

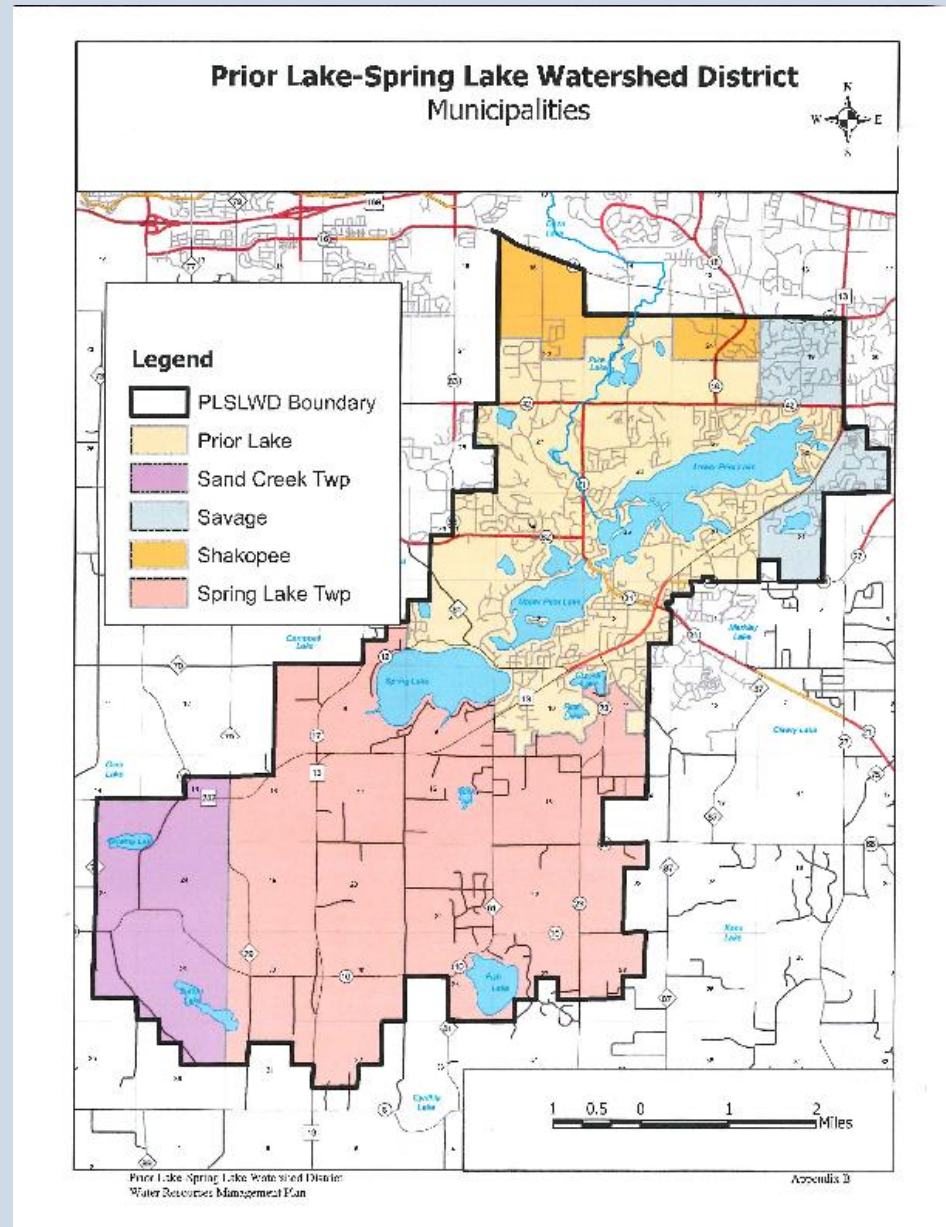
Prior Lake-Spring Lake Watershed District

City of Shakopee

February 5, 2019

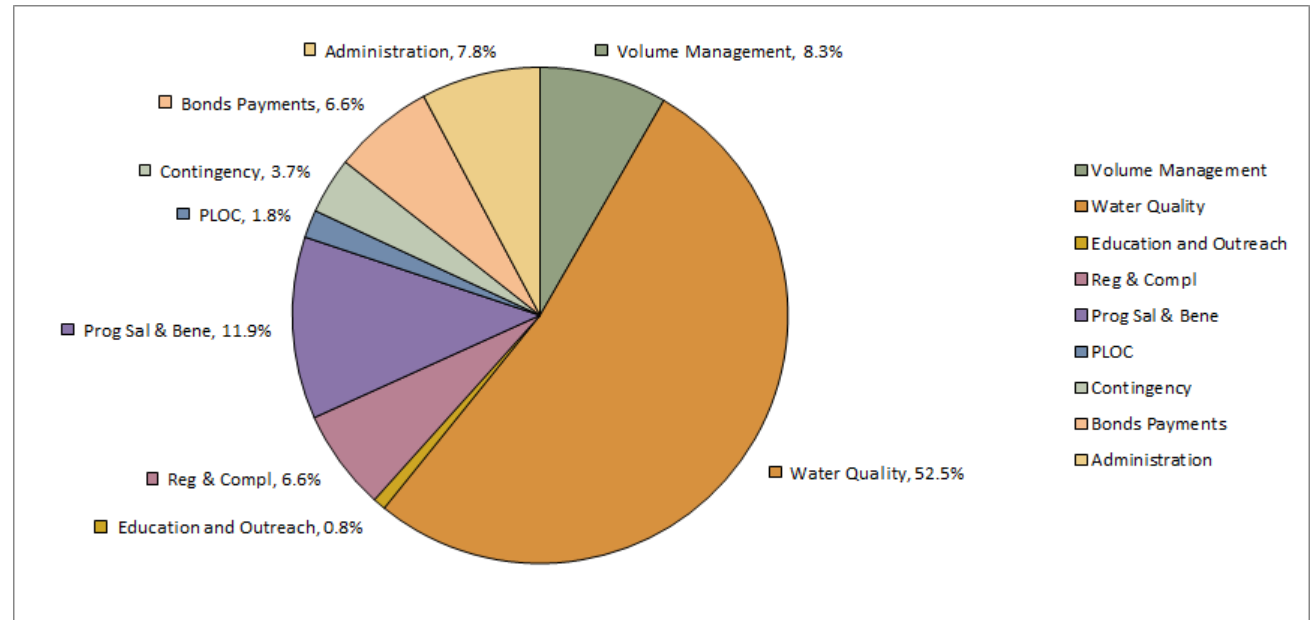
Just the Facts...

- 26,880 acres in the PLSLWD
- 42 sq. miles; 3 Cities 2 TS
- 4 lakes > 100 acres; 10 under; 730 wetlands
- 17,674 acres in the UW contribute to the Spring and Prior Chain of Lakes
 - 10,593 acres are in the Upper Watershed (+/- 60% of the District)
 - 7,081 acres directly drain to the chain (+/- 40% of the District)



Final
2019 Levy
\$1,794,632
(same as 2018)

- Historically relied upon a large fund balance
- Beginning in 2014, a fund balance was no longer available
- Budget now=Levy
- Levy+ grants from the state and county
- Board planning starts in July
- Final levy due in December



2018 Budget Jurisdictional support

Jurisdiction	Levy	% OF 2018 Levy
Sand Creek Township	\$9,890	.59
Spring Lake Township	\$164,707	9.84
City of Prior Lake	\$1,183,761	70.69
City of Savage	\$279,279	16.68
City of Shakopee	\$37,027	2.21

How the District Gets Things Done

5 Managers Appointed by Scott County

6 Staff: admin, regulation, monitoring, easements, projects

Scott SWCD & Consultants

Citizens Advisory Committee (CAC)

Technical Advisory Committees (TAC)

Partnering: District jurisdictions; other WDs & WMOs; Scott County; Metro and State agencies

2018 District Activities

➤ Programs

- Farmer-led Council
- Cost Share
- Monitoring and Research
- Conservation Easements
- Permitting
- Rules
- 2020 WRMP
- Clean Water Clean-Up
- IPM

➤ Projects

- Potential Infrastructure Projects
- Ferric Chloride Plant
- Prior Lake Outlet Structure & Channel
- FEMA
- Flood Storage
- Carp Management
- Spring Lake Alum Treatment
- Lower Prior Implementation

Programs

FARMER-LED COUNCIL (FLC):

- 
- Established in March 2013
 - Purpose :
 - Improve public understanding of farming operations
 - Proactively addressing water quality concerns
 - Help develop win-win programming
 - Local networking and education opportunities

Monitoring and Research

- Lakes

- Three Rivers Lake Profile Sampling
- CAMP Lake Sampling
- Lake Vegetation Mapping
- Lake Level Monitoring

- Streams

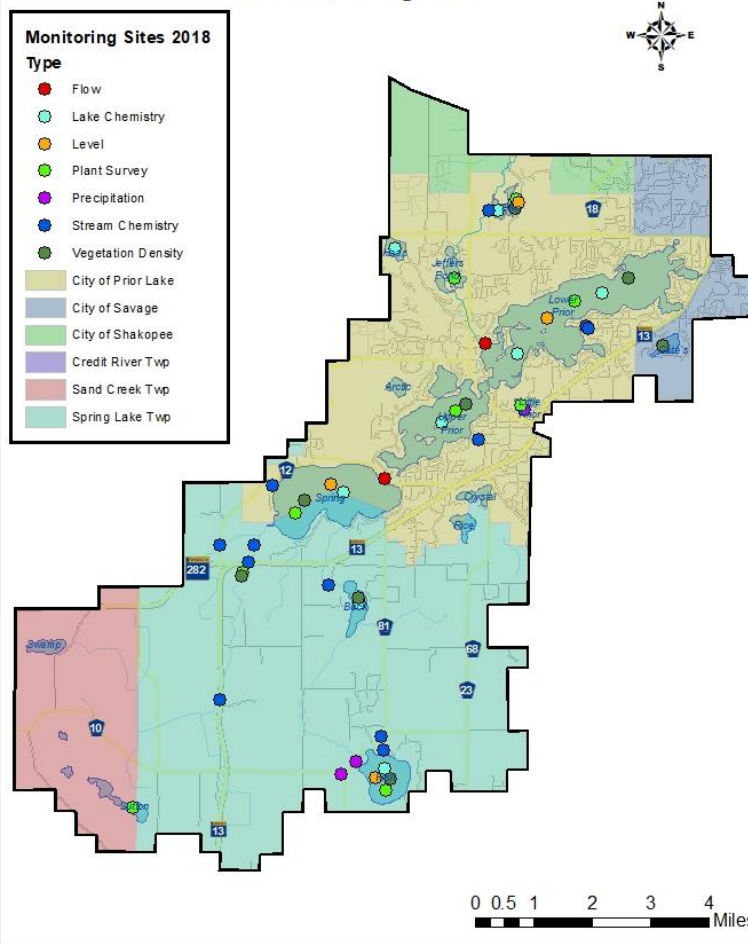
- Level and Flow
- Chemistry
- Monitored 3 tile lines for the FLC in 2016

- Precipitation Monitoring

- Project Effectiveness



Prior Lake-Spring Lake Watershed District Monitoring Sites



Source: PLSLWD Files

Results

June through September averages

Lake	2018 Phosphorus / Goal	2018 Chl-A / Goal	2018 Secchi / Goal
Spring	41 / <60	32 / <20	1.2 / >1.4
Upper Prior	59 / <60	32 / <20	1.3 / >1.0
Lower Prior	24 / <40	5 / <14	4.8 / >1.4
Fish	34 / <40	17 / <14	1.7 / >1.0
Pike – East	193 / <60	77 / <20	0.4 / >1.0
Pike – West	78 / <60	32 / <20	0.9 / >1.0

Conservation Easements

- Vegetated buffers around wetland, lake, pond, stream or other natural area
- Filter pollutants from stormwater runoff
- Many acquired as part of permit requirements for a housing development
- 37 Easements with 155 unique landowners
- 2 for Scott County



Permit Program

Why does the PLSLWD issue permits?

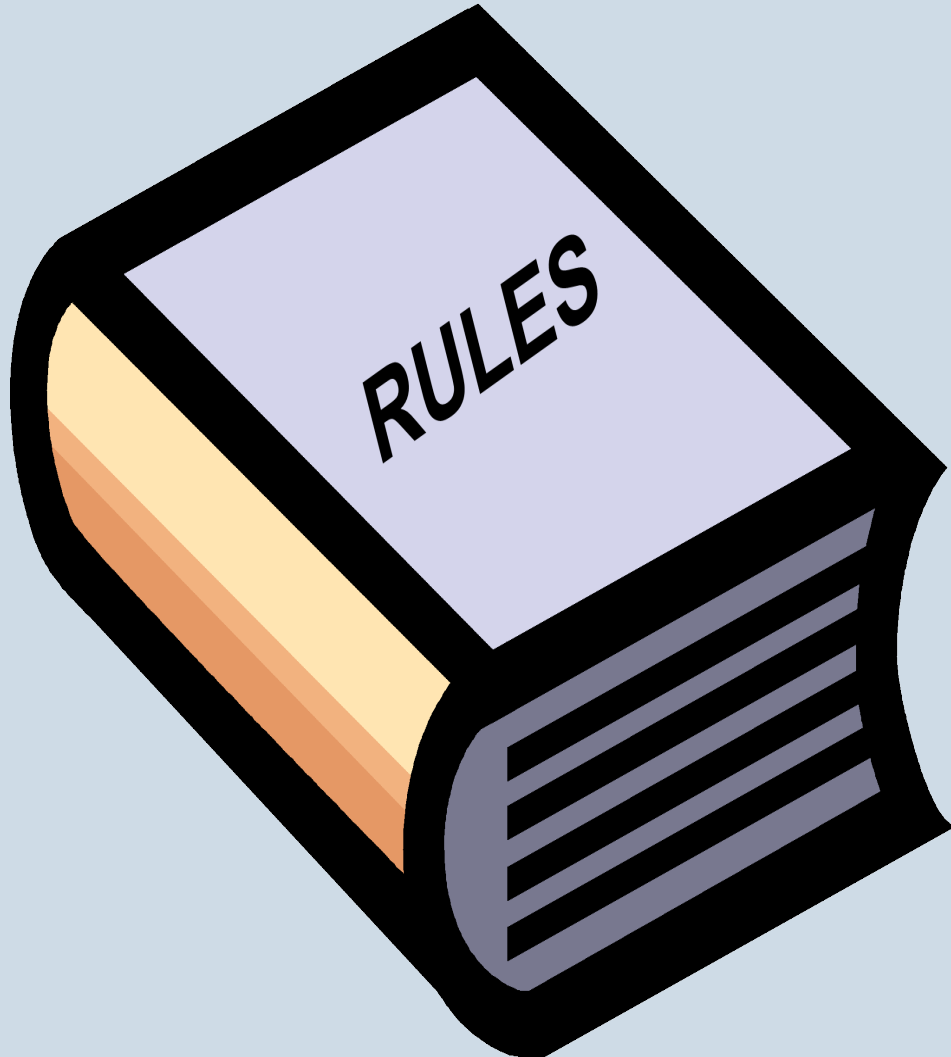
Land alteration/construction can affect the **rate**, the **volume**, and the **quality** of surface water runoff within the District.

When does PLSLWD issue a permit?

Projects within PLSLWD boundaries that disturb an area of land equal to:

- 10,000 square feet (0.23 acres) in the Shoreland Protection Zone:
- 43,560 square feet (1 acre) outside of the Shoreland Protection Zone.
- Those in Spring Lake Township are handled by Scott County, through an equivalency agreement

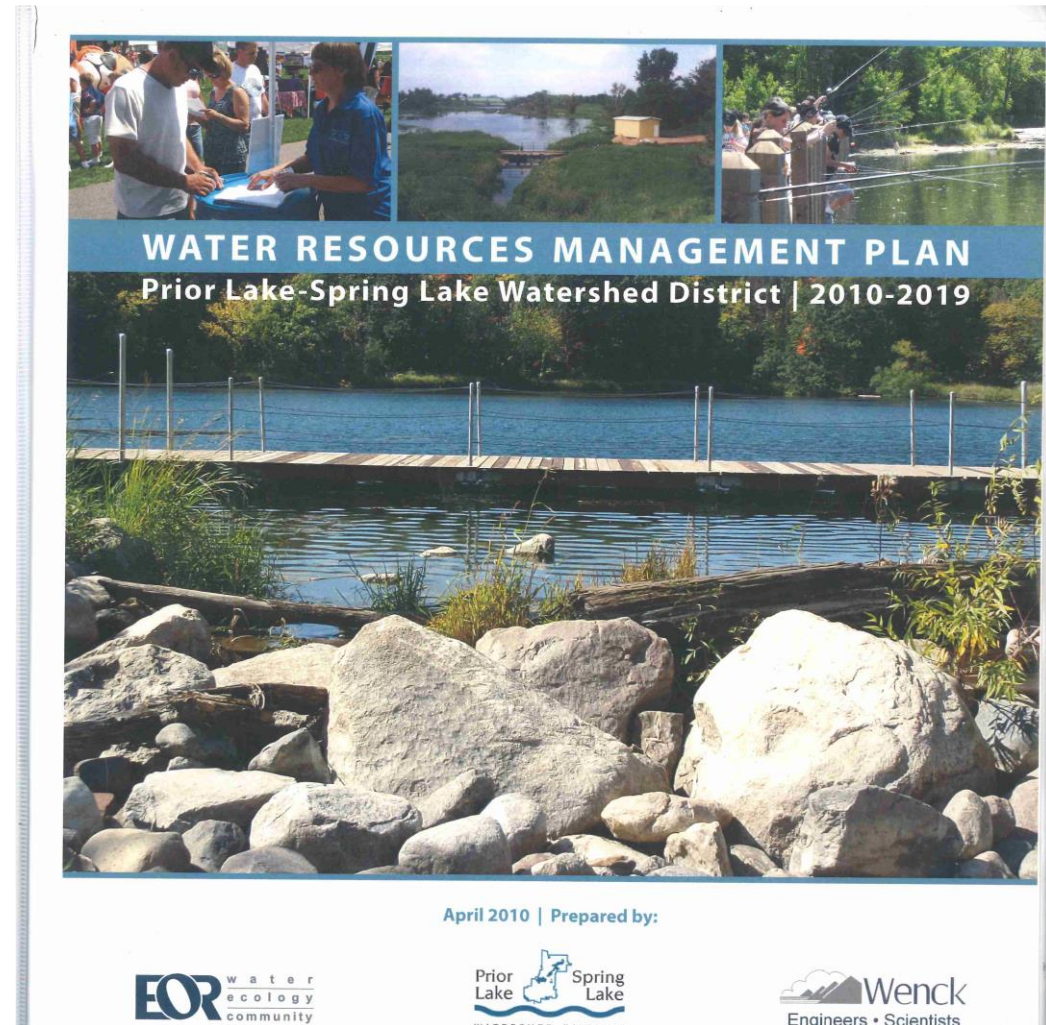
RULE Revisions



- Last substantially revised in 2003
- Need to update to meet state guidance & advances in stormwater management
- Working with a Technical Advisory Committee
- Rule D: Stormwater Management/ad hoc committee
- Rule E: Erosion & Sediment Control

2020 Water Resources Management plan

- Major Plan Update required by MS 103D and 103B
- TAC, CAC, FLC and Public Meetings



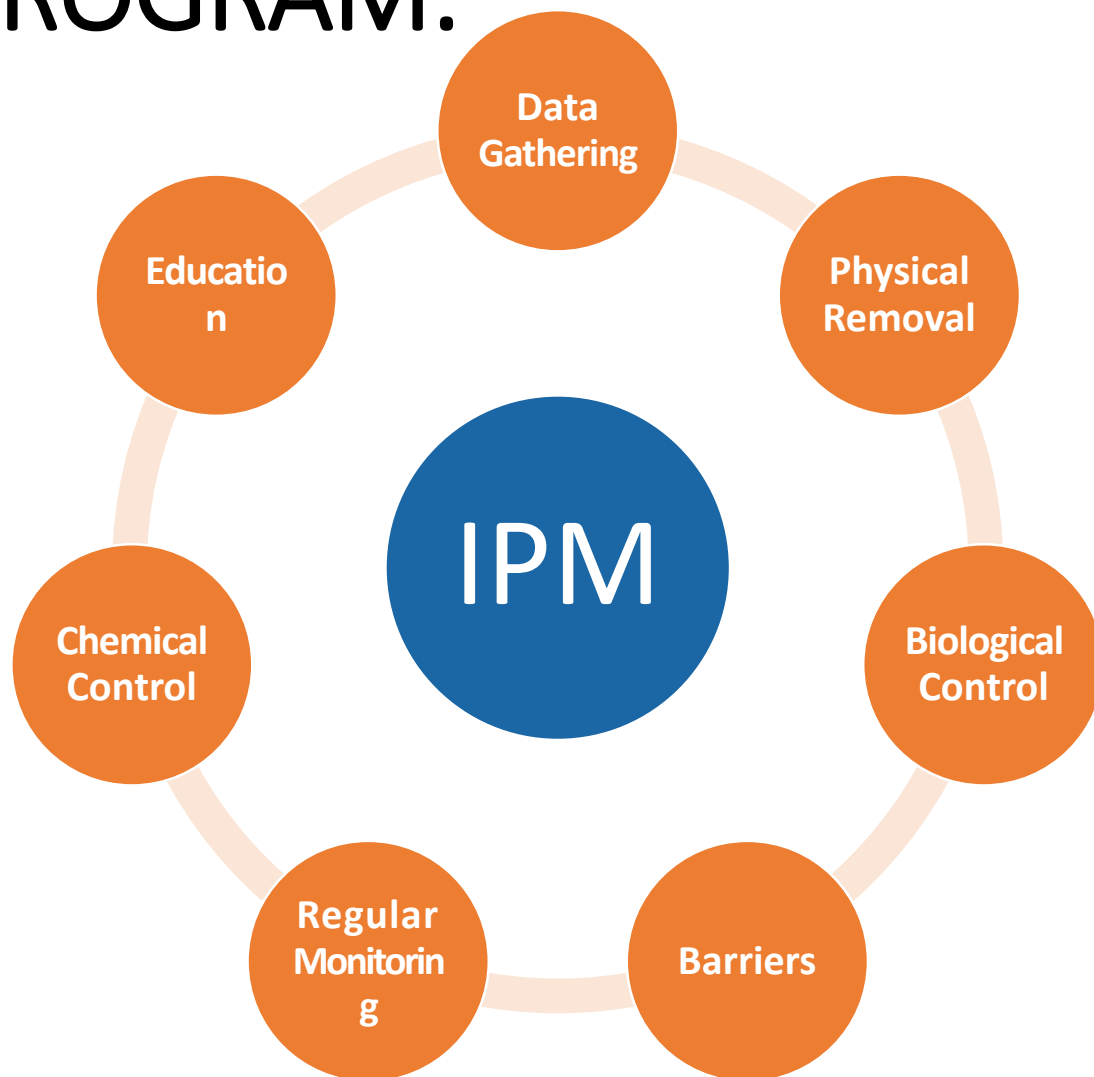
Clean Water Clean-Up

Oct 28 @ Sand Point Beach Park

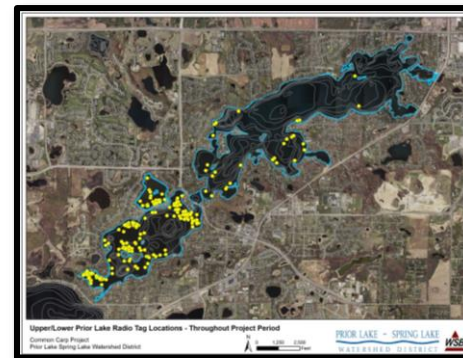
- 50 **volunteers**, including local Scouts members
- Planted 55 **shrubs**
- Raked 2.5 tons of **leaves**
- Pulled 1 truckload of **buckthorn**



INTEGRATED PEST MANAGEMENT PROGRAM:



Track Movement



Carp Barriers



Seine Events



Bluegills



Projects

2019
Potential Public
Infrastructure Projects
Budget \$100,000
Projects=\$140,000

Partner	Project	Estimated Cost
Sand Creek Township	Redwing Ave. Ditch Checks and/or Filter Strips (2 projects)	\$30,000
Sand Creek Township	Ditch 13 Headwaters Erosion	\$15,000
Spring Lake Township	Shoreline Restoration Demo	\$5,000
City of Prior Lake	Sunset Hills Park Retrofit	\$80,000
City of Prior Lake	Fairlawn Shores Improvement	\$10,000

Ferric Chloride Facility and Wetland



Prior Lake Outlet Structure



Structure installed in 1983, modified in 2010



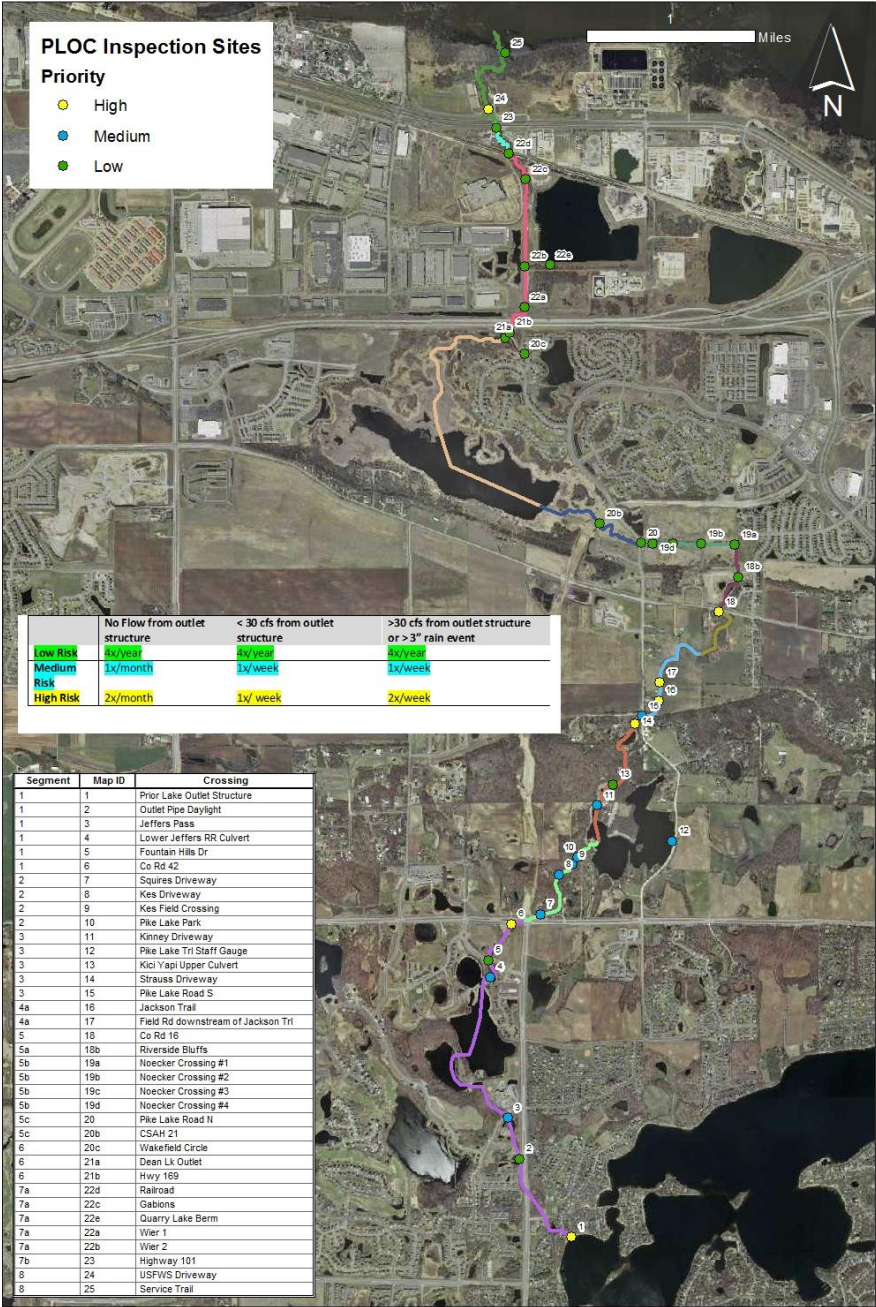
Focus slowly swung to water quality

Cooperators

- Shakopee
- Prior Lake
- SMSC
- PLSLWD
- Annual Work Plan
- Channel Maintenance
- Master Plan



Outlet Channel Inspection Sites



FEMA PROJECTS



Flood Storage Projects

- 1997 CD-13 Wetland
- 2004 Sandey Wetland
- 2014 12/17 Wetland
- Sutton Lake (in process)





Carp Management

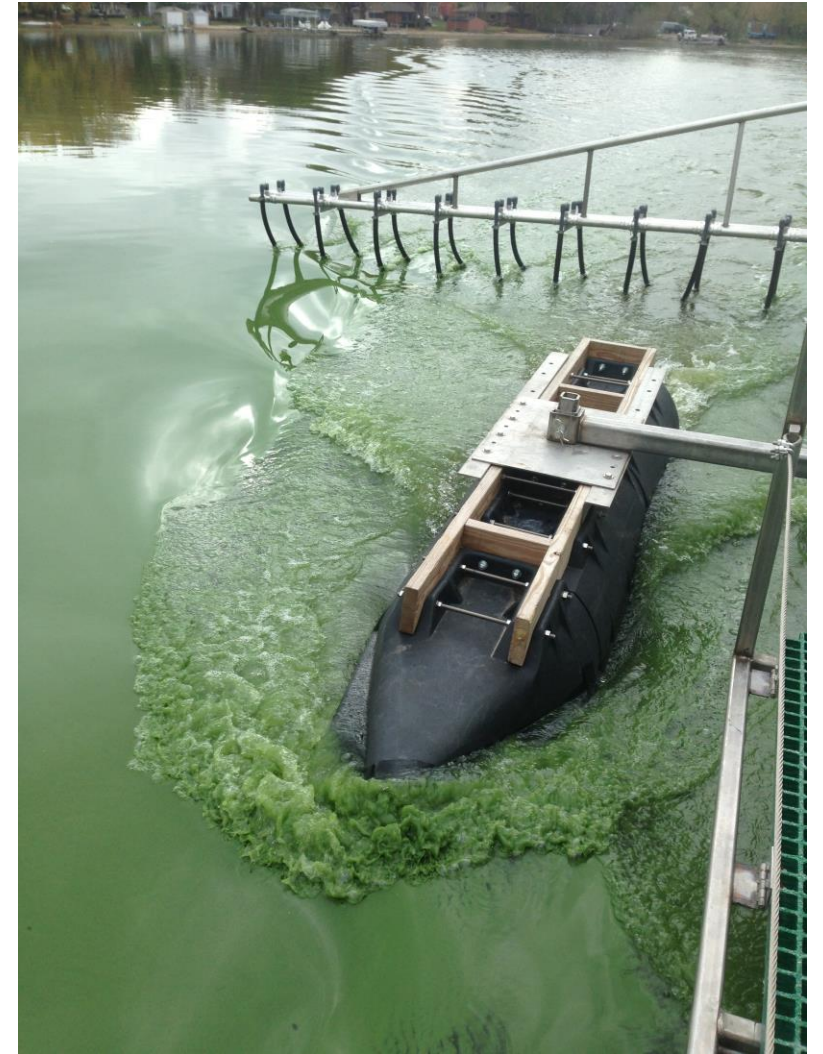


35,000 pounds!



Spring Lake Alum Treatment

- Treatment completed on May 26
- First treatment in 2013; third expected in 3+ years

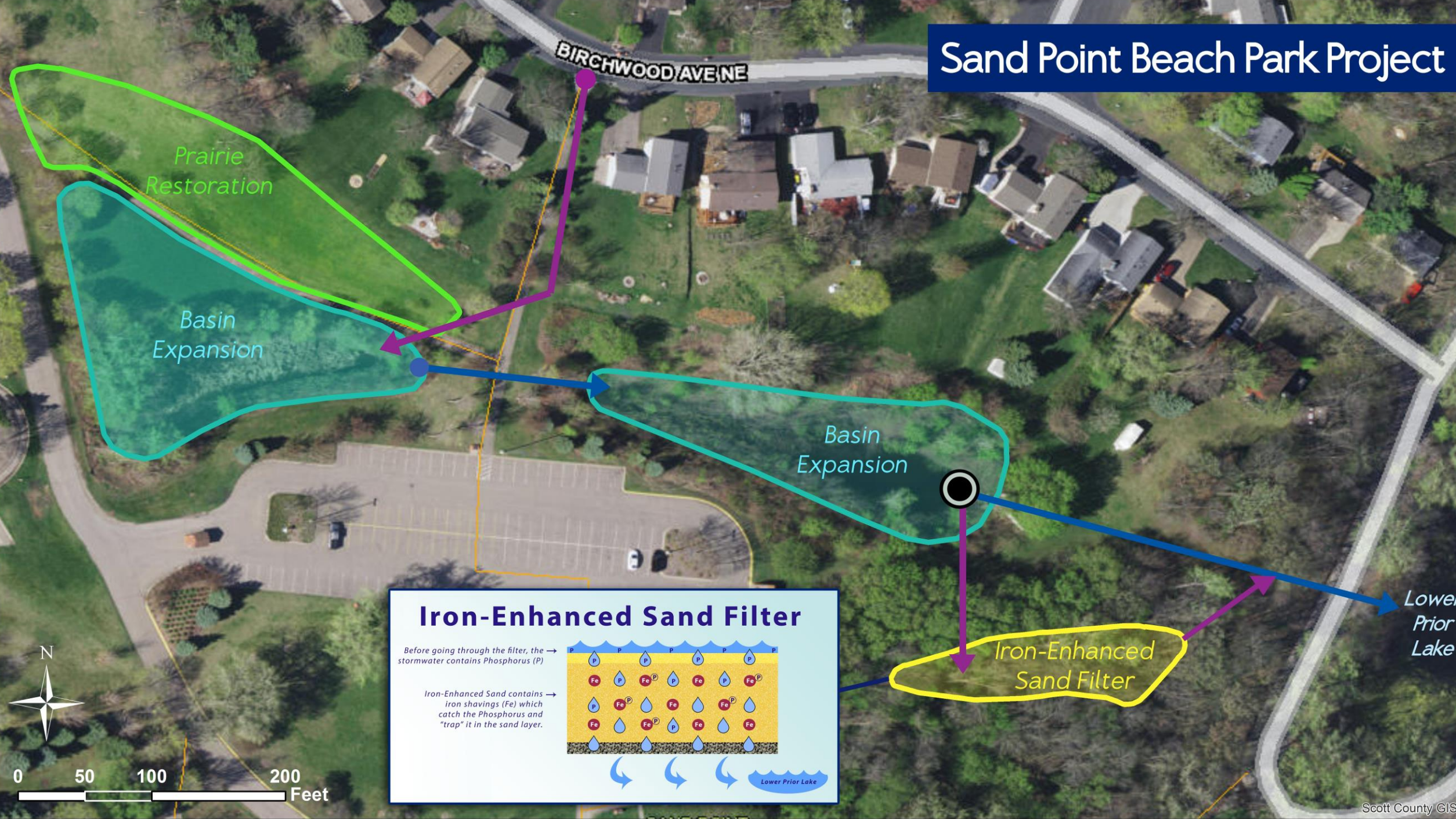


Fish Point Park

Lower Prior Implementation Project



Sand Point Beach Park Project



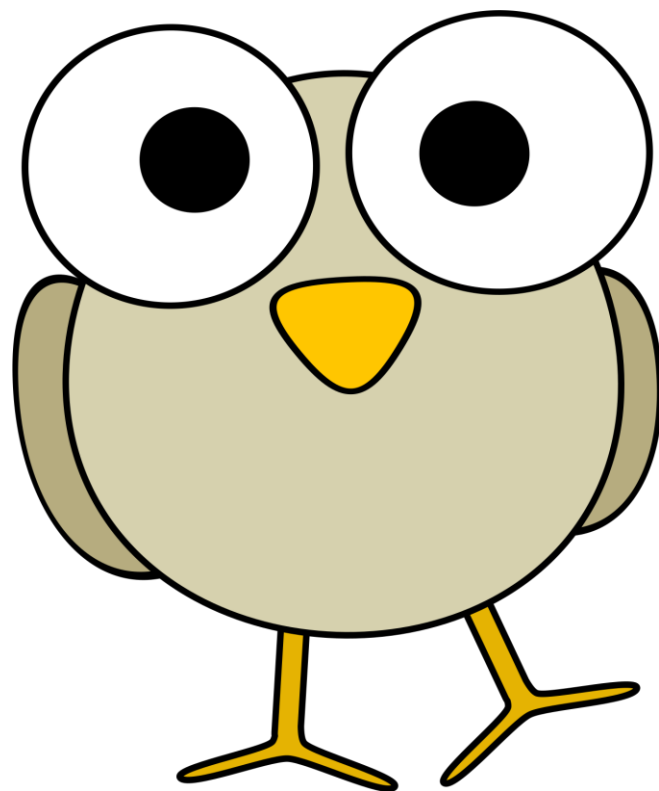
Iron-Enhanced Sand Filter

Before going through the filter, the → stormwater contains Phosphorus (P)

Iron-Enhanced Sand contains → iron shavings (Fe) which catch the Phosphorus and "trap" it in the sand layer.

P	P	P	P	P	P	P	P
Fe	P	Fe	P	Fe	P	Fe	P
P	Fe	P	Fe	P	Fe	P	Fe
Fe	P	Fe	P	Fe	P	Fe	P

Lower Prior Lake



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