NLRS Partnership Conference 2019
Welcome

Eliana Brown

University of Illinois Extension/Illinois-Indiana Sea Grant
Watershed Outreach Associates Update

Haley Haverback-Gruber & Jennifer Woodyard
University of Illinois Extension
Working Group Updates
Nutrient Monitoring Council

Trevor Sample, Illinois EPA
1. Coordinate the development and implementation of monitoring activities (e.g., collection, analysis, assessment) that provide the information necessary to:

   a. Generate estimations of 5-year running average loads of Nitrate-Nitrogen and Total Phosphorus leaving the state of Illinois compared to 1980-1996 baseline conditions; and
   
   b. Generate estimations of Nitrate-Nitrogen and Total Phosphorus loads leaving selected NLRS identified priority watersheds compared to 1997-2011 baseline conditions; and
   
   c. Identify Statewide and NLRS priority watershed trends in loading over time using NMC developed evaluation criteria.

2. Document local water quality outcomes in selected NLRS identified priority watersheds, or smaller watersheds nested within, where future nutrient reduction efforts are being implemented (e.g., increase in fish or aquatic invertebrate population counts or diversity, fewer documented water quality standards violations, fewer algal blooms or offensive conditions, decline in nutrient concentrations in groundwater).

3. Develop a prioritized list of nutrient monitoring activities and associated funding needed to accomplish the charges/goals in (1) and (2) above.
# Nutrient Monitoring Council Members

<table>
<thead>
<tr>
<th>Illinois EPA</th>
<th>MWRDGC</th>
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<tr>
<td>Gregg Good, Rick Cobb</td>
<td>Justin Vick</td>
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<td>Illinois State Water Survey</td>
<td>Illinois Corn Growers Association</td>
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<td>Laura Keefer</td>
<td>Laura Gentry</td>
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<td>Illinois Natural History Survey</td>
<td>U.S. Army Corp of Engineers-Rock Island</td>
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<td>Illinois Dept. of Natural Resources</td>
<td>U.S. Geological Survey</td>
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<td>Open</td>
<td>Kelly Warner</td>
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<td>Univ. of IL – Dept. of Agriculture and Biological Engineering</td>
<td>National Center for Supercomputing Apps</td>
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<td>Paul Davidson</td>
<td>Jong Lee</td>
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<td>Sierra Club</td>
<td>Univ. of IL – Dept. of Natural Resources and Environmental Sciences (Emeritus)</td>
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<td>Cindy Skrukrud</td>
<td>Greg McIsaac</td>
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<td>NLRS Coordinator – Illinois EPA</td>
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<td>Trevor Sample</td>
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2019 Meetings

• March 19, Springfield
• September 9, Champaign
• October 22, Champaign
MARCH 19 2019

• Dr. Greg McIsaac—Nitrate-N and Phosphorus Load and Yield Estimates in Illinois Rivers.
• Jong Lee—Updates to Great Lakes to Gulf Virtual Observatory
• Momcilo Markus, ISWS—Assessment of NPS Nutrient Load Reduction Goals under Changing Climate
• Kelly Warner and Paul Terrio—USGS Happenings and Updates
• Trevor Sample—NLRS Biennial Report update
• Gregg Good—Nutrient Science Advisory Committee Report (NSAC) update
• Member Updates
SEPTEMBER 9, 2019

• Gregg Good—NMC Membership, NSAC Report update
• Kelly Warner—Havana Lowlands Groundwater Monitoring Project Update
• Jong Lee—Great Lakes to Gulf Virtual Observatory
• Dr. Greg McIsaac—Nitrogen Related Presentations
  • Critique of March 2018 Science Article-N Reduction Lag Times to Gulf of Mexico
  • Possible Cause of Nitrate Load Increase in the Rock River from 1980-1996 to 2013-2017
  • Preliminary Nitrate Budget for the Illinois River
SEPTEMBER 9, 2019 (cont.)

• Paul Terrio—Estimating Statewide Nutrient Loads from USGS Super Gages: Adding Non-Monitored Areas and Subtracting WI and IN contributions

• Kelly Warner and Gregg Good—Super Gages Update and 2021-2025 Operation and Funding Discussion

• Member Updates
October 22, 2019

• Discuss Method for Calculating Statewide Annual Nutrient Loads
  • ISWS will work with Dr. McIsaac to develop a proposal for including non-monitored areas while subtracting Wisconsin and Indiana nutrient contributions.
  • These loads will then be incorporated into the USGS Super Gages Annual Report to Illinois EPA.
Agriculture Water Quality Partnership Forum (AWQPF)

Warren D. Goetsch, Illinois Department of Agriculture
AWQPF Membership

• American Farmland Trust
• Association of Illinois SWCDs
• USDA-Farm Service Agency
• IL Certified Crop Adviser Board
• IL Corn Growers Association
• IL Department of Agriculture
• IL Department of Natural Resources
• IL Environmental Protection Agency
• IL Farm Bureau
• IL Fertilizer & Chemical Association
• IL Land Improvement Contractors Association

• IL Pork Producers Association
• IL Society of Professional Farm Managers & Rural Appraisers
• IL Soybean Association
• IL Stewardship Alliance
• Metropolitan Water Reclamation District of Greater Chicago
• Nutrient Research & Education Council
• Prairie Rivers Network
• The Nature Conservancy
• University of Illinois
• USDA-Natural Resources Conservation Service
AWQPF Objectives

- Steer and coordinate outreach and educational efforts to help farmers address nutrient loss and select BMPs
- Identify needed educational initiatives or training for farmers and technical advisors
- Strengthen connections between industry initiatives, certified crop advisor continuing education requirements, state initiatives, and other technical services
- Track BMPs
- Coordinate cost-share and targeting
- Develop other tools as needed
AWQPF Meetings

- April 4, 2017
- April 30, 2018
- November 13, 2018
- April 30, 2019

- Recommended to include tillage data in future biennial reports
- Explored various sources for cover crop data
- Recommended the phrase “Go Date” for fall NH₃ application
- Expressed interest in future work with Extension watershed coordinators
- Recognized Champaign County SWCD’s S.T.A.R. program as an appropriate tool for operator and landowner evaluations
- Continues to track progress regarding strategy implementation by the agriculture sector
AWQPF Technical Subgroup Membership

• American Farmland Trust
• Association of Illinois SWCDs
• USDA-Farm Service Agency
• IL Department of Agriculture
• IL Department of Natural Resources
• IL Environmental Protection Agency
• IL Farm Bureau

• IL Fertilizer & Chemical Association
• IL Land Improvement Contractors Association
• The Nature Conservancy
• University of Illinois
• USDA-National Agriculture Statistics Service
• USDA-Natural Resources Conservation Service
AWQPF Technical Subgroup Objectives

• Determine appropriate methods to share and aggregate BMP implementation data across agencies for progress tracking

• Determine what BMP implementation parameters to be tracked and how data is aggregated for reporting
AWQPF Technical Subgroup Meeting

• July 17, 2018

  • Agreed to continue submitting information for land measures, resources, and outreach on programs and efforts for biennial reporting purposes.

  • Agreed to follow the Hypoxia Task Force Nonpoint Source Measures 2018 Workgroup recommendations for BMP implementation tracking:
    • Location
    • Conservation practice type
    • Applied amount or practice units
    • Practice implementation date
AWQPF & Technical Subgroup Report

Questions?
ILLINOIS NUTRIENT LOSS REDUCTION STRATEGY

Improving our water resources with collaboration and innovation
Urban Stormwater Working Group

Eliana Brown
University of Illinois Extension/Illinois-Indiana Sea Grant
Membership

Chicago Metropolitan Agency for Planning
City of Champaign
City of Peoria
DuPage County
Greater Egypt Regional Planning and Development
Illinois Dept. of Natural Resources
Illinois EPA
Illinois Environmental Regulatory Group
Illinois-Indiana Sea Grant

Illinois Sierra Club
Illinois State Water Survey
Madison County
The Conservation Foundation
Parkland College
University of Illinois
University of Illinois Extension
Urban Stormwater Working Group

Charge:
1. Explore funding, identify legislative initiatives and develop plans
2. Coordinate outreach
3. Orchestrate statewide efforts related to green infrastructure expansion and retrofitting, MS4 program training, and urban stream, lake and stormwater monitoring
Urban Stormwater Working Group

Meetings:
July 23, 2019 (Education Subgroup)
November 12, 2019 (Full work group)
Urban Stormwater Working Group

Education subgroup initiatives:
Resource Repository
Stormwater 101 template
*Housed at IASFM website*

Keep adding to the Repository with new materials.
Due with spreadsheet: January 31, 2020
Partner Initiatives
Partner Initiatives
Partner Initiatives

https://iiseagrant.org/work/healthy-waters/programs-initiatives/natural-lawn-care/
Urban Stormwater Working Group

go.Illinois.edu/stormwaterhome

www.redoakraingarden.org
@RainGardenUIUC
BROCHURES

ILLINOIS NATIVE PLANTS
FOR THE HOME LANDSCAPE

POLLINATOR GARDEN
NATIVE PLANTS FOR ATTRACTING POLLINATORS

RAIN GARDEN
A NATIVE PLANTING GUIDE FOR RAIN GARDEN BEDS
BROCHURES

WOODBAND BORDER GARDEN
NATIVE PLANTS FOR PARTIALLY SHADY GARDENS

WOODBAND GARDEN
NATIVE PLANTS FOR SHADED GARDENS
Urban Stormwater Working Group

**Tracking subgroup:**
Share the DuPage County’s method with other local governments.
Develop Green Infrastructure inventory

*Presented the NRLS at the IAFSM conference in March 2019.*
*Attended Calumet Stormwater Collaborative meeting as a stakeholder.*
Urban Stormwater Working Group

Initiatives for 2020

Encourage more participation in partner spreadsheet.
Utilize Extension MS4 analysis results.
Urban Stormwater Working Group

Determine an incentive for tracking. Asset management?
Consider a basic MS4 template that would streamline data collection.

Look at IWEA Watershed committee list for potential additional partners/projects.
Urban Stormwater Working Group

Future topics
Tracking: Calumet Stormwater Collaborative’s BMP inventory
Golf courses: Oak Meadows and/or Harborside Golf Course
Urban Stormwater Working Group

Potential meeting locations
CMAP (Chicago)
Springfield Crowne (as part of the IWEA Watershed track)
IDNR is compiling a venue list.
ILLINOIS
NUTRIENT LOSS
REDUCTION STRATEGY

Improving our water resources with collaboration and innovation
Performance Benchmark Committee

Cindy Skrukrud, Sierra Club
Performance Benchmark Committee

- Established 2016
  - 2015 Strategy identified no specific scenario to reach goals
  - Scenarios NP2 and NP3 meet 45% reduction targets

- Charge: Work with sector workgroups to identify steps to meet:
  - 2025 interim milestones
  - 45% targets
  - In-state waterway cleanup goals

- Earlier years-worked with point sources on reporting

- 2019 Discussions: implementation targets, trajectories, flexibility, learn as we go, resource needs
  - Chapter 8: Adaptive Management
2019 Chapter 8 Adaptive Management

By 2030

Total Nitrogen       10% reduction

Figure 8.3. Agricultural Implementation as compared to Scenario NP2

Figure 8.5. Total Phosphorus (Point Source Load), Estimated Future Total Phosphorus (Point Source Load)

ILLOIS NUTRIENT LOSS REDUCTION STRATEGY
2019 Chapter 8 Adaptive Management-Pt Sources

By 2030

Total Nitrogen  10% reduction

Figure 8.5. Total Phosphorus (Point Source Load), Estimated Future Total Phosphorus (Point Source Load)
2019 Chapter 8 Adaptive Management-Ag Sector

**Figure 8.3. Agricultural implementation as compared to Scenario NP2**
2021 Chapter 8 Adaptive Management

• What do you want to see?
  • Investigations into why nutrient loads in some watersheds are increasing greater than predicted by increased precipitation & flows
  • Where on the land are ag practices being implemented? (can this info help account for differences in performances by different watersheds?)
  • Flesh out alternative scenario?
  • Your thoughts/questions-
    1.
    2.
    3.
    4.
Communications Subgroup

Trevor Sample, Illinois EPA
2018 Activities

• Developed NLRS “Common Message” Presentation
  • Available on NLRS Webpage
  • Provided basic information on the NLRS with highlights from the 2017 Biennial Report

2020 Activities

• Update NLRS “Common Message” Presentation
  • Provided basic information on the NLRS with highlights from the 2019 Biennial Report.
  • Steering Committee will develop a draft presentation.
  • Communication Subgroup members will review and provide comments
  • PDF version will be available on the NLRS page. PowerPoint versions may also be made available.

• We will once again mail hardcopies of the NLRS Report and 2017 Biennial Report to Illinois legislators.

• Other??
ILLINOIS NUTRIENT LOSS REDUCTION STRATEGY

Improving our water resources with collaboration and innovation
Break
10:00 – 10:15 am
NLRS Website Updates

Trevor Sample, Illinois EPA
Biennial Report Discussion

Eliana Brown
University of Illinois Extension/Illinois-Indiana Sea Grant
Biennial Report Discussion

2019 Biennial Report is approximately twice as long as the 2017 report.

“Navigating this Report”

It reorganizes the working groups into their own chapter.

The Agriculture Chapter (Chapter 4) is the longest. It includes Transect Survey information and additional NRCS project information.

The report has a new chapter: Adaptive Management (Chapter 8).
Future Initiatives
UMR Water Quality Improvement Act

Lauren Salvato, UMBRA
US EPA Nutrient Strategy Grant

Trevor Sample, Illinois EPA
Future Meetings

Eliana Brown, University of Illinois Extension
Send meeting conflict dates to Kate (kgardin2@Illinois.edu) by Friday, Dec 13th
Next year’s Partnership Conference will be in Urbana

Early November 2020....
Spreadsheets are due January 31, 2020
We are working on an online version.
https://illinoisaces.co1.qualtrics.com/jfe/form/SV_6h5KhDJQUUb01HeJ
Any speakers you’d like to suggest?
Future Resource Needs

Trevor Sample, Illinois EPA
Future Resource Needs

• USGS Super Gage Network
  • Current agreement between Illinois EPA and USGS expires in March 2021.
  • Monitoring is currently scheduled to end September 2020
  • Illinois EPA is looking for assistance to continue funding the gages for another five years.

• University of Illinois Extension—Meeting Facilitation and Biennial Report
  • Current agreement between Illinois EPA and Extension expires March 2021.
  • Illinois EPA is looking for assistance to continue the meeting and reporting structure into the future.

• Extension Watershed Coordinators
  • Current agreement between Illinois EPA and Extension expires June 2023

• Other??
Thank You!