

Water WoRDs

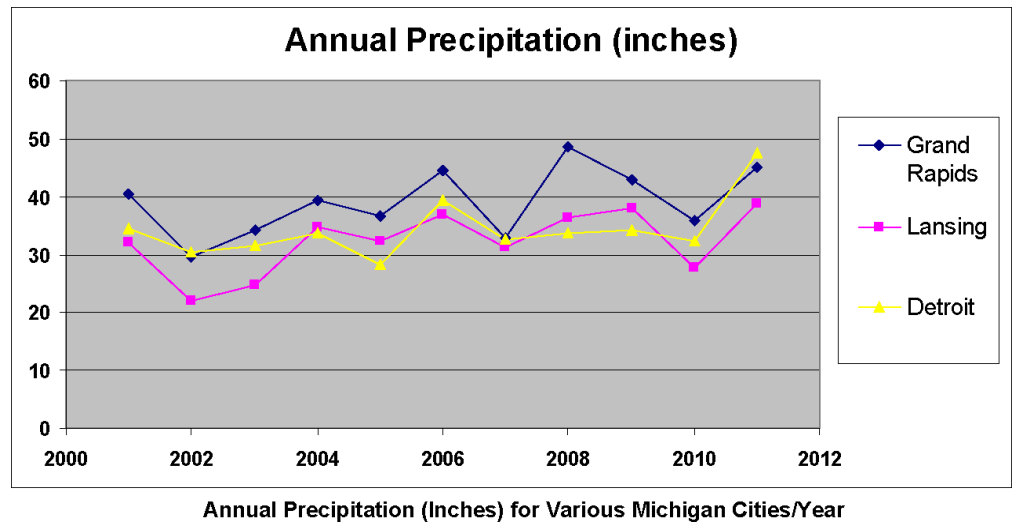
Updates from the Water Resources Division

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Sharing the WRD's News... Good & Bad

When we started this Water WoRDs effort a couple of months ago, we advised our readers that while our overall goal is to share with the public what we do and who we are, we would not shy away from discussing news that is not merry and bright for Michigan's water resources. At this time when our staff are wishing one another and our stakeholders and colleagues across the state a happy holiday, we are also issuing our annual report- for 2011- on sewer overflows.

Remember 2011? Not 2012 when we saw drought conditions and record-low lake levels, but the year before...the year it seemed to many of us that it would never stop raining. Now that the data for 2011 has been compiled, it appears that the gut sense of many was correct: the very wet year corresponds to a definite increase in sewer overflows. However, the news is not all bad and we



are pleased to have this space available this year to discuss some of the nuances of this important report. We encourage everyone interested in water quality issues in the Great Lakes to check out the complete [Combined Sewer Overflow, Sanitary Sewer Overflow, and Retention Treatment Basin Discharge 2011 Annual Report](#). It is written in accessible language and includes numerous graphics to explain the complexity that arises when municipal- and private- sewerage systems need to deal with wet weather events.

Although the DEQ has been working with communities since 1988 to address untreated overflows from Combined Sewer Systems (i.e. those that carry both sanitary waste and storm water in one pipe), known as "CSOs", in recent years, the annual reporting requirements have expanded to provide a clearer picture of what's really happening in our waterways during wet weather events. CSO communities have made tremendous progress toward the elimination of untreated discharges from CSO outfalls in the state. Since our work commenced in 1988, Michigan communities have eliminated 77 percent of the 613 CSO outfalls existing at that time. That's a statistic we should all be proud of.

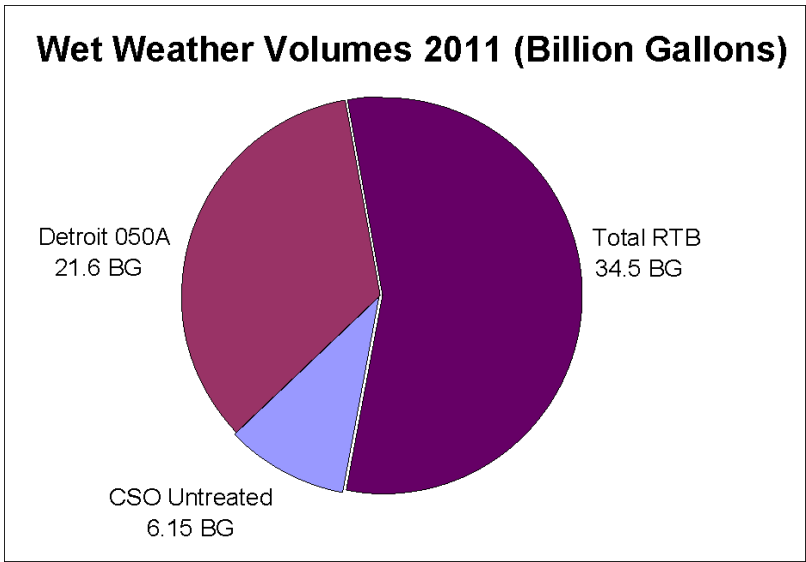


What about the remaining 23 percent? Those communities will continue to implement their DEQ-approved Long Term Control Plans, which leads to the next two issues we'd like to discuss about our new report.

Communities generally eliminate untreated discharges from CSO outfalls in one of two ways, either through sewer separation projects or the construction of Retention Treatment Basins. As the title of our annual report indicates, both of these types of discharges are reported to the DEQ and rolled into the annual report.

Separated sanitary sewers may at times overflow for various reasons. These discharges or "SSOs" are illegal and the DEQ has had a strategy in place since 2000 to work with communities toward solutions. What we see in our data for 2011 is a clear indication that more work needs to be done to determine how to deal with what appears to be an increasing frequency of large storm events. These storm events may exceed the design standard for sanitary sewer construction (passage and treatment of a 25-year/24-hour storm event), or may show (through discharge events) that the sewer system isn't capable of handling the design storm. Sewer separation is an expensive endeavor to begin with, and additional corrections are unlikely to be easy or cheap; however, Michigan's Legislature recently passed a series of bills (Senate Bills 1155-1158) that will increase funding opportunities for communities eager to reduce SSOs.

Retention Treatment Basins (RTBs) have at times been a point of controversy as a method of CSO control, partly due to a misperception of what constitutes an RTB discharge. An RTB discharge is not akin to a CSO, but is rather an effective means of assuring that wet weather flows are detained and treated prior to discharge, providing both water quality protection and public health protection. Treatment prior to discharge means that RTBs are meeting all federal and state requirements, and are a vast improvement over a CSO and the DEQ is pleased to see in this year's report that the scales continue to tilt toward discharges of treated effluent from RTBs and a reduction in untreated CSOs. Note that discharges from Detroit 050A currently receive primary settling treatment and will soon also receive disinfection.



Those of you interested in reading the full report will also learn about some interesting complications that arise for the City of Detroit (the largest sewerage system in the state); however, we have cookies to bake and family and friends to visit. We'll talk about Detroit in the New Year.

From the WRD family to yours, happy holidays.

What do you do in the WRD?

Meet Charles Hill

Charlie has worked for the WRD, as an environmental engineer, for nearly 13 years. With most of that time spent in a district engineering role in the Southeast Michigan District Office, and some in the Upper Peninsula District Office, his current position involves coordinating wastewater engineering programs statewide, including the wastewater construction permits (Part 41) and sanitary and combined sewer overflow control programs. Charlie holds a bachelor's degree in Chemical Engineering from the University of Michigan, a master's degree in Environmental Engineering from Wayne State University, and is a licensed professional engineer in the State of Michigan.



Charlie Hill and his two sons enjoying a family vacation on Beaver Island in 2010

Charlie has lived, traveled, and recreated all over the Great Lakes State. He is proud to play a role in protecting the State's wonderful water resources so that future generations, including his two young sons, may continue to enjoy them.

WRD Question of the Week

Are you concerned about the changes we seem to be seeing in Michigan's climate? If so, how have you been affected?

Current and previous editions in PDF

- [WaterWoRDs 12-20-2012 Sewer Overflow Report](#)
- [WaterWoRDs 12-06-2012 Wetlands & the MWL](#)
- [WaterWoRDs 11-29-2012 Great Lakes Invaders](#)
- [WaterWoRDs 11-09-2012 Groundwater](#)
- [WaterWoRDs 10-29-2012 Great Lakes Beach Conference](#)
- [WaterWoRDs 10-19-2012 Happy Birthday CWA](#)
- [WaterWoRDS 10-11-2012 Introduction](#)