



## TRB Snap Search: Hydraulics & Hydrology

### TRB's involvement in research on Hydraulics & Hydrology from 2017-2018

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

### 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 year.

### Subject Webpage

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

### Recent Reports & Publications

- [National Cooperative Freight Research Program \(NCFRP\)](#)
  - [Report 37](#) - Using Commodity Flow Survey Microdata and Other Establishment Data to Estimate the Generation of Freight, Freight Trips, and Service Trips: Guidebook
- [National Cooperative Highway Research Program \(NCHRP\)](#)
  - [IDEA 181](#) - Development of Small Specimen Geometry for Asphalt Mixture Performance Testing
  - [IDEA 176](#) - Contactless Electrode for Fast Survey of Concrete Reinforcement Corrosion
  - [IDEA 174](#) - Enhanced Performance Zinc Coating for Steel in Concrete
  - [Ready Results Document](#) - New Tool Supports Watershed-Based Stormwater Management
  - [Ready Results Document](#) - Modern Inspection Practices for Culverts and Storm Drain Systems
  - [Research Topic Highlight](#) - Bank Erosion and Bridge Scour
  - [Report 859](#) - Consequences of Delayed Maintenance of Highway Assets
  - [Report 853](#) - Guidance for Design Hydrology for Stream Restoration and Channel Stability
  - [Report 840](#) - A Watershed Approach to Mitigating Stormwater Impacts
- [Transportation Research Record: Journal of the Transportation Research Board](#)
  - [Volume 2656](#) - Coupled Thermo-Hydro-Mechanical Analysis of Freeze-Thaw Behavior of Pavement Structure over a Box Culvert
  - [Volume 2655](#) - Case Study on the Use of Mobile Lidar to Produce a Preliminary Drainage Design
  - [Volume 2639](#) - Assessing the Effects of Rising Groundwater from Sea Level Rise on the Service Life of Pavements in Coastal Road Infrastructure
  - [Volume 2638](#) - Highway Design

### Current & Upcoming Projects

- [Current Projects](#)
  - [ACRP 02-68](#) - Strategies for Reducing Local Stormwater Utility Fees for Airports
  - [ACRP 02-71](#) - Guidebook and Decision Tool for Managing Airport Stormwater Containing Deicers
  - [ACRP 02-75](#) - Benefit-Cost Analyses Guidebook for Airport Stormwater
  - [NCHRP 14-39](#) - Using Vegetated Compost Blankets to Achieve Highway Runoff Volume and Pollutant Reduction
  - [NCHRP 15-54](#) - Proposed Modifications to AASHTO Culvert Load Rating Specifications
  - [NCHRP 15-61](#) - Applying Climate Change Information to Hydrologic and Hydraulic Design of Transportation Infrastructure
  - [NCHRP 24-37](#) - Combining Individual Scour Components to Determine Total Scour

- [NCHRP 24-42](#) - Underwater Installation of Filters Systems for Scour and Other Erosion Control Countermeasures
- [NCHRP 24-47](#) - Revised Clear-Water and Live-Bed Contraction Scour Analysis
- [NCHRP 25-25/Task 101](#) - Stormwater Monitoring Program Goals, Objectives and Protocols for State Departments of Transportation
- [NCHRP 25-51](#) - Limitations of the Infiltration Approach to Stormwater Management in the Highway Environment
- [NCHRP 25-53](#) - Approaches for Determining and Complying with TMDL Requirements Related to Roadway Stormwater Runoff
- [NCHRP 25-54](#) - Field Testing of BMPs Using Granulated Ferric Oxide Media to Remove Dissolved Metals in Roadway Stormwater Runoff
- [Upcoming Projects](#)
  - [NCHRP 24-48](#) - A Methodology for Determining Scour Depth around Structures in Gravel-bed Rivers
  - [NCHRP 25-25/Task 112](#) - Enhancing the International Stormwater BMP Database to Serve as a Highway Specific BMP Database

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

- [Flowback and Produced Waters: Opportunities and Challenges for Innovation: Proceedings of a Workshop](#)
- [Effective Monitoring to Evaluate Ecological Restoration in the Gulf of Mexico](#)
- [Service-Learning in Undergraduate Geosciences: Proceedings of a Workshop](#)
- [Review of the Edwards Aquifer Habitat Conservation Plan: Report 2](#)
- [Responding to the Threat of Sea Level Rise: Proceedings of a Forum](#)

### Committees & Panels

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

[Technical Activities Division Standing Committees](#) – Search by transportation mode and committee topic

- [AFB60](#) – Hydrology and Hydraulics
- [AFB65](#) – Stormwater
- [AFF70](#) – Culverts and Hydraulic Structures
- [AFS60](#) – Subsurface Drainage

[Task Forces](#) - Search for *task force* under committee here

### CRP Panels

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

### Councils

- [A0040T](#) – Young Member Council

### Recent and Upcoming Events

[Conferences \(co-sponsored by TRB\)](#) - Left hand menu “upcoming conferences by topic”

#### [Transport Research Arena 2018\\*](#)

*April 16-19, 2018*

**Vienna, Austria**

#### [3rd International Conference on Transportation Infrastructure and Materials\\* \(ICTIM2018\)](#)

*June 1-4, 2018*

**Tianjin, China**

#### [GeoChina 2018 International Conference\\*](#)

*July 23-25, 2018*

**Hangzhou, Zhejiang, China**

#### [2018 Annual Conference of the Florida Association of Environmental Professionals \(FAEP\)\\*](#)

*September, 2018*

**Orlando, Florida**

#### [GeoMEast International Conference 2018: "Sustainable Civil Infrastructures: Structural Integrity"\\*](#)

*November 24-28, 2018*

**Cairo, Egypt**

[Webinars](#) – View upcoming webinars, suggest a webinar or add registration information

## **TRB's Transportation Research Information Services (TRIS)**

TRIS includes the [TRB Library](#) and the [TRIS Databases](#) (listed below) which are available for 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](http://trid.trb.org)

**Practice Ready Papers (PRP) Database** - Papers with information that is ready for immediate implementation or requires minimal additional research or implementation effort - [prp.trb.org](http://prp.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](http://pubsindex.trb.org)

**Research in Progress (RiP) Database** – Current or recently completed transportation research projects - [rip.trb.org](http://rip.trb.org)

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

Contact the Library at [TRBLibrary@nas.edu](mailto:TRBLibrary@nas.edu) or 1 (202) 334-2989