

WasteWaterEducation.org 501(c)3



**Mission:** To increase awareness that water quality  
is directly linked  
to the use of appropriate wastewater systems  
and their management.

# 2011 Annual Report





Once again, 2011 was marked by an extended absence, due to surgeries, of our Executive Director. However, acting in a voluntary, but limited, capacity, she continued to oversee and develop our professional and public outreach efforts.

This region is slowly emerging from the lingering effects of the economic downturn. Regional Health Departments continue to juggle the need to protect public and environmental health with ever shrinking budgets, fewer staff and diminishing sources of revenue.

WasteWater Education fills a vital role as a source of impartial, independent, science based information in support of our regional environmental health agencies.

In 2011, we began the formal process to change the name from Northwest Michigan Onsite Wastewater Task Force to the more inclusive, simpler and mission specific "WasteWater Education".

Northwest Michigan shares the same water quality concerns and challenges as all our neighbors throughout the Great Lakes Basin, and indeed throughout North America. Hence the need to change the organization name.

Charting a path to a sustainable future will require passion, commitment, resources, research and a willingness to embrace innovation and partnerships.

This is what we do. This is who we are.

# 2011 In Review



*Scott Kendzierski M.S., R.E.H.S.*

*Board Chair*

*Director of Environmental Health  
The Health Department of Northwest Michigan*





# The Virtual Classroom



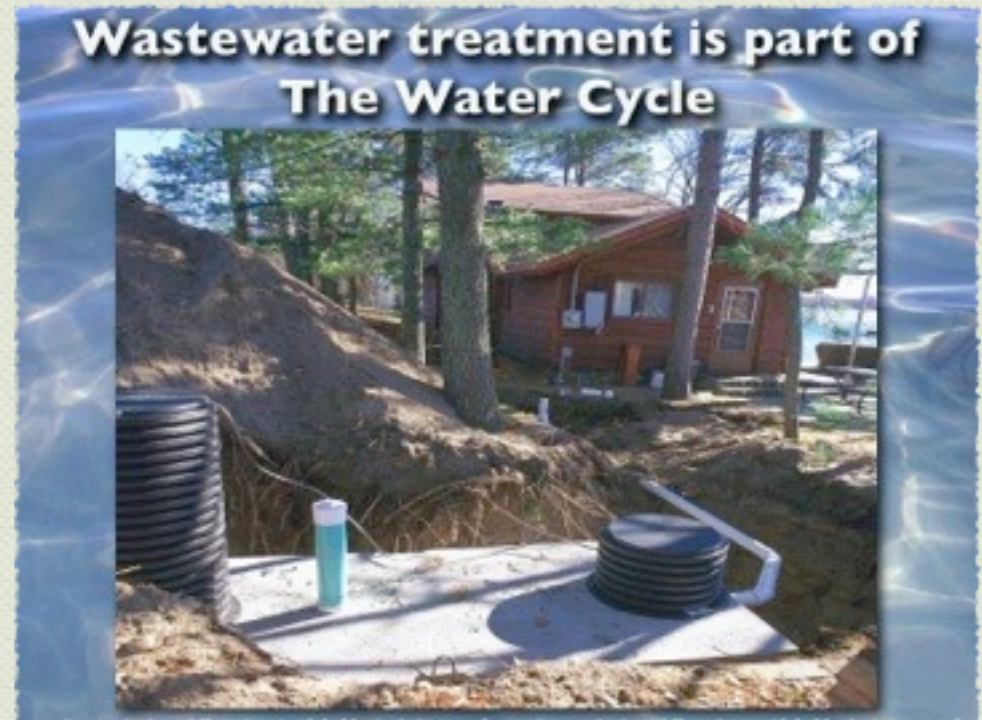
In 2011, WasteWater Education hosted and presented events via our Blackboard Collaborate 50 site distance learning service. Real time, interactivity - without travel expenses.



# Bringing A Sense of Objectivity



- ❖ Modern, decentralized, distributed wastewater treatment systems are not the 'hole-in-the-ground', backyard stop gap, temporary solution to a stinking mess.
- ❖ Treatment technologies provide a sophisticated level of protection for both the public and the environment.
- ❖ A basic 'on site' septic system has served home and business property owners well for over 100 years. Soil is a miracle of biological design, providing a home and a dining table for bacteria who thrive on human waste. The challenge is to educate system owners about the effects of thousands of personal care products, pharmaceuticals and cleaning agents this biological system was never designed to treat.
- ❖ WasteWater Education continually strives to emphasize the role humans play within the Water Cycle.
- ❖ WasteWater Education facilitated a work group of national entities attempting to promote the use of affordable decentralized technology in support of rural economic development.
- ❖ WasteWater Education facilitated a virtual meeting between national wastewater and environment agencies.





# Objectivity & Outreach

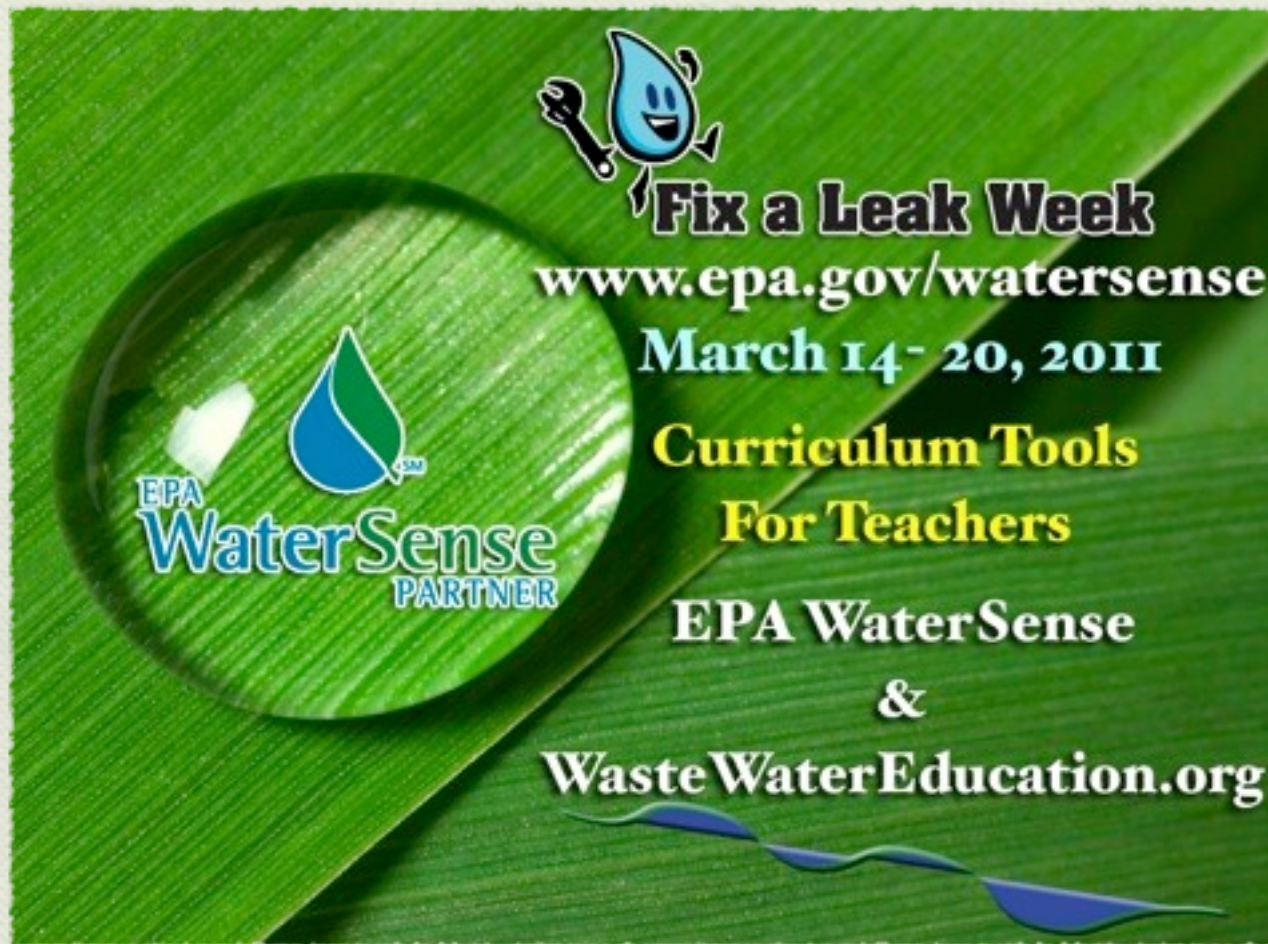


- ◆ We created and facilitated the wastewater track at the 2011 Michigan Environmental Health Assoc. Annual Education Conference - bringing in speakers from Washington state to Washington DC via our distance learning network. Shown is Jeff Moeller of the Water Environment Research Foundation - <http://youtu.be/DbiTbF1aSVM>

- ◆ Exhibiting at the Grand Traverse Area Home Builder's Association Home Expo Emphasizing the March national USEPA water conservation program: "Fix A Leak Week!"
- ◆ WasteWater Education is an EPA WaterSense® Partner <http://epa.gov/watersense>







# Fix A Leak Week

WasteWater Education is an EPA WaterSense® Partner.

We promote water conservation throughout the year providing education and information to property owners, making the link between excessive water use and the damage this can cause to a decentralized system.

In 2011, we hosted an online interactive event to showcase the WaterSense Tools for Teachers, encouraging the use of water/energy related curriculum materials.

The event was recorded for YouTube access at: <http://youtu.be/PzcaYXlZbZY>



# The Case For Affordable Wastewater Management Districts And Loan Programs 2 Exemplary Case Studies.

This web based, interactive seminar was presented in partnership with National Onsite Wastewater Recycling Association. Both sessions were recorded and can be accessed here. <http://bit.ly/k6lsOW>

**Session One: Sara Heger. Extension Engineer Specialist University of Minnesota. Water Resource Center. Onsite Sewage Treatment Program.** The Otter Tail Water Management District - An exemplary program of affordable, responsible, individual wastewater system ownership and management.

The Otter Tail Water Management District was formed in 1984 as a mechanism to assure the proper onsite treatment of wastewater in a 55 square mile area experiencing decreasing lake water quality and population growth.

Located in West Central Minnesota, two and a half hours from Minneapolis - St. Paul, initially the District served 1200 homes, cabins and businesses and has expanded to cover 1545 connections.

Within the District are 6 lakes, 4 townships and portions of the City of Otter Tail, all using an individual system or are connected to one of sixteen cluster systems. (Currently the number of homes served stands at over 1600)





# The Case For Affordable Wastewater Management Districts And Loan Programs 2 Exemplary Case Studies.

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**Session Two: Terry Hull, Manager, Hood Canal Septic Loan Program. Enterprise Cascadia. <http://www.sbpac.com>**

Cascadia Septic Loan Program is an alternative means to ensure timely repairs and replacement of individual wastewater systems. Of great concern to environmental health regulators is the lack of affordable, straightforward, financial assistance for property owners who need it. The Cascadia program is an outstanding success story. The lender sought and received \$3.3 million from a major foundation and initiated discussions with state executive officials and legislators to obtain matching capital. This effort, supported by local officials, succeeded in producing a \$3.0 million state appropriation. The program opened officially in April 2007.

Elements of the loan program include:

- Simple application forms available online, by mail, or in person with personalized assistance for loan applicants
- Ability to include of all costs associated with repair or replacement of the sewage system
- Below market interest rates and repayment terms indexed to the owner's income
- Flexible loan loss reserves that allow approval of loans to owners with poor credit records.

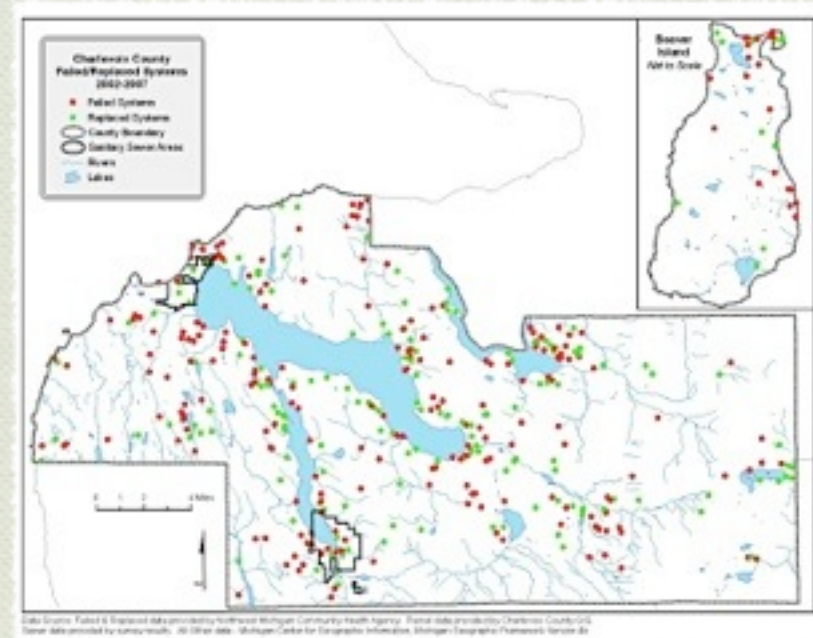
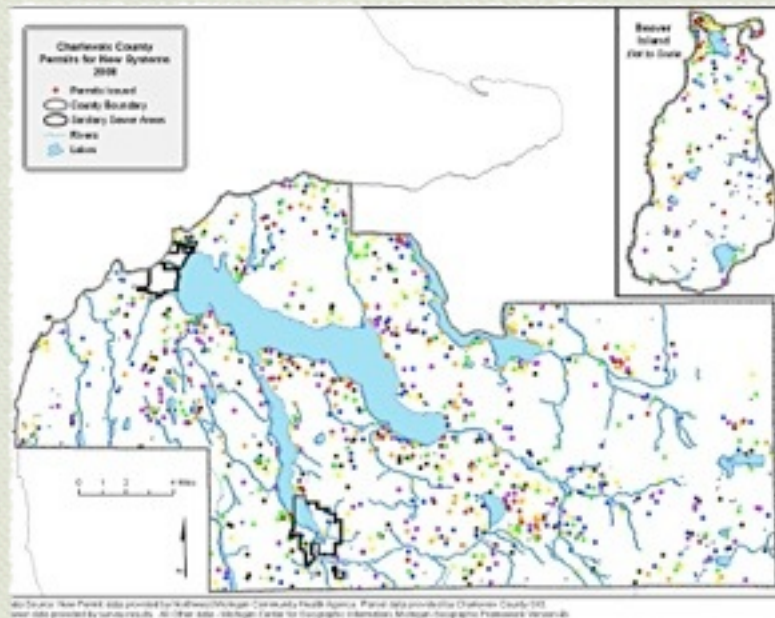




# Our Priority Action Areas



Northwest Michigan is a landscape formed by environmental and geological forces. The legacy of the glacial period is a network of interconnecting inland water systems, both surface, groundwater and aquifers. The nature of our geography is echoed throughout the Great Lakes - which explains why installing centralized systems is both costly and an engineering challenge. Onsite, decentralized systems are, and always will be, the preferred method of treatment and recycling of water.



WasteWater Education began a GIS mapping project in 2004 to create a 3 dimensional view of water distribution and to enable a risk based assessment based on watershed not political boundaries. The results thus far have provided a positive view of system repairs and replacement.

The challenge is to predict future impacts from the large number of new homes and systems being installed. **Our priority is to completely update this GIS mapping.**



# Our Priority Action Areas



**Our second priority, complimentary to the updated GIS mapping, is to create a Business Plan to enable a locally owned, affordable, simple revolving loan program for repairs and replacement of individual site systems within Northwest Michigan on the same business model as Enterprise Cascadia described on Page 7.**

Once the GIS mapping project is complete, being able to do a watershed risk based assessment will be of little benefit if funds are not available for repairs of aging or failed systems. Current programs do little to assist needy property owners, are cumbersome and restrictive. The danger of not having a simple, affordable option available is that even if Health Department staff become aware of a significant problem, there is little they can do except pursue prosecution.

Although the economic recovery has begun, in this region income disparity was all too clearly demonstrated in the data of the 2010 US Census.

Having access to safe, affordable sanitation is an environmental justice priority.

Our goal is to repair and replace systems for the benefit of both public and environmental health.





# Technical Consultant

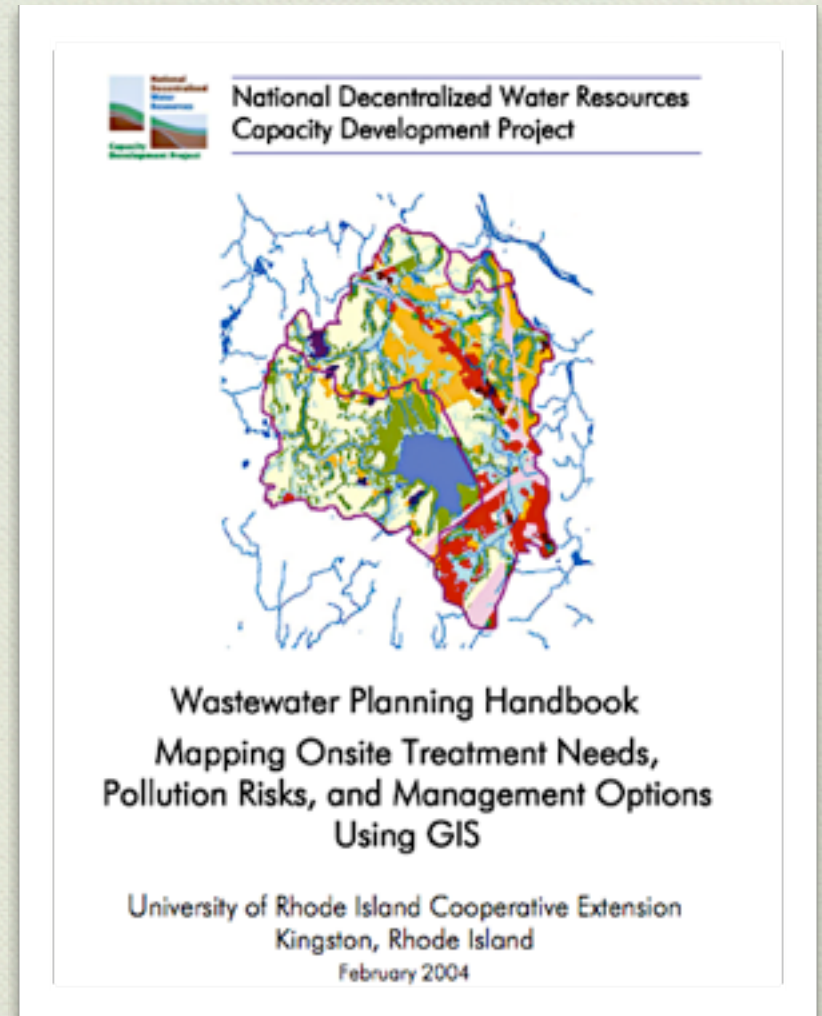
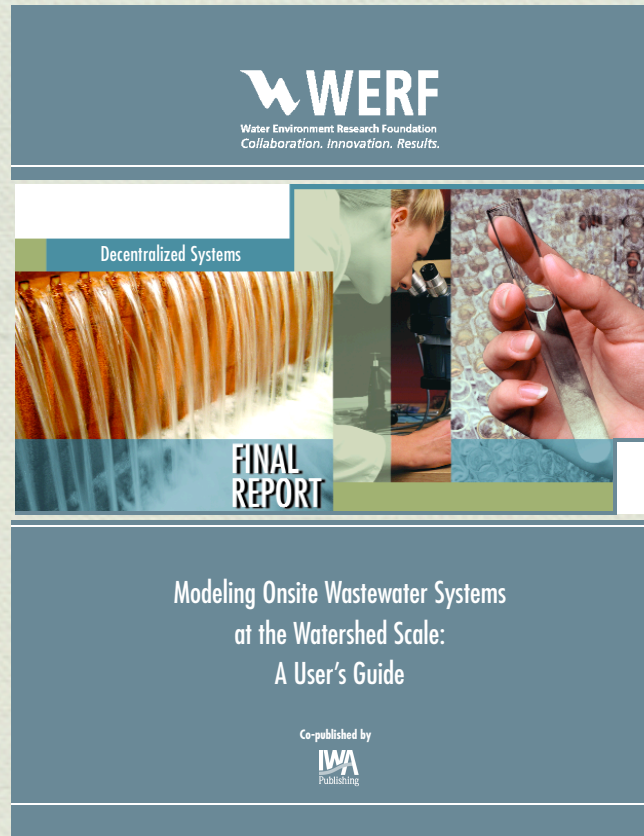


**Richard Otis P.E. Ph.D., DEE.**

WasteWater Education Technical Consultant

President NOWRA

National Onsite Wastewater Recycling Association







## What happens in the watershed ~ stays in the watershed!

WasteWater Education exhibited and presented at the Portage Lake Watershed Water Festival during Onekama Days, August 2011.





Sources: NASA Geospatial Interoperability Office, Jet Propulsion Laboratory, California Institute of Technology, U.S. Geological Survey. Imaging by Pete Giancke

## What happens in the watershed ~ stays in the watershed!

WasteWater Education attended the 2011 Great Lakes Week Conference in Detroit and submitted a statement to the public record of the International Joint Commission (US / Canada Great Lakes Water Quality Agreement body). Attendance was made possible by a grant from Healing Our Waters Coalition of which we are a member.

The 3 minute summary, detailing the economic, climate and societal sustainability of decentralized wastewater green infrastructure was recorded for public television.





Our commitment to education on contaminants of emerging concern was aided by our new Dope In The Water Animoto For A Cause PSA. In October, a new HD PSA highlighted the **National Drug Take Back Day**.





# Risky Business

WasteWater Education ended the year with a nod to the inherent humor in the purpose of what we do! While also acknowledging that humor has the power to educate and engage, our speakers talked about the double edge of reinforcing stereotypical public perceptions.

Jeff Bruss of Cole Publishing and Steve Anderson co-presented with our Executive Director Dendra Best.





Tom Krueger

<http://www.waltsteuer.com>

**Walt Steuer Pumping Service**

Traverse City, MI 49684

231-946-2462

24 Hr. Emergency:

231-620-4722



231 233 1806

Dendra J. Best.

Executive Director

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United Way  
of Northwest Michigan



WasteWater Education donated the use of our distance learning service to United Way of Northwest Michigan, Volunteer Northwest Michigan to record podcasts of the new volunteer recruitment portal.

[www.volunteernwmi.org](http://www.volunteernwmi.org)

Closed Caption Service through A LaCARTe was made possible by the generosity of  
Walt Steuer Pumping Service, Tom Krueger

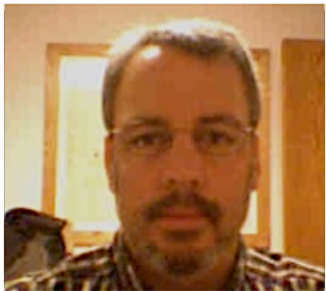




# Board of Directors



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Traverse City, MI 49686



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