

July 28, 2022

Horsehead Lake Protection & Rehabilitation District #1
Announcing the Annual Meeting
Saturday, August 19, 2023, at 9:00 AM
Lake Tomahawk Park Shelter

Dear Horsehead Resident:

The commissioners of Horsehead Lake P&R District #1 invite you to attend our next annual meeting. We hope you are able to attend as this helps everyone to be fully informed. It is your organization and we want you to participate.

We have a guest speaker this year, Stephanie Boismenu, Aquatic Invasive Species Coordinator and Conservation Technician with Oneida County Land & Water Conservation. Stephanie led a trek around our lake in kayaks in June and mapped out all the invasive yellow iris that was found. She will be talking about plant life around the lake and shoreland restoration. She provided to us for distribution the yellow iris fact sheet that is included with this mailing. It is recommended that the yellow iris be removed from shorelines, but please wear gloves when doing so, as this plant can cause skin irritation. This yellow iris will multiply around the lake and choke out native plant life if they are not removed.

Enclosed you will find a copy of the agenda on the topics we will discuss and vote on. State law prohibits adding to the agenda at the meeting. The agenda will be posted shortly to our website at www.horseheadlake-wi.org. Topics include status of the aerator to be added to the lake and voting on whether to continue to catch and release of blue gills and black crappies that are being stocked.

Annual Meeting Logistics

We have again reserved the park shelter located between the Meat Market and Baseball field in Lake Tomahawk for our annual meeting. It is a roofed location with picnic tables. It worked very well last year, so we decided to use it again this year. Coffee and treats will be available.

Budget

To comply with Wisconsin Statutes 33.30 and 33.31, we are hereby providing notice that the annual meeting will include a discussion and possible vote on borrowing money and implementing an irrevocable tax levy to make loan principal and interest payments when due. The purpose of the loan will be to purchase and install a new 2nd aerator. Details of the budget are enclosed and summarized below.

Enclosed are 4 sheets of budget information:

- Page 1 is the 2023-2024 budget we will be voting on;
- Page 2&3 are the 2022-2023 approved budget and projected spending;
- Page 4 is the approved 2021 – 2022 budget with actual full year spending.

A separate budget for the 2nd aerator and required financing is provided. The project as that must be voted on separately to allow funding per State Statute. Our levies for the last 2 years are below with the proposed 2023-2024 numbers:

Final Operating Expense and Capital project funding:

- Proposed FY 2023/24 = \$41,006 + \$17,000 Capital project funding
- Actual FY 2022/23 = \$43,425 + \$17,000 Capital project funding
- Actual FY 2021/22 = \$45,275 (no Capital project funding included)

Final Mill Rate \$ per \$1000 value:

- Proposed FY 2023/24 = \$0.5702
- Actual FY 2022/23 = \$0.6828
- Actual FY 2021/22 = \$0.3853 (no Capital project funding included)

Final Tax Rate \$ per \$100,000 value:

- Proposed FY 2023/24 = \$57.02
- Actual FY 2022/23 = \$68.28
- Actual FY 2021/22 = \$38.53 (no Capital project funding included)

The big budget items to be discussed this year are:

- \$10,000 for stocking for fish
- \$67,925 Capital funding for the aerator and the \$45,000 loan required to finance it

Election

We have 3 elected commissioners on the board and every year one of the commissioners is up for re-election for a 3-year term. Deb Bursik will not be seeking re-election, but fortunately, Dusten Tornow has agreed to run for the board position. We do encourage a democratic process and so if you might be interested in being a candidate, please contact one of our commissioners. State law provides that nominations can also be made from the floor prior to the vote. The below is from People of the Lakes – A Guide for Wisconsin Lake Organizations. These are the laws we must follow as a lake district for voting.

Voting

Who Can Vote?

To vote at annual meetings of the lake district, a voter must be a U.S. citizen over 18 years of age who is either:

1. An elector (a qualified voter who resides in the district)⁹
2. An owner of property within the district:
 - A person whose name appears as an owner of real property on the tax roll¹⁰
 - A person who owns title to real property even though the person's name does not appear on the tax roll (i.e. a spouse)
 - A person who is the official representative, officer or employee authorized to vote on behalf of a trust, foundation, corporation, association or other organization owning real property in the district

Updates

- To comply with Wisconsin Statutes 33.30 and 33.31, we are providing notice that borrowing money (taking out a loan) and a tax levy to pay indebtedness for

putting in a new 2nd aerator will be discussed at the annual meeting and voted on. The details of the budget information is enclosed and summarized above.

- The board had a meeting with Onterra, who conducted an early season aquatic invasive species survey and Point-to-Point Survey in 2022, to review their findings. The actual report is on our website under “management plan May 2023”. Key points from our discussion were:
 - Overall, the lake is healthy and more diverse native plant life was found on the lake than on prior surveys, which is very good. There are 4 native plant types that remain dominant.
 - No Eurasian Water Milfoil has been found in the lake for several years, but that is not to say it is completely eradicated. The Point-to-Point survey looks at plant life in the lake every 52 meters and contained 500 points, so it is possible that there is Eurasian Water Milfoil in the lake that hasn’t been located, but the good news is it hasn’t taken off in the lake.
 - Our next point intercept and community plant surveys are set for 2027. We need to keep on that target to keep our permit viable for mechanical harvesting.
 - Curley leaf pondweed (an invasive that is in our lake) spreads by turions that can reside up to 10 years in the sediment. They sprout when a plant reaches maturity. That explains why some years it will appear in parts of the lake where it wasn’t there for years before. It is normal that curly leaf pondweed fluctuates in a lake.
 - It is recommended we do early season aquatic invasive plant surveys every 2 – 3 years. It doesn’t need to be done yearly as if Eurasian Water Milfoil takes off, it doesn’t spread that quickly.
 - The yellow iris plants around shorelines are invasive plants. They recommend removing them from your shoreline, but replacing them with northern blue flag or southern blue flag – other types of iris.
 - The only benefit of mechanical harvesting is removing weeds to allow for recreational use of the lake. We are not removing enough weeds to make any impact on the sediment or phosphorus in the lake.
 - Mechanical harvesting should be reserved for only those years that impede boat travel as overall it has detrimental effects to the lake, including mixing up the sediment, removing habitat, and removing fish.
- Weed harvesting will not be done this year due to the lack of weeds. Dennis Batchelet and Tom Niebler joined Deb Bursik in assessing the need for weed harvesting on July 3, 2023, and it was unanimously decided we would not cut weeds.

- The district has received complaints of jet skis going around the island at high rates of speed. Pursuant to Wisconsin Statute 30.06 (3) (ar):

(ar) No person may operate a personal watercraft at a speed in excess of slow-no-wake within 200 feet of the shoreline of any lake.

The distance between the island and shoreline is less than 400 feet on the southside of the island, and therefore jet skis cannot go faster than no wake speed. We have been in touch with the DNR who is considering this an enforcement issue. Please refrain from going faster than no wake speed around the island on a jet ski a/k/a personal watercraft.

Sincerely,

Debra Bursik, Chairperson

David Averbeck, Treasurer

Laurie Barrett, Secretary

Lenore Lopez, Lake Tomahawk Town Board Representative

Jim Winkler, Oneida Co. Supervisor

Horsehead Lake Protection & Rehabilitation District #1

Annual Meeting

August 19, 2023

9:00 A.M.

Lake Tomahawk Park Shelter, Lake Tomahawk, WI

[No additions are allowed due to the WI Open Meeting Law]

AGENDA

- I. Call Meeting to order
- II. Introduction of commissioners & property owners
- III. Approval of agenda for Annual Meeting
- IV. Minutes of Annual Meeting, August 13, 2022; adoption
- V. Announcements [attendance; volunteer list; Roberts' Rules; Close Debate motion, making motions and voting only by eligible voters, [state your name when making motions and seconding motions for our secretary's convenience]
- VI. Guest Speaker – Stephanie Boismenu, Aquatic Invasive Species Coordinator and Conservation Technician, Oneida County Land & Water Conservation
- VII. Reports:
 - A. Chairperson – Deb Bursik
 - 1. Email addresses
 - 2. Weed harvesting 2023
 - 3. Report on Early Season Aquatic Invasive Species Survey 2022 report and Point to Point Survey of 2022
 - 4. Jet skis and no wake speeds around the island
 - B. Secretary – Laurie Barrett
 - C. Audit of financial records – auditor Hans Delius
 - D. Treasurer – David Averbeck
- VIII. Old Business
 - A. Current aerator system – Dave Averbeck
- IX. New Business
 - A. Commissioner's recommendations/motions/discussion/action:
 - 1. Fish stocking 2023 and 2024 of 5000 bluegills and 5000 black crappies – Deb Bursik
 - 2. Discussion and vote on extending catch and release only policy for blue gills and black crappies through 2024 – Deb Bursik
 - 3. Early season aquatic plant survey in 2024 – Deb Bursik
 - 4. New Aerator system status and financing – Notice is being provided pursuant to Wis Stat. 33.30 and 33.31 that borrowing money (taking out a loan) and a tax levy to pay indebtedness for putting in the new 2nd aerator will be discussed and voted upon – Dave Averbeck
 - 5. Presentation of proposed 2023 -2024 budget – David Averbeck
 - a. Proposed Budget & Tax levy and financing - 2023-2024
 - b. Discussion and motion to accept
 - B. Election of (1) commissioner for a regular 3-year term.
- X. Optional Comments - County Board Representative, Jim Winkler
- XI. Optional Comments – Lake Tomahawk Representative, Lenore Lopez
- XII. Other Business: [volunteers needed].
- XIII. Final comments/announcements - next annual meeting date – August 17, 2024.
- XIV. Adjournment – [no motion needed]

To comply with Wisconsin Statutes 33.30 and 33.31, we are hereby providing notice that the annual meeting will include a discussion and possible vote on borrowing money and implementing an irrevocable tax levy to make loan principal and interest payments when due. The purpose of the loan will be to purchase and install a new 2nd aerator. Details of the budget are enclosed and summarized in the attached materials.

	A	B	C	D
1	Fiscal Year 2023 -2024 Budget Proposed			
2	Horsehead Lake Protection & Rehabilitation District No.1, Lake Tomahawk, WI 54539			
3				
4		FY '23 -'24 Budget	Approved FY '22 -'23 Budget	Comments
5	Administration and Operations			
6	Insurance	\$1,501	\$1,600	
7	Attorney Fees	\$1,000	\$1,000	
8	Office Supplies & Postage	\$250	\$250	
9	Commissioners' Fees	\$1,400	\$1,400	
10	Oneida County Tech Services	\$125	\$125	
11	Administration and Operations Subtotal	\$4,276	\$4,375	
12				
13	Information and Education			
14	Wisconsin Association of Lakes (Member Dues / Donation)	\$250	\$250	
15	River Alliance of Wisconsin (Donation)	\$200	\$200	
16	Oneida Co. Lakes & Rivers Association	\$50	\$50	
17	Convention expense reimbursement	\$400	\$400	
18	Annual meetings and picnics	\$100	\$100	
19	Annual meeting speaker stipend	\$100	\$100	
20	Zoom meeting license	\$200	\$0	
21	Web Site	\$200	\$200	
22	Information and Education Subtotal	\$1,500	\$1,300	
23				
24	Lake Management			
25	Weed harvesting	\$10,000	\$7,800	
26	Weed harvesting permit	\$0	\$0	
27	Access road preparation / Maintenance	\$750	\$750	
28	Aeration System Rebuild (fall 2022)	\$0	\$5,200	
29	Aeration System Preventive Maintenance	\$1,070	\$1,325	
30	Wisconsin Public Service - power for aeration system	\$4,050	\$1,700	
31	Fish stocking	\$10,000	\$10,000	
32	Point Intercept Study / Early-Season AIS (ESAIS) survey	\$3,060	\$5,475	
33	DNR Permit Application expenses	\$300	\$0	
34	Aquatic invasive species Removal	\$2,500	\$2,500	
35	Public Bid Notifications	\$500	\$0	
36	Lake Management Subtotal	\$32,230	\$34,750	
37				
38	Contingency			
39	Contingency Fund	\$3,000	\$3,000	
40				
41	Grand Total Operating Expenses	\$41,006	\$43,425	
42				
43	Non-lapsable Funds For capital expenditures – 2nd aerator			
44	Maximum Annual Payment for Financed Aerator (\$17K / 5 years max approved in 2022/23 budget)	\$17,000	\$17,000	Actual average cost over 5 years after Grant reimbursement is ~ \$11,500 / year 1st loan payment is due 3/15/2025
45				
46	Taxes Required in Next Fiscal Year	Taxes Required	Taxes Required	Comments
47	Budgeted Operating Expense + Capital Spend	\$58,006	\$60,425	
48	Carryover and Other Income (see below)	\$41,772.87	\$40,987.17	
49	Total Tax Levy Required	\$16,233	\$19,438	
50				
51	Mill Rate Estimate Calculation	Approved Taxes	Approved Taxes	Comments
52	Equalized Property Value**	\$28,467,462	\$28,467,462	
53	Final Tax Levy	\$16,233	\$19,438	
54	Mill Rate/1000**	\$0.5702	\$0.6828	'17 – '18 recent high @ \$1.332 /\$1000
55	Horsehead Lake District Tax on \$100,000 Property**	\$57.02	\$68.28	
56	** To be updated when State publishes Equalized Property Value			
57				
58	Carryover Estimate Calculation	Estimated Carryover	Actual Carryover	Comments
59	Money market balance 6/30/2023	\$36,894.37	\$37,656.32	
60	Checking balance 6/30/2023 (after outstanding checks paid)	\$800.59	\$3,330.85	
61	Expected July / August Income	\$4,983.34		
62	Total Assets and Revenue	\$42,678.30	\$40,987.17	
63	Less Expected July / August Spend	\$905.43		
64	Total Projected Carryover	\$41,772.87	\$40,987.17	

Horsehead Lake Dist Budget Tracker FY 22-23	Budget	Year to Date	Under/Over	Sept 1 - Oct 31	Nov 1 - Mar 31	April 1 - June 30	July 1 - Aug 31
Yellow => Estimated							
Administration and Operations	Budget	Spend YTD	Under/Over	Period Spend	Period Spend	Period Spend	Period Spend
Workman's Comp – EMC				\$254.00			
Liability 1 – Meyer & Assoc				\$966.00			
Liability 2 – Meyer & Assoc				\$224.00			
Insurance – Total	\$1,600	\$1,444.00	\$156.00	\$1,444.00			
Attorney Fees	\$1,000	\$0.00	\$1,000.00				
Office Supplies & Postage	\$250	\$235.94	\$14.06		\$115.94		\$120.00
Commissioners' Fees	\$1,400	\$1,396.00	\$4.00		\$349.00	\$698.00	\$349.00
Oneida County Tech Services	\$125	\$120.60	\$4.40	\$60.30			\$60.30
Other Plaque for Bev Fagan (Batchelet reimbursement)		\$35.87	-\$35.87	\$35.87			
Lakeland printing - Public Bid advertisement		\$108.53	-\$108.53		\$48.53		\$60.00
Lakeland printing - Public Bid advertisement		\$110.69	-\$110.69		\$50.69		\$60.00
Other – EMC Insurance Refund		-\$34.00	\$34.00	-\$34.00			
Other		\$0.00	\$0.00				
Administration and Operations Subtotal	\$4,375	\$3,417.63	\$957.37	\$1,506.17	\$564.16	\$698.00	\$649.30

Information and Education	Budget	Spend YTD	Under/Over	Period Spend	Period Spend	Period Spend	Period Spend
Wisconsin Association of Lakes (Member Dues)	\$250	\$250.00	\$0.00	\$250.00			
River Alliance of Wisconsin (Donation)	\$200	\$200.00	\$0.00	\$200.00			
Oneida Co. Lakes & Rivers Association	\$50	\$0.00	\$50.00				
Convention expense reimbursement	\$400	\$0.00	\$400.00				
Annual meetings and picnics	\$100	\$100.00	\$0.00				\$100
Annual meeting speaker stipend	\$100	\$100.00	\$0.00				\$100
Web Site	\$200	\$179.88	\$20.12		\$179.88		
Other - Zoom annual license		\$157.40	-\$157.40		\$157.40		
Other		\$0.00	\$0.00				
Information and Education Subtotal	\$1,300	\$987.28	\$312.72	\$450.00	\$337.28	\$0	\$200

Lake Management	Budget	Spend YTD	Under/Over	Period Spend	Period Spend	Period Spend	Period Spend
Weed harvesting	\$7,800	\$0.00	\$7,800.00				
Weed harvesting permit	\$0	\$0.00	\$0.00				
Access road preparation / Maintenance	\$750	\$0.00	\$750.00				
Aeration System Rebuild (fall 2022)	\$5,200	\$3,315.35	\$1,884.65		\$3,315.35		
Aeration System Preventive Maintenance	\$1,325	\$0.00	\$1,325.00				\$0.00
Wisconsin Public Service – Period Month 1				\$29.00	\$38.50	\$233.97	\$29.00
Wisconsin Public Service – Period Month 2				\$28.07	\$252.93	\$280.14	\$27.13
Wisconsin Public Service – Period Month 3					\$488.78	\$111.86	
Wisconsin Public Service – Period Month 4					\$18.49		
Wisconsin Public Service – Period Month 5					\$242.40		
Wisconsin Public Service – Total for Period	\$1,700	\$1,780.27	-\$80.27	\$57.07	\$1,041.10	\$625.97	\$56.13
Fish stocking	\$10,000	\$9,500.00	\$500.00			\$9,500.00	
Point Intercept & Early-Season AIS studies	\$5,475	\$5,405.50	\$69.50	\$4,331.70		\$1,073.80	
Aquatic invasive species Survey / Removal	\$2,500	\$0.00	\$2,500.00				
NSF charge - Bank						\$35.00	
NSF charge - Gollon Fish Farm						\$5.00	
Other		\$0.00	\$0.00				
Lake Management Subtotal	\$34,750.00	\$20,001.12	\$14,748.88	\$4,388.77	\$4,356.45	\$11,239.77	\$56.13

Contingency	Budget	Spend YTD	Under/Over	Period Spend	Period Spend	Period Spend	Period Spend
Contingency Fund	\$3,000	\$0.00	\$3,000.00				

Total Operating Expenses	Budget	Spend YTD	Under/Over	Period Spend	Period Spend	Period Spend	Period Spend
	\$43,425	\$24,446.03	\$19,018.97	\$6,344.94	\$5,257.89	\$11,937.77	\$905.43

Non-lapsable Capital Funds – 2 nd aerator	Budget	Spend YTD	Under/Over	Period Spend	Period Spend	Period Spend	Period Spend
Maximum Annual Payment for Financed Aerator	\$17,000	\$0.00	\$17,000.00				
Aerator Permit Application		\$303.00			\$303.00		
Aerator Permit - 2nd application		\$733.00			\$733.00		
Aerator Permit - refund 1st application		-\$303.00			-\$303.00		
Total Capital Project Expenses	\$17,000	\$733.00	\$16,267.00		\$733.00	\$0	\$0

Grand Total Operating + Capital Spend	Budget	Spend YTD	Under/Over	Period Spend	Period Spend	Period Spend	Period Spend
	\$60,425	\$25,179.03	\$35,245.97	\$6,344.94	\$5,990.89	\$11,937.77	\$905.43

Income	Budget	To Date	vs Budget	Period Income	Period Income	Period Income	Period Income
Interest – Period Month 1				\$4.58	\$6.92	\$13.13	\$18
Interest – Period Month 2				\$4.29	\$9.72	\$18.57	\$18
Interest – Period Month 3					\$15.10	\$15.16	
Interest – Period Month 4					\$13.05		
Interest – Period Month 5					\$14.46		
Interest – Total for Period		\$150.98	\$150.98	\$8.87	\$59.25	\$46.86	\$36.00
Tax settlement – 1					\$6,629.91		
Tax settlement – 2					\$7,541.59		
Tax settlement – 3							\$4,947.34
Lottery tax settlement						319.16	
Personal property aid settlement						1.75	
Computer aid settlement							0
Total Tax Settlements		\$19,440		\$0.00	\$14,171.50	\$320.91	\$4,947.34
Other - Grant 1st Draw		\$6,474				\$6,474.00	
Total Income	\$19,438	\$26,064.73	\$6,626.73	\$8.87	\$14,230.75	\$6,841.77	\$4,983.34

	B	C	D	E	F	G	H	I
1	Horsehead Lake Protection & Rehabilitation District No.1							
2	YEAR END SUMMARY FY 2021/2022							
3	Assets							
4	Assets	Start FY	End FY	Change				
5	Checking (adjusted for outstanding checks / obligations)	\$3,365.66	\$3,330.85	-\$34.81				
6	Money Market	\$33,078.68	\$37,656.32	\$4,577.64				
7	Total Assets	\$36,444.34	\$40,987.17	\$4,542.83				
8								
9	Income							
10	Regular Income this Month	Income	FY Budget					
11	Period 1 Sept 1 – Nov 15	\$1.61						
12	Period 2 Nov 16 – March 31	\$6,610.07						
13	Period 3 April 1 – June 30	\$4,157.56						
14	Period 4 July 1 – July 31	\$2,101.69						
15	Total Income Budget for Fiscal Year =	\$12,870.93	\$ 8,831.00	\$3982.31 Grant for Point Intercept Study & ESAIS survey not in original budget				
16								
17	Expenses							
18	Administration and Operations Expenses	Spend	FY Budget					
19	Total Insurance	\$1,444.00	\$1,800.00					
20	Attorney Fees	\$0.00	\$1,000.00					
21	Office Supplies & Postage	\$226.00	\$500.00					
22	Commissioners' Fees	\$1,387.00	\$1,400.00					
23	Oneida County Tech Services	\$60.30	\$125.00					
24	Other – Specify	\$0.00						
25	Total Administration & Operation Spend & Budget for Fiscal =	\$3,117.30	\$4,825.00					
26								
27	Information and Education Expenses	Spend	FY Budget					
28	Wisconsin Association of Lakes (Member Dues / Donation)	\$250.00	\$250.00					
29	River Alliance of Wisconsin (Donation)	\$200.00	\$200.00					
30	Oneida Co. Lakes & Rivers Association	\$0.00	\$50.00					
31	Convention expense reimbursement	\$0.00	\$400.00					
32	Annual meetings and picnics	\$24.62	\$100.00					
33	Annual meeting speaker stipend	\$0.00	\$100.00					
34	Web Site	\$167.88	\$175.00					
35	Other – specify	\$157.40						
36	Total Information & Education Spend & Budget for Fiscal =	\$799.90	\$1,275.00					
37								
38	Lake Management Expenses	Spend	FY Budget					
39	Weed harvesting	\$0.00	\$11,000.00					
40	Weed harvesting permit	\$307.50	\$300.00					
41	Access road preparation / Maintenance	\$0.00	\$750.00					
42	Aeration System Maintenance	\$19.94	\$1,000.00					
43	Wisconsin Public Service - power for aeration system	\$1,404.75	\$1,700.00					
44	Fish stocking	\$93.98	\$13,000.00					
45	Point Intercept Study & Early-Season AIS (ESAIS) survey	\$2,450.00	\$7,925.00					
46	DNR Permit Application expenses	\$0.00	\$500.00					
47	Other – specify	\$132.03	\$0.00					
48	Total Lake Management Expense & Budget for Fiscal Year =	\$4,408.20	\$36,175.00					
49								
50	Contingency Expenses	Spend	FY Budget					
51	Total Contingency Expense Budget for Fiscal Year =	\$2.70	\$3,000.00					
52	Contingency expenses also show as "Other" & cost over-runs in specific categories							
53								
54	Grand Total Expenses	Spend	FY Budget					
55	Grand Total Expense & Budget for Fiscal Year =	\$8,328.10	\$45,275.00					
56								
57	Check for Balance							
58	Asset Change in Fiscal year	\$4,542.83						
59	Outstanding checks / obligations							
60	Total Change in Assets	\$4,542.83						
61								
62	Income this Fiscal	\$12,870.93						
63	Less spend	\$8,328.10						
64	Income – Spend = Change in Assets => Balances	\$4,542.83						
65								
66	Mill Rate Calculation	Approved FY '21 -'22 Taxes						
67	Equalized Property Value**	\$ 23,722,602	**Estimated					
68	Final Tax Levy	\$ 9,140						
69	Mill Rate/1000**	\$ 0.3853						
70	Horsehead Lake District Tax on \$100,000 Property**	\$ 38.53						

Aquatic Invasive Species Fact Sheet

Yellow Iris (*Iris pseudacorus*)

DO NOT PLANT!

Caution: All parts of this plant are poisonous to humans and animals due to high levels of glycosides. Protect skin as resin in the leaves and rhizomes can cause skin irritation. Unpalatable to wildlife and livestock.

Threat: Yellow iris is an aggressive non-native aquatic plant that escapes from cultivation into native habitats. It invades shorelines to wetlands to drier upland sites. It displaces native plants, alters habitats and reduces food for waterfowl and fish. Dense infestations traps sediment, clogs culverts, and alters hydrology.

Wisconsin Status: Yellow iris is a Restricted species under the Wisconsin Invasive Species Rule. It is illegal to introduce, give away, buy, sell, barter, transport, or transfer. Any person who owns land where yellow iris is present is encouraged to control the plant or contain it to the already infested sites, to reduce its population, and to foster an increase in desired species. Plant natives as an alternative.

Identification:

Spread: Seeds, rhizomes, rhizome fragments, and human activity.

Height: Up to 6 feet tall.

Flowers: Blooms April-July. Pale to bright yellow, up to 4 inches across. Three short petals in the center. The three outer, petal-like lobes of the blossom are sepals patterned with light brown to purple veins or flecks.

Leaves: Sword-like, flat, erect, and linear with a sharply raised midrib.

Fruit & Seeds: Seed capsules up to 4 inches long, angular, glossy green to brown as it ripens. Contains dozens of pale brown seeds arranged in 3 rows. Seeds have a hard outer casing and can float.

Roots: Thick rhizomes spread extensively and form thick mats and networks that crowd out native species. Rhizomes can float, survive prolonged dry conditions, and fragments can form new plants.



Photo Credit: Stephanie Boismenue



Native to: Europe, western Asia, and North Africa.

Ecological Impacts: Yellow iris is a fast-growing and fast-spreading non-native aquatic plant that forms dense stands of robust plants. It invades shorelines and shallow water areas of lakes, rivers, streams, wetlands, bogs, swamps, ponds, and forest, ditches, and flood plains.

The dense, almost impenetrable, monotypic stands crowd out native plants, reduce habitat for wildlife and fish, reduce bird nesting and rearing sites, compact soil, and alter hydrology by trapping sediment.

Yellow iris does not provide food for native animals and contains large amounts of glycosides that are toxic to wildlife and grazing animals.

Spread: Spreads quickly by seeds that float and by underground rhizomes that send out new shoots above the ground and roots below. Stands of yellow iris develop thick mats of rhizomes that can connect several hundred plants. Fragments of rhizomes that break off can also form new plants. Seeds, stems and rhizomes escape into natural areas by wind, water movement, earthmoving equipment, transplanting and other human activities.

Similar Species: When not in flower, yellow iris may be confused with native species such as blue flag iris, cattails, or sweet flag.

Control: Caution should be used if pulling out this plant as it causes skin irritations. Control efforts are most likely to succeed when plants are small and manageable. Use an integrated approach of monitoring for seedlings and re-growth and control efforts.

Mechanical: Removing flowers and seed capsules can prevent the spread.

Mowed plants will regenerate from the rhizomes, so plants must be cut multiple times to exhaust their energy reserves.

Digging is effective for removing small plants and plant populations. Remove as much plant debris as possible, particularly rhizomes. Dispose of in landfill or by burning. Plant natives in its place.

Caution: The disturbance associated with digging can result in shoreline and sediment erosion.

Chemical: Permits may be needed. Always check DNR regulations for the most up-to-date information regarding permits for control methods.

To report a yellow iris location and to learn more, visit www.dnr.wi.gov/topic/Invasives/

This Fact Sheet was developed by Stephanie Boismenu, Aquatic Invasive Species Coordinator, Oneida County Land & Water Conservation Department in partnership with the Three Lakes Waterfront Association. (S.B., R2023)

Photo credits: Stephanie Boismenu

Reference: Wisconsin Department of Natural Resources: *Yellow iris (Iris pseudacorus)*: <https://dnr.wi.gov/topic/Invasives/fact/YellowFlagIris.html>

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