

## Welcome to *The Current*, the North Central Region Water Network's Speed Networking Webinar Series

#### **Conservation Finance**: 2PM CT

- 1. Submit your questions for presenters via the chat box. The chat box is accessible via the purple collaborate panel in the lower right corner of the webinar screen.
- 2. There will be a dedicated Q & A session following the last presentation.
- 3. A phone-in option can be accessed by opening the Session menu in the upper left area of the webinar screen and selecting "Use your phone for audio".

This session will be recorded and available at northcentralwater.org and learn.extension.org.



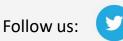




#### Today's Presenters:

- **Ellen Tarquinio**, Water Infrastructure and Resiliency Finance Center, US Environmental Protection Agency
- Ryan Smith, Senior Program Lead, The Delta Institute
- Greg Olson, Field Projects Director, Sand County Foundation

Follow @northcentralh2o and #TheCurrent on Twitter for live tweets!



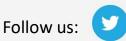




#### Ellen Tarquinio



Ellen Tarquinio works at the Water Infrastructure and Resiliency Finance Center at the U.S. EPA, focusing on financing for stormwater programs and nutrient reduction. She started at the EPA in 2004, leading the National Rivers and Streams Assessment and developing monitoring programs with states and other Federal Agencies. After a year working as Special Assistant for the EPA Administrator, she served as the Deputy Director for Water Policy at the White House. She has also worked in the Office of Groundwater and Drinking Water, focusing on water system regionalization. Before coming to EPA, Ellen worked as a fisheries biologist at New York State.







Ellen Tarquinio
Tarquinio.ellen@epa.gov



## WATER INFRASTRUCTURE AND RESILIENCY FINANCE CENTER

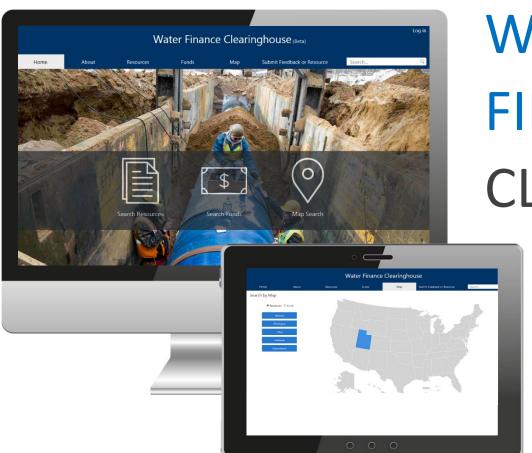
EPA's Water Finance Center provides information that can be used to make **drinking water**, **wastewater**, and **stormwater** infrastructure decisions.



https://www.epa.gov/waterfinancecenter

## Financial Technical Assistance and Tools for Water

- The Water Infrastructure and Resiliency Finance Center works with on-the-ground partners to provide financial technical assistance to communities. The Center provides:
  - Community Assistance for Resiliency and Excellence (WaterCARE)
  - Affordability Programs
  - Technical Assistance Partners
  - Financial Tools



# WATER FINANCE CLEARINGHOUSE

#### Meeting the Needs of Stakeholders

The Water Finance Clearinghouse is an easily navigable web-based portal that helps communities locate information and resources for all things water finance.

www.epa.gov/wfc

### Regional Finance Forums

#### EPA Regional Stormwater Workshops

- Series of workshops around the country to help communities address and manage their stormwater concerns. These workshops facilitate discussion among attendees and EPA staff on current funding and financing sources for stormwater projects and long-term operation and maintenance. Each workshop includes a focus on challenges specific to the region.
  - Ft. Lauderdale, FL at WEF Stormwater Symposium on May 8
  - Boston, MA at EPA Region 1 on July 9
  - Chicago, IL at WEFTEC on September 22
  - Washington, D.C. at AlexRenew on October 1
  - Atlanta, GA at EPA Region 4 on October 3
  - Seattle, WA at Seattle Public Utilities on October 10

## Regional Finance Forums

- Financing Resilient and Sustainable Water Infrastructure
  - The Center hosts a series of regional water finance forums.
     These forums bring together communities with drinking water, wastewater, and stormwater project financing needs in an interactive peer-to-peer networking format.
  - Planning 3-4 regional forums this year to focus on agriculture and nutrient reduction strategies.

#### **Past Water Finance Webinars**

- Innovative Financing Strategies for Reducing Nutrients
- Leading-Edge Stormwater Financing
- Drinking Water and Wastewater Customer Assistance Programs
- Disaster Recovery Financing for Water and Wastewater Utilities
- Resilience Mitigation Financing for Water and Wastewater Utilities

#### **Environmental Finance Centers**

- The Environmental Finance Center Network (EFCN) is a university-based organization creating innovative solutions to the difficult how-to-pay issues of environmental protection and improvement.
- The EFCN works with the public and private sectors to promote sustainable environmental solutions while bolstering efforts to manage costs.

#### • Focus:

- Protecting natural resources and watersheds by strengthening the capacity of local decision-makers to analyze environmental problems,
- develop innovative and effective methods of financing environmental efforts,
- educate communities about the role of finance and economic development in the protection of the environment.





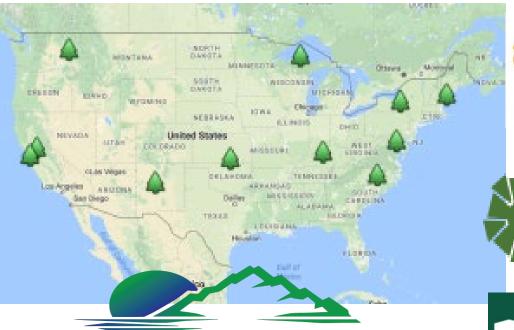


#### SOUTHWEST ENVIRONMENTAL FINANCE CENTER









**EFCWest** 

**Environmental Finance Center West** 



Environmental Finance Center





#### CWSRF Nutrient Reduction At-A-Glance



Over \$25B towards advanced wastewater treatment



Over \$272M towards animal agriculture best management practices



Over \$468M towards cropland best management practices



#### **CWSRF Nutrient Reduction**

- The CWSRF can finance a variety of projects that reduce nutrient pollution in rivers, lakes, and streams.
- Eligible projects include:
  - Upgrade, repair, replacement, or installation/ construction of new nutrient removal processes at POTWs
  - Stormwater conveyance and treatment systems
  - Green infrastructure (e.g., bioswales, infiltration basins, wetland restoration)
  - Riparian buffers
  - Livestock waste management systems
  - And more...





## Ohio's Water Resource Restoration Sponsor Program (WRRSP) Medina Marsh Land Conservation Project

## Northeast Ohio Regional Sewer District (NEOSD) receives 0.06% discount on standard rate in exchange for sponsoring nonpoint source projects

- POTW volunteers to sponsor a land protection or restoration project in exchange for a reduced interest
- NEORSD saved an additional \$432,900 in reduced interest payments
- Sponsored acquisition of 87-acre Medina Marsh with partners
   Western Reserve Land Conservancy and Medina County Park District
- Protects 1,450 linear feet of floodplain and forested buffer along the Rocky River, 32 acres of high quality wetlands, and various habitats
- Acquisition links a 2-mile long green corridor and covers more than
   360 acres





#### City of Cocoa Beach, Florida Minuteman Causeway Project Stormwater/Streetscape Improvements

\$1.8M CWSRF Loan at 0.315% Interest to match a 319 Nonpoint Source Grant

 Green infrastructure/urban stormwater project to reduce nutrients discharged into the Banana River Lagoon

Project treats an 8.34-acre watershed

 Native landscape bioswales/tree filters, underground exfiltration, and pervious pavers.





#### Dairy Manure Storage in Chesapeake Bay Watershed

\$100,000 loan with 100% principal forgiveness to Pennsylvania farmer for manure management project

- Farm located at the headwaters of a creek that discharges into a cold water fishery
- Manure leaves the site during rain events
- Project stores stackable manure under roof and contains manure on a new curbed heavy use area
- Substantially reduce potential contaminated runoff
- Installation of gutter, downspouts, a drip-line drain and underground outlets to keep clean stormwater from mixing with the manure



#### **CONTACT US**

Website:

www.epa.gov/waterfinancecenter

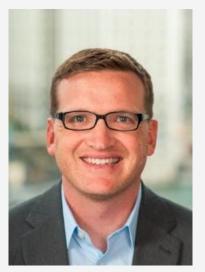
Email: <a href="mailto:tarquinio.ellen@epa.gov">tarquinio.ellen@epa.gov</a>

Waterfinancecenter@epa.gov





#### Ryan Smith



Mr. Smith is a Senior Program Lead at Delta Institute, a non-profit organization that works throughout the Midwest to build a resilient environment and economy through sustainable, market-driven solutions. As a lead, Ryan manages projects in Delta's Land Stewardship initiative, including the areas of climate, agriculture, water, and

forestry. He is instrumental in fostering new projects and partnerships, particularly around green infrastructure, agriculture, conservation finance, watershed prioritization and environmental markets.

#### **Greg Olson**



Mr. Olson is the Field Projects
Director at Sand County
Foundation, a non-profit
organization that works to
advance conservation on
private lands, following the
Land Ethic concepts of Aldo
Leopold. Greg started with
Sand County Foundation in
2010 as coordinator of a
watershed nutrient
management project in the
West Branch of the Milwaukee

River, which evolved into his current position overseeing field project activities related to agricultural conservation and water quality and providing technical assistance in urban-agriculture partnership projects.

Follow us:



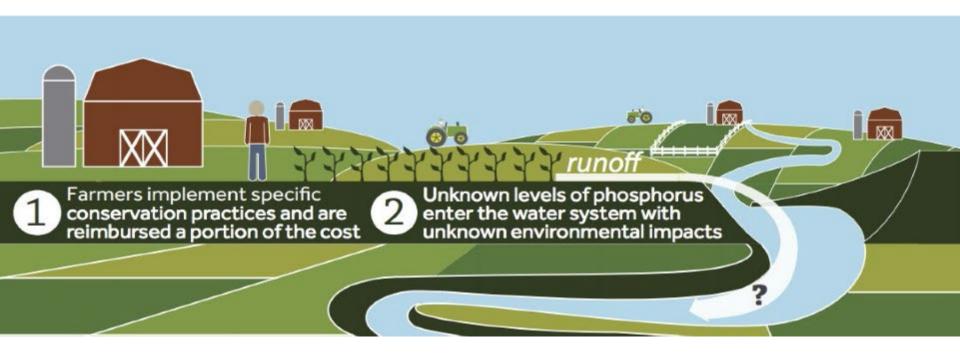








#### THE STATUS QUO:



"pay-for-practice" or "random acts of conservation"





#### THE PFP ALTERNATIVE







#### PFP PROGRAM STEPS



1

Meet with farmers to gather soil tests, field info, management history, etc.



2

Model P loss from each field under baseline and several conservation scenarios



3

Farmer chooses and implements best conservation practices for his/her fields



4

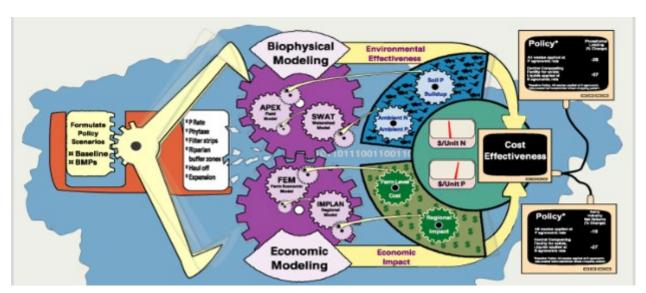
After verification, farmer is paid per unit P reduced





#### BEFORE YOU GET TOO EXCITED...

- Does a water quality concern exist in your watershed?
- Do stakeholders acknowledge their contribution to the water quality problem?
- Is there local support for addressing nonpoint source pollution?
- Are the appropriate tools available for carrying out a PfP program?
- Are there regulatory drivers for pollutant load reductions?







#### KEY POINTS TO SUCCESS

- 1. Partners: Who, What and Why?
- 2. Build a Watershed Community: "It takes a Village..."
- 3. Trust and Commitment are two way streets!



cleanfarmfamilies ₩ Jun 18, 2018 • 1 min :

## Lake Michigan Stakeholder Spring Meeting Features Tour Of Paulus Dairy Farm

This past May, the Lake Michigan Stakeholders,

http://www.lakemichiganstakeholders....





#### KEY POINTS TO SUCCESS

- 4. "Slow is Smooth, Smooth is Fast!" Be deliberate and make sure everybody gets it.
- 5. Success requires a willingness to adapt!
- 6. Choose your quantification tools wisely and make sure your quantification staff knows them!





PFP4 2014 P Loss and Payment Analysis

Original Plan P Loss (lbs)Final Plan P Loss (lbs)P loss abatement gainedCost per lb of P loss abatedPayment for P loss abated\$9,080.50





This P loss abatement was achieved by adding cover crops and switching from chisel plow-disc tillage to vertical tillage on select fields.



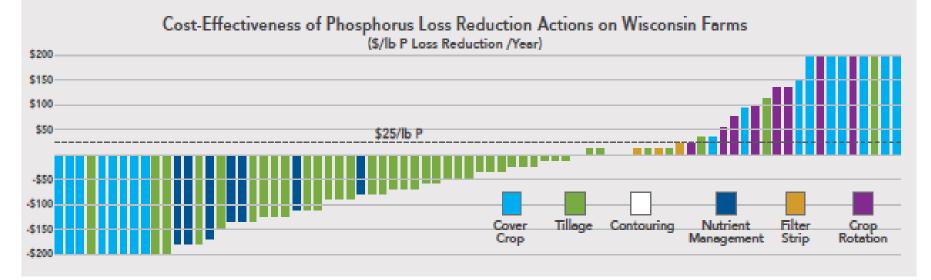




## QUANTIFICATION STRUCTURE AND PILOT RESULTS

#### DETERMINING COST PER POUND IN WISCONSIN'S WEST BRANCH OF THE MILWAUKEE RIVER

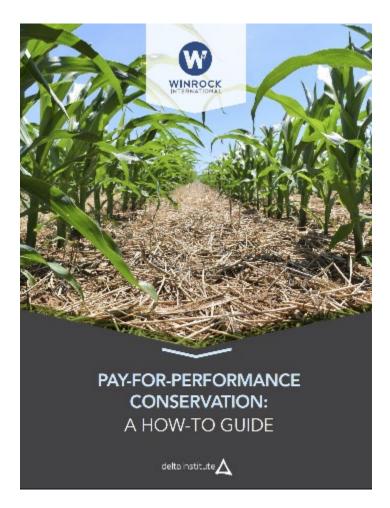
In the West Branch project, our project team estimated the full economic costs of implementing BMPs on specific fields and modeled the corresponding phosphorus loss mitigation. A measure of cost-effectiveness, or cost per pound P, is shown here. At a \$25/lb P payment, the cost of many BMPs were completely covered (and some already were cost savings), while other BMPs were more expensive per pound P and were less likely to be implemented at this price point.







#### OUTCOMES AND DELIVERABLES





#### Using Wisconsin's SnapPlus Planning Tool in Pay-for-Performance Projects

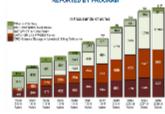
ScapPlus is a nutrient management (NM) planning. application developed by scientists at University of Wisconsin-Madison designed to assist farmers in the creation of NM plans and estimate phosphona if fillows. In accordance with statewide agricultural performance. standards and resource management ordices. SnapPlus also incorporates the fatest planning or lerisand guidelines from the Wisconsin Natural Resources Conservation Service (NRCS) 500 conservation practice standard for NM, as well as University of Wisconsin numeri application recommendations BrapPlus generates annual and rotational averageresults for soil and Piloss related to any cropping system. or management practice that can be annulated in RUBLE2 and Wisconsin Plindex equations. Given the versarility, usability, and scientific rigor of the application, SnapPlus is the elear tool of choice for NM planners and pay-for-performance (PfP) programs. Recused on P loss redudions across Wescorpen

However, persente issues around the accuracy and implementation of many binap has place been emerged in recent years, requiring careful attenden by potential PIP property and also electristics.

#### Nutrient Management in Wisconsin

The Initial momentum for NM planning stemmed from the NRCS SSD standards adopted by Wisconstilling 2006, in addition to state and/or local compliance obligations for large control Since line NR 15th revisions.

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#### THANK YOU!

#### Questions?

Ryan Smith

Lead – Land Stewardship

Delta Institute

rsmith@delta-institute.org

Greg Olson
Field Projects Director
Sand County Foundation
golson@sandcountyfoundation.org









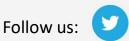


#### **Question and Answer Session**

We will draw initial questions and comments from those submitted via the chat box during the presentations.

#### **Today's Speakers**

Ellen Tarquinio – <u>Tarquinio.Ellen@epa.gov</u> Ryan Smith – <u>rsmith@delta-institute.org</u> Greg Olson – <u>golson@sandcountyfoundation.org</u>







#### Thank you for participating in today's *The Current*!

Visit our website, northcentralwater.org, to access the recording and our webinar archive!

Our next webinar will focus on Groundwater Quality and will be held Wednesday, October 9<sup>th</sup> at 2pm CT. Stay tuned for more details.

