

**TRB** TRANSPORTATION RESEARCH BOARD

## **TRB Snap Search: Hydraulics & Hydrology**

### **TRB's involvement in research on Hydraulics & Hydrology 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 Hydraulics & Hydrology within the past two 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**

- [National Cooperative Highway Research Program \(NCHRP\)](#)
  - [IDEA Report 211](#) - Reducing Stormwater Runoff with Biochar Addition to Roadway Soils
  - [Report 1011](#) - Watershed Approach to Mitigating Hydrologic Impacts of Transportation Projects: Guide
  - [Report 971](#) - Revised Clear-Water and Live-Bed Contraction Scour Analysis
  - [Synthesis 579](#) - Subsurface Drainage Practices in Pavement Design, Construction, and Maintenance
  - [Synthesis 573](#) - Practices for Integrated Flood Prediction and Response Systems
  - [Web-Only Document 333](#) - Watershed Approach to Mitigating Hydrologic Impacts of Transportation Projects: Conduct of Research Report
  - [Web-Only Document 294](#) - Revised Clear-Water and Live-Bed Contraction Scour Analysis Training Manual

### **Current & Upcoming Projects**

- [Current Projects](#)
  - [ACRP 02-96](#) - Update ACRP Report 99: Guidance for Treatment of Airport Stormwater Containing Deicers
  - [NCHRP 14-39](#) - Using Vegetated Compost Blankets to Achieve Highway Runoff Volume and Pollutant Reduction
  - [NCHRP 20-44\(23\)](#) - Pilot Test of Climate Change Design Practices Guide for Hydrology and Hydraulics
  - [NCHRP 24-48](#) - A Methodology for Determining Scour Depth around Structures in Gravel-bed Rivers
  - [NCHRP 24-49](#) - Guidelines for Selection and Application of Manning's Roughness Values in Two-Dimensional Hydraulic Models
  - [NCHRP 24-50](#) - Rewrite of the AASHTO Drainage Manual
  - [NCHRP 25-61](#) - Development of On-Bridge Stormwater Treatment Practices
  - [NCHRP Synthesis 20-05/Topic 53-05](#) - Practices for Bioretention Stormwater Control Measures
  - [NCHRP Synthesis 20-05/Topic 53-09](#) - Use of Unmanned Aerial Systems for Inspection of Stormwater Best Management Practices
  - [NCHRP Synthesis 20-05/Topic 53-11](#) - Resilient Design with Distributed Rainfall Modeling
  - [NCHRP Synthesis 20-05/Topic 54-02](#) - Outsourcing Stormwater Best Management Practice Inspection & Maintenance Activities

- [NCHRP Synthesis 20-05/Topic 54-09](#) - Hydraulic Engineering Practices for Construction and Temporary Facilities in Streams and Rivers
- [NCHRP Synthesis 20-05/Topic 54-19](#) - Practices for Controlling Tunnel Leaks
- [Upcoming Projects](#)
  - [NCHRP 15-61A](#) - Updates to the Design Practices Guide for Applying Climate Change Information to Hydrologic and Coastal Design of Transportation Infrastructure
  - [NCHRP 20-44\(44\)](#) - Implementation of the research results of NCHRP Project 15-61: “Applying Climate Change Information to Hydrologic and Hydraulic Design of Transportation Infrastructure”

#### Reports from the [National Academies Press](#) on Hydraulics & Hydrology

- [Transportation and Infrastructure » Hydraulics and Hydrology](#)
- [Oil in the Sea IV: Inputs, Fates, and Effects](#)
- [Reckoning with the U.S. Role in Global Ocean Plastic Waste](#)
- [An Approach for Assessing U.S. Gulf Coast Ecosystem Restoration: A Gulf Research Program Environmental Monitoring Report](#)
- [Leveraging Commercial Space for Earth and Ocean Remote Sensing](#)
- [Investing in Transportation Resilience: A Framework for Informed Choices](#)
- [Mid-Term Assessment of Progress on the 2015 Strategic Vision for Antarctic and Southern Ocean Research](#)
- [Next Generation Earth Systems Science at the National Science Foundation](#)
- [Global Change Research Needs and Opportunities for 2022-2031](#)
- [Progress Toward Restoring the Everglades](#)

#### Committees & Panels

[Sign-up to be a committee "Friend"](#)

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

- [AKB70](#) – Culverts, Buried Bridges and Soil Structure Interaction
- [AKD50](#) – Hydrology, Hydraulics, and Stormwater
- [AKG40](#) – Mechanics and Drainage of Saturated and Unsaturated Geomaterials

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

#### CRP Panels

- [D1561](#) - Applying Climate Change Information to Hydrologic and Hydraulic Design of Transportation Infrastructure
- [D1820](#) - Structured Design Methodology for Cured In Place Pipe (CIPP) Liners in Gravity Stormwater Conveyance Conduits
- [D2449](#) - Guidance on the Selection and Use of Flow Resistance Values in Two-Dimensional (2D) Hydraulic Models
- [D2561](#) - Effective On-Bridge Treatment of Stormwater
- [DA0287](#) - Determining Airfield Pavement Deicer and Anti-Icer Contributions to Airport Stormwater
- [SN4805](#) - The Renewal of Stormwater Systems Using Trenchless
- [SN5305](#) - Practices for Stormwater Bioretention
- [SN5309](#) - Use of Unmanned Aerial Systems for Highway Stormwater Inspections
- [SN5402](#) - Outsourcing Stormwater Best Management Practice Inspection & Maintenance Activities
- [SN5409](#) - Hydraulic Engineering Practices for Construction and Temporary Facilities in Streams and Rivers

#### Councils

- [A001C](#) – Young Members Coordinating Council

#### Recent and Upcoming Events

[Upcoming TRB Conferences](#) – Use left hand menu to filter events

[Marine Transportation System Innovative Science and Technologies Toward Greater Sustainability](#)

June 19-22, 2023

Washington, D.C.

[National Conference on Transportation Asset Management](#)

July 8-11, 2023

Boston, MA

[Upcoming Events](#) – In the Upcoming Events tab under Types, choose what event you are interested in, search titles by keyword

[Past Events](#) - In the Past Events tab under Types, choose what event you are interested in, search titles by keyword

## **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)