydraulic Design of Transportation Infrastructure
- D2333 - Guidance in Planning for Managed Retreat as an Extreme Weather and Climate Adaptation Strategy
- D2555 - Quantifying the Contribution of Vehicle Emissions to Local Air Quality
- D2564 - Considering Greenhouse Gas Emissions and Climate Change in Environmental Reviews: Resources for State DOTs
- D08181 - Understand How Climate Change and Extreme Weather Impacts the Mobility of Socially Vulnerable Populations
- DA0294 - Update ACRP WebResource 4: Airport Air Quality Resource Library
- DA0265 - Update ACRP Report 135: Understanding Airport Air Quality and Public Health Studies Related to Airports
- DA02102 - A Balanced Look at Local Airport Activity and Climate Change
- DA0377 - Understanding the Impact of Climate Change on Forecasting Future Airport Activity Levels
- SN5118 - Practices for Project-Level Analyses for Air Quality
- SN5421 - Practices to Address Climate Change in the Transportation Planning Process

**Task Forces** - Search for *task force* under committee here

**Councils**
- A001C – Young Members Coordinating Council

**Recent and Upcoming Events**

**Upcoming Events/Conferences/Webinars** – Use left hand menu to filter events

**TRB’s Transportation Symposium on Environment, Energy, and Livable Economies**
*August 25-28, 2024*
*Denver, CO*

**Past Webinars**

**Climate Resilient Design for Culverts and Pavements**
*December 5, 2023*

**Mitigating Air Pollution Exposures from Transportation**
*November 2, 2023*

**Successful Environmental Justice Planning**
*August 29, 2023*

**Life-Cycle Assessment for Pavements and Transportation Infrastructure**
*August 17, 2023*

**Climate-Resilient, Low-Volume Road Design and Management**
*August 7, 2023*

**TRB Webinar: Transportation Resilience Addressing Climate Change Challenges**
*July 26, 2023*

**TRB Webinar: Community-Based and Equitable Transportation Response in Disaster**
*July 19, 2023*
Past Conferences - In the Past Events tab under Types, choose what event you are interested in, search titles by keyword

**TRB’s Transportation Resilience 2023**  
*November 13-15, 2023*  
*Washington, D.C.*

**National Conference on Transportation Asset Management**  
*July 8-11, 2023*  
*Boston, MA*

**Marine Transportation System Innovative Science and Technologies Toward Greater Sustainability**  
*June 19-22, 2023*  
*Washington, D.C.*

**Innovations in Travel Analysis and Planning Conference**  
*June 4-6, 2023*  
*Indianapolis, IN*

**National Aviation System Planning Symposium**  
*May 15-18, 2023*  
*Irving, CA*

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**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](http://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](http://trt.trb.org) - A tool to improve the indexing and retrieval of transportation information.
- **Research in Progress (RIP) Database** – [rip.trb.org](http://rip.trb.org) - Current or recently completed transportation research projects
- **Publications Index (PubsIndex) Database** – [pubsindex.trb.org](http://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](mailto:TRBLibrary@nas.edu)