

Memorandum

To: Distribution, See Below

From: Jen Johnson P.E., CFM, Hydraulic Engineer

Date: September 25, 2025

Subject: FHWA Hydraulic Toolbox for Proposed Bridge Scour Calculations

The Montana Department of Transportation's procedure for calculating bridge scour has typically been to use either the Federal Highway Administration (FHWA) Hydraulic Toolbox or an internally developed spreadsheet. This memo establishes the FHWA Hydraulic Toolbox as the sole approved method to calculate contraction and local scour for proposed bridges during the design phase. Use of the internal spreadsheet for proposed bridges in lieu of the Hydraulic Toolbox should be discussed with and approved by the State Hydraulic Engineer.

Please contact Jen Johnson, Annette Compton, or Kurt Marcoux with questions or comments regarding approved scour calculation methods.

copies:

Dustin Rouse – Chief Engineer, Program Area Operations Manager
Ryan Dahlke – Statewide Project Development Engineer
Dave Holien – Highways Engineer
Megan Cail – Highways Design Engineer
Jeremy Terry – Road Design Engineer
Chad Welborn – MSU Design Project Manager
Tyler Steffan – Bridge Design Engineer
Kelly Williams – Consultant Design Engineer
Roy Peterson – TA Engineer
Jason Senn – Consultant Plans Engineer
Tyrel Murfitt – Traffic Design Engineer
Cameron Kloberdanz – Geotechnical Operations Manager
Aubrey Yerger – Alternative Contracting Section Supervisor
Joel Boucher – Missoula District Preconstruction Engineer
Ben Nunnallee – Missoula District Projects Engineer
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Brandon Jones – Butte District Preconstruction Engineer
Anita Matthews – Butte District Project Engineer
Rebecca Barbula – Butte District Project Design Engineer
Jimmy Combs – Great Falls District Preconstruction Engineer
Chris Ward – Great Falls District Projects Engineer
RJ Snyder – Great Falls District Project Design Engineer
Jim Frank – Glendive District Engineering Services Supervisor
Steve Heidner – Glendive District Projects Engineer



MONTANA

Department of Transportation

Christopher Dorrington, Director

2701 Prospect • PO Box 201001
Helena MT 59620-1001

Joy Flemming – Glendive District Project Design Engineer
Kurtis Schnieber – Billings District Preconstruction Engineer
Kyle Shuck – Billings District Projects Engineer
Jacob Brotzler – Billings District Project Design Engineer
Troy Johnson – Road Design Checker
Chad Knuth – Hydraulics Design Engineer
Annette Compton – Hydraulics Operations Engineer
Jon Rainwater – Missoula District Hydraulic Engineer
Trevor Little – Butte District Hydraulic Engineer
Layne Davies – Great Falls District Hydraulic Engineer
George Metzger – Glendive District Hydraulic Engineer
Jeff Heidner – Billings District Hydraulic Engineer
Marc Wotring – Consultant Hydraulic Engineer
Galen Healey – Consultant Hydraulic Engineer
Kurt Marcoux – Bridge Scour Engineer
Eric Suhr – Hydraulic CE Specialist
Tanner Pankratz – Hydraulic CE Specialist
Gabe Walsh – Hydraulic CE Specialist
Lucius McGilvray – Hydraulic CE Specialist
Jack Christensen – Hydraulic CE Specialist
Jim Wong – Hydraulic CE Specialist
Greg Gabel - Hydraulic Term Consultant
Ben Fennelly - Hydraulic Term Consultant
Matt Johnson - Hydraulic Term Consultant
Staci Venner - Hydraulic Term Consultant
Will DeRosset - Hydraulic Term Consultant
Luke Carlson - Hydraulic Term Consultant
Dan Richardson - Hydraulic Term Consultant
Terry Cowan – Hydraulic Term Consultant