

**TRB** TRANSPORTATION RESEARCH BOARD

## TRB Snap Search: Hydraulics & Hydrology

### TRB's involvement in research on Hydraulics & Hydrology from 2020-2022

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.

### Subject Webpage

- [Hydraulics & Hydrology Research at TRB](#)

### Specialty Reports

- [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 14](#) - Deicing Planning Guidelines and Practices for Stormwater Management Systems, Second Edition
- [National Cooperative Highway Research Program \(NCHRP\)](#)
  - [NCHRP 25-25/Task 120](#) - Use of the State Department of Transportation Portal to the International Stormwater BMP Database
  - [NCHRP 20-44\(14\)](#) - Implementation of NCHRP Research Report 887 - Guidance for Underwater Installation of Filter Systems
  - [NCHRP 15-61](#) - Applying Climate Change Information to Hydrologic and Hydraulic Design of Transportation Infrastructure
  - [Report 971](#) - Revised Clear-Water and Live-Bed Contraction Scour Analysis
  - [Report 922](#) - Stormwater Infiltration in the Highway Environment: Guidance Manual
  - [Synthesis 573](#) - Practices for Integrated Flood Prediction and Response Systems
  - [Synthesis 551](#) - Highway Hydraulic Engineering State of Practice
  - [Synthesis 294](#) - Revised Clear-Water and Live-Bed Contraction Scour Analysis Training Manual
  - [Web-Only Document 265](#) - Field Test of BMPs Using Granulated Ferric Oxide Media to Remove Dissolved Metals in Roadway Stormwater Runoff

### Current & Upcoming Projects

- [Current Projects](#)
  - [NCHRP 14-39](#) - Using Vegetated Compost Blankets to Achieve Highway Runoff Volume and Pollutant Reduction
  - [NCHRP 20-44\(15\)](#) - Consultant Support for implementation of Design Hydrology for Stream Restoration and Channel Stability at Stream Crossings
  - [NCHRP 20-44\(23\)](#) - Pilot Test of Climate Change Design Practices Guide for Hydrology and Hydraulics

- [NCHRP 24-47](#) - Revised Clear-Water and Live-Bed Contraction Scour Analysis
- [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 25-60](#) - Watershed Approach to Mitigating Hydrologic Impacts of Highway 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 53-05](#) - Practices for Bioretention Stormwater Control Measures
- [NCHRP Synthesis 20-05/Topic 53-11](#) - Resilient Design with Distributed Rainfall Modeling
- [Upcoming Projects](#)
  - [ACRP 02-96](#) - Update ACRP Report 99: Guidance for Treatment of Airport Stormwater Containing Deicers
  - [NCHRP 15-61A](#) - Updates to the Design Practices Guide for Applying Climate Change Information to Hydrologic and Coastal Design of Transportation Infrastructure
  - [NCHRP Synthesis 20-05/Topic 53-09](#) - Use of Unmanned Aerial Systems for Highway Stormwater Inspections

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

- [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](#)
- [Effectiveness and Impacts of Dust Control Measures for Owens Lake](#)
- [Management of Legionella in Water Systems](#)
- [The Use of Dispersants in Marine Oil Spill Response](#)
- [A Vision for NSF Earth Sciences 2020-2030](#)
- [Final Review of the Study on Supplemental Treatment Approaches of Low-Activity Waste at the Hanford Nuclear Reservation](#)
- [Offshore Well Completion and Stimulation - Using Hydraulic Fracturing and Other Technologies](#)
- [Management of Legionella in Water Systems](#)

### 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

- [Project Panels Related to Hydraulics & Hydrology](#)

### Councils

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

### Recent and Upcoming Events

[Upcoming Conferences](#)- Left hand menu “upcoming conferences by topic”  
(Conferences cosponsored by TRB are denoted with an asterisk.)

#### [TRB Virtual Careers in Motion Networking Fair](#)

December 8, 2021

Washington, DC

#### [American Society of Civil Engineers \(ASCE\) Geo-Congress 2022\\*](#)

March 20, 2022

Charlotte, NC

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