

Statewide Nutrient Management Programs--- (and more 😊)



Photo by Andrew Jenkins, "Water Is" Photo Contest

Illinois Lake Management Association-
32nd Annual Conference
Crystal Lake, Illinois
March 31, 2017

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OUTLINE

- **Nutrient Loss Reduction Strategy Update**
 - Report
 - Ag. Non point source
 - Point Source
 - Nutrient Science Advisory Committee
 - Monitoring
- **Total Maximum Daily Load (TMDL) Program**
 - Watershed Based Plans
- **Chlorides**
 - Legislation
- **NPDES Permits**
 - Special conditions/watershed approach
- **Nonpoint Source- Section 319 grants**
 - Watershed Based Plans
 - Implementation Activities
 - Updates
 - 2017 Application Information
 - GATA...





Nutrient Loss Reduction Strategy

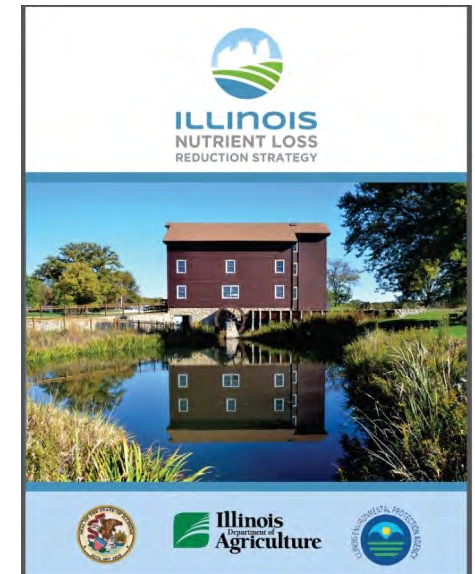
- Six working committees
- Biennial report- collecting data
- Document NLRs activities



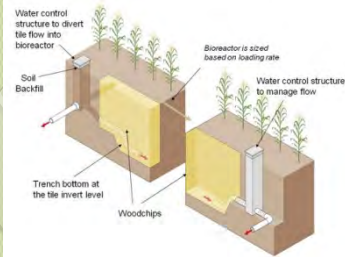
<http://www.epa.illinois.gov/topics/water-quality/watershed-management/excess-nutrients/nutrient-loss-reduction-strategy/index>

Biennial report timeline	DUE DATE
Update paragraphs/Tables	January 31
Draft released to Policy Working Group	March 31
Comments due back	April 15
Release to public	August 30

July, 2015



Wetlands, Buffers, Perennial/Energy Crops



FSA BMP (acres)

BMP (acres)	2011	2015
Cover	768	11,064
CRP Wetlands	57,463	45,790
CRP Buffers	145,813	279,534
Perennial/Energy/Pasture	985,531	1,524,379

IDNR CREP Easements-Statewide BMP (acres)

BMP (acres)	2011	2015
Wetlands	483	22,609
Buffers	202	17,893
Perennial/Energy	81	6,043

Illinois Natural Resource Conservation Service Statewide Wetland Reserve Program/ Wetland Reserve Easements Program

	2011	2012	2013	2014	2015	TOTAL
Wetland Easements	19	12	8	7	3	49



Illinois EPA Section 319 Grant- IEPA

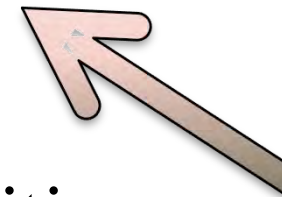
Illinois EPA Section 319 Grant		2002-2011			
AGRICULTURE	Acres	Nitrogen Load Reduction (lbs/year)	Phosphorus Load Reduction (lbs/year)	Total Suspended Solids Load Reduction (lbs/year)	Sediment Load Reduction (tons/year)
Conservation Tillage (329)	9998	47169	23691		21461
Cover and Green Manure Crop (340)	3924	14827	1190		955
Filter Strip (393)	8	1360	725		567
Nutrient Management (590)					
Wetland Restoration (657)	936	5028	2103	248227	1542
TOTAL	-	68,384	27,709	248,227	24,525
Illinois EPA Section 319 Grant		2011-2015			
AGRICULTURE	Acres	Nitrogen Load Reduction (lbs/year)	Phosphorus Load Reduction (lbs/year)	Total Suspended Solids Load Reduction (lbs/year)	Sediment Load Reduction (tons/year)
Conservation Tillage (329)	734	3913	2005		1798
Cover and Green Manure Crop (340)					
Filter Strip (393)	13882	329813	167170		106748
Nutrient Management (590)	107061	109915	54325		36522
Wetland Restoration (657)	464	2,760	1668	619968	6868
TOTAL	-	446,400	225,168	619,968	151,936



- Point Sources account for:
 - 18% of nitrate load
 - **48% of phosphorus load**



- Initial focus is on phosphorus reduction through permit limits on major wastewater treatment facilities
- Nitrogen is being introduced as a monitoring requirement at major facilities



- 220 Major Facilities in Illinois
- Major = at or over 1 million gallons discharged per day

Point Sources





	TP Limit	TN Limit	Monitoring Requirement	Monitoring Requirement
NLRS (7/2015)	67	13	164	152
To Date	126	13	213	212



As of Jan. 17, 2017 almost 57% of all major facilities have a TP limit and **this covers 81% DAF (flow)** for major municipal plants



Permit Limits

Nutrient Science Advisory Committee- Charge:

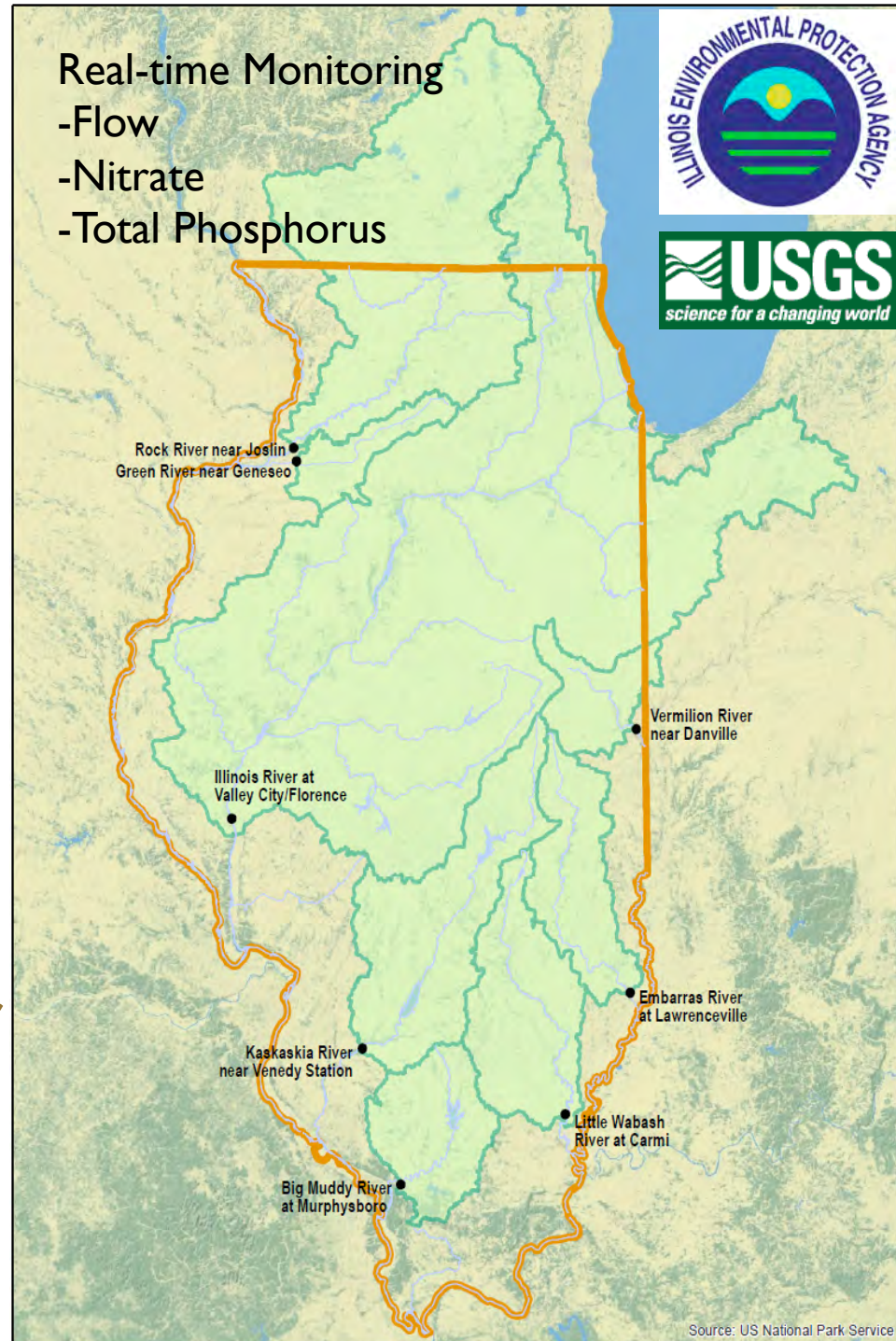
- Determine the numeric criteria for nutrients most appropriate for Illinois waterbodies based on the best science available.
- Consider whether standard should be statewide or watershed specific.

- Five scientists
- USEPA representative



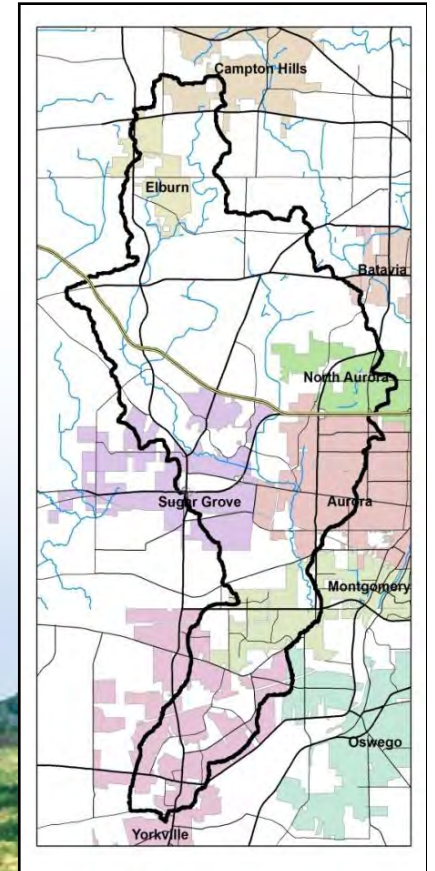
Statewide Nutrient Export Loading Network

- Rock River
- Green River
- Illinois River
- Kaskaskia River
- Big Muddy River
- Vermilion River
(Wabash)
- Embarras River
- Little Wabash River
- *Chicago/Joliet**



TOTAL MAXIMUM DAILY LOAD PROGRAM (TMDL)

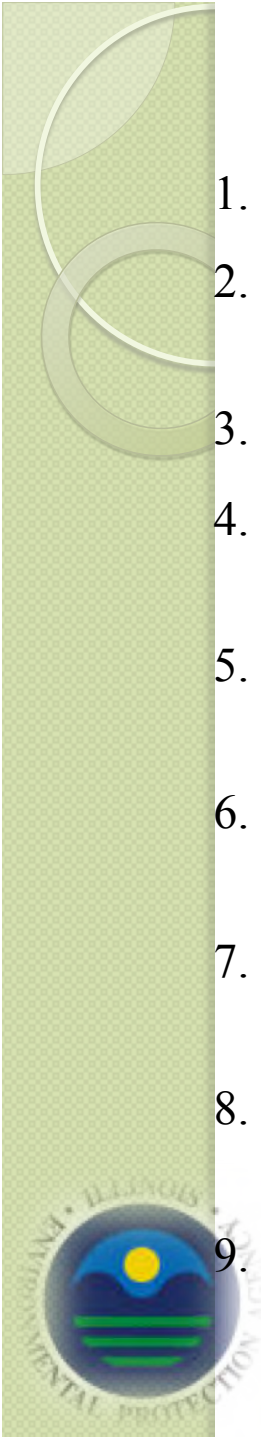
Watershed-based Planning- Nine Minimum Element Plan requirement



Nine Minimum Elements of a Watershed-based Plan

1. Identify **causes** and **sources** of water pollution and estimate existing pollutant loads.
2. Set **water quality goals** and load reduction targets to achieve those goals, and estimate load reductions expected from recommended management measures.
3. Describe the **management measures** needed to achieve load reduction targets.
4. Describe the **technical and financial assistance** (amount, costs, and sources) and relevant authorities needed to implement the plan.
5. Describe an **information and education component** to enhance public understanding and to encourage implementation of the plan.
6. Provide a **schedule** for implementing the management measures identified in the plan.
7. Identify **interim, measurable milestones** for determining whether management measures are being implemented on schedule.
8. Identify **interim benchmarks** to measure progress in meeting water quality goals and load reduction targets.
9. Describe a **monitoring component**.

<http://www.epa.illinois.gov/topics/water-quality/watershed-management/watershed-based-planning/index>



- New Chloride Water Quality Standard for Chloride- Chicago-area Waterways System (CAWS)

- New regulations go into effect July 1, 2018.

- Chloride = 500 mg/L (matches the rest of Illinois)

- Legislation allowing **Watershed** Variances (time-limited water quality standards(TLWQS)) passed by the legislature and signed by the Governor

- Illinois EPA now working on proposing rules to the Illinois Pollution Control Board.



Chlorides-

Chlorides-



Salt Our Streets Not Our Creeks

As soon as the snow starts falling, the snow plows hit the road! But with the price of salt on the rise, there may be more plowing and less salting on our streets. By using the right amount of salt and applying it properly on our roads, driveways, and sidewalks, we can save money, stay safe and protect our waterways.

LAKE COUNTY STORMWATER MANAGEMENT DEPARTMENT
www.lakecountyohio.org/smd
(440) 350-5900

Participating Communities
Concord Township
Grand River
Fairport Harbor
Kirtland City
Kirtland Hills
Lakeline
Madison Township
Madison Village
Norton-on-the-Lake
Painesville City
Painesville Township
Perry Village
Timberlake
Willoughby Hills
Willowick

Collaborating Partners
Lake County Soil & Water Conservation District
Lake County General Health District
Chagrin River Watershed Partners, Inc.

No
Store Salt Covered and out of Precipitation

Yes
Store salt in enclosed container if kept outdoors

You may see cities and townships mixing sand, gravel, cinders, or beet juice with road salt.

Proper Salt Application

Rain and snowmelt washes salts into creeks, lakes, and groundwater where it is harmful to organisms and plants and contaminates drinking water.

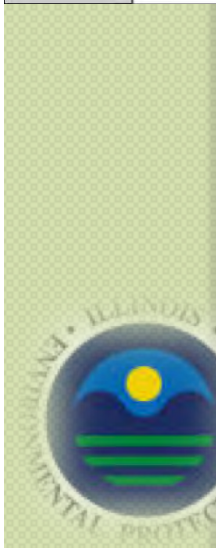
You can prevent Stormwater Pollution

- Apply salt to driveway before it snows.
- Sweep up excess salt and reuse it.
- Store salt indoors, in your garage, and out of the rain and snow.
- Mix salt with alternatives like sand and gravel where applicable.
- Along roads and driveways, plant salt-tolerant species that will absorb excess salt.
- Do not pile snow removed from salted areas near streams or storm drains.
- Beat cabin fever, get out and shovel. It's good exercise if you are physically fit.
- Take your car to a commercial carwash; don't let the rain wash the salt away.

To report an illicit discharge, contact The Lake County General Health District at (440) 350-2543

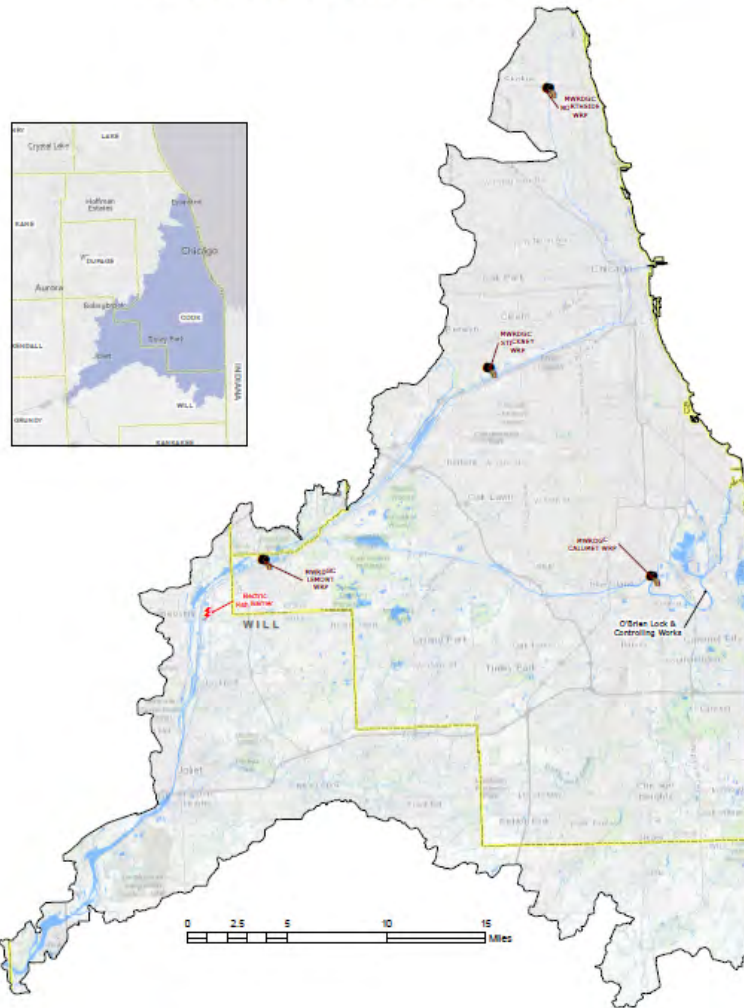
1840
Stormwater Management Department

- Watershed TLWQS is before the IPCB for Chloride.
- The Chloride watershed TLWQS will require the dischargers to perform BMPs based on the type of discharger (MS4, municipal discharger, industrial discharger, etc.)
- The TLWQS will allow time for the dischargers to implement BMPs to allow the chloride water quality standard to be achieved.



Chlorides-

PROPOSED CHLORIDE WATERSHEDS



Watershed Approach to Point Source Permitting- nutrients



NPDES Special
Condition Language

* on-going discussions



Watershed Approach to Point Source Permitting- nutrients

- Nutrient Implementation Plan (NIP), new requirement under all permit renewals

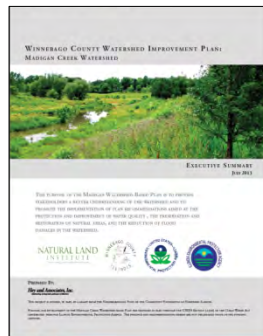
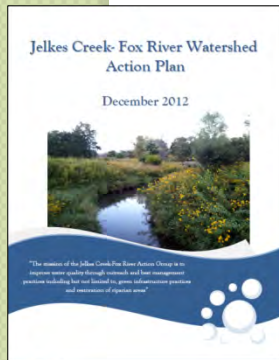


Section 319 NPS Grant Program-

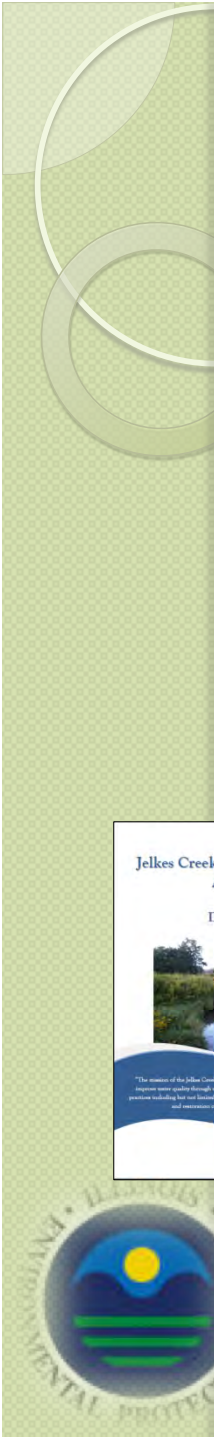
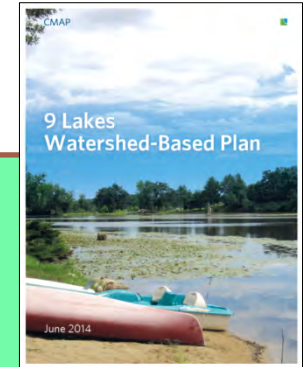
- <http://www.epa.illinois.gov/topics/water-quality/watershed-management/nonpoint-sources/grants/index>

- **Priorities:**

- Watershedbased Planning
- Implementation of a Watershedbased Plan



When is a Plan too "old"?



Section 319 NPS Grant Program-

- Other Priorities:**

<http://www.epa.illinois.gov/Assets/iepa/water-quality/watershed-management/Priority%20Watersheds%202016.pdf>

What constitutes
IMPLEMENTATION?



Plan Development	Plan Implementation
Kishwaukee R. – 07090006	Green R.- 07090007
Chicago/Little Calumet R. – 07120003	Mississippi North Central- 07080104
L Michigan Tribs- 04040002	Upper Illinois R. (DS of Fox R.)- 07130001
Middle Illinois R.- 07130003	Upper Illinois R. (US of Fox R.)- 07120005
Lower Illinois R.- 07130011	Vermilion (Illinois)- 07130002
Macoupin Cr.- 07130012	Bear Cr.- 07110001
Vermilion R. (Wabash)- 05120109	Mississippi Central- 07110004
Little Vermilion R. (Wabash)- 05120108	Mississippi South- 07140105
Embarrass R.- 05120112	Cache R. (Ohio)- 05140206
Middle Wabash Tribs- 05120111	Cache R. (Mississippi)- 07140108
Lower Wabash- 05120113	
Skillet Fork- 05120115	

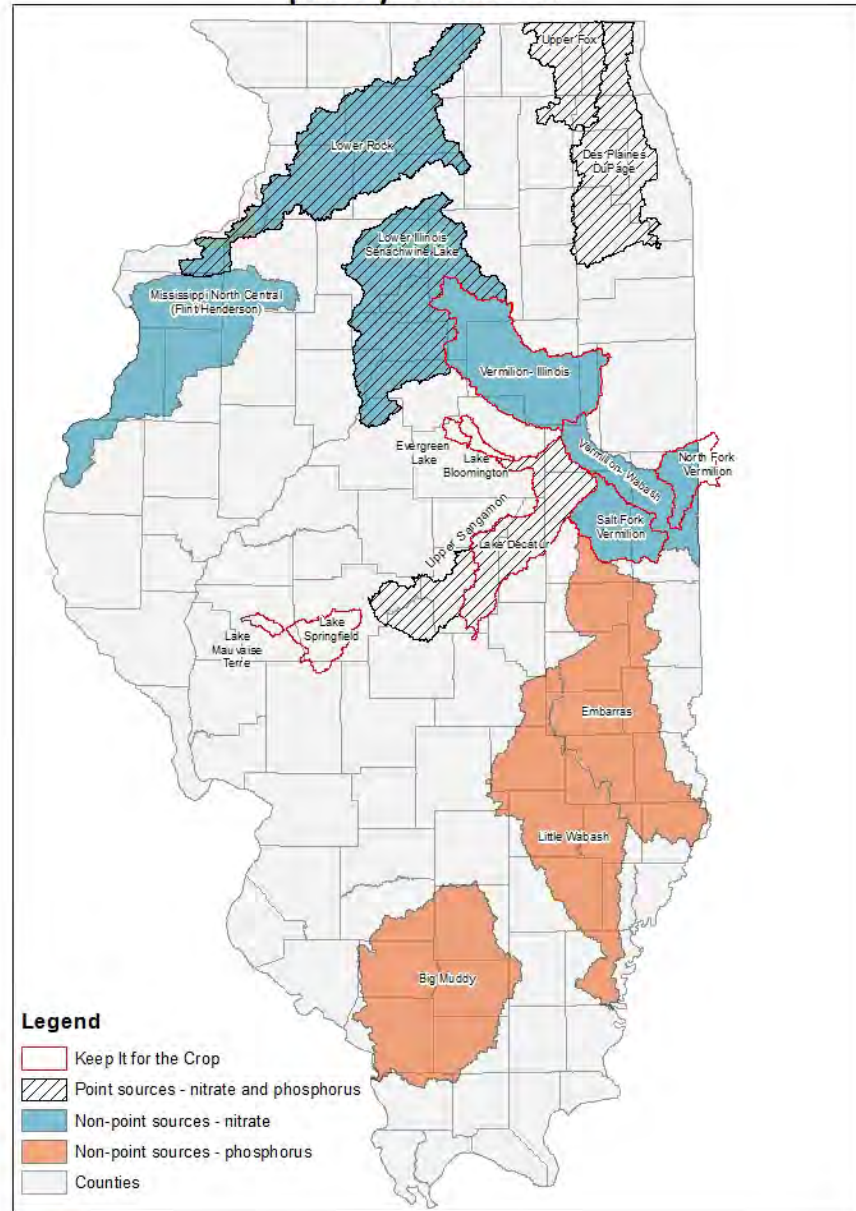


NLRS Priority Watersheds

- Total loads
- Local water quality concerns
- watershed planning



Illinois Nutrient Loss Reduction Strategy priority watersheds



Grant Accountability and Transparency Act (GATA)-

Applications due at
Illinois EPA by
COB-
August 1, 2017

- <https://www.illinois.gov/sites/GATA/Grantee/Pages/default.aspx>
Pre-award requirements- **MUST** be pre-registered **BEFORE** submitting 319 application

“2. Grantee Registration

All grantees must be registered with the State of Illinois. **Grantee Registration** is completed by browsing to <https://grants.illinois.gov/portal> and associating your Illinois.gov account with your organization. New accounts must enter the organization’s information on the Registration screen. Existing accounts must click the “Edit” button next to the organization name on the Main Menu.”

- Section 319 Application

- [Section 319 Notice of Funding Opportunity](#)
- [Uniform Application for State Grant Assistance](#)
- [Uniform Budget Template](#)
- [Uniform Budget Template \(sample\)](#)
- [Section 319 Application - Project Details Section](#)
- [Section 319 Application - Project Details Section Instructions](#)
- [Section 319 Application - Project Details Section - Attachment I](#)



<http://www.rmms.illinois.edu>

NPS mapping tool



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