

# Watertown Wetland Restoration

Notes from the Field

Kristen Larson

Water Resource Program Analyst

April 30, 2024

# Outline



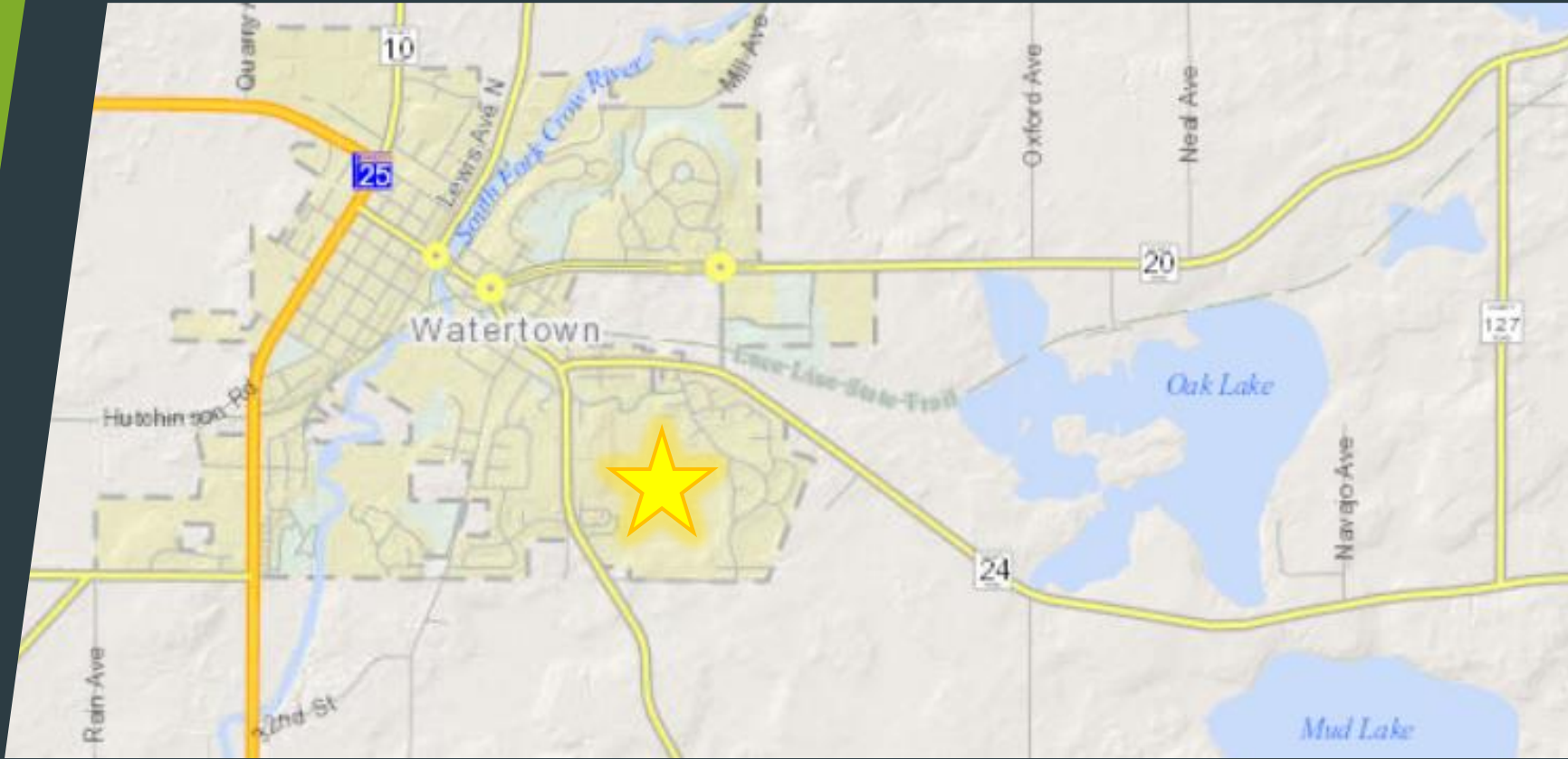
**BACKGROUND**



**WEIR  
CONSTRUCTION**

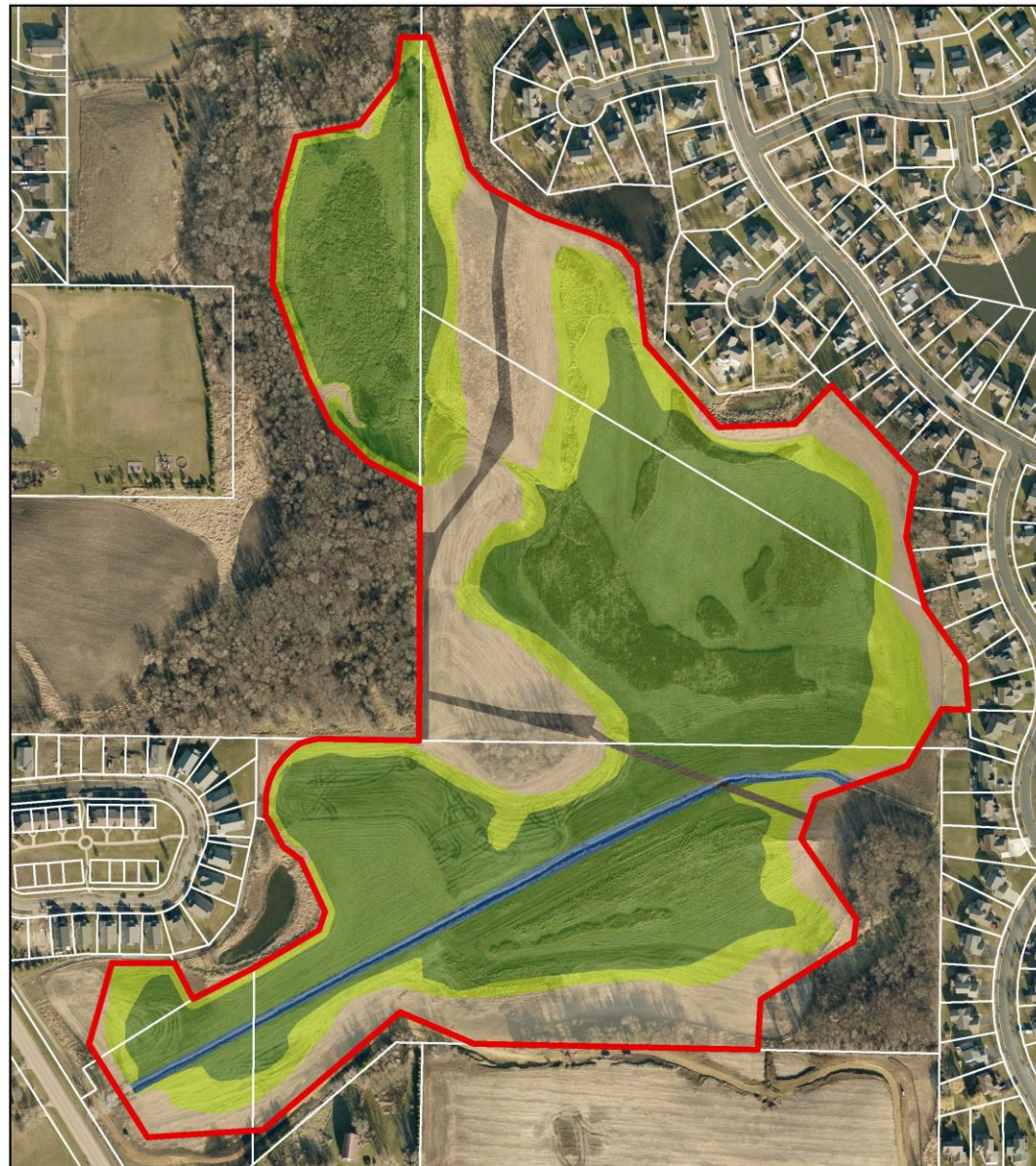


**ANNUAL  
MONITORING**



# Project Location

# Planned Vegetation



**Figure 9. Proposed  
Vegetation Communities**  
Watertown Wetland Bank  
Watertown, Carver County, Minnesota  
Map Date: 3/1/2019

# Outcomes



50 acres of  
restored wetland



14 acres of  
restored prairie



Publicly  
accessible



Before Restoration  
looking east | November 2015



**Before Restoration**  
looking northeast from CR 10







# Annual monitoring



HYDROLOGY  
MONITORING

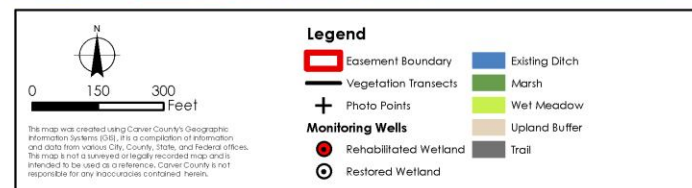


VEGETATION  
MONITORING



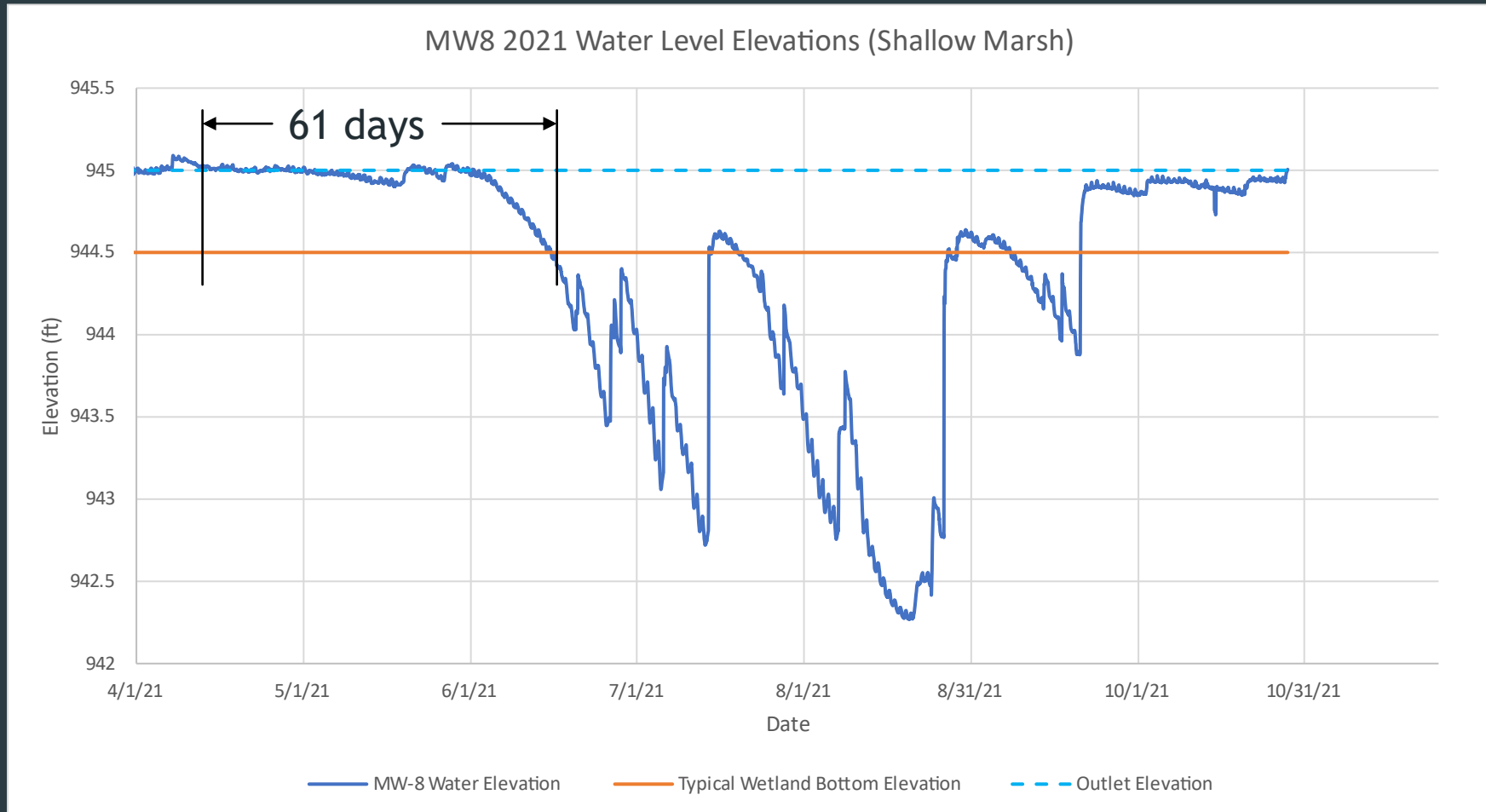
PHOTO  
MONITORING

# Monitoring Locations



**Figure E-3.**  
**Monitoring Map**  
 Watertown Wetland Bank  
 Watertown, Carver County, Minnesota  
 Map Date: 3/1/2019

# Hydrology Monitoring



**STANDARD:** Hydrology shall consist of a water table at the surface to inundation to the outlet elevation for a minimum of 56 consecutive days during the growing season under normal to wet conditions.

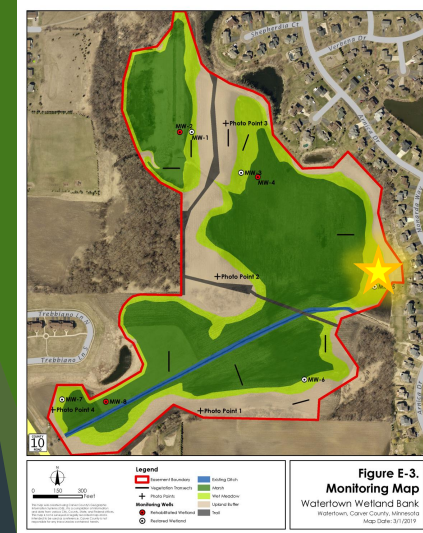


**After Restoration**  
Shallow Marsh community (looking east)

# Shallow Marsh Vegetation Monitoring Results

- 23 species observed
- 21 native species
- Most common species:
  - river bulrush
  - nodding bur marigold
  - rice cut grass

Vegetation Community	Shallow Marsh	
Common Name	Scientific Name	Indicator
River Bulrush	<i>Bolboschoenus fluviatilis</i>	OBL
Narrow-leaf Cattail	<i>Typha angustifolia</i>	OBL
Nodding Burr Marigold	<i>Bidens cernua</i>	OBL
Rice Cut Grass	<i>Leersia oryzoides</i>	OBL
Reed Canary Grass	<i>Phalaris arundinacea</i>	FACW
Broadleaved Arrowhead	<i>Sagittaria latifolia</i>	OBL
Nodding Smartweed	<i>Persicaria lapathifolia</i>	FACW
Barnyard Grass	<i>Echinochloa crus-galli</i>	FACW
Stinging Nettle	<i>Urtica diocea</i>	FACW
Bur Cucumber	<i>Sicyos angulatus</i>	FACW
Bugleweed	<i>Lycopus uniflorus</i>	OBL
Softstem Bulrush	<i>Schoenoplectus taebernaemontanii</i>	OBL
Giant Manna Grass	<i>Glyceria grandis</i>	OBL
Northern Water Plantain	<i>Alisma triviale</i>	OBL
Wild Mint	<i>Mentha arvensis</i>	FACW
Broadleaf Cattail	<i>Typha alatifolia</i>	OBL
Woolgrass	<i>Scirpus cyperinus</i>	OBL
Marsh Skullcap	<i>Scutellaria galericulata</i>	OBL
Dogbane	<i>Apocynum cannabinum</i>	FAC
Duckweed	<i>Lemna minor</i>	OBL
Golden Alexander	<i>Zizia aurea</i>	FAC
Fowl Bluegrass	<i>Poa palustris</i>	FACW
Swamp Milkweed	<i>Asclepias incarnata</i>	OBL



# After Restoration

Wet Meadow community (looking northeast)

# Wet Meadow Vegetation Monitoring Results

- 29 species observed
- 23 native species
- 78% native plants
- Most common species:
  - rice cut grass
  - river bulrush
  - panicked aster

Vegetation Community	Fresh (wet) Meadow	
Common Name	Scientific Name	Indicator
Reed Canary Grass	<i>Phalaris arundinacea</i>	FACW
Rice Cut Grass	<i>Leersia oryzoides</i>	OBL
Panicled Aster	<i>Symphotrichum lanceolatum</i>	FAC
River Bulrush	<i>Bolboschoenus fluviatilis</i>	OBL
Dogbane	<i>Apocynum cannabinum</i>	FAC
Stinging Nettle	<i>Urtica diocea</i>	FACW
Nodding Burr Marigold	<i>Bidens cernua</i>	OBL
Canada Goldenrod	<i>Solidago Canadensis</i>	FACU
Nodding Smartweed	<i>Persicaria lapathifolia</i>	FACW
Heath Aster	<i>Symphotrichum ericoides</i>	FACU
Canada Thistle	<i>Cirsium arvense</i>	FACW
Common Reed	<i>Phragmites australis subsp. A</i>	FACW
Ladys Thumb	<i>Persicaria maculosa</i>	FACW
Boneset	<i>Eupatorium perfoliatum</i>	OBL
Blue Vervain	<i>Verbena hastata</i>	FACW
New England Aster	<i>Symphotrichum novae-angli</i>	FACW
Narrow-leaf cattail	<i>Typha angustifolia</i>	OBL
Kentucky Bluegrass	<i>Poa pratensis</i>	FAC
Green Foxtail	<i>Setaria viridis</i>	NI
Giant Ragweed	<i>Ambrosia trifida</i>	FAC
Giant Goldenrod	<i>Solidago gigantea</i>	FACW
Bugleweed	<i>Lycopus uniflorus</i>	OBL
Common Milkweed	<i>Asclepias syriaca</i>	FACU
Sow Thistle	<i>Sonchus arvensis</i>	FACU
Sandbar Willow	<i>Salix interior</i>	FACW
Bur Cucumber	<i>Sicyos angulatus</i>	FACW
Hedge Bindweed	<i>Calystegia sepium</i>	FAC
Retrorse Sedge	<i>Carex retrorsa</i>	OBL
Sedge Species	<i>Carex sp.</i>	FACW

# Upland Prairie Vegetation Monitoring Results

- 45 species observed
- 39 native species
- 84% native plants
- Most common species:
  - big bluestem
  - switchgrass
  - sideoats grama
  - Canada rye
  - wild bergamot
  - Indian grass
  - Canada goldenrod



Upland prairie (photo pt 2, looking west)





# SHALLOW MARSH



Nodding bur marigold



River bulrush



Rice cut grass

# WET MEADOW



Panicked aster

# UPLAND PRAIRIE



Big bluestem



Wild bergamot



Switchgrass



Canada goldenrod



Side oats gramma