

Road / Stream Crossings Workshop— Inventory, Assessment, Design and Construction, April 12 – 14, 2016

Biographical sketches



Austin Polebitski – University of Wisconsin - Platteville

Jeff Hastings – Trout Unlimited

Matthew Diebel – Wisconsin Department of Natural Resources

Matt Diebel is a water resources modeler in the Water Quality Bureau of the Wisconsin Department of Natural Resources. Matt's work focuses primarily on developing tools to help manage phosphorus and nitrogen in streams and lakes. His skills include ecological and hydrologic modeling, GIS, and statistical analysis. Matt has worked for the WDNR for five years, previously as a research scientist, where aquatic connectivity was one of his major research themes. He earned an MS in Water Resources Management and a PhD in Limnology from UW-Madison.

Mike Miller – Wisconsin Department of Natural Resources

Mike Miller is a stream ecologist with the DNR in Madison. Recent work includes developing reference conditions (benchmarks) for a variety of physical, chemical, and biological measures used to assess stream health, is involved studies of the overall condition of stream resources in large watersheds like the Kickapoo River, developing monitoring networks to assess the influence of climate change on streams, collaborates with U.S. EPA on regional stream monitoring projects, and assessing the extent that roadways fragment streams in the Driftless Area ecoregion.

Bradd Sims – Wisconsin Department of Natural Resources

Dale Higgins – US Forest Service, Forest Hydrologist

Chequamegon-Nicolet National Forest, Park Falls, WI

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Educational Summary:

M.S. Forest Hydrology, University of Minnesota

August 1979

B.S. Forest Resources Development, University of Minnesota

June 1977

Educational Summary:

Dale has performed a variety of hydrology and watershed management activities over the years involving streams, lakes, reservoirs and wetlands. Since 1997 he has been actively involved in the survey, design and construction of over 200 road-stream crossings to improve aquatic organism passage, water quality, channel morphology, safety and road maintenance. He has helped teach a number of road-stream crossing workshops in N WI and the Eastern Region of the Forest Service. Dale has also worked on hydropower re-licensing projects, ecological classification of streams, river restoration, riparian management, and the development and monitoring of forestry best management practices for water quality.

<u>Forest Hydrologist</u> , Chequamegon-Nicolet National Forest USDA-Forest Service, Region 9	1985-present
<u>Hydrologist</u> , Malheur National Forest, USDA-Forest Service, Region 6	1981-1985
<u>Hydrologist</u> , Jefferson National Forest, USDA-Forest Service, Region 8	1979-1981

Jon Simonsen – Wisconsin Department of Natural Resources

Jon has worked at the DNR Rhinelander office in the Environmental Analysis and Review program since 2005 covering 8 counties in northcentral Wisconsin. He works closely with municipalities and DOT to help ensure that good decisions are made to protect wetlands, waterways, and other natural resources on transportation improvement projects. Jon is also closely involved with the DNR Stream Connectivity Team and provides statewide assistance on a broad range of stream connectivity issues. He is also responsible for helping all Department programs take the steps to make informed decisions and provide for public input to meet the spirit and intent of the Wisconsin Environmental Policy Act (WEPA).

Education:

M.S. Agronomy – University of Wisconsin at Madison (2002)

B.S. Zoology & Conservation Biology – University of Wisconsin at Madison (1997)

Professional experience:

Jon has worked in a broad range of positions in both the biological sciences and regulatory fields including: fisheries, lakes monitoring, invasives species education, water regulations, watershed improvement, endangered resources, biological surveys, and sustainable agriculture. When not at work he enjoys spending time with his family, cross country skiing, running, biking, hunting, fishing, canoeing, and camping.

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Mark A. Fedora, US Forest Service, Supervisory Hydrologist

Primary duties:

Manage the Ottawa National Forest's botany, fisheries, soils, watershed and wildlife programs. Monitor and help to implement hydropower licenses as they relate to National Forest resources. Forest Service representative on the Bi-National Lake Superior Partnership Working Group.

Education:

MS Forest Engineering, Hydrology, Oregon State University, Corvallis, 1987

BS Forest Resources, Hydrology Emphasis, University of Minnesota, St. Paul, 1985

Professional experience:

USDA Forest Service, Ottawa National Forest, Supervisory Hydrologist, 2011-present
USDA Forest Service, Eastern Region, Regional Hydrologist (120 days), Milwaukee, WI, 2010

USDA Forest Service, Eastern Region, and The Nature Conservancy, Great Lakes Program, Ironwood, MI, 2004-2009

USDA Forest Service, Eastern Region Hydropower Assistance Team, Ironwood, MI, 2001-2004

USDA Forest Service, Wallowa-Whitman National Forest, Pine Ranger District, Halfway, OR, 1991-2001

JW Associates Environmental Consultants, Boulder, CO, 1990-1991

USDA Forest Service, Wallowa-Whitman National Forest, Pine Ranger District, Halfway, OR, 1988-1990

USDI Bureau of Land Management, Prineville, OR, 1988

Professional activities/memberships:

American Institute of Hydrology, Associate Hydrologist, 040

Relevant publications:

Banach, D., C. Brooks, M. Fedora, 2016. Using Multi-temporal Imagery to Improve Mapping and Inventory of Forested Roads in Michigan's Upper Peninsula. Manuscript accepted by the Transportation Research Board, TRB Paper 16-3971.

Diebel, M., M. Fedora, S. Cogswell and J.R. O'Hanley, 2015. Effects of road crossings on habitat connectivity for stream-resident fish. *River Res. Applic.* 31: 1251–1261

Fedora, M. 2007. Aquatic restoration through hydropower licensing, Bond Falls project, Michigan. *Advancing the Fundamental Sciences, Proceedings of the Forest Service National Earth Sciences Conference, San Diego, CA, 18-22, October 2004.* General Technical Report PNW-GTR-689, October, 2007, pp 255-261.

Chandler, J., M. Fedora, T. Walters, 2001. Pre- and post-spawn movements and spawning observations of resident bull trout in the Pine Creek basin, eastern Oregon, p 167-172. *In* M.K. Brewin, A. J. Paul, and M. Monita (ed.) *Bull trout II conference proceedings.* Trout Unlimited Canada, Calgary, Alberta.

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Maureen Millmann – Wisconsin Department of Natural Resources

Maureen Millmann has a BS in Biological Aspects of Conservation from the University of Wisconsin – Milwaukee and has worked for WDNR for 20 years. She has been an

Environmental Analysis and Review Specialist with the WDNR's Bureau of Environmental Analysis and Science since 2001. She worked as a Transportation Liaison reviewing state and local transportation projects in the Southeast Region for 10 years. She has spent the last four years as the statewide Municipal Transportation Coordinator, facilitating the development of the general permit for local road projects, training municipalities and new WDNR staff on the implementation of general and individual permits, providing database and uploading services for those permits, and working on policy decisions for permitting the impacts to wetlands and waterways by municipal transportation projects.

Maureen serves on the *Stream Connectivity and Municipal Transportation Culverts Team*. This team develops tools, policy, and training regarding local municipal road-stream crossing replacements. The mission of the team is to ensure that the design and construction of municipal highway culverts in Wisconsin are sized and placed appropriately to enhance and protect stream quality and aquatic connectivity.

Bobbi Jo Fischer – Wisconsin Department of Natural Resources

After obtaining her BS in Water Resources from UW-Stevens Point in 1997, Bobbi Jo Fischer began her career in 1998 with the Department of Natural Resources as a Water Management Specialist in Southeast Wisconsin. She worked primarily with developers and waterfront property owners to protect waterways and wetlands through education and compliance with the State regulations. She currently works as an Environmental Analysis and Review Specialist in DNR's Northeast Region and has done so for the last 16 years. She is responsible for the coordination of multi-disciplinary environmental reviews of highway, airport, and railroad projects in east central Wisconsin. Bobbi Jo works closely with DOT, counties and municipalities protect the environment during the planning, design, and construction phases of transportation related projects.

Bobbi Jo co-leads and serves on the *Stream Connectivity and Municipal Transportation Culverts Team*. This team develops tools, policy, and training regarding local municipal road-stream crossing replacements. The mission of the team is to ensure that the design and construction of municipal highway culverts in Wisconsin are sized and placed appropriately to enhance and protect stream quality and aquatic connectivity.

John Voorhees

Ryan L. Arnold P.E., Civil Engineer, Wisconsin Department of Transportation

Duties:

Ryan has worked in a variety of civil engineering functions throughout his career. Starting out as a consulting engineer, his experience has ranged from municipal and private design and construction projects to Wisconsin Department of Transportation (WisDOT) highway, culvert and bridge design projects. Currently Ryan serves as the North Central Region's Storm Water, Erosion Control and Noise Engineer for the Department of Transportation. Ryan oversees plan review, coordination and

construction expertise in the areas of storm water management, erosion control and noise for the North Central Region's 18 counties.

Education:

BS Civil Engineering, University of Wisconsin – Milwaukee.

AS Construction Technology – Community College of the Air Force, Maxwell AFB, Alabama.

Professional experience:

WisDOT, Wisconsin Rapids, WI; Technical Services Section – Storm Water, Erosion Control and Noise Engineer, Mar 2015 – Present.

Becher Hoppe Associates, Inc., Wausau, WI: Project Manager / Engineer, Nov 2010 – Mar 2015.

CWE, Inc., Weston, WI: Staff Engineer, Aug 2005 – Nov 2010.

United States Air Force (Active Duty, Reserves and Guard), 1995 – Present. Currently as a Civil Engineer Officer with the 133rd Airlift Wing Minnesota Air National Guard.

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