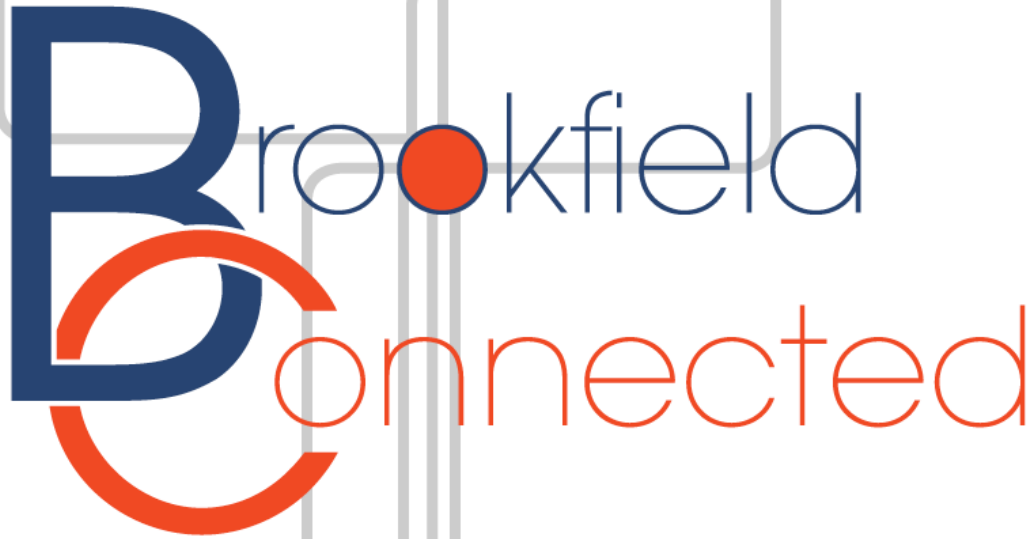

Lower Salt Creek
Watershed-based Planning
WELCOME!
Village of Brookfield
June 8, 2017

Agenda

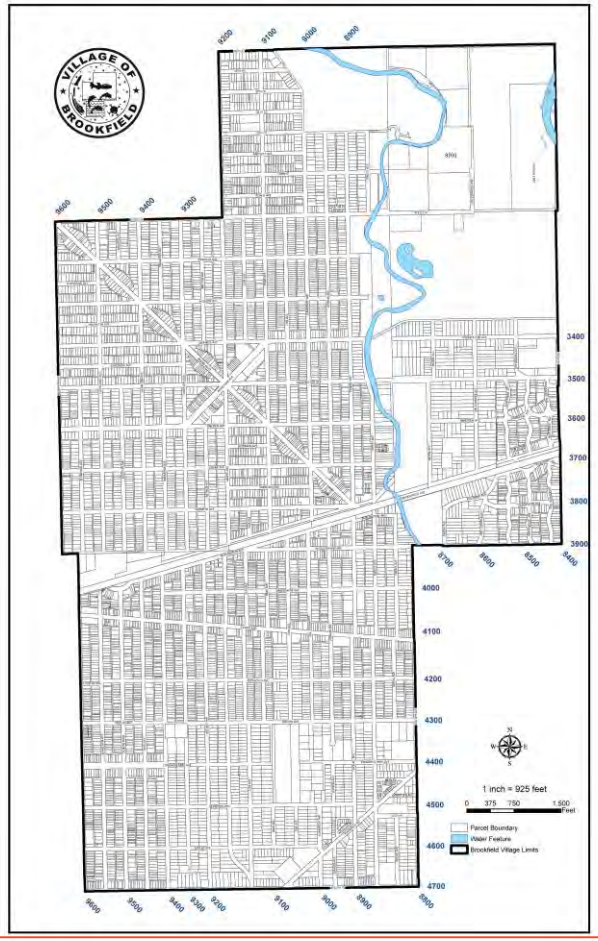
- Welcome and Introductions
- Local Spotlight
- April meeting: recap, questions
- Watershed Resource Inventory: update
- Problem Statement and Goals
- Nonpoint Source Pollution Control Program – 319(h) Grant-fundable Projects
- Next Meeting: Thursday, Aug. 10, 1:00 p.m.
- Activities, News, Announcements
- Field Trip! – bioinfiltration cell & oil-grit separator



Make the Connection

Village of Brookfield

Water Quality Projects: Past, Present, Future



Village of Brookfield

Water Quality Projects: Past, Present, Future

Bioswales in

- Eight Corners
- Kiwanis Park

Village of Brookfield

Water Quality Projects: Past, Present, Future

- Rain Garden in Kiwanis Park
- Permeable Pavers in Parking Lot
- Brine Street Solution
- Stormwater Ordinance
- Green Space Ordinance
- Downspout Disconnection Ordinance
- Two Stormwater Storage Areas in Ehlert
- Recycled Aggregate in Alleys
- Salt Creek Pumping Station

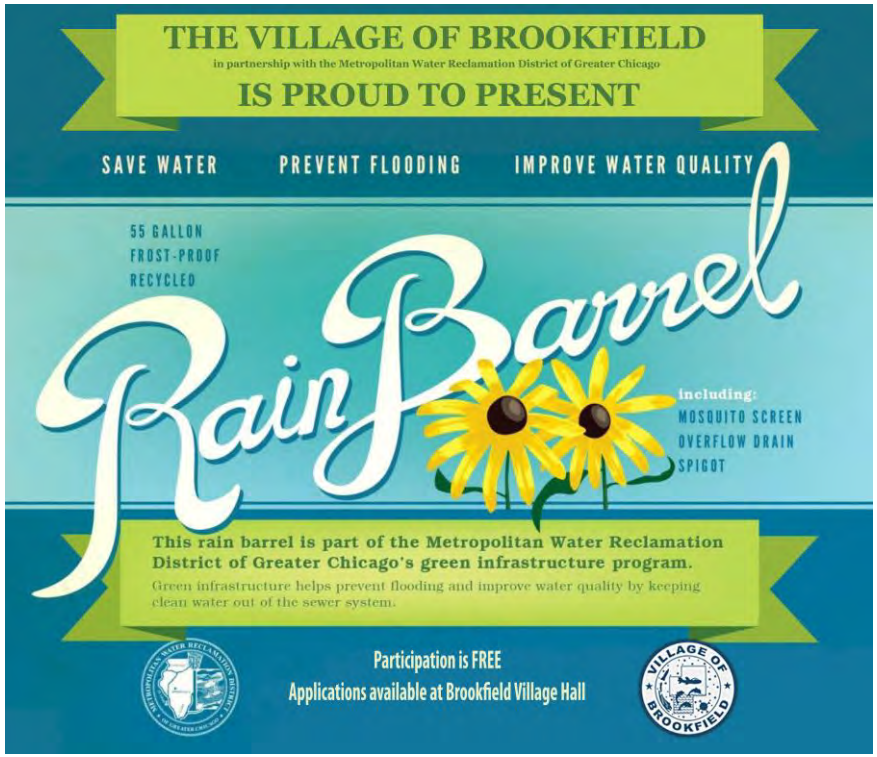
Village of Brookfield

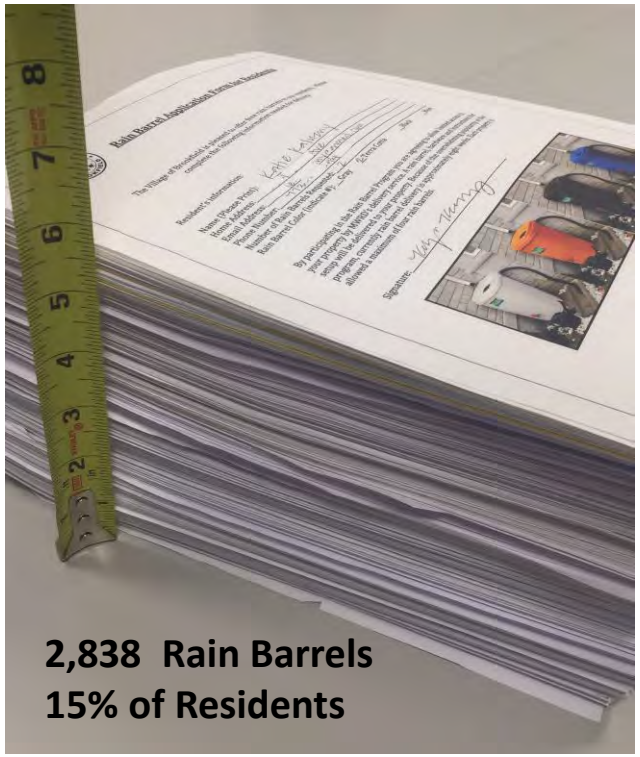
Water Quality Projects: Past, Present, Future

- Oak Savanna
- Regional Green Infrastructure Mapping Project

Village of Brookfield

Water Quality Projects: Past, Present, Future





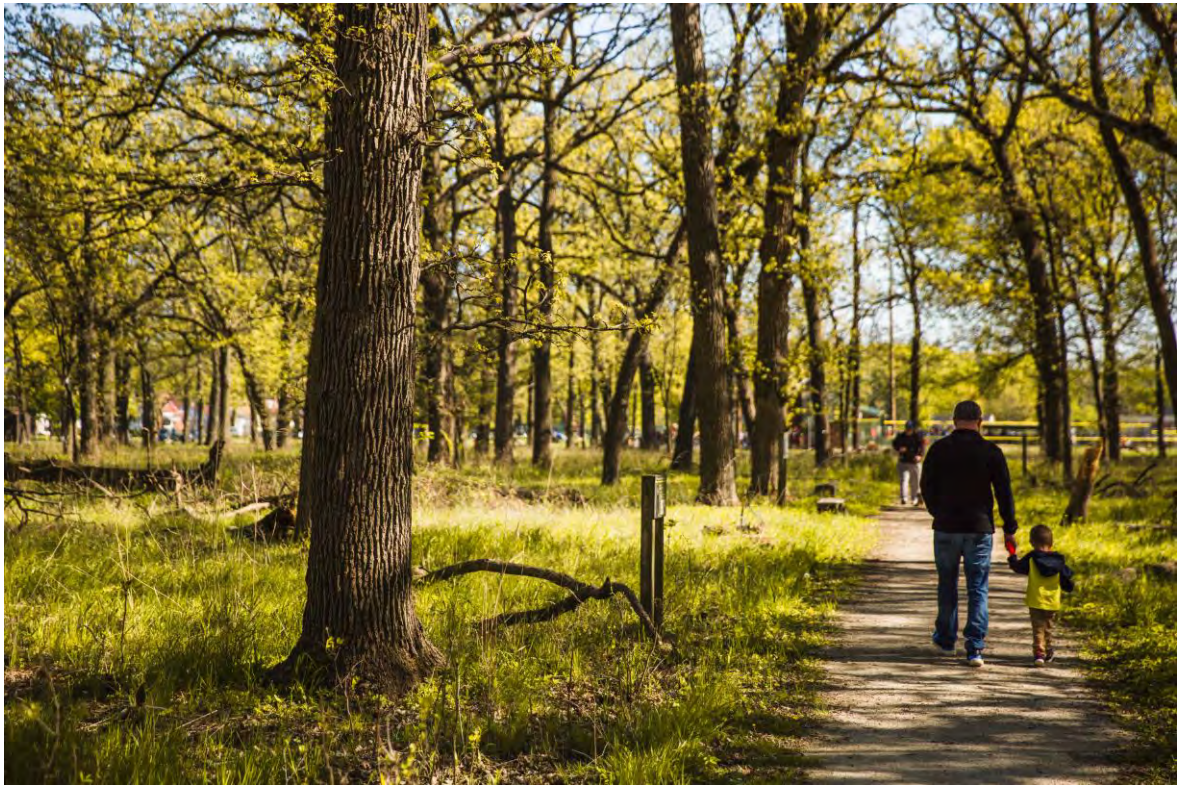
Village of Brookfield

Water Quality Projects: Past, Present, Future

Looking Ahead….

Village of Brookfield

Water Quality Projects: Past, Present, Future



CONNECTING IS EASY

Contact the Village for more Information

We're here to help. Contact us today.

Keith Sbiral, Village Manager
ksbiral@brookfieldil.gov
708-485-7344

Nick Greifer,
Director of Community and Economic Development
ngreifer@brookfieldil.gov
708-485-1113

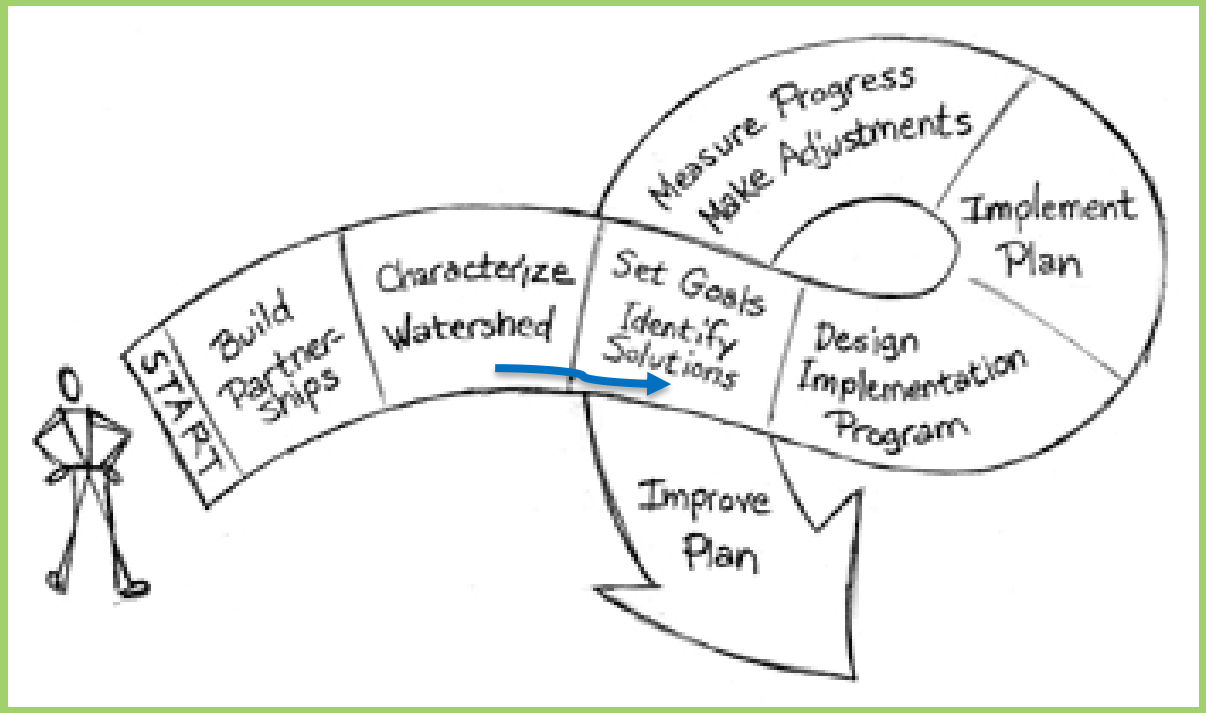
Emily Egan, Village Planner
eegan@brookfieldil.gov
708-485-1445

Village of Brookfield
8820 Brookfield Avenue
Brookfield, Illinois 60513
www.brookfieldil.gov
708-485-7344

All photos courtesy of Lena Pettus

Brookfield Connected

Watershed Planning Steps



From *Handbook for Developing Watershed Plans to Restore and Protect our Waters* (USEPA, 2005)

Watershed planning is an iterative and adaptive process…

CMAP

Resource Inventory: update

- Deanna Doohaluk, DuPage River Salt Creek Workgroup
- Simon Christensen, DuPage County Stormwater Management

CMAP

Dissolved Oxygen (DO) in Salt Creek

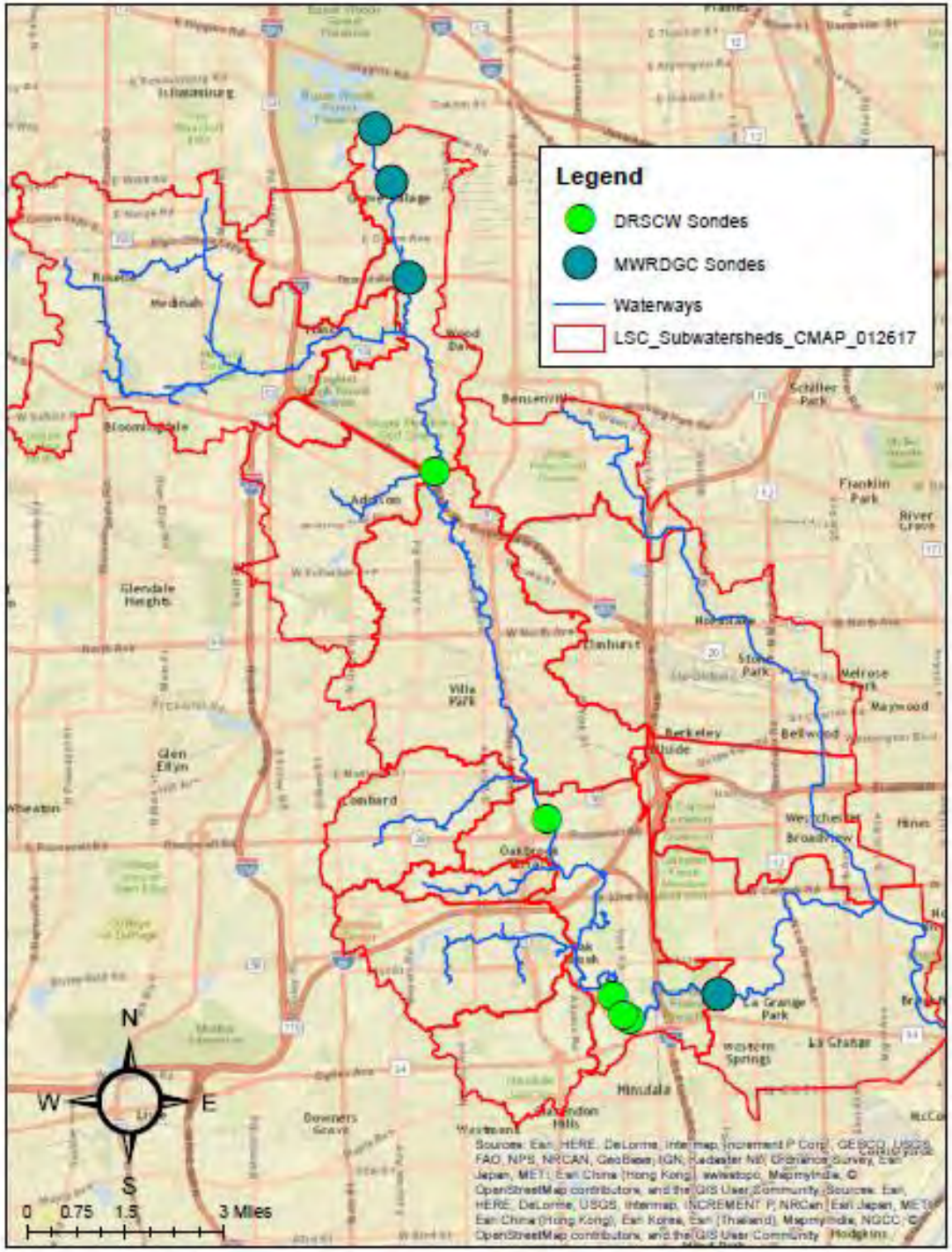
- Dissolved Oxygen (DO) is the amount of oxygen that is dissolved in the water.
- Ways DO gets into the water
  - Atmospheric oxygen dissolves and mixes into the surface water
  - Plants and algae release DO during photosynthesis
- What effects DO concentrations in water?
  - Temperatures
  - Nutrient Concentrations
  - Flow conditions
  - Biological Activity

IL Water Quality Standard for DO

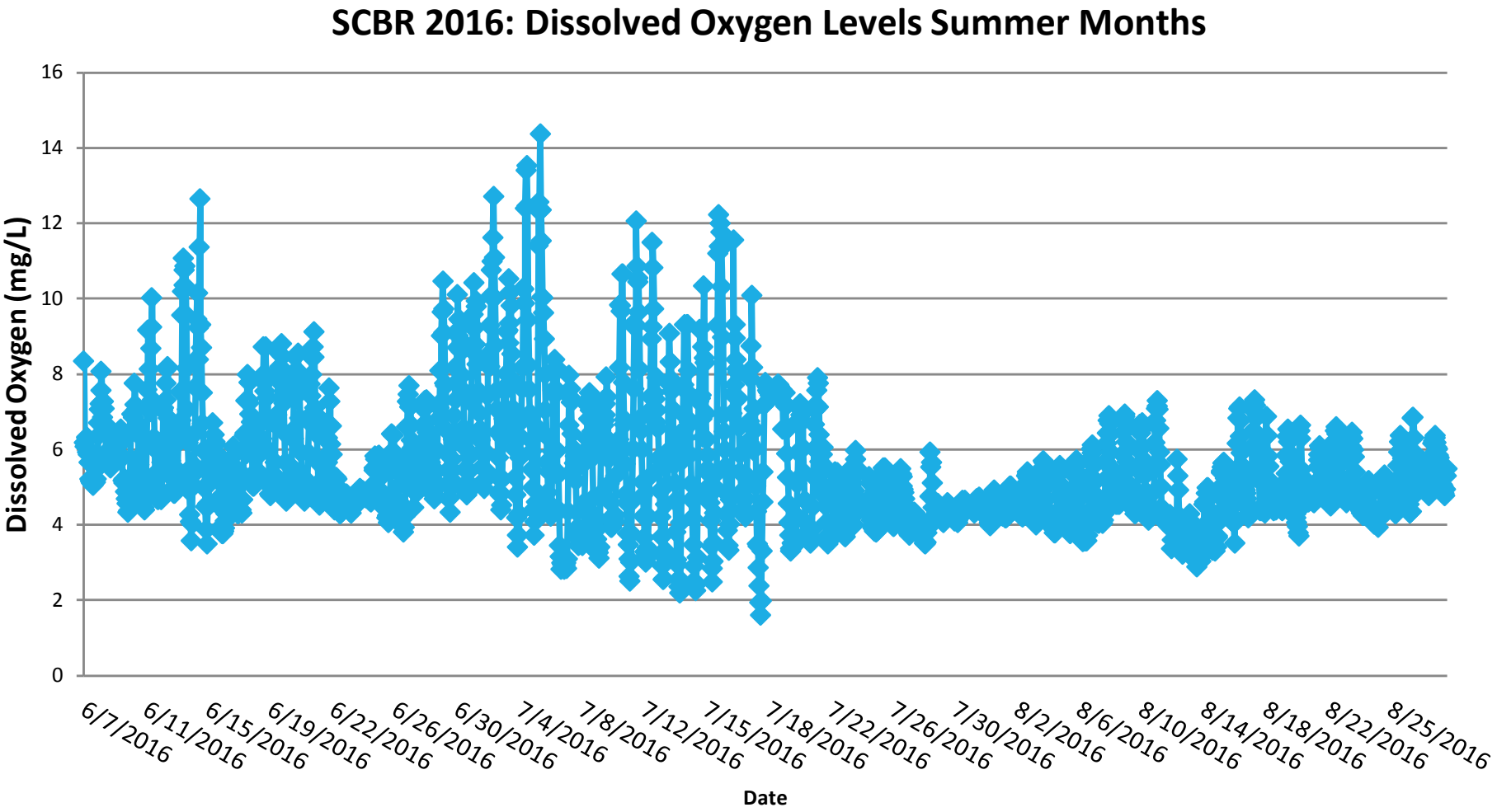
- During the period of March through July
  - 5.0 mg/L at any time; and
  - 6.0 mg/L as a daily mean averaged over 7 days.
- During the period of August through February
  - 3.5 mg/L at any time;
  - 4.0 mg/L as a daily minimum averaged over 7 days; and
  - 5.5 mg/L as a daily mean averaged over 30 days.
- DO Impairments in Salt Creek

DRSCW Continuous DO Monitoring

- Started in 2006
- Data collected June – October
- Currently 3 DRSCW stations and 3 MWRDGC stations
- Historically 5 DRSCW stations and 4 MWRDGC stations
- Measures hourly
  - Dissolved Oxygen
  - Temperature
  - pH
  - Conductivity



Continuous DO Monitoring



DUPAGECOUNTY

STORMWATER MANAGEMENT

Love Blue. Live Green.

DuPage County Stormwater Management

Lower Salt Creek

Detention Basin Update

Jack T. Knuepfer Administration Building, 421 N. County Farm Rd., Wheaton, IL 60187

(630) 407-6700 • www.dupageco.org/swm

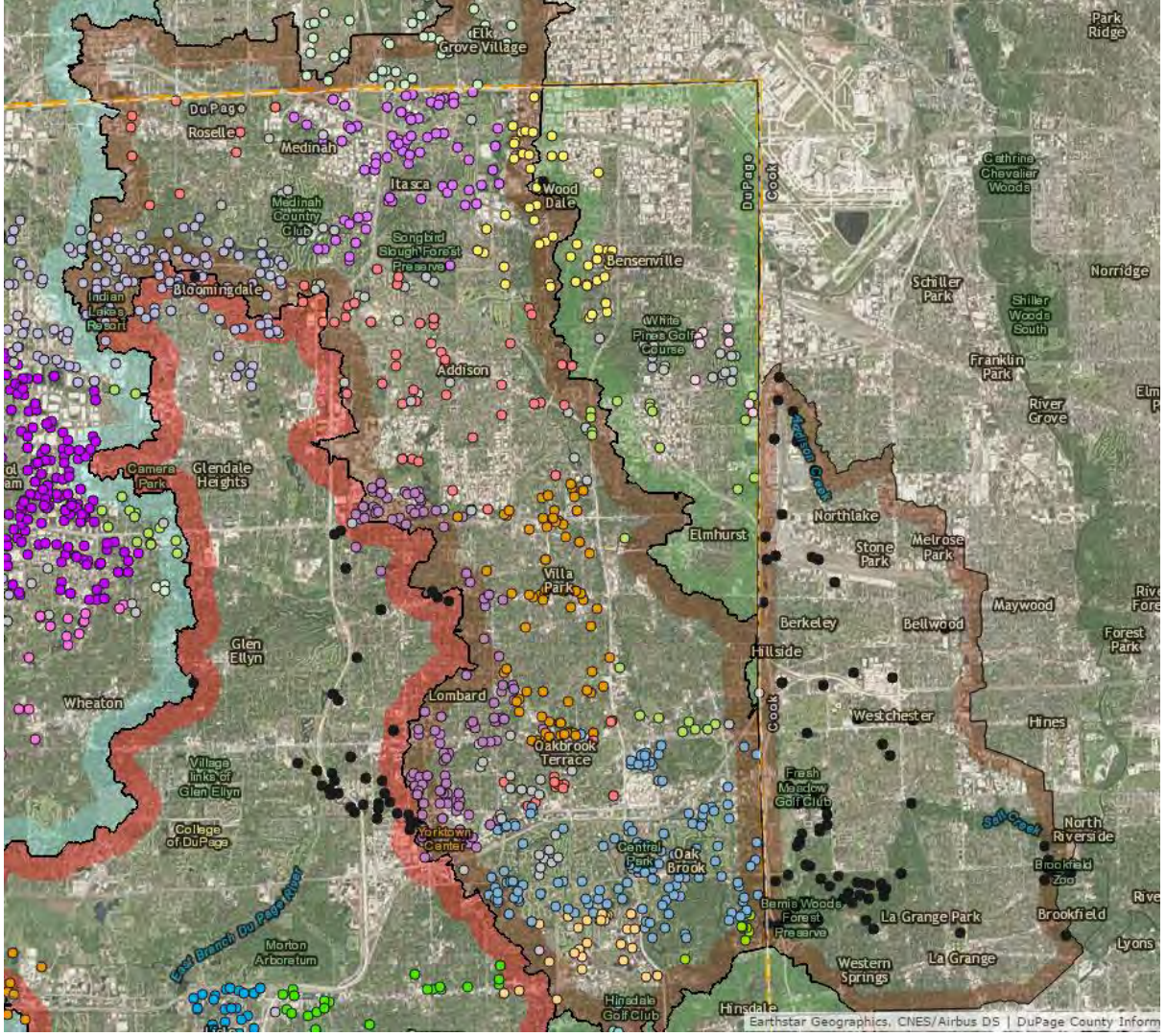
Salt Creek Detention Basins

Overall Water Quality Benefit

Good

Fair

Poor


Park Ridge
Elk Grove Village
Du Page
Roselle
Medinah
Itasca
Wood Dale
Medinah Country Club
Songbird Slough Forest Preserve
Bensenville
Bloomingdale
Indian Lakes Resort
White Pines Golf Course
Addison
Cathrine Chevalier Woods
Schiller Park
Norridge
Shiller Woods South
Franklin Park
River Grove
Du Page
Cook
Camera Park
Glendale Heights
Elmhurst
Northlake
Stone Park
Melrose Park
Villa Park
Maywood
Berkeley
Bellwood
Forest Park
Hillside
Glen Ellyn
Wheaton
Lombard
Westchester
Hines
Oakbrook Terrace
Village links of Glen Ellyn
Fresh Meadow Golf Club
College of DuPage
Yorktown Center
Central Park
Oak Brook
Salt Creek
North Riverside
Brookfield Zoo
Bemis Woods Forest Preserve
La Grange Park
Brookfield
Lyons
East Branch Du Page River
Morton Arboretum
Western Springs
La Grange
Hinsdale Golf Club
Hinsdale
Earthstar Geographics, CNES/Airbus DS | DuPage County Inform

Basin Update

Current Status

Constructed Wetland	Dry Naturalized Basin	Dry Turf Basin	Wet	Wet Extended Basin	Unassessed	Total
37	67	231	587	26	29	977
4%	7%	24%	60%	3%	3%	

Good	Fair	Poor	Unassessed	Total
109	259	516	93	977
11%	27%	53%	10%	

Questions

Simon Christensen

DuPage County Stormwater Management
Water Quality Specialist
630.407.6682
simon.christensen@dupageco.org

Problem Statement and Goals – *Group Discussion*

CMAP

Problem Statement:

- a brief, three-part overview of a difficulty or lack and the way you propose to address that difficulty or lack.[1]

- a concise description of the issues that need to be addressed by a problem-solving team; should be presented to them (or created by them) before they try to solve the problem.

[1] http://core.ecu.edu/engl/henzeb/3880/extrafiles/problemstatements.htm

Problem Statement:

A good problem statement should answer these questions:

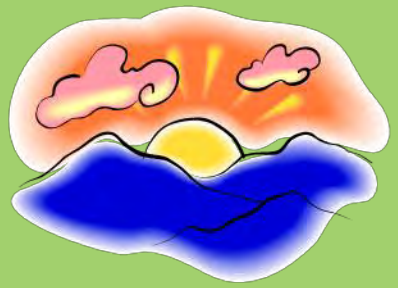
- What is the problem?
- Who has the problem or who is the client/customer?
- In what form can the resolution be? What are the scope and limitations that can be used to solve the problem?[2]

[2]http://en.wikipedia.org/wiki/Problem_statement

Draft LSC Problem Statement

- Surface waterbodies are impacted by a variety of nonpoint sources of pollution. Within the Lower Salt Creek Watershed Planning Area, Salt, Addison, Spring Brook, and Meacham Creeks and Swan Lake fail to meet certain water quality standards and thus do not attain all of their designated uses due to known and unknown causes of pollution that are often related to land use. Best management practices, programs, and policies must be identified and implemented by landowners and managers as resources allow to improve water quality and to restore designated use attainment. A plan is to be completed that outlines protective actions to address nonpoint source pollution and guide remedial activities during the following 10 years.

Goal:

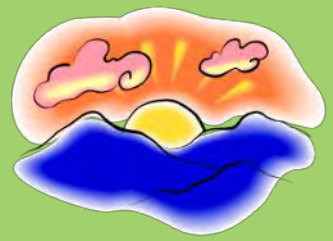


- Describes future desired outcome or end state to be achieved
- Provides programmatic direction
- Focus is on ends rather than means
- Typically a “high level” (general, broad) statement
- Answers “What do I want to happen as a result of my watershed plan?”

[1]http://core.ecu.edu/engl/henzeb/3880/extrafiles/problemstatements.htm

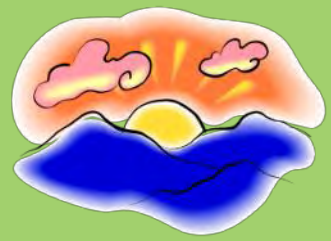
Note: Objective – how you will achieve your goals…

Draft Goal Ideas…



- Improve and protect the ecological integrity of surface water resources to attain or maintain designated uses of aquatic life support, fish consumption, primary contact, and aesthetic quality.
- Continue to build, strengthen, and support local partnerships and expertise to protect our streams and lakes via plan implementation.
- Reduce flooding and attendant bank erosion risk through initiatives to improve and protect water quality.
- [Continue to] Raise public awareness and increase understanding of the impacts of land use and land/water management decisions on water and habitat quality.

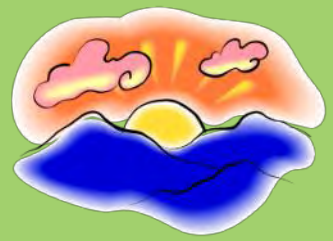
Draft Goal Ideas…



- **Improve and protect the ecological integrity of surface water resource to attain or maintain designated uses of aquatic life support, fish consumption, primary contact, and aesthetic quality.**

- 4 major classes of variables which, when modified by human activities, play primary roles in determining the ecological integrity of running water ecosystems.

Draft Goal Ideas…



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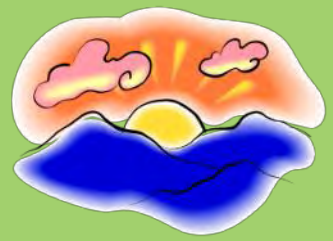
Draft Goal Ideas…



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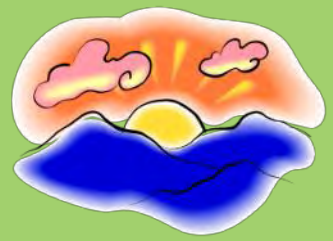

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- Reduce flooding and attendant bank erosion risk through initiatives to improve and protect water quality.
- **[Continue to] Raise public awareness and increase understanding of the impacts of land use and land/ water management decisions on water and habitat quality.**

Draft Goal Ideas…

- **Others…?**

- Conserve open space… through a coordinated plan and public-private partnerships
- Groundwater quality / quantity …

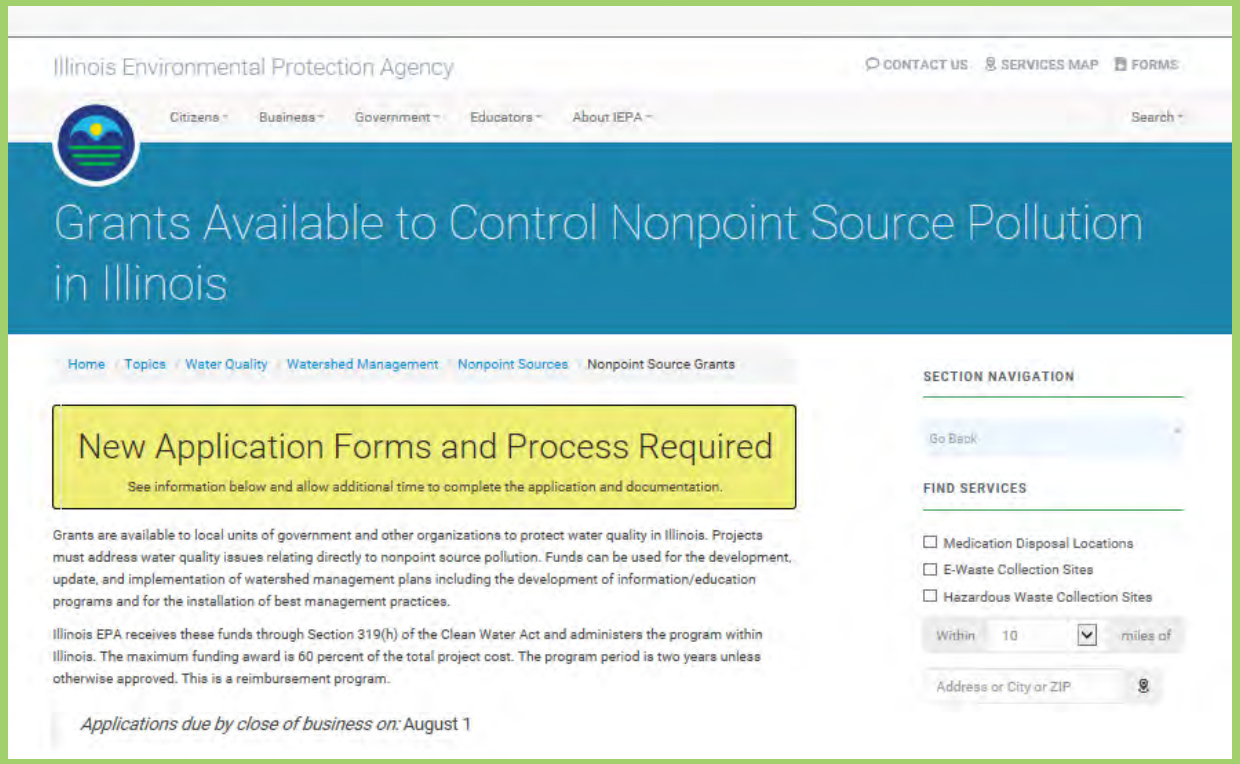
Nonpoint Source Pollution Control Program – CWA Section 319(h) Grant-fundable Projects

Lower Salt Creek
Watershed-based Plan

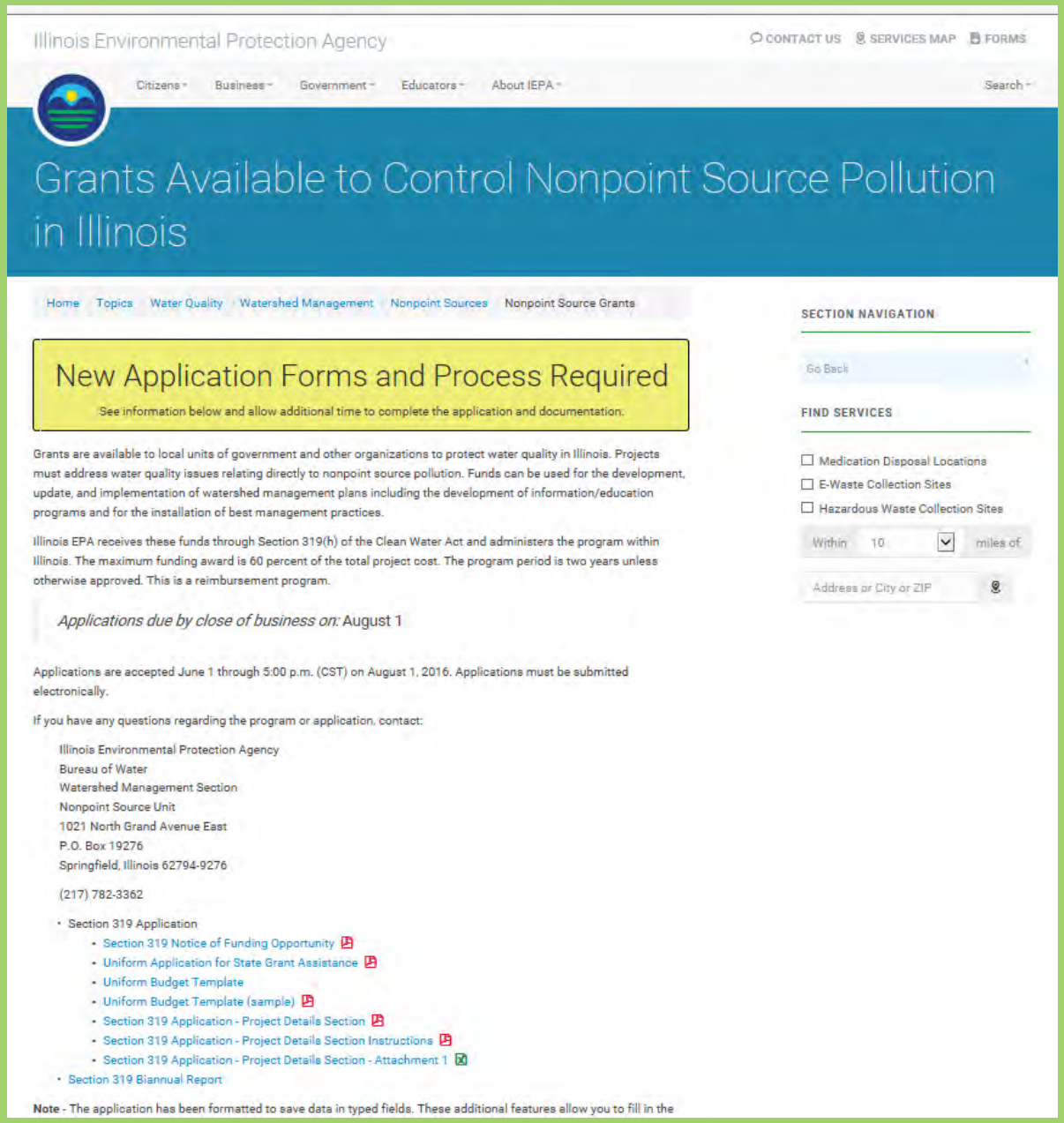
CMAP

Section 319(h) - Nonpoint Source Pollution Control Financial Assistance Program

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



- 319 Notice of Funding Opportunity *(read 1st!)*
- Uniform Application for State Grant Assistance
- Uniform Budget Template, [Instructions]
- 319 Application-Project Details, Instructions
- 319 Biannual Report



Illinois Environmental Protection Agency

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Grants Available to Control Nonpoint Source Pollution in Illinois

Home | Topics | Water Quality | Watershed Management | Nonpoint Sources | Nonpoint Source Grants

New Application Forms and Process Required

See information below and allow additional time to complete the application and documentation.

Grants are available to local units of government and other organizations to protect water quality in Illinois. Projects must address water quality issues relating directly to nonpoint source pollution. Funds can be used for the development, update, and implementation of watershed management plans including the development of information/education programs and for the installation of best management practices.

Illinois EPA receives these funds through Section 319(h) of the Clean Water Act and administers the program within Illinois. The maximum funding award is 60 percent of the total project cost. The program period is two years unless otherwise approved. This is a reimbursement program.

Applications due by close of business on: August 1

Applications are accepted June 1 through 5:00 p.m. (CST) on August 1, 2016. Applications must be submitted electronically.

If you have any questions regarding the program or application, contact:

Illinois Environmental Protection Agency
Bureau of Water
Watershed Management Section
Nonpoint Source Unit
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

(217) 782-3362

- 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 1
- Section 319 Biannual Report

Note - The application has been formatted to save data in typed fields. These additional features allow you to fill in the

SECTION NAVIGATION

Go Back

FIND SERVICES

- Medication Disposal Locations
- E-Waste Collection Sites
- Hazardous Waste Collection Sites

Within 10 miles of

Address or City or ZIP

CMAP

Section 319 Grant Program

Applications due by COB on August 1, 2017

Location	Statewide/Priority Watersheds Watershed-Based Planning Areas
Grant Range	$100,000 - $1.2 Million
Maximum Grant	$1.5 Million (~ $3.6 available for projects statewide)
Minimum Match	40 %
Project Length	Normally 24 Months
Eligible Projects USEPA 2013 Guidance	Watershed-Based Planning (WBP) or WBP Implementation (TMDLs Too!)
Practices	NPS Pollution Control BMPs (not required by state or federal law)

Eligible Costs
Administration & Planning
Design & Engineering
Construction/Planting
Construction Oversight
Education/Outreach
Monitoring

Successful Applicants Know What They Plan To Do… And Capture it in their Section 319 Application

Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Clean Water Act Section 319(h) Financial Assistance Application

Nonpoint Source Pollution Control Financial Assistance Program

BMP examples potentially eligible for the Section 319(h) Grant Program

Streams

- Stream channel and bioengineered bank stabilization
- Meandering a channelized stream
- Levee removal or modification
- Reconnecting stream to floodplain
- Instream habitat restoration

Wetlands

- Restoration or enhancement
- Wetland area protection
- New wetland development

BMP examples *cont.*

Lakes

- Shoreline stabilization
- Sediment and nutrient detention practices
- Aeration/destratification

Agricultural & Livestock

- Nutrient management
- Erosion and sediment control
- Livestock waste management
- Livestock exclusion
- Filter strips / Buffers

BMP examples *cont.*

Urban

- Bioswales
- Bioretention/Bioinfiltration Facilities
- Rain Gardens & Rain Barrels
- Permeable & Porous Pavements
- Green Roofs
- "Urban" Filter Strips
- Wetland Restoration
- Conveyance system inlet BMPs (e.g., sand filters)
- Read!: *Urban BMPs – Supplemental Guidance for Funding Eligibility* (http://www.epa.state.il.us/water/watershed/publications/nps-pollution/urban-bmps-supplemental-guidance.pdf)

BMP examples *cont.*

Monitoring for Environmental and/or Social Indicators

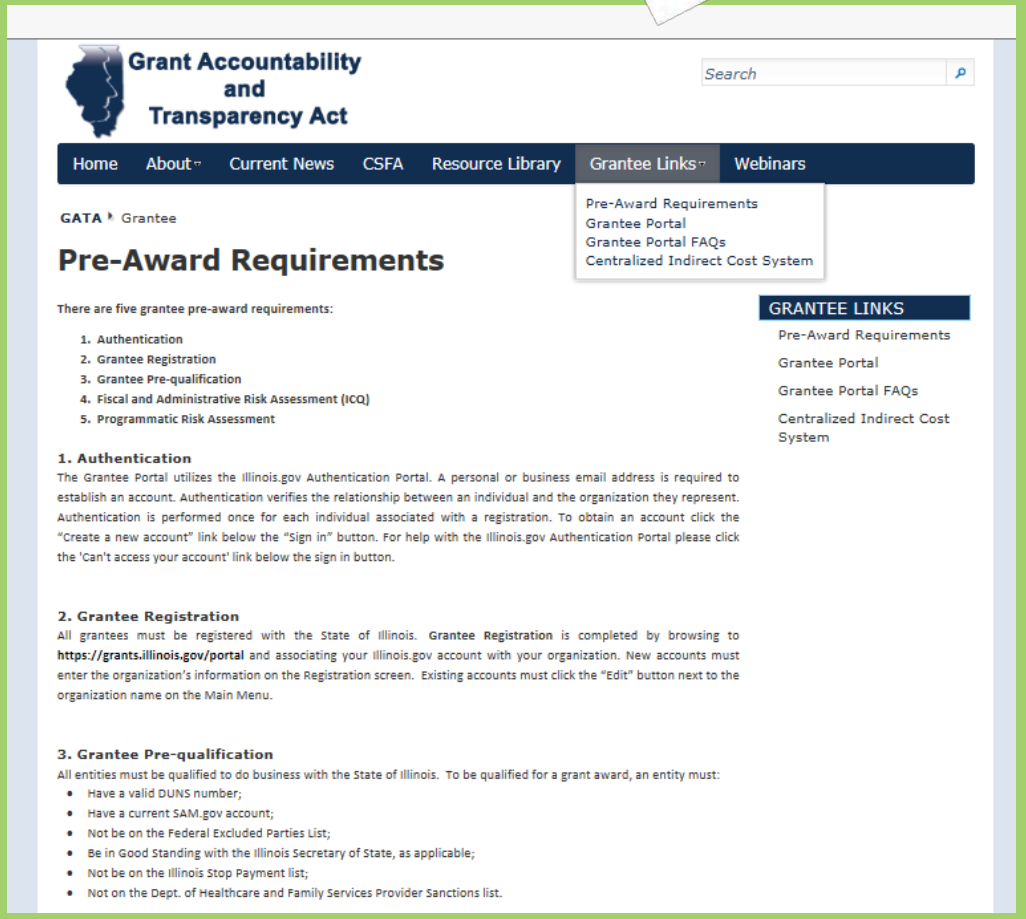
- Environmental and social indicator monitoring to help document the need for NPS pollution control or to validate the accomplishments of ongoing and completed NPS pollution control projects.

Education & Outreach Activities

- Education and outreach projects to promote awareness and implementation activities that may help to restore degraded waters or protect waters from degradation due to NPS pollution. Projects could include statewide or community-based efforts such as training, displays, and workshops.

Section 319(h) - Nonpoint Source Pollution Control Financial Assistance Program

- Must **pre-qualify** through the Grant Accountability and Transparency Act (GATA)
- To initiate process, must register with the State of Illinois
  - www.grants.Illinois.gov



Illinois Office of Management and Budget Grant Accountability and Transparency Act (GATA).

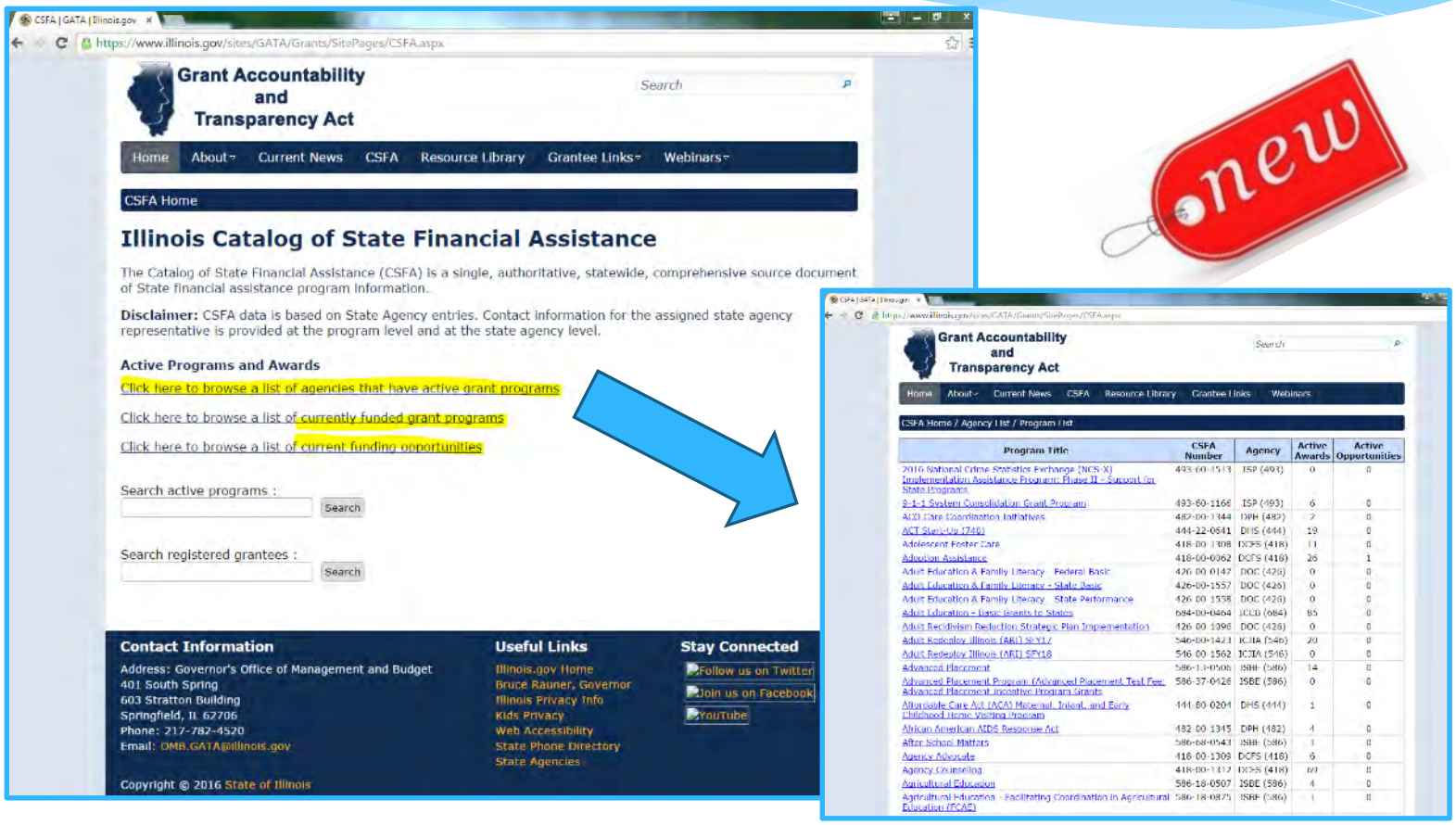
Applicants may not apply for a grant until the applicant has pre-qualified through the GATA portal!

grants.illinois.gov

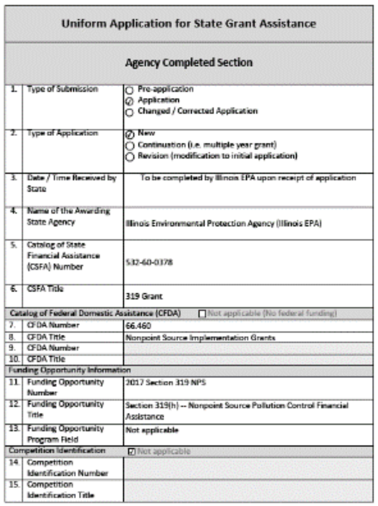
Five pre-award requirements

1. Authentication
2. Grantee Registration
3. Grantee Pre-qualification
4. Fiscal and Administrative Risk Assessment (ICQ)
5. Programmatic Risk Assessment

Illinois Office of Management and Budget Grant Accountability and Transparency Act (GATA).

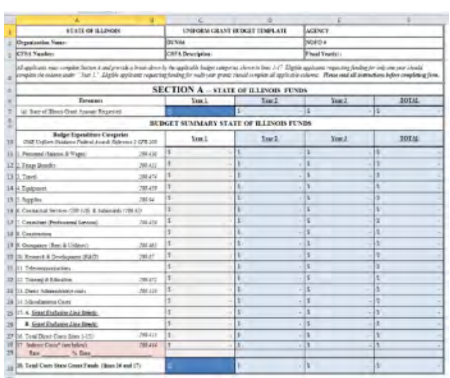


Uniform Application for State Grant Assistance & Uniform Budget Template



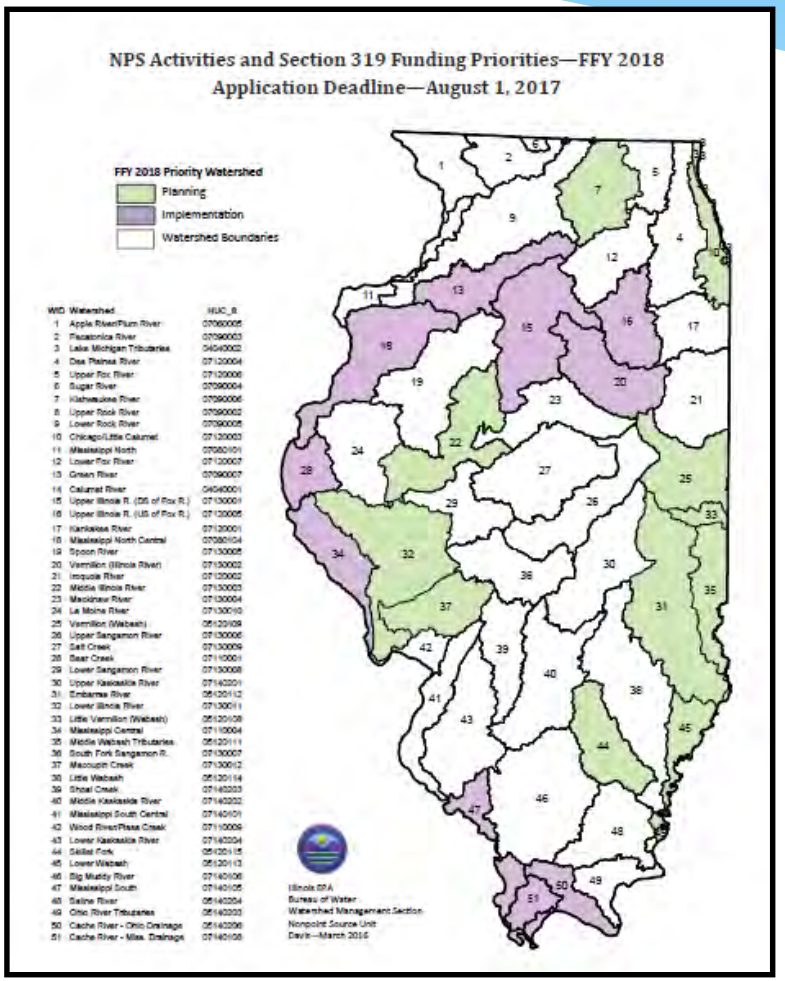
	Uniform Application for State Grant Assistance	
	Agency Completed Section	
1.	Type of Submission	○ Pre-application ⊘ Application ○ Changed / Corrected Application
2.	Type of Application	⊘ New ○ Continuation (i.e. multiple year grant) ○ Revision (modification to initial application)
3.	Date / Time Received by State	To be completed by Illinois EPA upon receipt of application
4.	Name of the Awarding State Agency	Illinois Environmental Protection Agency (Illinois EPA)
5.	Catalog of State Financial Assistance (CSFA) Number	532-60-0378
6.	CSFA Title	319 Grant
	Catalog of Federal Domestic Assistance (CFDA)	☐ Not applicable (No federal funding)
7.	CFDA Number	66.460
8.	CFDA Title	Nonpoint Source Implementation Grants
9.	CFDA Number	
10.	CFDA Title	
	Funding Opportunity Information	
11.	Funding Opportunity Number	2017 Section 319 NPS
12.	Funding Opportunity Title	Section 319(h) -- Nonpoint Source Pollution Control Financial Assistance
13.	Funding Opportunity Program Field	Not applicable
	Competition Identification	☑ Not applicable
14.	Competition Identification Number	
15.	Competition Identification Title	

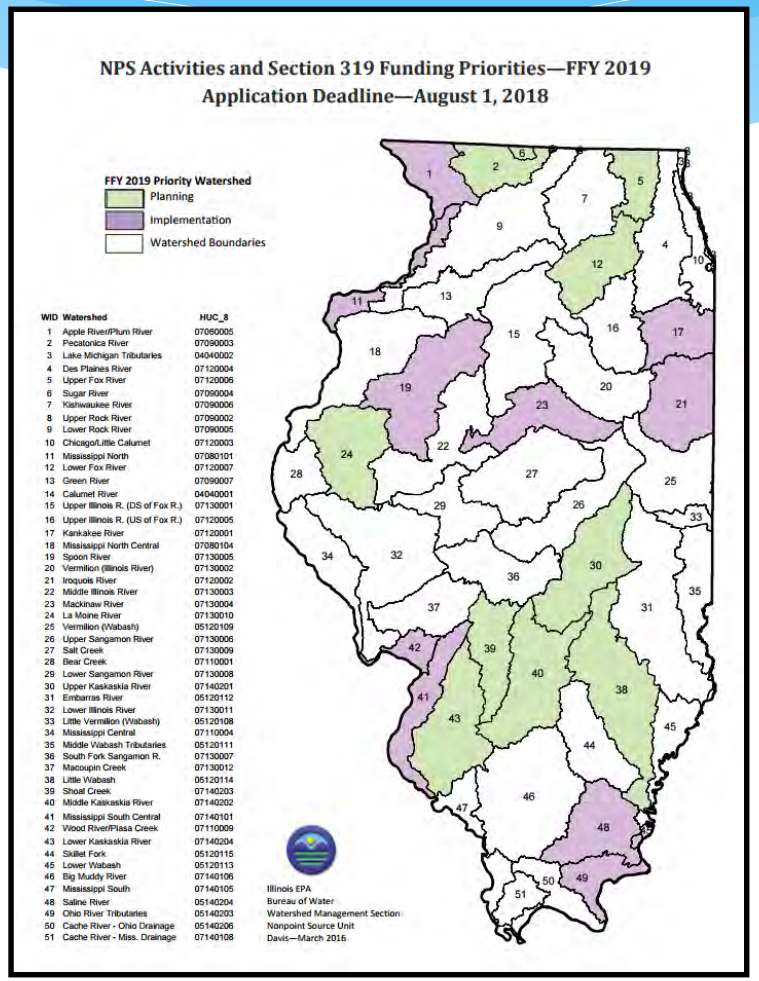
* Uniform Application requires
  * FEIN: Federal Employee Identification Number
  * DUNS: Data Universal Numbering System number *(can take up to 30 business days)*
  * SAM (System for Award Management) code
    * https://www.fws.gov/international/pdf/sam-duns-registration-instructions.pdf



* Uniform Budget Template
  * New Budget Expenditure Categories
  * Broken out by year & grant vs. match
  * Indirect Costs (negotiated federal IDC, negotiate a rate, or 10% de minimis rate, if qualified)

Illinois EPA Section 319 Watershed Priorities FY 18 & FY 19





319 Grant Questions?

Contact:
Illinois EPA – Bureau of Water
Nonpoint Source Unit

217.782.3362

www.epa.illinois.gov

Village of Brookfield's FY01 319 grant project

CMAP

Potential Projects in the LSC Watershed

- Share your ideas
- MetroQuest demonstration, comments

CMAP

Next Meetings

Lower Salt Creek
Watershed-based Plan

CMAP

Next Meetings

Thursdays, 1:00 p.m. - *Please offer to host!*

Aug. 10

- BMPs submitted
- Planning & Policy recommendations
- Information & Education component

Oct. 5

- Implementation Schedule, Interim Measurable Milestones, Criteria for Determining Success, Monitoring component

Dec. 7

- Final draft plan review

Announcements

BMP map exercise

BMP site visit

CMAP

Questions and Comments

Holly Hudson

Aquatic Biologist

LSC Project Manager

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Kelsey Pudlock

Water Resource Planner

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kpudlock@cmap.illinois.gov

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www.cmap.illinois.gov