

# Water WoRDs

## *Updates from the Water Resources Division*



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### **How's the Water? The 2014 Integrated Report**

Four months ago, when Michigan was covered in a blanket of snow and ice, we wrote a Water WoRDs piece advising the public of the opportunity to provide comments on our “Integrated Report” in advance of the DEQ, Water Resources Division’s (WRD) submittal of the Report to the U.S. Environmental Protection Agency (U.S. EPA). Between then and now we submitted our final draft of Michigan’s biennial “Water Quality and Pollution Control in Michigan 2014 Sections 303(d), 305(b), and 314 Integrated Report.” That’s the really long, official title of what we refer to as the Integrated Report. What is it? The 1972 Clean Water Act requires states to report to the U.S. EPA on the condition of waters (lakes, streams, wetlands, etc.) within their borders; we do this in Michigan through the Integrated Report.

The 2014 Integrated Report is a reflection of data collected through monitoring by the many water-related programs within the DEQ (see Chapter 2 of the Integrated Report for a discussion of these varied programs geared toward protecting and restoring the quality of our water resources). However, the Integrated Report also draws from data collected from diverse groups such as county health departments, other state and tribal agencies, citizen-run monitoring groups, federal agencies, colleges and universities, and grant recipients. While generally not the ONLY reason these data are collected, we can ‘harvest’ this information to help form our determinations about water quality and make our data and that collected by our partners multitask, adding value to everyone’s monitoring investments.



In its broadest sense, the Integrated Report is our snapshot of how we’re doing in Michigan in terms of water quality. The Report is organized as a summary of water quality related programs, the processes by which data are assessed, and various summaries of water quality conditions. These summaries are broken down by water body type (e.g. rivers, inland lakes, great lakes, bays, and connecting channels) and the designated uses assessed within them (e.g. total body contact recreation, warm or cold water fishery). Every two years, the most recent monitoring data are reviewed and the summaries change to reflect the new information and create a picture of our most current understanding of water quality and the places where restoration work may be needed.

Our monitoring data, from all sources, represents our collective priorities and concerns. As an outcome of shifts in priorities and concerns from year-to-year, data may correspondingly shift over time. An example of this can be found in the 2014 Integrated Report’s summaries on bacteria monitoring results.

The collection of bacterial data related to safe human contact at beaches and in streams and rivers is a focal point of the WRD’s monitoring program, particularly with a Pure Michigan ideal of all our beaches being open, all the time. Beach data primarily comes from county health departments and local municipalities, while river and stream data have been collected by the DEQ and its contractors at more and more locations. Of course, increased monitoring efforts in rivers and streams, particularly efforts focused in areas where there are

concerns over possible contamination, will hopefully lead us down a road of identifying the scope of the problems; that's the first step in solving most water quality concerns. Our results reported in the 2014 Integrated Report show a significant increase in miles of streams affected by high bacterial counts as compared to those reported in 2012. The truth is, we may not be seeing anything new in our 2014 Integrated Report, but rather we've expanded our efforts in an attempt to zero in on what's affecting our waters. More monitoring may reveal more problems, but we can't step out on a path toward targeted solutions without understanding the true scope of any water quality concern.

The good news is that Michigan continues to be surrounded and defined by vast amounts of high-quality water resources. Monitoring of our biological communities (fish and aquatic insects) consistently demonstrates that our streams, rivers, and lakes, support organisms indicative of good water and habitat quality. This is good news for those who enjoy recreating in our waters.

However, there are additional challenges. Besides the bacterial issues discussed above, monitoring efforts have regularly identified persistent chemicals like mercury and PCBs throughout the state. These are primarily airborne pollutants that deposit onto our lands and waters. This is not a unique issue for Michigan, yet these persistent, airborne pollutants are responsible for widespread fish consumption advisories issued by the Michigan Department of Community Health. The lasting effects of these chemicals in our waters are a constant reminder of why we, as a state, need to be ever vigilant in protecting one of our greatest natural resources. The continued monitoring of Michigan's lakes and streams is a crucial step in the process to protect this resource by providing high quality data of sufficient scope and detail to inform decision-makers.

As we reflect on the 2014 process and look toward preparation of the next Integrated Report in 2016, we're working toward improved communication of monitoring results among our partners and increased incorporation of data from broader sources as a means of developing a more focused snapshot of what the universe of data says about Michigan's waters. We will also continue to shift monitoring efforts toward emerging issues and priorities as they arise.

If you're interested in more information and details on our water quality monitoring, what it tells us about the conditions of Michigan's waters, and how it relates to the Integrated Report process and lessons learned from the 2014 Integrated Report, please consider joining us for a webinar on May 20, 2014, 10:00 - 11:00 a.m. entitled "Understanding Michigan's Water Quality." Registration information can be found here: *link deleted, no longer valid.*



*Unlike this map turtle that visited during a recent survey of the Flint River, we're not shy about discussing water quality.*

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## What do you do in the WRD? Meet Jason Smith and Sam Noffke



Jason Smith has been an Environmental Engineer for the Surface Water Assessment Section of the WRD for almost 15 years. Jason has a B.S. in Chemical Engineering from Michigan State University. His primary responsibility is overseeing and managing water quality data collected by WRD staff. He has also been in charge of making those data available to the public via the DEQ's Michigan Surface Water Information Management system. With respect to the Integrated Report, Jason manages and coordinates data entry into the Assessment Database, the primary repository for Integrated Report data, and oversees data distribution to the U.S. EPA.

Sam Noffke has been an Aquatic Biologist for the Surface Water Assessment Section of the WRD for 3.5 years. Sam has a B.S. in Fisheries and Wildlife Management from Michigan State University and attended graduate school at Central Michigan University to study Stream Ecology. He has previously worked for the U.S. Fish and Wildlife Service and as a contract worker for the U.S. National Marine Fisheries Service in the Bering Sea. Sam is currently the watershed biologist for the Au Gres, Rifle, Huron, Thunder Bay, Cheboygan, and Raisin Rivers. He is responsible for the water quality monitoring of these river systems using the WRD's rapid assessment procedures to look at stream insects, fish, and habitat conditions. He is also part of the Contaminated Sediment Team and currently has projects which include the Detroit and the Lower Rouge Rivers. Sam's role on the Integrated Report team involves requesting external ambient water quality data, managing the database, and assisting with the final report.

