Plan Goals and Strategies

Overall Purpose

This section of the plan lists the goals, objectives and actions for an aquatic plant management plan for Des Moines Lake. This plan was called forth due to pressures from the lake association board regarding nearby threats of aquatic invasive species. It presents a detailed strategy on how Des Moines Lake Association plans to prevent, reduce and control populations of aquatic invasive species, provide education on aquatic plants, erosion concerns and areas to improve on water quality.

Plan Goals

1. Prevent the introduction and spread of aquatic invasive species.
2. Reduce and control the spread of Purple Loosestrife, and Banded and Chinese Mystery Snails.
3. Educate community regarding aquatic plant management, appropriate native plant management actions and erosion control practices.
4. Maintain and improve water quality.
5. Develop a Rapid Response Plan for aquatic invasive species.

Goal 1: Prevent the introduction and spread of aquatic invasive species.

Objectives

A. 100% of watercraft users will receive inspections, clean, drain and decontaminate boats, trailers and equipment.
B. 100% enforcement of Burnett County's Do Not Transport Ordinance.
C. Train Des Moines CBCW volunteers and the public on Burnett County's No Power Loading Ordinance and follow with 100% enforcement in 2024.
D. Des Moines Lake residents will continue monitoring for aquatic invasive species.

Actions

- Continue to collaborate with Long Lake Association with their application for a Clean Boats Clean Waters (CBCW) grant to conduct CBCW monitoring and education at the boat landing using paid and/or volunteer staff. (OBJ A, B).
- Work with Burnett County Sheriff's Department to encourage increased enforcement and potentially increase fines for the Do Not Transport Ordinance and No Power Loading Ordinance (OBJ A, B, C).
- Install 'No Power Loading' signage at the Des Moines Lake boat landing.
- Attend Burnett County's CBCW trainings and workshop in April as needed (OBJ C).
- Provide information and trainings to Des Moines Lake community on identifying Purple Loosestrife (PLS), Curly-leaf Pondweed (CLP), Eurasian watermilfoil (EWM) and Zebra Mussels and who to contact if they have a suspected AIS. (Burnett County LSD will provide volunteer training for AIS identification. Burnett County AIS Coordinator and lake association AIS representative will provide identification assistance.) (OBJ D).
- Conduct point intercept surveys every 2-3 years to monitor for CLP, EWM and other aquatic invasive species (OBJ D).

Goal 2: Reduce and control the spread of known AIS species such as Purple Loosestrife (PLS), and Banded and Chinese Mystery Snails (BMS, CMS).

Objectives

A. Educate Des Moines Lake community members how to identify PLS and Mystery Snails and the impacts of invasive species.
B. Recruit volunteers to control current populations of PLS, BMS and CMS.

Actions

- Monitor Des Moines for PLS growth annually.
- Cut and spray individual PLS plants where identification is confirmed.
- Collaborate with Long Lake Association to raise and release Galerucella beetles to help reduce and control the spread of PLS.
- Note each area where PLS is sprayed and monitor subsequent years.
- Consider obtaining & planting native species in place of PLS.
- Design a manual removal event for BMS and CMS.

Goal 3: Educate community regarding aquatic plant management, appropriate plant management actions, erosion control practices, and identification and removal of other invasive species.

Audience: Des Moines Community

A. All lake residents
B. Business owners
C. Lake users
D. Residents who treated waterfront with herbicides or hand pulling in the past.

Messages

1. Educate the next generation of lake users the importance of water quality, AIS preventive measures and being a good lake steward.
2. Where to find summary of APM plan and when APM meeting(s) are being conducted.
3. List of APM do's and don'ts
4. Include Des Moines APM committee contact list on the lake association website.
5. Importance of native aquatic plants.
6. Limit impacts to native aquatic plants by traveling with no wake in shallow areas, using hand removal methods near docks, and swimming areas.
7. Explain procedures for individual corridor herbicide applications and describe conditions where herbicide treatments may be allowed.
8. Explain aquatic plant management techniques and permitting procedures.
9. Provide audience information on CLP, PLS, EWM and Zebra mussel identification and removal methods.
10. Provide the audience with information on lakes nearby with aquatic invasive species, especially Clean Boats Clean Waters inspectors.
11. Describe new potential invasive species and why they are a threat.
12. Native plant identification.

13. CBCW methods on proper inspections.
14. Updates on Burnett County Ordinances.

Methods

Summary of APM plan
AIS education workshops for all lake users
Improvements to signage at boat landings
Updates to AIS handouts
Newsletter articles
Mailings to lake residents
Develop and update website
Social media posts
Clean Boats Clean Waters monitoring and education
Annual meeting/special meetings
Door-to-door distribution of information
Plastic peel-off stickers for boats

Method	Audience	Message #
Summary of APM plan	A – D	1
AIS education	A – D	4, 8-14
signage	A – D	14
AIS handouts	A – D	4, 6-14
Newsletter articles	A – D	1 – 14
Mailings	A – C	1 – 14
Website	A	1 – 14
Clean Boats Clean Waters	A	8-11, 14
Annual meeting/special meetings	A – D	1 – 14
Door-to-door distribution	A	4-14
Plastic peel-off stickers	A – C	14

Goal 4: Maintain and enhance water quality conditions.

Objective

A. Continue to sample and record both water samples and Secchi readings.
B. Encourage lake residents to restore and preserve shoreline buffers with native vegetation.
C. Encourage lake residents to reduce hand pulling of aquatic plants near the immediate shoreline.
D. Reduce phosphorus and sediment loads from immediate watersheds.
E. Encourage riparian landowners to adopt and implement stormwater runoff controls for existing structures and all new construction.

Action

- Train and recruit Citizen Scientists on the proper protocols for sampling water clarity and water chemistry and submit data into SWIMS.

- Provide workshops and presentations to lake residents on best management practices for healthy shorelines.
- Introduce property owners to different cost share programs available for stormwater practices, including Healthy Lakes and Rivers and Burnett County Shoreline Incentives Program.
- Provide onsite visits for property owners having issues with erosion and runoff. (Provided by Burnett County Water Resources Specialist)
- Educate property owners on the benefits aquatic plants have at protecting the shoreline and reducing sediment suspension.
- Send messages out about the impacts pollution, littering, plastic, fireworks, balloons have on the water quality.
- Educate property owners the do's and don'ts along the shoreline, including zoning regulations, setbacks and aquatic plant removal.
- Provide education on the impacts of leaky or old septic systems and plumbers to contact in the area to do regular maintenance.

Goal 5: Develop Rapid Response Plans for aquatic invasive species.

Objective

A. Consider revising association bylaws for grant eligibility purposes.
B. Develop plan for Curly-leaf pondweed, Eurasian water milfoil and Zebra mussels.

Action

- Lake association board to discuss current bylaws and needs for grant eligibility.
- Association board presents any recommendations (as needed) and schedules meetings to develop plans and address needs.
- Make response plans available online.

Implementation Plan Abbreviations:

AIS: Aquatic invasive species

APM: Aquatic plant management plan

BC: Burnett County

BCLSD: Burnett County Land Services Department

CBCW: Clean Boats Clean Waters

CLMN: Citizen Lake Monitoring Network

LA: Des Moines Lake Association

PLS: Purple Loosestrife

TBD: To be determined

Implementation Plan

Action Items	Timeline	Cost 2023	Cost 2024	Cost 2025	Responsible Parties
Goal 1: Prevent AIS Introduction					
Upgrade decontamination station at landing Power washer or CD3 unit (air compressor/vacuum system)	2023-2025		$15,000 or $41,000	$2,000	LA & DNR
Coordinate DMLA volunteers for CBCW program ~ liaise with Long Lake	Ongoing	10 hours	10 hours	10 hours	LA Board Member
Increase enforcement of BC Do Not Transport Ordinance & No Power Loading Ordinance	Ongoing	4 hours	4 hours	4 hours	LA, BC Sheriff Dept. & BCLSD
Monitor boat landings	Annually	$0	$0	$0	LA, BCLSD
Train Volunteer monitors in CLMN	As needed	$0	$0	$0	BCLSD
Rapid Response plan review	Ongoing	3 hours	3 hours	3 hours	LA, BCLSD
Provide AIS education/identification and encourage volunteer monitoring	May - August	20 hours	20 hours	20 hours	LA AIS Committee, BCLSD
Conduct AIS survey every 3-5 years	Ongoing		$1,700		LA, BCLSD
Goal 2: PLS, BMS, CMS Control					
Monitor Des Moines for PLS growth each year	Ongoing	10 hours	10 hours	10 hours	LA, BCLSD
Apply for permit to cut and spray PLS	Ongoing	TBD	TBD	TBD	LA
Cut and spray individual PLS plants where identification is confirmed	Ongoing	$100	$100	$100	LA
Raise and release Galerucella beetles (in collaboration with Long Lake Assoc.)	Ongoing				LA
Monitor post treatment	Ongoing	3 hours	3 hours	3 hours	LA

Action Items	Timeline	Cost 2023	Cost 2024	Cost 2025	Responsible Parties
Manual removal of BMS, CMS	May – August	10 hours	10 hours	10 hours	LA
Goal 3: Educate Des Moines Lake Community					
AIS workshops	Ongoing	$0	$0	$0	BCLSD
AIS signage	As needed	$0	$0	$0	BCLSD
Handouts, mailings, door-to door distribution	Ongoing	$500	$350	$350	LA, BCLSD
LA e-newsletter articles	Ongoing	$0	$0	$0	LA
LA website updates	Ongoing	30 hours	20 hours	20 hours	LA
LA social media updates (Facebook)	Ongoing	20 hours	20 hours	20 hours	LA
LA educational videos (YouTube)	Ongoing	10 hours	10 hours	10 hours	LA
Annual meeting	Ongoing	$200	$200	$200	LA
Goal 4: Maintain and Enhance Water Quality					
Water chemistry and Secchi sampling	Ongoing	20 hours	20 hours	20 hours	LA, CLMN Volunteer(s)
Reduce phosphorus and sediment loads from immediate watershed	Ongoing	TBD			LA, BCLSD
Educate and assist Des Moines Lake community members in the restoration and preservation of shoreland buffers and shoreland vegetation	Ongoing	TBD			LA, BCLSD
Continue implementation of shoreline owners' education program	Ongoing	TBD			LA, BCLSD
Explore grant opportunities to support shoreline restoration and/or water quality initiatives. (Ex.: Healthy Lakes & Rivers program)	Ongoing				LA