AGENDA

Lakes Management Committee

Meeting date: 11/19/2025 Start time: 9:00 am End time: 10:30 am

Meeting location: Fairmont City Hall, Upstairs Confrence Room

TIME	DESCRIPTION	INTRODUCTION
9:00 am	**Begin Meeting**	Neusch
9:05 am	**Update** • **Weed Rollers** • **Rock Arch Rapids** • **Dam Inspection**	**Neusch/York**
9:20 am	Curly Leaf Pondweed Extended Study	Neusch/Wersal
9:30 am	RFP in progress ◦ Aquatic Invasives Removal and Treatment in the Fairmont Chain of Lakes ▪ Sent to DNR's permitted list ▪ Review Committee	**Neusch**
9:45 am	Wetland Restoration	**Neusch/Jesse Walters**
10:00 am	Rain Barrels and Compost Bin Sale	**Neusch**
10:20 am	**MDH Source Water Protection Implementation grant**	**Neusch**
10:30 am	**Other/Adjourn**	

FAIRMONT
CITY OF FAIRMONT, MN

Outlook

RE: Mechanical Rollers

From Carstensen, Durel (DNR) <durel.carstensen@state.mn.us>
Date Tue 10/28/2025 1:27 PM
To Hannah Neusch <hneusch@fairmont.org>

Hannah,

Here is general guideline for weedrollers.

Residents can use weedrollers to control submersed vegetation around their dock area. Weedrollers will not be permitted to control waterlily or emergent vegetation (cattails and bulrush). They can be either a one or a three year permit. If a resident controls 2,500 square feet or less that is a three year permit, larger than 2,500 square feet is a one year permit. For a weedroller to be permitted, the sediments need to be firm. If the sediments are more than three inches the device cannot be permitted. I like to tell people if they sink past their ankle when walking in the water the sediments are too soft to achieve a permit and different means will need to be used.

If you have any more questions feel free to reach out.

Durel Carstensen

From: Hannah Neusch <hneusch@fairmont.org>
Sent: Thursday, October 9, 2025 3:48 PM
To: Carstensen, Durel (DNR) <durel.carstensen@state.mn.us>
Subject: Mechanical Rollers

You don't often get email from hneusch@fairmont.org. Learn why this is important

Durel,

I am the Water Resources Coordinator for the City of Fairmont. I have a few questions regarding rollers for aquatic weed management.

I left you a voicemail today as well, feel free to contact me either way.

Thank you!

--

Hannah Neusch

Water Resources Coordinator

City of Fairmont

Call: (507) 238-3953

Project Recap

Summary of Recommendations for Fairmont Dam:

- **Upstream:**
  - Repair or replace the embedded steel of the flashboard slots on the south and north abutment walls.
    - *Brennan Repair Rating: Low to Moderate.*
  - Repair the areas of heavy scaling with exposed rebar observed on piers 4 and 5.
    - *Brennan Repair Rating: Low to Moderate.*
  - Continue to monitor the areas of spalling observed along the abutment walls and the piers.
    - *Brennan Repair Rating: Low.*
- **Downstream:**
  - Continue to monitor the areas of scaling observed along the ogee face of the spillway.
    - *Brennan Repair Rating: Low .*
  - Continue to monitor the area of joint spalling and scaling observed on the north abutment.
    - *Brennan Repair Rating: Low.*

Brennan Condition Assessment

Good: No visible or only minor sporadic defects or deterioration. The "Brennan Repair Rating" was low.

Satisfactory: Limited minor to moderate defects or deterioration. The "Brennan Repair Rating" was low.

Fair: Minor to moderate defects or deterioration on widespread portions. Localized areas of moderate to advanced defects or deterioration may be present. The "Brennan Repair Rating" was low to moderate.

Poor: Moderate to advanced defects or deterioration on widespread portions. The "Brennan Repair Rating" was moderate.

Serious: Advanced defects or deterioration on widespread portions. Localized failures are possible. The "Brennan Repair Rating" was moderate to major.

Critical: Heavily advanced defects or deterioration have resulted in localized failure(s). More widespread failures are possible if corrective action is not taken. The "Brennan Repair Rating" was major.

Brennan Repair Rating

Low: Repairs may have been recommended, but repair priority was low. At a minimum, we recommend continuing to monitor these defects or deteriorated areas within their upcoming routine inspections.

Moderate: We recommend repair talks begin and executed when possible. The observed defects or deterioration could affect the overall functionality of the structure(s).

Major: We consider the repair priority to be urgent, and repairs should be made as soon as possible.

*The Brennan Condition Assessment and Repair Ratings are considered opinions based on inspection findings of the specific inspected structure(s). Company safety plans and/or any applicable industry regulations regarding these structure(s) should always be followed.

We appreciate the opportunity to work with City of Fairmont on this project. If you have any questions or concerns regarding the information in this report or if Brennan can be of any further assistance, please do not hesitate to reach out using the contact information below.

Respectfully submitted,



Justin Brendon
Underwater Services – Underwater Specialist II
cell 608.799.1978
jbrendon@jfbrennan.com

Fairmont Chain of Lakes Aquatic Plant Management Support

PI: Ryan M. Wersal, Ph.D.
2026 Proposed Project Cost: $25,000

The infestation of curly-leaf pondweed is leading to reductions in overall aquatic plant species richness and distribution. Additionally, curlyleaf pondweed is likely exacerbating poor water quality through the release of nutrients into the water column thereby supporting cyanobacteria blooms. The poor water quality reduces light penetration into the water column which further limits native aquatic plant growth. Minnesota State University, Mankato (MNSU) is proposing to address the following items as recommended in the 2025 final report.

- Additional surveys should be conducted each year to document the distribution of aquatic vegetation, especially curlyleaf pondweed.
    - MNSU is proposing to conduct a point intercept survey during July or early August on all five lakes to document the distribution of aquatic plants system-wide. In doing so, a temporal analysis can be conducted as similar surveys were conducted in 2024 and 2025.
    - **Proposed Cost: $5,000**

- Point intercept sampling and turion sampling should continue in select management plots to assess the presence of curlyleaf pondweed and turion density in response to management. Depleting the turion bank is the only way to remove curlyleaf from a lake long-term.
    - Mechanical and hand harvesting should be reserved for high-use recreational areas to maintain accessibility.
    - MNSU is proposing to conduct monthly turion sampling (20 samples in each of the curlyleaf pondweed sites system-wide from May to October) to quantify turion dynamics through time.
    - MNSU is proposing to assess the efficacy of harvesting and/or other management activities as appropriate in designated plots. This will include point intercept surveys and turion surveys in treatment plots.
    - **Proposed Cost: $20,000**

- Water quality monitoring should be conducted to understand the eutrophication dynamics in the system
    - MNSU is proposing the following monthly water sampling:
    - PO_4 and NO_3 sampling at one permanent water sampling location in each lake using the HACH colorimeter
        - 1 sample above the thermocline (roughly 3 feet below the surface) and 1 sample just off of the bottom (roughly 3 feet from bottom sediment); collect water using the Van Dorn sampler
    - Secchi disk measurement at water sampling locations
    - Multiprobe profile at water sampling locations from water surface to bottom (0.25 m intervals) which includes temperature, dissolved oxygen, pH, chlorophyll-a, and phycocyanin profiles.

- Light (LiCOR) profile at all water sampling locations from water surface to bottom (0.25 m intervals)
- **Proposed Cost: $0.00** – MNSU will conduct the water quality sampling during the turion sampling trips and as part of the overall project cost.

Project costs include funds to cover undergraduate wages and a summer stipend for a graduate student. MNSU will fund the remainder of the graduate student stipend through a teaching assistantship during the academic year.

Funds are requested to cover travel costs to and from field locations which cover departmental truck rental, gas, per diem, and boat maintenance.

Funds are requested for consumable sampling items such as Eckman dredge cables, sampling pails, GPS upgrades for spatial data collection.

Dr. Wersal will be available for meetings, planning, and reporting; and will oversee the project. The graduate student will oversee the day to day execution of the project, data collection, data analysis, report generation, and reporting.

Activity	Tool/Test	Purpose (Plain Language)
Aquatic Plant Surveys	Point Intercept Survey	Checks where different plants are growing in the lake and how many there are. Helps track changes over time.
Curly-Leaf Pondweed Monitoring	Turion Sampling	Collects "turions" (like plant seeds) of curly-leaf pondweed to see how many are present and whether management is working.
Water Quality – Nutrients	HACH Colorimeter (PO_4 & NO_3 tests)	Measures levels of phosphorus and nitrate in the water, which can fuel algae blooms.
Water Transparency	Secchi Disk	A simple black-and-white disk dropped in water to measure clarity. Cloudier water means more algae or sediments.
Water Chemistry & Conditions	Multiprobe	Measures temperature, oxygen, pH, chlorophyll-a (algae), and phycocyanin (blue-green algae) at different depths.
Light Penetration	LiCOR Light Sensor	Measures how much sunlight reaches different depths, which affects plant growth.
Water Collection	Van Dorn Sampler	Device to collect water from specific depths for testing nutrients and other parameters.

Summary:

- They will **track where plants grow** and **count invasive pondweed seeds/turions**.
- They will **test the water** for clarity, sunlight, oxygen, pH, algae levels, and nutrients that feed algae.
- Most tools are either simple (like a Secchi disk) or scientific instruments (multiprobe, LiCOR, HACH colorimeter) to measure conditions throughout the lake.
- The combination helps scientists **understand both plants and water quality**, and check whether management efforts are working.

P.O. Number_____
Purchaser Name _____
Contract Number _____

[INSTRUCTIONS FOR COMPLETING THIS FORM ARE IN RED AND BRACKETS. PLEASE COMPLETE EVERY FIELD AND DELETE ALL INSTRUCTIONS INCLUDING THE BRACKETS.

INCOME CONTRACT

This contract is by and between [INSERT PURCHASER'S LEGAL NAME AND FULL ADDRESS] (hereinafter "Purchaser") and the State of Minnesota acting through its Board of Trustees of the Minnesota State Colleges and Universities, on behalf of [INSERT NAME OF COLLEGE/UNIVERSITY/SYSTEM OFFICE] (hereinafter "Minnesota State").

WHEREAS, the Purchaser has a need for a specific service; and

WHEREAS, Minnesota State, is empowered to enter into income contracts pursuant to Minnesota Statutes, Chapter 136F;

NOW, THEREFORE, it is agreed:

1. **DUTIES OF MINNESOTA STATE**.
   The Minnesota State agrees to provide the following: [INSERT DUTIES OF MINNESOTA STATE]

2. **DUTIES OF PURCHASER**.
   The Purchaser agrees to provide the following: [INSERT DUTIES OF THE PURCHASER, e.g. arrange for space, equipment, promotion, etc.]

3. **CONSIDERATION AND TERMS OF PAYMENT.**
   a. Consideration for all services performed and goods or materials supplied by Minnesota State pursuant to this contract shall be paid by the Purchaser as follows: [INSERT DOLLAR AMOUNT IN WORDS AND NUMBERS AND NUMBER OF HOURS, e.g, Fifty and 00/100 Dollars ($50.00) for eighty (80) hours. EXPLAIN HOW MINNESOTA STATE WILL BE PAID. EXAMPLES: "IN ACCORDANCE WITH THE BREAKDOWN OF COSTS AS SET FORTH BELOW." IF DELIVERABLES CAN BE SUCCINCTLY DEFINED, IT IS

GENERALLY PREFERABLE TO STRUCTURE PAYMENT BASED ON THE SUCCESSFUL COMPLETION AND ACCEPTANCE OF SPECIFIC TASKS OR DELIVERABLES.]

b. Terms of Payment. Payment shall be made by the Purchaser within 20 days of the date of the invoice presented.

4. **TERM OF CONTRACT.**

This contract shall be effective on [INSERT FULL DATE (e.g., January 29, 2021)], or upon the date that the final required signature is obtained by Minnesota State, whichever occurs later, and shall remain in effect until [INSERT FULL DATE (e.g., January 29, 2021)], or until all obligations set forth in this contract have been satisfactorily fulfilled, whichever occurs first.

5. **CANCELLATION.**

This contract may be canceled by the Purchaser or Minnesota State at any time, with or without cause, upon thirty (30) days written notice to the other party. In the event of such a cancellation, the Minnesota State shall be entitled to payment, determined on a pro rata basis, for work or services satisfactorily performed.

6. **AUTHORIZED REPRESENTATIVES.**

a. The Purchaser's Authorized Representative for the purposes of administration of this contract is:

Name: , or their successor
Title:
Address:
Telephone:
E-Mail:

b. An authorized representative of Minnesota State for the purposes of administration of this contract is:

Name: , or their successor
Title:
Address:
Telephone:
E-Mail:

Each authorized representative shall have final authority for acceptance of services of the other party and shall have responsibility to ensure that all payments due to the other party are paid pursuant to the terms of this contract.

7. **ASSIGNMENT.**

Neither the Purchaser nor Minnesota State shall assign or transfer any rights or obligations under this contract without the prior written approval of the other party.

8. **LIABILITY.**

The Purchaser shall indemnify, save, and hold Minnesota State, its agents and employees harmless from any and all claims or causes of action arising from the performance of this contract by the Purchaser or Purchaser's agents or employees. This clause shall not be construed to bar any legal remedies the Purchaser may have for the failure of Minnesota State to fulfill its obligations pursuant to this contract.

9. **AMERICANS WITH DISABILITIES ACT COMPLIANCE (hereinafter "ADA").**

The Purchaser is responsible for complying with the Americans with Disabilities Act, 42 U. S. C. 12101, et. seq. and regulations promulgated pursuant to it. Minnesota State IS NOT responsible for issues or challenges related to compliance with the ADA beyond its own routine use of facilities, services, or other areas covered by the ADA.

10. **AMENDMENTS.**

Any amendments to this contract shall be in writing and shall be executed by the same parties who executed the original contract or their successors in office.

11. **GOVERNMENT DATA PRACTICES ACT.**

The requirements of Minnesota Statutes § 13.05, subd. 11 apply to this contract. The Purchaser and Minnesota State must comply with the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, as it applies to all data provided by Minnesota State in accordance with this contract, and as it applies to all data, created, collected, received, stored, used, maintained, or disseminated by the Purchaser in accordance with this contract. The civil remedies of Minnesota Statutes §13.08 apply to the release of the data referred to in this clause by either the Purchaser or Minnesota State.

In the event the Purchaser receives a request to release the data referred to in this clause, the Purchaser must immediately notify Minnesota State. Minnesota State will give the Purchaser instructions concerning the release of the data to the requesting party before the data is released.

12. JURISDICTION AND VENUE.

This contract shall be governed by the laws of the State of Minnesota. Venue for all legal proceedings arising out of this contract, or the breach thereof, shall be located only in the state or federal court with competent jurisdiction in Ramsey County, Minnesota.

13. **STATE AUDITS.**

The books, records, documents, and accounting procedures and practices of the Purchaser relevant to this contract shall be subject to examination by the contracting department and the Legislative Auditor.

14. **ENTIRE AGREEMENT.**

This contract represents the entire agreement between the parties and with regard to the stated subject matter and supersedes any previous discussions or agreements, either verbal or written that occurred between the parties with respect to this subject matter. This contract may not be amended except by written agreement signed by the parties hereto. In the event of any conflict or inconsistency between this contract and any riders, exhibits, addenda, or other document incorporated herein, this contract shall govern.

15. **CLERICAL ERROR.**

Notwithstanding Clauses "ASSIGNMENT, AMENDMENTS, and ENTIRE AGREEMENT" of this contract, Minnesota State reserves the right to unilaterally fix clerical errors, defined as misspellings, minor grammatical or typographical mistakes or omissions, that do not have a substantive impact on the terms of this contract without executing an amendment. Minnesota State must inform Purchaser of clerical errors that have been fixed pursuant to this paragraph within a reasonable period of time.

16. **OTHER PROVISIONS.** (Attach additional page(s) if necessary):

[WRITE "NONE" IF THERE ARE NO ADDITIONAL PROVISIONS TO THE CONTRACT.]

[ATTACH ADDITIONAL PAGE(S) IF NECESSARY. IF ADDING OTHER PROVISIONS OR ATTACHMENTS THAT IMPACT OR CONFLICT WITH WHAT IS STATED IN THE CONTRACT, SEEK ASSISTANCE FROM SYSTEM LEGAL COUNSEL IN ADVANCE OF CONTRACT EXECUTION.]

The rest of this page intentionally left blank. Signature page to follow.

[WHEN FINALIZING DOCUMENT, FORMAT DOCUMENT SO THE ENTIRE SIGNATURE PAGE REMAINS ON THE LAST PAGE]

IN WITNESS WHEREOF, the parties have caused this contract to be duly executed intending to be bound thereby**.**

APPROVED:

1. **MINNESOTA STATE COLLEGES AND UNIVERSITIES,**
   [Insert Name of College/University/System Office]

By (authorized signature and printed name)
Title
Date

2. **PURCHASER:** [Insert Purchaser's Name]
   Purchaser certifies that the appropriate person(s) have executed the contract on behalf of Purchaser as required by applicable articles, by-laws, resolutions, or ordinances.

By (authorized signature and printed name)
Title
Date

By (authorized signature and printed name)
Title
Date

3. **AS TO FORM AND EXECUTION:**

By (authorized signature and printed name)
Title
Date

Home Composter Compost Bin

- Made of sturdy, yet lightweight, 100% recycled plastic materials
- Two-piece construction for sides allows for easy transporting and turning of materials
- Wide opening at the top – easy to add and view materials
- Lockable lid to deter animals
- Sliding doors on each side to monitor status of compost
- Not available in stores. Similar models retail for $100+



Specifications:

Assembled Dimensions: 33"D x 30"H
Total Volume: 17 cu ft / 125 gallon

The Home Composter Bin is warranted by Gracious Living Corp. for 10 years from the date of purchase for any defects due to manufacturing or delivery excluding any damage due to normal wear and use.

RECYCLING ASSOCIATION of Minnesota

Rain Catcher Rain Barrel



- The large opening and flat back design allow for easy installation and placement of the downspout while the spoke and wheel pattern in the top of the barrel keeps it child and pet safe.
- The overflow connection at the back of the barrel allows excess water to flow down and underneath the barrel to direct it away from foundations.
- Spigots on the side of the barrel allow you to connect multiple Rain Catcher barrels in-series for easy expansion of your rain water storage capacity.
- The aluminum mesh screen keeps out debris and mosquitoes to keep the water clear and keep your family safe from insect borne illnesses.
- Includes debris screen, garden hose, shut-off thumb valve, hanging hose clip, overflow hose, and linking kit
- Place them around your home to catch fresh chlorine-free water as it pours from your downspouts – Water that would otherwise make its way into storm sewers only to be wasted. Rain barrels not only save you money but lessen the strain on water resources.
- Made out of 100% recycled plastic
- Retails at $120+

Specifications:

Assembled Dimensions: 24”D x 24”W x 32”H
Total Volume: 6 cu ft / 45 Gallon / 170 Litre

One (1) Year Warranty on Manufacturer Defects. Warranty excludes cracking from improper use.

Rain Barrel and Compost Bin Estimated Cost

	Minumum Order	2025 Cost	Total cost
Rain Barrel	72	$100.00	$7,200.00
Compost Bin	54	$80.00	$4,320.00
	Total Estimated Cost		***$11,520.00***

Interested residents will purchase these items at cost.

Rain barrels collect and store rainwater from rooftops, reducing the amount of stormwater runoff that carries pollutants such as fertilizers, grass clippings, and sediment into nearby lakes and streams. Using stored rainwater for gardens or lawns also helps conserve treated drinking water.

Compost bins turn yard waste and kitchen scraps into nutrient-rich compost instead of allowing them to wash into streets, storm drains or taking them to a landfill. This helps reduce excess nutrients, like phosphorus, that contribute to algae blooms and declining water quality.

Community participation in programs like these not only protects local water resources but also helps the City meet a portion of the Minnesota Pollution Control Agency's (MPCA) MS4 permit requirements for public education and pollution prevention.

By using rain barrels and compost bins, residents play an active role in protecting clean water and keeping our lakes healthy for everyone to enjoy.

(/)

Midwest Floating Island
info@midwestfloatingisland.com
(mailto:info@midwestfloatingisland.com)
(651) 379-2480

BioHaven® Floating Islands: Construction, Benefits, and Environmental Impact

What Are BioHaven® Floating Islands?

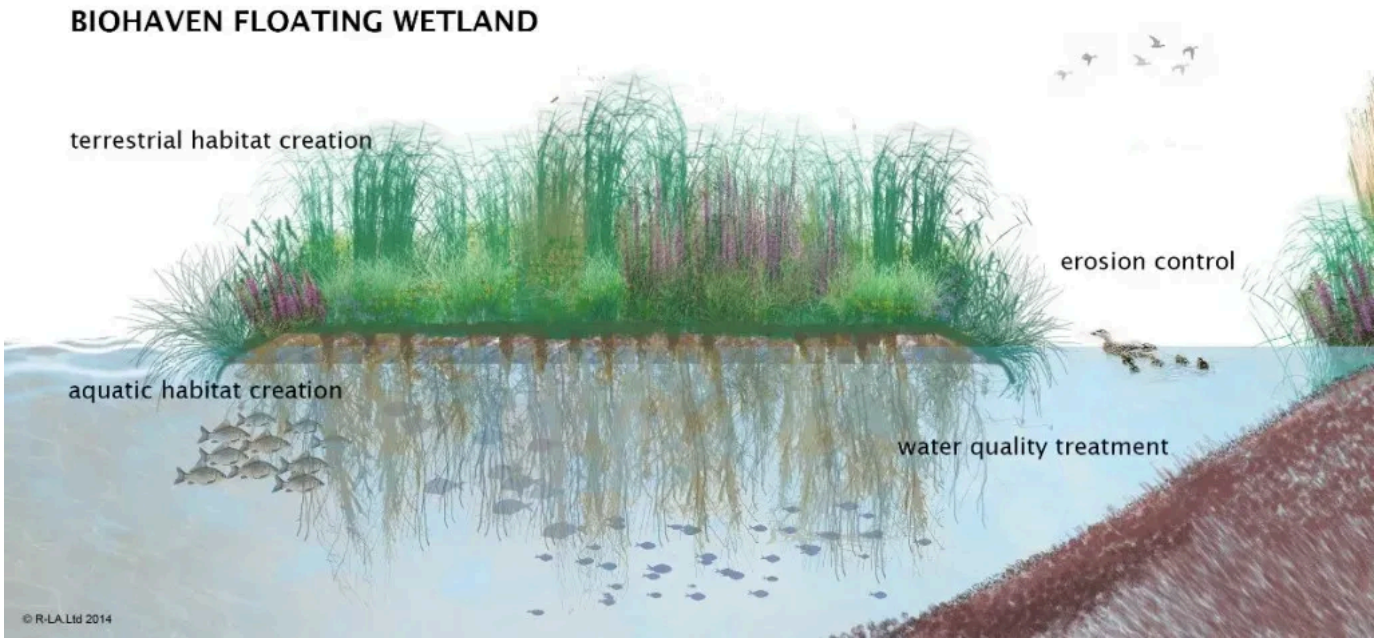
BioHaven® Floating Islands are innovative, eco-friendly solutions designed to improve water quality and ecosystem health. These man-made wetlands act as floating versions of constructed wetlands. Designed to mimic the benefits of natural floating bogs, these anchored islands leverage natural processes to remove pollutants and restore water ecosystems in ponds, lakes, and other waterways. BioHaven® islands are versatile and can be customized for a variety of environments.

How BioHaven® Floating Islands Are Constructed

BioHaven® floating islands are constructed with a matrix base of non-woven PET fibers derived from BPA free recycled plastic drinking bottles (resulting in less plastic in landfills). Marine grade foam is injected for buoyancy. Islands can get quite heavy in the water with all the microbial activity in the matrix and on the plant roots in addition to the weight of visiting wildlife.

BioHaven® islands have an internal structure, anchor points and wicking holes for planting with vegetation. The type of fibers in the matrix were chosen to encourage optimal biomass growth. The holes do not go all the way through the matrix fibers. There is support at the bottom of the wicking hole so plants will not fall through the islands.

BioHaven® floating islands can be custom built to fit specific needs in stormwater ponds, shallow lakes, backyard ponds, streams and other waterways that remain wet during the year. Floating islands can be used in deeper waters with appropriate anchoring. Every island is manufactured with anchor points so you can attach your anchor lines. Anchor the islands with extra length so the floating wetlands can adjust to fluctuations in water level. The extra bounce avoids plants dying from drying out or getting flooded.



(https://midwestfloatingisland.com/wp-content/uploads/2024/10/image1.png)

BioHaven® Advantages

BioHavens® represent a relatively low cost option to retrofit into existing lagoon systems, ponds and other water bodies. No additional land or major impact from earth moving equipment is required.

BioHaven® man-made wetlands can be considered a floating version of a constructed wetland that can be positioned in places where you couldn't establish a traditional constructed wetland due to constraints such as cost, lack of space and ease of access.

How Microbes Clean Water in BioHaven® Islands

BioHaven® floating treatment wetlands enhance water quality by harnessing natural processes. Microbes, essential for breaking down pollutants, require surface area to thrive. The wetlands' structure, combined with plant roots, provides the ideal substrate for microbial growth. These microbes form biofilm, which helps collect algae, zooplankton, and other organisms, creating a community known as periphyton. Periphyton plays a crucial role in nutrient removal, helping to clean water from urban and agricultural runoff. The biological activity with the islands works to prevent harmful algae blooms by outcompeting algae for nutrients.

Nutrient Removal and Water Quality Improvements

Floating treatment wetlands (FTWs), the term for islands used in much of the research, help improve water quality by removing excess nutrients and sequestering carbon. The periphyton and plant roots on these islands absorb dissolved carbon dioxide for photosynthesis and trap organic carbon. FTWs also convert harmful nitrogen compounds, like ammonia and nitrate, into harmless nitrogen gas through bacterial processes, preventing eutrophication. Similarly, phosphorus, another key contributor to eutrophication, is filtered, absorbed by plants, or consumed by aquatic organisms, reducing its presence in the water. Some phosphorus is also manually removed by cutting or removing plants as desired but this is a small part of the total uptake.

Midwest Floating Island, LLC BBB Business Review (https://www.bbb.org/us/mn/saint-paul/profile/water-treatment-equipment/midwest-floating-island-llc-0704-1000058166/#sealclick)

