Friends of the La Crosse River Marsh
Annual Report

Board of Directors

Charles Lee, President
John Sullivan, Treasurer
Nancy Heerens-Knudson, Secretary
Karen Acker
Carolyn Mahlum-Jenkins
Ralph Knudson
Sue Knopf

February 1, 2023

The ***Friends of the La Crosse River Marsh*** is a 501 (c) 3 private, non-profit organization, incorporated in 2013 with the State of Wisconsin. Its **mission** is to preserve, protect, and enhance the La Crosse River Marsh and serve the community through action, advocacy, and education

The Board of Directors delivered its first annual report to the membership for the year 2015 in February 2016. In March of 2016, the Board completed a five-year strategic plan, which included five goals. This plan was introduced at our annual member meeting in February 2017. In subsequent annual meetings, Board members have highlighted the major activities and events of the previous year using the goals included in the plan as the basic outline for discussion. The annual report to members this year uses the same format: Here are the most significant activities and events of 2022 arranged according to the five goals included in the ***La Crosse River Marsh Strategic Plan, 2021-2025.***

***2021-2025 Strategic Plan* - Goals**

1. **Protection and Coordination**: To protect the La Crosse River Marsh and its riparian boundaries; help direct and guide habitat management; expand wetland acres; secure the highest available level of wetland protection; oppose further development of the marsh and adverse land use changes; through partnerships enhance La Crosse River watershed services.

    - The *Friends* will coordinate with the City of La Crosse, its consultants, the WDNR and other agencies to address lead and PAH contamination in the marsh

- The *Friends* have taken and will continue to take a leading role in the City of La Crosse Parks, Recreation and Forestry "Marsh Restoration Project" to address hydrology, habitat, and trails.

2. **Vegetation Restoration and Management:** To protect, enhance and restore native vegetation in the La Crosse River Marsh and its riparian boundaries to ensure a healthy marsh ecosystem, including planting, grass cutting and brushing, and invasive plant management.

3. **Hydrology and Water Quality Management:** Maintain and enhance the La Crosse River's connectivity with the La Crosse Marsh, to ensure a healthy functioning floodplain. To reduce nutrient, sediment and other pollutant loads into the La Crosse Marsh through watershed level and local pollutant control measures. Work with local, state, and federal agencies to find opportunities for water level management and storm water management.

4. **Safety:** To develop a healthy, safe recreation environment. Identify opportunities to improve trail safety and, through education, promote the considerate use of trails by all users.

5. **Education:** To offer educational programs about the value of wetlands, the history, hydrology, and the flora and fauna of the La Crosse River Marsh, and to emphasize the unique place this marsh holds in the life of our community. We wish to be a catalyst for continuing and expanding educational programming in the marsh, and we wish to promote the La Crosse River Marsh as one of the finest urban wetlands in the state and region.

2022 Annual Report

Volunteers -- *Friends of the Marsh* can accomplish nothing without the help of volunteers. This is the top story of our year. Over the course of many work outings we had the help of **216 volunteers** who contributed a total of **704 hours of work**. Our hand goes out to you. We are in your debt.

Members -- Membership in *Friends of the Marsh* is by household and is lifetime. There are no annual renewals. At this writing we have 195 household memberships. We welcomed nineteen new households in 2022.

Facebook Friends -- At the close of the year we had 1,744 friends Like our Facebook Page. We have 1,185 members in our Facebook Group.

1. Protection and Coordination

Habitat Protection

- February 18-20, 2022, in partnership with WisCorps, volunteers participated in the Cornell University Ornithology Lab and Audubon Society **Great Backyard Bird Count,** a world-wide citizen science assessment of bird populations.
  (See Attachment #1)

- *Friends* has compiled **phenological** data for the past six years, charting the arrival/appearance of spring.
  (See Attachment #2)

- **Frog and Toad Chorus Survey** With volunteers, and in partnership with WisCorps, we conducted three (April - June) frog and toad chorus surveys throughout the southern portion of the marsh. Amphibians are a key indicator of wetland well-being.
  (See Attachment #3)

  In perhaps the most significant observation in the marsh this year, **Blanchard's Cricket Frogs** were identified in the western portion of the marsh. Cricket Frogs are listed as endangered in Wisconsin.
  Use the link below to access our web site and at the top of the screen click on "Blog" for more information about Cricket Frogs.
  (https://www.friendsofthelacrosserivermarsh.com/)

- A pair of **Trumpeter Swans** successfully nested in the marsh this summer. One of the two cygnets was raised successfully through the summer. This is the first successful Trumpeter Swan nesting documented in the marsh.

- Two bald eagles returned to the nest, visible from the south bank of the marsh, again this year. Unfortunately, an immature eagle was not sighted near the nest. But on a positive note, two additional eagle nests now have been seen in or near the marsh.

Coordination

- *Friends of the Marsh*, represented by Chuck Lee, Karen Acker and John Sullivan served as local stakeholder consultants to Parks, Recreation and Forestry and SmithGroup, Inc. the

environmental engineering firm under contract to the city for the long-range "La Crosse River Marsh Restoration Project." The project is now entering it third year. We anticipate significant trail engineering, design, and construction along the Grand Crossing and Cottonwood trails to enhance water flow under these trails and trail-surface improvements.

- *Friends* board members continue to monitor deliberations concerning **remediation options for the lead contamination** in the east cell of the marsh and **PAH contamination** along the south and eastern bank of the marsh. The second of two city-funded engineering studies has been completed, results and recommendations have been delivered to the City, and we are awaiting decisions.

- **River Point District Wetland Restoration**

  Friends of the Marsh and the City Parks, Recreation, and Forestry department are cooperating to restore the twenty-acre wetland and floodplain forest north of Riverside Park, separating the park from River Point District residential and commercial development. This summer Parks contracted with a firm to remove all sub-canopy trees from the site, in preparation for floodplain prairie restoration.

- *Friends of the Marsh* approved a "Memorandum of Understanding" with the city Parks, Recreation, and Forestry department this year. The document outlines the basic relationship between our organization and the city and will be reviewed annually. We also approved a "Land Use Agreement" with WDNR. A five year agreement, this document gives us permission to plant trees, shrubs, and perennials on WDNR owned land in the marsh.

2. Vegetation Restoration and Management

- **Native Shrubs and Trees**

  We planted about 30 trees this year, mainly silver maple, eastern cottonwood, American elm, sycamore and a few swamp white oak. Almost all were planted out along the La Crosse River.

- **Perennial Plantings**

  About 100 plants consisting of about a dozen species, including but not limited to common and marsh milkweed, cup plant, butterfly weed,

sunflower, cardinal flower and blue lobellia were planted along the Cottonwood and Grand Crossing Trails. We also seeded a perennial seed mixture on the disturbed ground north and east of the foot bridge on the Grand Crossing Trail.

- **Buckthorn Removal**

  Volunteers gathered sixteen times this summer and fall to cut and treat buckthorn along the Cottonwood and Grand Crossing trails. Removing invasive buckthorn from along trails opens up viewsheds across the marsh and makes room for native grasses, perennials, trees and shrubs.

- **Trailside Tree and Shrub Trimming**

  Volunteers helped maintain the Cottonwood and Grand Crossing trails, trimming overhanging branches and cutting back thick edge vegetation. We had seven of these work outings.

3. Hydrology and Water Quality

- **Water Quality**

  John Sullivan monitored water quality at seven locations in the southern portion of the marsh on a bi-weekly basis. This is an ongoing task designed to characterize the general water quality conditions in the marsh.
  (See Attachment #4)

- **Water Levels**

  John also has conducted daily to bi-weekly water level monitoring at several sites in the southern end of the marsh. Since 2015, water levels in the marsh have revealed moderate to high seasonal fluctuations and a general increase in water levels over these years. However, water levels were dramatically lower this year, compared with recent years, reflecting the overall lack of rain our region has received.

  In the eastern cells of the marsh, trails too often serve as dams and culverts are frequently blocked, preventing the kinds of seasonal water level fluctuations that are key to wetland services such as floodwater storage, wetland habitat, and sustainable recreational trails.
  Thus, water levels are a key focus of the "Marsh Restoration Project."
  (See attachment #5)

- **Culvert Maintenance**

  Most concrete box culverts and steel culverts under the Cottonwood and Grand Crossing trails are blocked by sediment and years of neglect. One box culvert is open and functioning well. Two steel culverts under the Grand Crossing Trail are kept open by frequent maintenance. Water flow under both trails will be addressed soon.

4. Safety

Trail Improvement

- With the assistance of a WisCorps "Mayor's Crew" we opened a new observation space, looking west across the marsh from the Grand Crossing Trail.

- The annual marsh trail clean up took place in conjunction with the Earth Fair celebration in April. Ninety-five volunteers including members of organizations, family groups, and individuals joined this community event.

- In October nineteen members of UWL athletic teams came out to volunteer and clean up the marsh banks on the east and west sides of Lang Drive, always a collecting spot for trash.

- The *Friends* board is aware of a number of conflicts that have occurred on our "dual" use trails, between bicyclists and pedestrians. We have surveyed how other cities in our region handle this, discussed it, and plan to introduce a "Slow Down" project in the near future.

5. Education

Programs

EnviroWednesdays -- February 2: *Friends of the Marsh Annual* Meeting, "La Crosse River Marsh Restoration Project: SmithGroup 1st Year Webinar." (virtual)

Aldo Leopold Day -- March 3: Timothy R. Van Deelen, wildlife ecology professor at the University of Wisconsin-Madison, “Reflections on Wisconsin’s recent wolf and deer controversies and how Leopold’s wisdom informs urgent conservation needs in a world of divisiveness, nostalgia and climate crisis.”

EnviroWednesdays -- April 6: "Lead Remediation Town Hall Meeting," with John Storlie and Colin Belby.

EnviroWednesdays -- May 4: "Spring in the Marsh," Craig Thompson and John Sullivan

EnviroWednesdays -- June 1: Frog and Toad Chorus Survey #2

EnviroWednesdays -- July 6: "Frog and Toad Chorus Survey"

EnviroWednesdays -- August 3: "Plant ID Marsh Walk" with Jay Fernholz and Julie Chamberlain

EnviroWednesdays -- September 7: "Native Bees and No Mow May Survey" with UWL Biology students Drew Lysaker and Bug Hartsock

EnviroWednesdays -- October 5: "Insects and how they interact with Aquatic Ecosystems," Viterbo University Biology Professor Ted Wilson and Viterbo Biology students.

EnviroWednesdays -- November 2: "Forward La Crosse," with La Crosse City Planner Tim Acklin.

EnviroWednesdays -- December 7, "City of La Crosse Climate Action Plan," Ted Redmond (Pale Blue Dot LLC)

Friends of the La Crosse River Marsh **Financial Statement -- December 31, 2022**

Balance December 31, 2021		**13,878.40**
Income - 2022		
Donations		3,590.50
Memberships		675.00
Donations - Pay Pal		600.00
	Sub-total	**4,865.50**
Expenses - 2022		
Buckthorn control tools		306.52
Herbicide & basal oil		180.55
Conference fees		250.00
Insurance		300.00
Marketing		25.00
Post office box		134.00
PayPal fees		16.88
DNR land-use agreement fee		1.00
	Sub-total	**1,213.95**
Balance December 31, 2022		**17,529.95**
State Bank Balance 12/31/22		**17,529.95**

Notes:

Total Tree & Shrub Donations = $1750.00
Total Tree & Shrub Purchases = $1424.64
Balance = $325.36

Attachment #1

The Great Backyard Bird Count (GBBC) is a joint project of the Cornell Lab of Ornithology and the National Audubon Society with partner Bird Studies Canada and is made possible in part by founding sponsor Wild Birds Unlimited.
A world-wide citizen science project, the GBBC is a vehicle for monitoring the extent, health, and movement of bird species and populations in this age of climate change. For full details, see www.birdcount.org.

For the last four years, the *Friends of the La Crosse River Marsh* and WisCorps have hosted the GBBC in our "backyard," the La Crosse River Marsh. In previous years, volunteers gathered and spread out along the edges of the marsh and the marsh trails to record what they saw. That count, including numbers and species, was later entered into the Cornell University Lab of Ornithology "Bird Count" database.

GBBC List
Feb. 18-21, 2022
La Crosse River Marsh

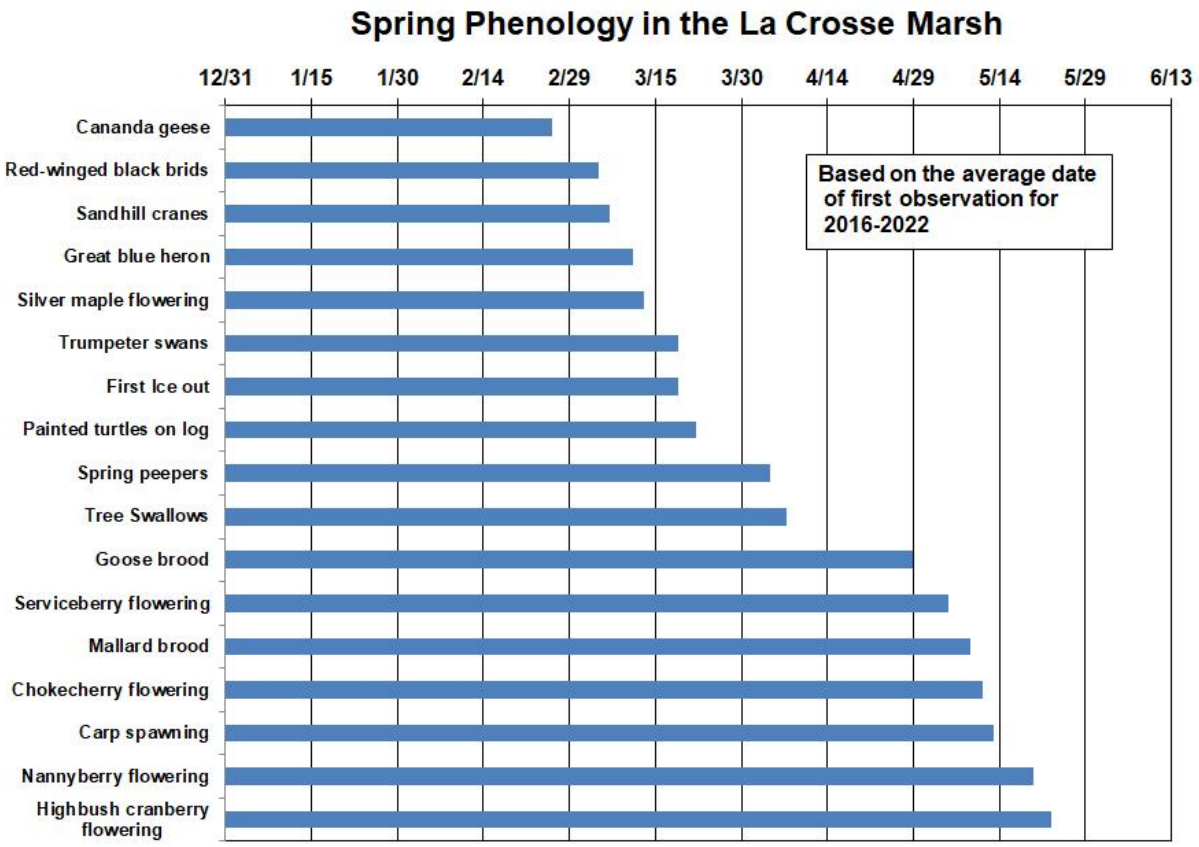
Downy Woodpecker – 16
Hairy Woodpecker – 1
Red-bellied Woodpecker -- 7
Crow – 8
Cardinal – 10
Nuthatch – 6
House Sparrow – 75
Starling – 13
Black-capped Chickadee – 31
Cedar Waxwing – 3
Mourning Dove – 5
Blue Jay – 2
Red-breasted Nuthatch – 6
Dark-eyed Junco – 8
Bald Eagle – 8
Merlin – 1
House Finches -- 2
Pigeon – 40
Mallard -- 17

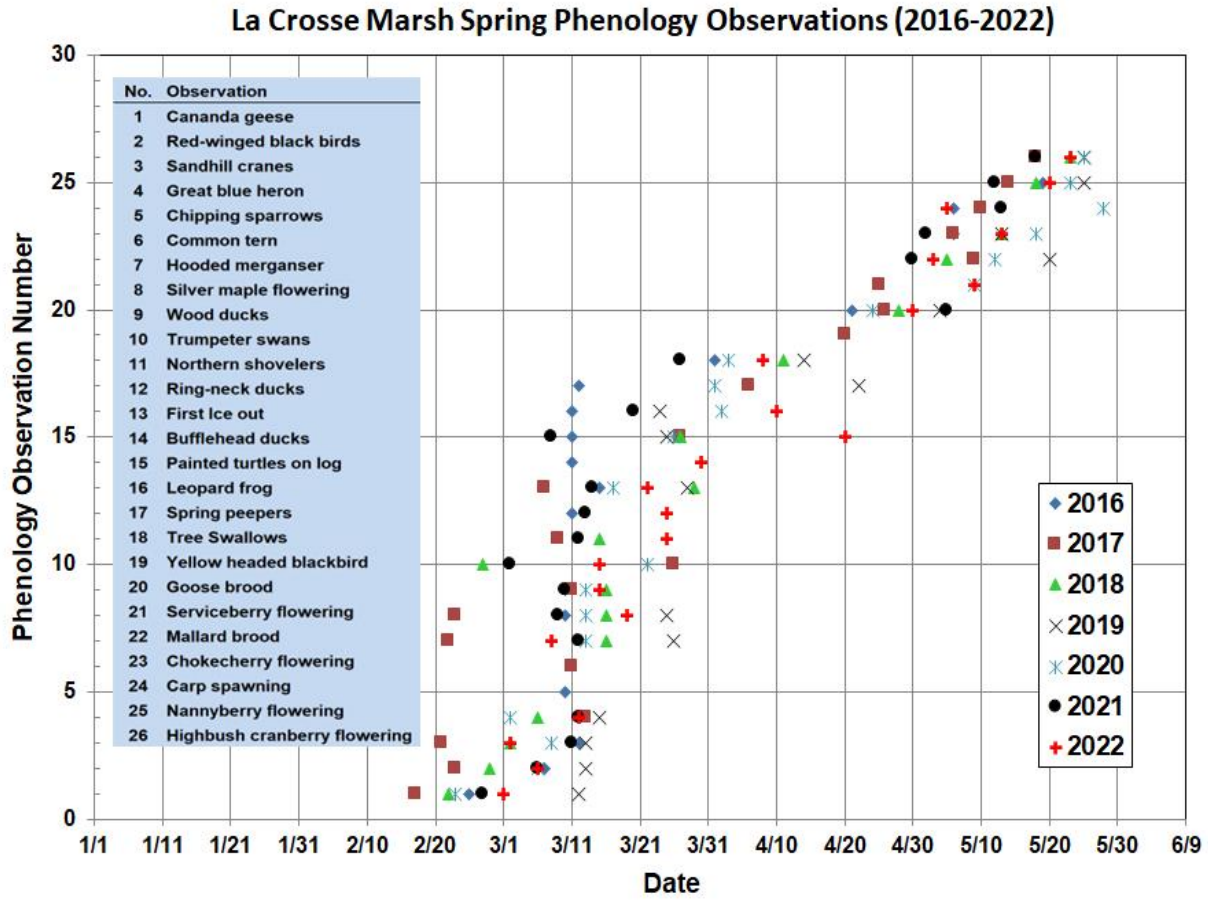
Volunteers -- 15

For a full world-wide report on the 2022 GBBC, go to:

https://www.birdcount.org/2022-final-results

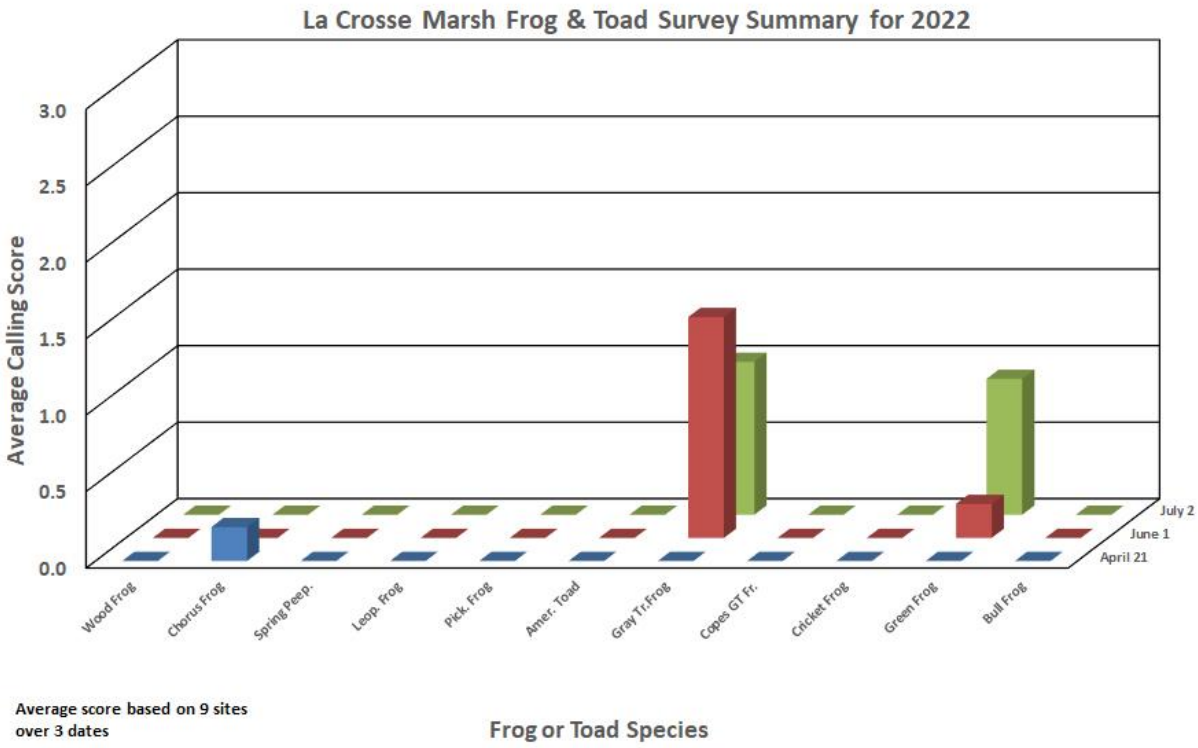
Attachment #2




La Crosse Marsh Spring Phenology Observations (2016-2022)
Phenology Observation Number
Date
No. Observation
1 Cananda geese
2 Red-winged black birds
3 Sandhill cranes
4 Great blue heron
5 Chipping sparrows
6 Common tern
7 Hooded merganser
8 Silver maple flowering
9 Wood ducks
10 Trumpeter swans
11 Northern shovelers
12 Ring-neck ducks
13 First Ice out
14 Bufflehead ducks
15 Painted turtles on log
16 Leopard frog
17 Spring peepers
18 Tree Swallows
19 Yellow headed blackbird
20 Goose brood
21 Serviceberry flowering
22 Mallard brood
23 Chokecherry flowering
24 Carp spawning
25 Nannyberry flowering
26 Highbush cranberry flowering
2016
2017
2018
2019
2020
2021
2022
0
5
10
15
20
25
30
1/1
1/11
1/21
1/31
2/10
2/20
3/1
3/11
3/21
3/31
4/10
4/20
4/30
5/10
5/20
5/30
6/9

Attachment #3

Our frog and toad chorus survey was disappointing this year. On our three survey outings we heard three species: Chorus Frogs, Grey Tree Frogs, and Green Frogs. We heard Grey Tree Frogs in very large numbers, especially during the second survey outing. Our greatest success this year was hearing and identifying Blanchard's Cricket Frogs in the marsh (see my note about that above).



Attachment #4

Some general preliminary notes on water quality data (John Sullivan, from data collected at the Cottonwood Trail concrete box culvert):

Dissolved Oxygen – This is a critical measurement when evaluating water quality. Dissolved oxygen is necessary for aquatic organisms to survive. A complete loss of oxygen in the marsh can contribute to fish kills. This can occur during the late winter when the marsh is ice covered or during the summer when the marsh is covered by heavy growths of duckweeds or submerged aquatic plants. We have not observed a significant fish kill in several years. Fish will seek out higher oxygen levels when dissolved oxygen concentrations fall to low levels or they adapt by "sucking" oxygen at air/water interface.

Water Temperature – Strong seasonal patterns reflect the seasonal changes in solar radiation and air temperatures. Water temperature has a strong influence on organism metabolism and on dissolved oxygen levels. Cold water can hold more oxygen than warm water. Dissolved oxygen and water temperature measurements are integrated into a measurement called dissolved oxygen saturation.

Dissolved oxygen saturation - Periods of prolonged ice cover or excessive mats of duckweed can contribute to low dissolved oxygen saturation. Excessive phytoplankton (algae) or submersed aquatic photosynthesis contributes to high dissolved oxygen concentrations with dissolved oxygen saturation exceeding 100% during some periods. These conditions can occur under clear ice with no snow cover or during the open water period when duckweeds are absent.

Specific conductivity – This is an electrical measurement that provides an indication of the amount of dissolved solids in water. Water with a lot of dissolved solids has high conductivity. Rainwater would have very little conductance whereas salt water would have extremely high values. Chloride concentrations strongly influence conductivity measurements and are likely one reason we see higher levels in the marsh in the late winter period. However, periods of anoxia (no oxygen) can also contribute to higher conductivity due to the release of dissolved inorganic substances from the sediment. We see substantial variation in conductivity levels in the marsh. This is likely related to primary sources of water influencing each site (La Crosse River, groundwater, rainwater or urban runoff).

A summary report for the last five years will be prepared in 2023.

Attachment #5

John Sullivan submitted the following: Here is an update of **water level measurements** made in the East Cell of the marsh (Gun Club box culvert gage) for the period Oct 2015 to Nov 2022. This past summer's water levels were the lowest recorded since the spring of 2016 (see graph). I have included a photo from the spring of 2015 that shows old well structures in the loop cell (north of Myrick Center). This is looking southeast and you can just barely see the Cottonwood Trail at the top of the image. Based on this photo and observations from this summer, I suspect water levels in the spring of 2015 were several inches less than the spring of 2016.