

# Welcome to NEW Water Quarterly Update



March 4, 2016



# Overview of Today's Update

- Welcome!
- Part 1:
  - R2E2 Update
  - Adaptive Management
  - Budget Process
  - Billing Methodology
  - Toilets Not Trashcans
- Part 2:
  - Interceptor System Master Plan



# R2E2 Update





# R2E2 Contract 34 Update

- Project to construct Anaerobic Digestion & Solids Facility
- Completed HSW receiving roadway
- Completed excavation of new solids building & digester area
- Completed digester supportive piling
- Began concrete placement for solids facility base slab
- Began construction of HSW storage rooms
- Executed Change Orders #1, 2, and 3 for net reduction to contract in the amount of \$1,218,795



# Solids Facility Concrete Placement



# Solids Facility Concrete Placement



02/25/2016

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# Solids Facility Plant Return Sewer





New Interconnecting Tunnel Excavation





# New Interconnecting Tunnel Excavation

# Digester Support Piles



02/15/2016

# Septage Screening Building



02/24/2016



# Contract 34 Proposed Timeline

- 2016
  - Complete solids building enclosure, start mechanical and electrical installation
  - Start construction of fluid bed incinerator and placement of sludge dryer
  - Digester cone and skirt wall / base slab / gallery construction
  - Biogas building construction
  - New septage receiving complete
- 2017
  - Digester wall construction, covers placed, mechanical & electrical installation
  - Continue solids facility process mechanical & electrical installation
  - Continue construction of fluid bed reactor and air pollution control equipment
  - Ash dewatering cells construction
  - Biogas storage & treatment mechanical installation
  - Solids facility testing/training/startup
- 2018
  - Digestion & biogas facilities testing/training/startup
  - Nutrient extraction system testing/training/startup
  - August 2018 – Final Completion



# GBF Disinfection Project Update

- Replacing chemical disinfection & dechlorination equipment and piping
- Chlorination distribution, feed equipment & piping largely complete
- Dechlorination feed equipment & piping largely complete
- Startup, testing, training coming in March
- Substantial completion expected April 1, 2016



# New Chlorination Feed Equipment



# New Chlorination Feed Controls



# Dechlorination Containment Area Coating



CP-K2  
SODIUM BISULFITE  
FEED PUMP

CP-K3  
SODIUM BISULFITE  
FEED PUMP





# Adaptive Management



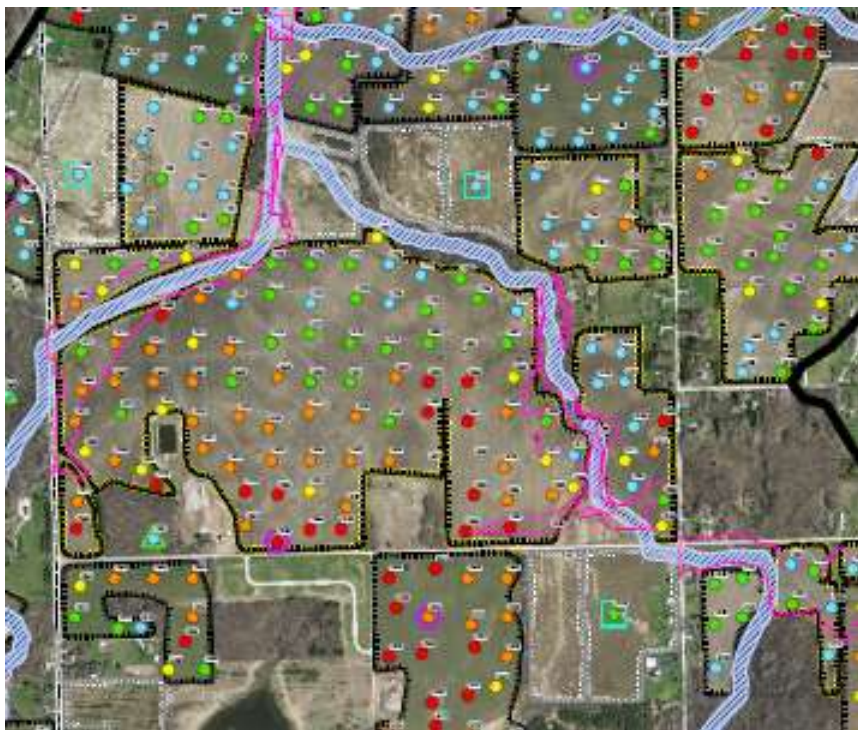
# Silver Creek Pilot Project





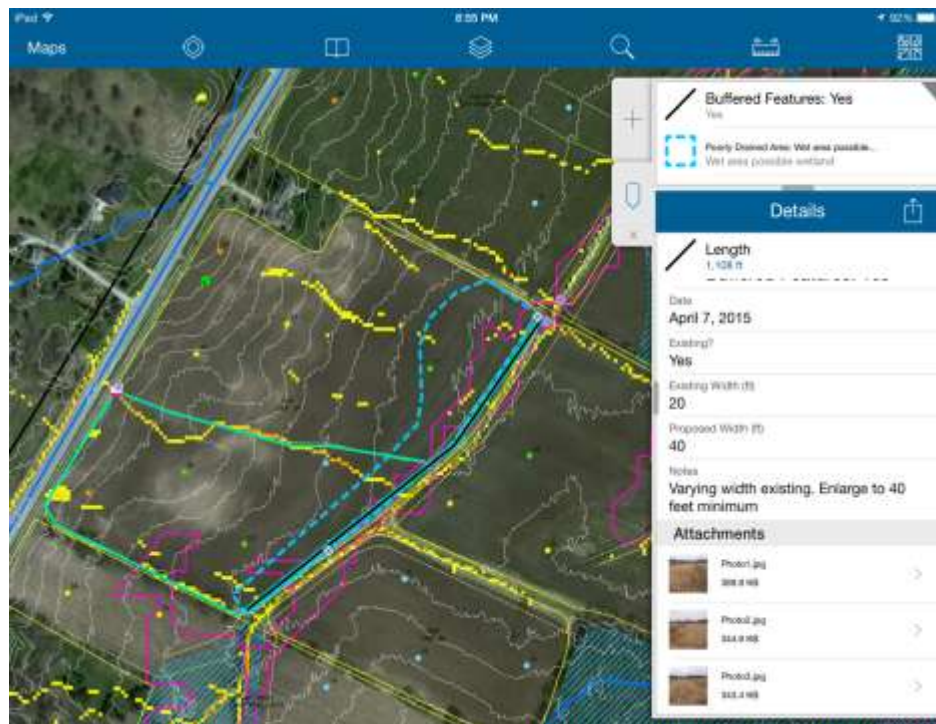
# 2015 – A Year of Inventory

## Soil Sampling



- 108 Fields sampled – 2.5 acre grid

## Comprehensive Field Evaluations



- ArcGIS Collector – tablet application



# 2015 – A Year of Inventory

## Conservation Planning Meetings



## Grazing & Wetland Planning Meetings



- Agronomists, County, Oneida, NRCS, CH2M, NEW Water Staff



# Conservation Plans

## CONSERVATION & ENHANCED NUTRIENT MANAGEMENT PLAN

Crop Year: 2016



FIELD IS OWNED BY

THIS FIELD AND ALBERS-2 ARE RUN THE SAME.

THE BLUE LINE OF THE CREEK IS BELIEVED TO OVERBURDENED WITH VEGETATION AND CAUSING WATER TO BACKUP ON THE ALBERS 2 AND 3 FIELDS.

- Structural Practices
  - Grassed Waterways
  - Buffer Strips
  - Critical Area Plantings
- Operational Practices
  - Cover Crops
  - Reduced till/no till
  - Crop rotation modification
  - Precision nutrient application
  - Etc
- Nutrient Management Plan



# Winter 2016 - Planning

## Wetand Site Plans



## Grazing Site Plans





## Next Steps – 2016

- March 4 NRCS EQIP Funding Applications
- “Kitchen table” meetings with growers and owners
- Refine Conservation Plans and Enhanced Nutrient Management Plans
- Cost-Share Agreements
- **Installing practices** ★
- Wetland restoration
- Establish grazing operation



A satellite map showing a landscape with green vegetation, brown patches, and a large blue body of water on the right. A white star is positioned in the center, and a white arrow points to the right towards the blue water. Text labels are overlaid on the map.

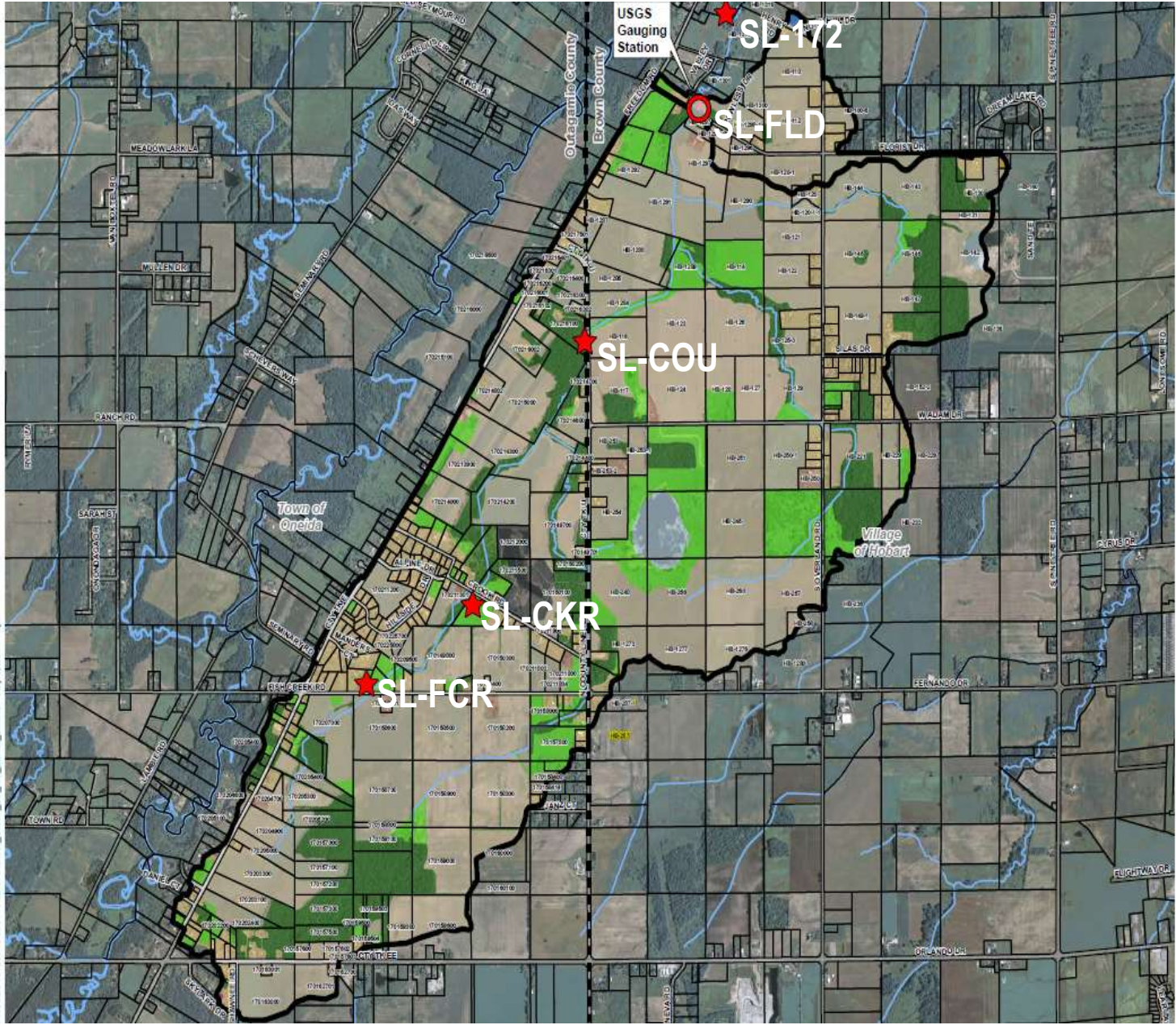
Silver Creek  
Watershed

NEW  
Water

Five Sample Sites along Silver Creek:

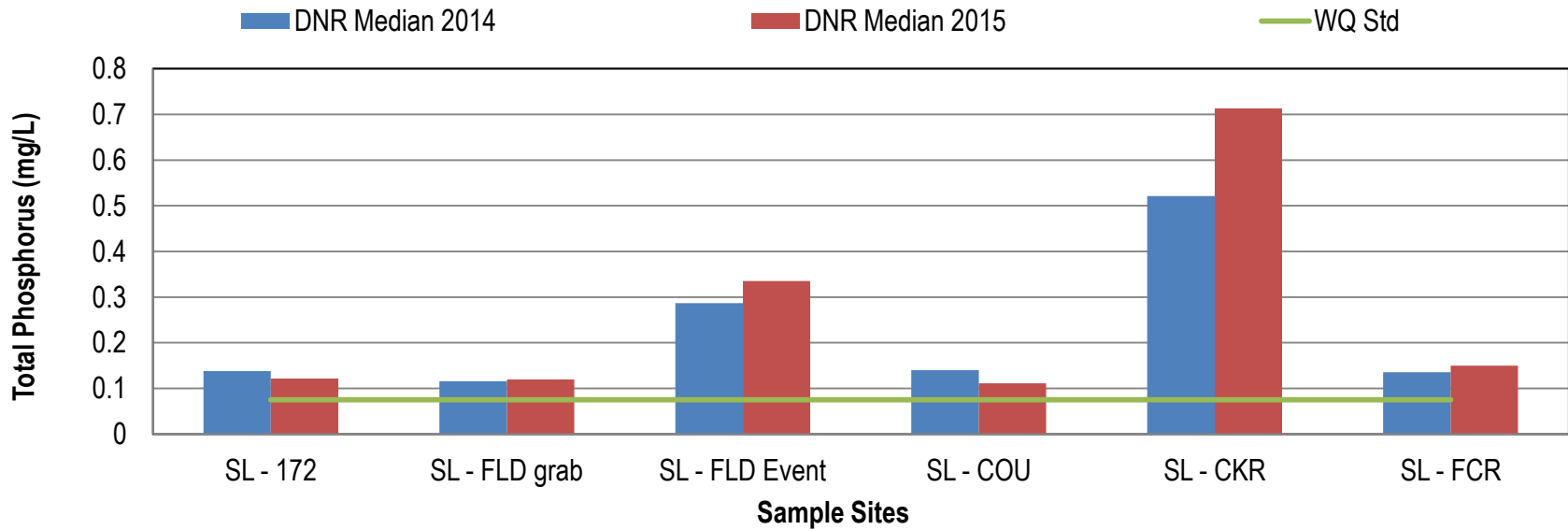
- Hwy 172: SL-172
- Florist Drive (USGS): SL-FLD
- County U: SL-COU
- Crook Road: SL-CKR
- Fish Creek Road: SL-FCR



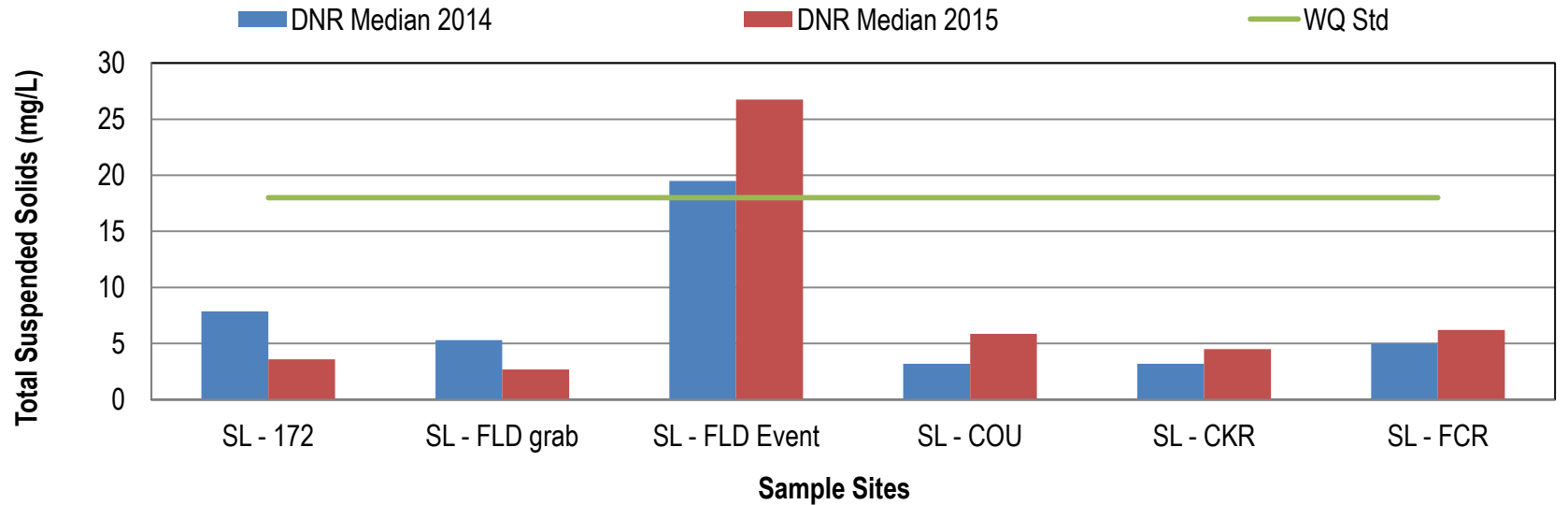




### Silver Creek Total Phosphorus



### Silver Creek Total Suspended Solids



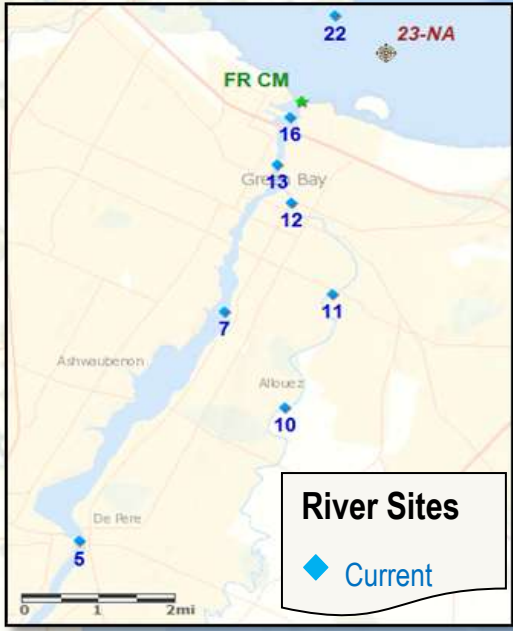
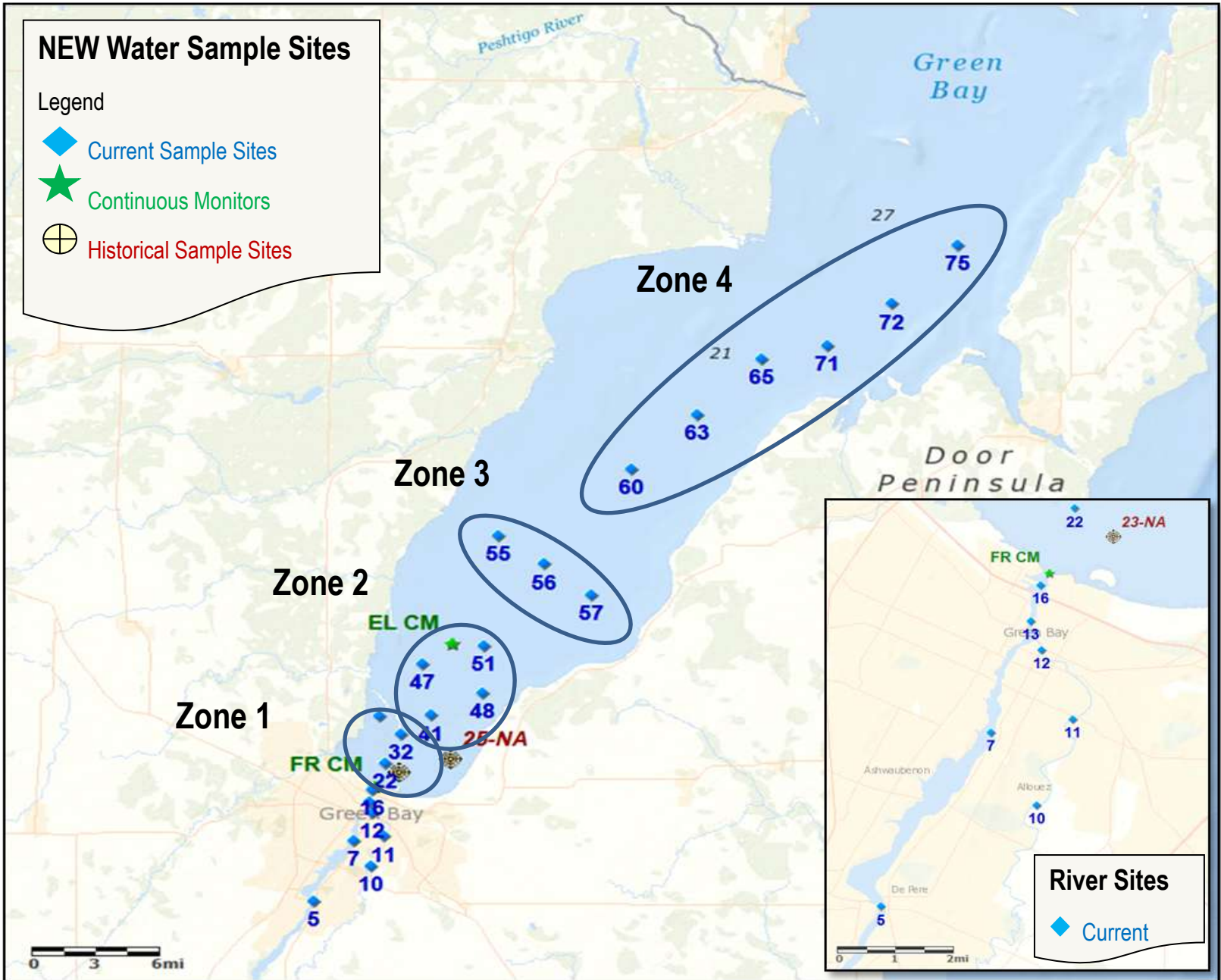
# NEW Water Sample Sites

Legend

◆ Current Sample Sites

★ Continuous Monitors

⊕ Historical Sample Sites



## River Sites

◆ Current



# Aquatic Monitoring Program

- **Continuous Monitoring Stations**

- Mouth of Fox River & Lower Green Bay
  - Temperature
  - Dissolved Oxygen
  - Specific Conductivity
  - pH

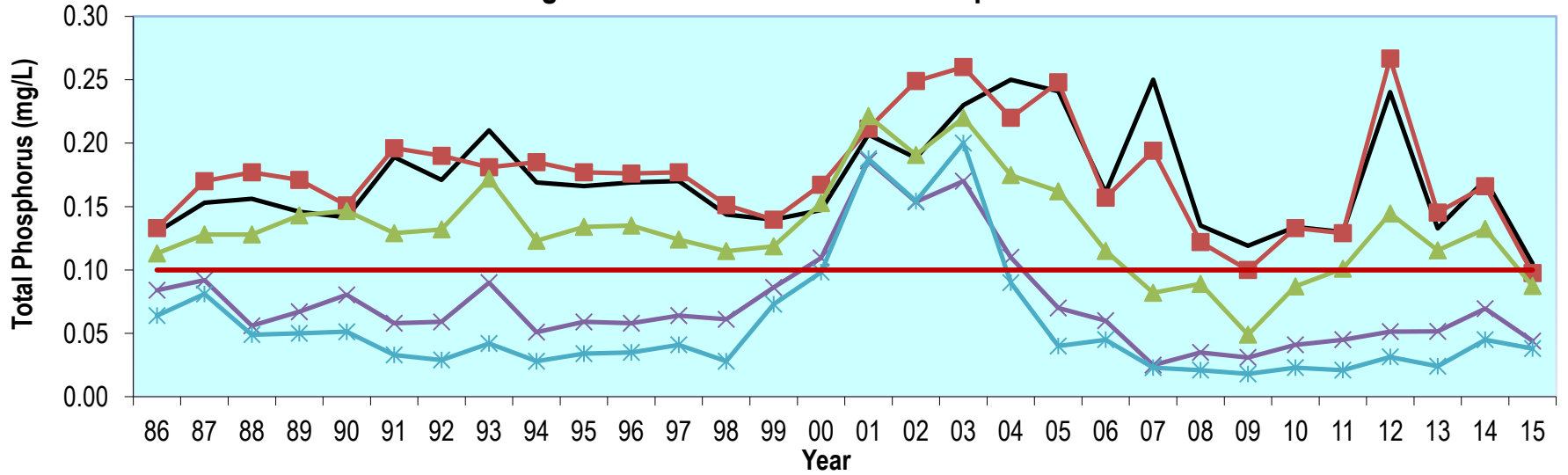
- **Grab samples**

- Sampled every week, May-Oct
  - Nutrients: phosphorus, nitrogen, chlorides
  - pH
  - Chlorophyll
  - Suspended solids
  - Turbidity
  - Secchi depth



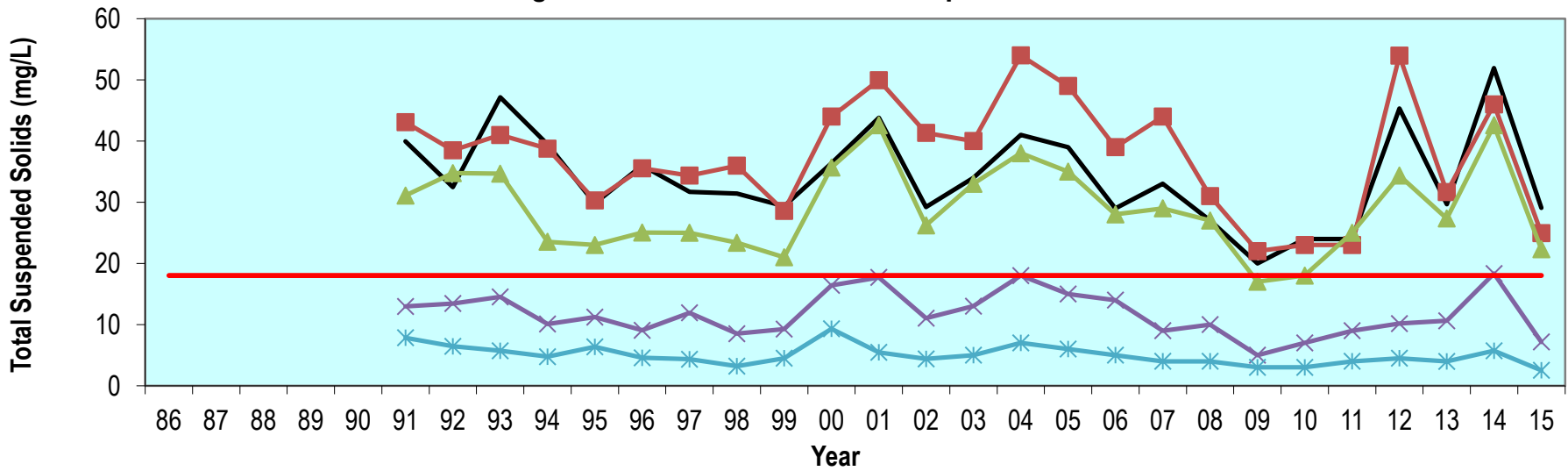


### Long Term Trend Data for Total Phosphorus



— Above DePere    ■ Fox River    ▲ Zone 1    × Zone 2    \* Zone 3    — TMDL Target

### Long Term Trend Data for Total Suspended Solids



— Above DePere    ■ Fox River    ▲ Zone 1    × Zone 2    \* Zone 3    — TMDL Target

# Interannual Variability

2009

2010

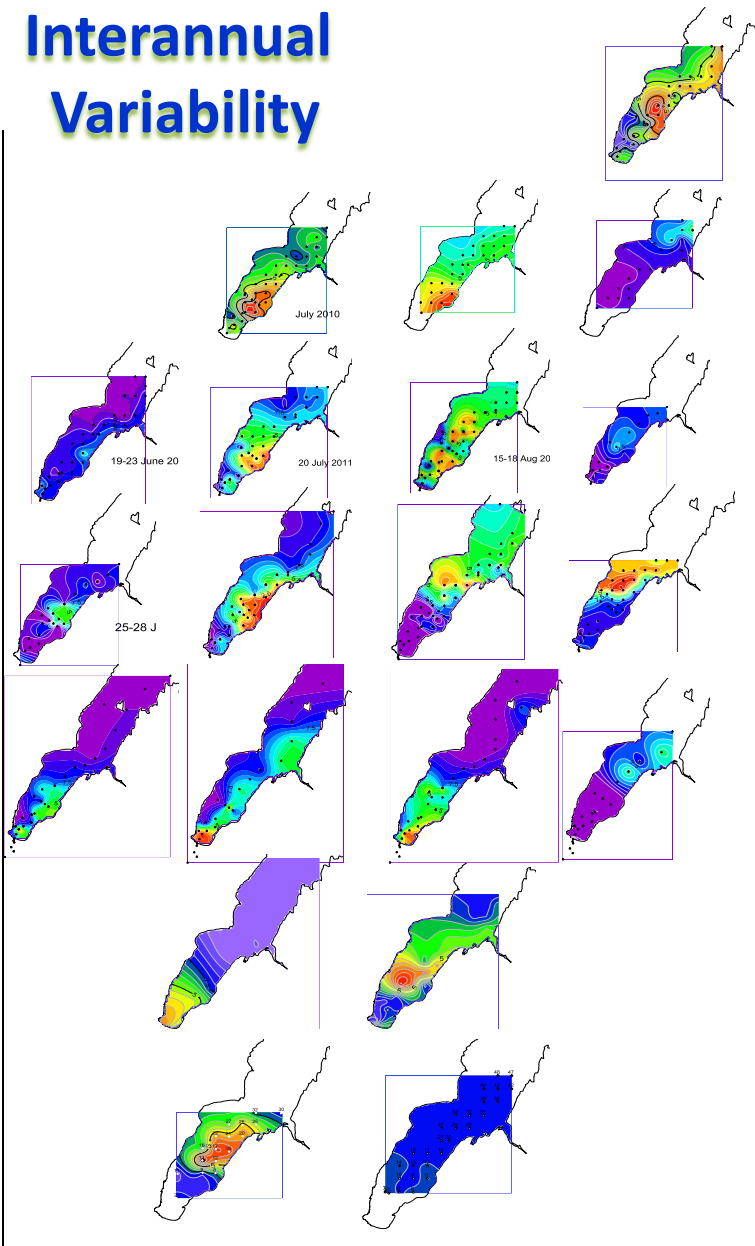
2011

2012

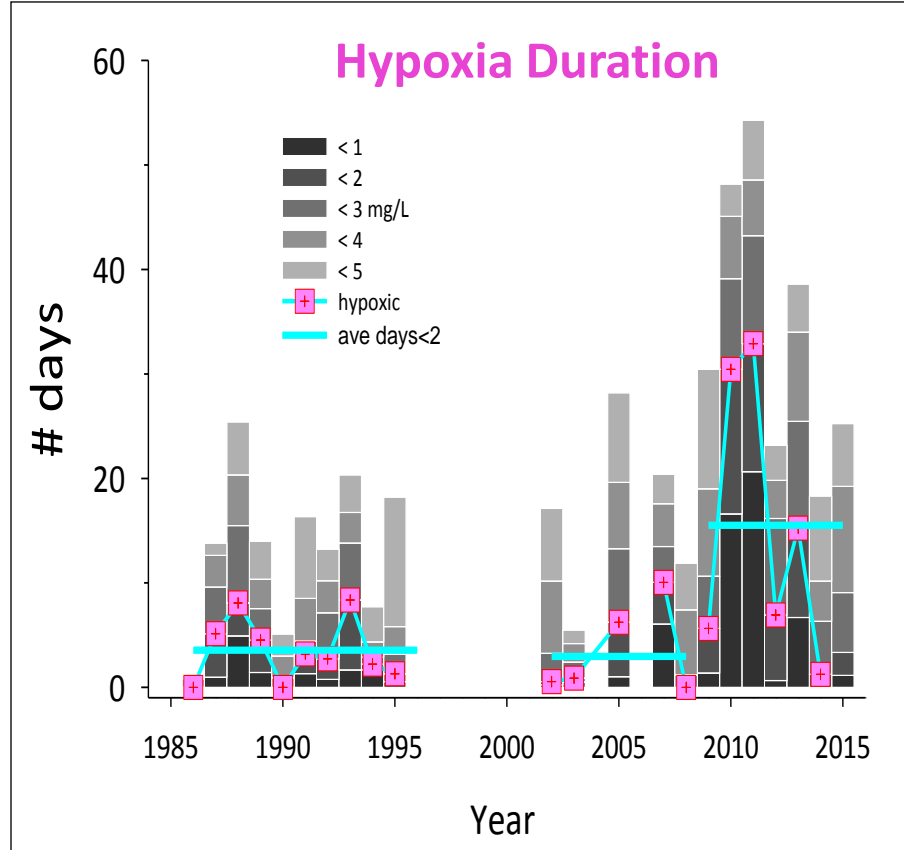
2013

2014

2015



mg/L Dissolved Oxygen



← WQ Std = 5 mg/L

← Hypoxic < 2 mg/L

... major driver → nutrient loading → algal production



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*Questions?*



## Other Updates

- Budget Process
- Billing Methodology
- Toilets Not Trashcans
- Short break... then Interceptor System Master Plan





# Interceptor System Master Plan