

A hand is holding a large, dark, oval-shaped mussel shell. The shell is covered with a dense cluster of smaller, similar mussel shells. The background shows a blue sky with light clouds, a body of water, and green foliage on the right side.

Des Moines Lake
Association

Special Meeting Surface
Water Grant

Water Decontamination
Station to Prevent Zebra
Mussels and other AIS

Task Force: Amy
(Oberaigner) Juers, Ryan
Knox Des Moines Lake
Association Board Members

March 4, 2024

About the Problem



With new populations of zebra mussels and other aquatic invasive species being found in lakes less than ten miles from Des Moines and Long Lakes, residents and decision-makers are concerned about the effects they will have on our water resources.

McKenzie Lakes



Photo provided by Sandy Swanson from the McKenzie Lakes Association February 2023 during zebra mussel forum.

We need better prevention, because after they are in the lakes, you cannot get them out!



The current process...

Our current method of decontamination is spraying diluted bleach solution on watercraft and equipment upon entering and exiting our lake.

There are numerous issues with this process:

1. Boaters must wait 10 minutes per WDNR protocol for it to be effective – most boaters were not waiting the required 10 minutes
2. The bleach solution degrades as quickly as 24 hours and becomes ineffective
3. The solution can stain clothes and shoes
4. The solution requires constant refilling by volunteers

What the authorities say...

Regarding Effectiveness:

1. High-Heat/High-Pressure/Steam: This would be the most effective type of unit or set-up for the removal/decontamination of zebra mussel veligers. However, these types of units do have drawback and can be rather expensive. Most of the sites are also run by paid/trained staff since the units can have some dangerous aspects to them.
2. Chemical: Diluted Bleach Solution would be the next most effective ability to decontaminate zebra mussels off various watercraft
3. Regular Temperature Water/Pressure: Next in line would be tap, or well water at a garden hose type pressure. These units/items can be used by any individual and operated in more broad conditions.
4. CD3 Unit: CD3 units are much better suited for AIS species since there is not water in these units. It is either a blower, or sucking vacuum for the removal of water from boats

Letters of Support/Intent

- Long Lake Property Owners Association – Signed Letter of Intent
- Town of Webb Lake – Signed Letter of Intent
- Michel Property – Signed Letter of Intent
- Emily Moore, Burnett County AIS Coordinator – Signed Letter of Support
- Lisa Burns, Washburn County Conservation Coordinator – Signed Letter of Support
- Tim Adair, president, Burnett County Lakes and River Association – Signed Letter of Support

Similar Systems

Lipsett Lake - Cold Water Pressure Washer

"The workers report that lake users much prefer the pressure washer to the pump sprayers with bleach solution that we have used previously. Not a single boater has refused to decontaminate their boat/trailer this season..."

Fish Lake - Hot Water Pressure Washer

Hot Water Pressure Washer

- Commercial/Industrial Grade System
- 3000 PSI and 4 GPM
- 1 Phase electrical
- Propane Heated Boiler
- Lower decibels
- Adjustable pressure and temperature
- Auto On & Off delay for Easy & Effective Use
- Multiple Guns at different pressures
- Easy winterization
- Minimal interaction from volunteers
- Long Warranty and Lifespan



Build Items and Tasks

- Power washer
- Shed
- Electric/Electrician
- Water Tanks & Pump
- Gravel base
- Bollards
- Trench
- Deed
- Signage
- Well Labor
- Well Supplies
- Tree/Stump
- HVAC
- Insurance



Budget:

Estimated Cost	\$25,439
Budget Contingency	10%
Estimated w/ contingency	\$27,983
Total Grant	\$14,564
Associations	\$13,419
Per Association	\$6,710

Estimated Operating Costs

1000 uses per season

Water Tanks - \$1.01 per use

Item	Cost Per Hour
Propane	\$9.05
Electricity Motor	\$0.45
Electricity Other	\$0.05
Water Delivery	\$24.00

Well - \$0.29 per use

Item	Cost Per Hour
Propane	\$9.05
Electricity Motor	\$0.45
Electricity Other	\$0.15
Water	0

Usage based on 60% trigger pull over a 3-minute average pressure washing

Current Financial Situation

Balance ~\$5400

Major Expenses - StarWatch \$600

Incoming Revenue - Additional \$1000 from dues if we maintain current member count. Approximately \$2600 per year.

Additional Revenue - Meat Raffle Fundraisers, Apparel Sales, Donations from Members (Fish Lake)

Estimated Yearly Operating Costs of \$1200 per association will be funded by membership dues

Build/Implement Timeline:

- Design and Develop - April 2024 through June 2024
- Purchase Equipment - May 2024 through May 2025
- Site Preparation and Shed Install - May 2024 through August 2024
- Electrical Service Hookup - August 2025 through September 2024
- Install WDS - September 2024 through May 2025
- Add Custom Safety and Usability Controls - September 2024 through May 2025
- Continued Monitoring, Reporting and Workflow
- Adjustments - May 2025 - December 31, 2027

Questions?

“The purpose of the Association is to maintain, protect and enhance the quality of the lake...”

Motion: To approve the purchase and installation of a new Water Decontamination Station at the shared boat landing of Des Moines and Long Lakes.

- Open for comment



Des Moines Lake Association Special Meeting Surface Water Grant

- THANK YOU FOR ATTENDING AND
HELPING MAKE A DIFFERENCE!



The Des Moines Lake Association Board Members

- Amy (Oberaigner) Juers, president
- Mike Schafhauser, VP and treasurer
- Ryan Knox, secretary, tech lead
- Mike Kellar, director
- Jim Pappas, director
- Holly Huso, director
- Tom Rooney, director
- Sue Sjeklocha, past president