




Integrated Aquatic Vegetation Management Plan

Community Workshop #1

June 13, 2026 | 12:30 - 2:30 PM
Black Lake Bible Camp & Retreat Center





1

Welcome and Introductions



- Welcome to the first Community Workshop of the Black Lake Integrated Aquatic Vegetation Management Plan (IAVMP) planning process
- Housekeeping: restrooms, sign-in sheet, workshop and Q&A format
- What we hope to accomplish today together

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2

Black Lake Special District

Mission: The purpose of the District is to serve the public welfare by improving and maintaining the water quality of Black Lake for local homeowners, those with lake access, visitors, fish, and wildlife.



Dedicated to Black Lake

A special-purpose district established in 2011 for the protection and stewardship of Black Lake



Funds lake stewardship

Revenue supports aquatic plant management, water quality protection, and long-term care of the lake



Leading the IAVMP

The District is leading development of the updated IAVMP, with community input throughout

District Commissioners

- Lake Stintzi
- Kirk Van Landeghem
- Cory Freeborn

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3

Project Team



Mark Rosenkranz
Aquatic Insight
Project Manager



Dr. Lizbeth Seebacher
Aquatic Insight
IAVMP Lead



Zoe Rodriguez del Rey
Annear Water Resources
Assistant Project Manager

With support from

Rich Miller
ESA

Vegetation Survey Lead

Dr. Toni Pennigton
ESA

Senior Aquatic Biologist

Dr. Rob Annear
Annear Water Resources

Senior Principal

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4

Project Overview

A phased process for developing the IAVMP



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5

Key Milestones

Community Workshop 1 (June 13)

Project overview, existing conditions, and community input on management goals

Aquatic Vegetation Survey (June 16-19)

Survey and map aquatic vegetation in Black Lake

Community Workshop 2 (August)

Vegetation survey results and review of management goals, alternatives, tradeoffs, and costs

Draft IAVMP and Community Workshop 3 (October)

Presentation of the draft IAVMP for community input before the plan is finalized

Final IAVMP and Board Adoption (December)

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6

Community Input Matters

Your input helps shapes an IAVMP built on community values and priorities



Why it matters

- Residents know the lake firsthand – how it's used, valued, and changing
- Local priorities keep recreation, habitat, and management goals in balance
- Broad community support gives the plan the backing it needs to succeed



How it's used

- Gathered throughout planning via three community workshops and surveys
- Feedback directly shapes development of management goals and approach
- Used to refine the Draft IAVMP before it's finalized



Scan to sign up
for updates

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7

Community Priorities Survey

Help us reach everyone – share the survey with neighbors around the lake!



Survey #1: Your priorities

Tell us what matters most for Black Lake



Results shared back

Presented at Community Workshop #2



Two easy ways to complete

Scan the QR code or take the survey on the District IAVMP project webpage



Scan to complete
the survey

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8

Benefits of Aquatic Plants

Aquatic plants play many roles in keeping Black Lake healthy

Habitat & Wildlife

- Critical habitat for fish, amphibians, turtles & wildlife
- Shelter and refuge for juvenile fish
- Spawning, nesting & foraging habitat
- Support aquatic insects that feed fish and birds



Water Quality

- Take up nutrients that can fuel harmful algal blooms
- Improve water clarity by trapping suspended particles
- Filter pollutants from land before they reach the lake
- Produce oxygen during daylight hours

Shoreline Protection

- Stabilize sediments
- Emergent plants reduce shoreline erosion
- Reduce wave action and protect shorelines



Ecosystem Health

- Support biodiversity and a healthy lake ecosystem
- Build resilience that resists new invasive plants

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9

When Beneficial Plants Become A Problem

The aim is to maintain a healthy balance that supports habitat, water quality & recreation



Healthy Aquatic Vegetation

- Diverse native plant community
- Supports fish and wildlife habitat
- Improves water quality
- Stabilizes sediment



Excessive Aquatic Vegetation

- A single plant type takes over large areas
- Reduced plant diversity
- Impaired recreation and access
- Can indicate nutrient enrichment



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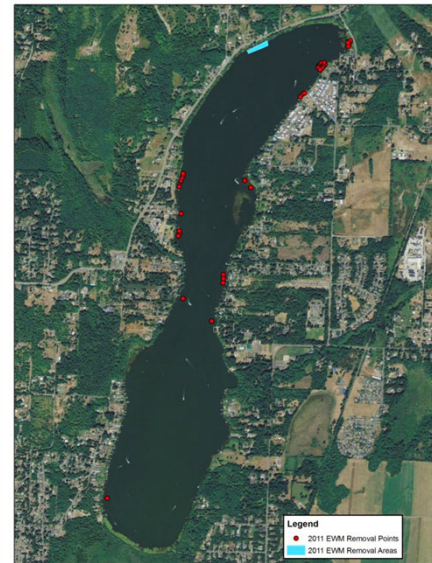


10

Black Lake Vegetation Management History

An updated IAVMP is needed to guide future management and adapt to changing lake conditions

- **30+ years of management.** Aquatic vegetation and water quality have been managed for over three decades
- **2012 IAVMP.** Developed by Thurston County
- **Invasive species since the 1990s.** Fragrant waterlily, yellow flag iris, curlyleaf pondweed, and Eurasian watermilfoil
- **Significant management successes.** Eurasian watermilfoil has been controlled
- **Ongoing challenges.** Fragrant waterlily, yellow flag iris, curlyleaf pondweed, excessive native growth, and algae
- **Vegetation surveys have lapsed.** Annual invasive surveys ran from 2006, but the Noxious Weed Control Board has stopped them



Source: Janie Civile, Thurston County

Figure 9. Milfoil Survey Locations and Removal Points/Areas in Black Lake, 2011

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Aquatic Insight
Black Lake Management

11

Past Management Successes

- Eurasian watermilfoil has been aggressively managed through diver hand removal and bottom barriers
- Management tools have included: manual and mechanical removal and selective herbicide application
- Significant progress made controlling Eurasian watermilfoil – last completed survey in 2011
- Alum treatments to address nutrients that fuel cyanobacteria (blue-green algae) blooms and water quality concerns



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12

Emerging Invasive Aquatic Plant Threats

New invasive aquatic plants are spreading across the region

Many move from lake to lake by hitching a ride on boats, trailers, and other watercraft so Black Lake is at risk even without a local source

Species of concern in Washington:

- Slender Leaf Cattail (*Typha angustifolia*) – found in nearby Lake Lawrence
- Parrotfeather (*Myriophyllum aquaticum*)
- Brazilian elodea (*Egeria densa*)
- Variable leaf milfoil (*Myriophyllum heterophyllum*)
- European frogs-bit (*Hydrocharis morass-ranae*)
- Flowering rush (*Butomus umbellatus*)
- Purple loosestrife (*Lythrum salicaria*)
- Yellow floating heart (*Nymphoides pelota*)
- Giant reed (*Arundo donax*)
- Swollen bladderwort (*Utricularia inflata*)
- Water hyacinth (*Eichhornia crassipes*)
- And continue to keep an eye out for Eurasian watermilfoil!



Slender Leaf Cattail



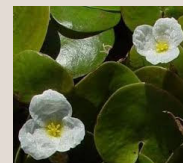
Parrotfeather



Brazilian elodea



Variable leaf milfoil



European frogs-bit

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13

2026 Aquatic Plant Survey (June 16-19)

- We'll conduct a survey of the whole lake to understand where aquatic plants grow, what species are present, and their density.
- The sampling boat will be traveling the shoreline and out to about 200 feet
- Please provide plenty of space for the boat because it may be maneuvering erratically while it maps and samples
- Large wakes will be difficult for the sampling crew so avoid the area if you are wakeboarding



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14

Aquatic Plants Are Only One Part of the Picture

Other lake conditions are tied to aquatic plant growth – some make excessive vegetation worse, and some are made worse by it

Causes of excess vegetation

- Nutrient inputs (phosphorus & nitrogen)
- Disturbed sediments releasing nutrients
- Non-native species



Symptoms of excess vegetation

- Reduced circulation
- Recreational impacts
- Poor water quality in late summer

It's a feedback loop – managing one piece means understanding the others.

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15

Sources of Nutrients

Nutrients can come from the watershed or from within the lake

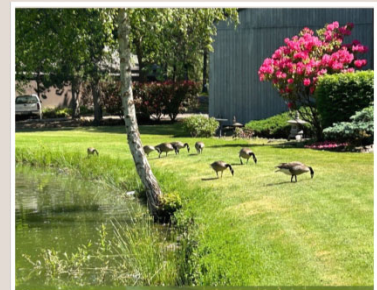
External sources (from the watershed)

- **Stormwater runoff** from roads, roofs, and developed areas
- **Animal waste** from waterfowl, pets, and nearby agriculture
- **Septic systems** especially aging or failing ones
- **Landscape practices** such as fertilizer, compost, manure application

(note: phosphorus-free fertilizer is state law)

Internal sources (from within the lake)

- **Internal phosphorus loading** happens when nutrients stored in sediments release back into the water under low oxygen conditions
- **Sediment disturbance** from boating (especially from wakeboard/wakesurf boats) and bottom-feeding fish resuspend nutrient-rich sediments into the water
- **Septic system** effluent enters the lake below the surface



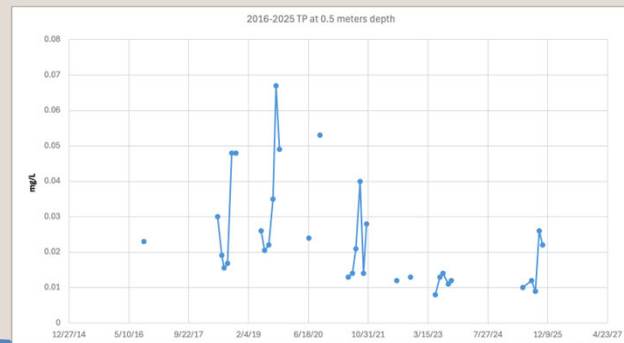
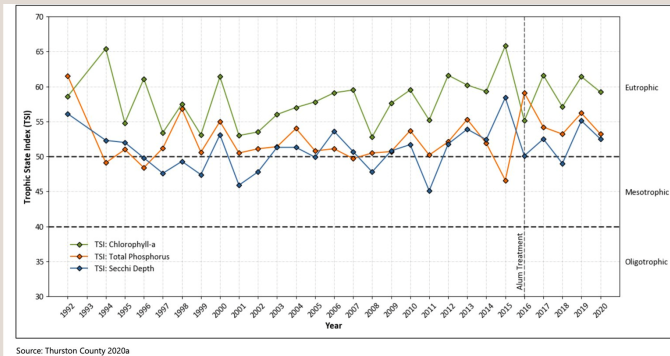
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16

Water Quality

- **Eutrophic (high nutrients/over productive) since 1992** with Trophic State Index (TSI) values of 53–66
- **303d List** – Category 5 for TP and HCBs
- **Among the more eutrophic lakes** in western Washington (2021 statewide assessment)
- **Indication of cyanobacteria blooms nearly every year** since the WA Toxic Algae Program began in 2010
- **Microcystin** is the main algal toxin detected in Black Lake but typically below EPA guidance; last exceedance in 2021
- **Alum treatments in 2016 & 2021** reduced internal phosphorus loading
- **Septic influence** is low to moderate in three stream drainages; a Thurston County study finishes in June 2026



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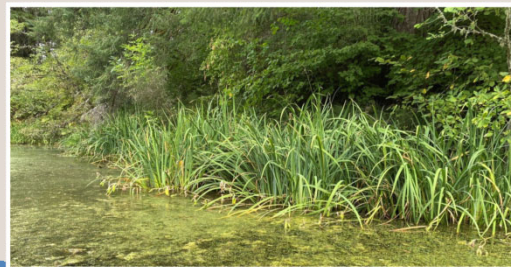
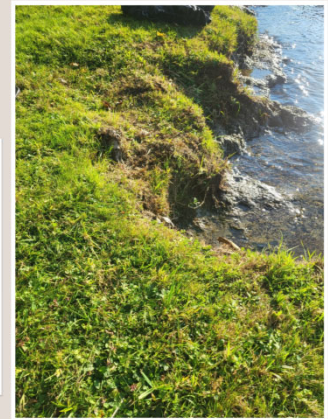


17

Shoreline Conditions

Several shoreline stressors affect lake health:

- **Wave action** – boat wakes (especially from wakeboard/wakesurf boats) erode banks and resuspend sediment
 - **Invasive species** – can spread along the shoreline (yellow flag iris)
 - **Nutria** – burrow into banks and damage vegetation
- Note: recommend report sightings to the WA Invasive Species Council and consulting with a WA permitted Wildlife Control Operator to remove nutria
- **Geese** – are attracted to lawns, concentrate waste and graze shoreline vegetation
 - **Lawns to the water's edge** – eliminate plants that protect the shoreline and the natural buffer that filters runoff before it reaches the lake



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18

Break

We'll resume in 15 minutes



Scan to complete
the survey

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19

Beneficial Uses of Black Lake



Recreation – Swimming, boating, kayaking, waterskiing, wakeboarding, fishing



Fishery Resources – Bass, perch, crappie, rainbow trout, and cutthroat trout



Fish & Wildlife Habitat – Supports diverse native wildlife and several species of conservation concern



Wetlands & Littoral Habitat – Important ecological functions and biodiversity



Public Access & Community Enjoyment – County park, public boat launch, resorts, and shoreline access



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20

Balancing Uses and Management Approaches

The uses the community values most will guide the goals and management approaches in the IAVMP



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21

Community Discussion #1: How do You Use Black Lake?

A few common uses to get us started:

- Swimming
- Boating
- Fishing
- Kayaking & paddling
- Water skiing, wakeboarding & wakesurfing
- Wildlife & bird watching
- Relaxing by the shoreline
- Parks & public access
- Enjoying nature and scenery

What would you add?

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22

Community Discussion #2:

How has aquatic vegetation affected the way you use and enjoy Black Lake?

To get the conversation going, think about:

- **Getting around** - has plant growth made boating, paddling or swimming harder, or changed where you go?
- **The look & health of the lake** - water clarity, algae, fish and wildlife, the overall feel of the lake?
- **At the shoreline** - what do you notice near your dock, beach, or favorite spot?
- **Change over time** – have things gotten better, worse, or different than it used to be?

Your concerns about aquatic vegetation:

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23

Preliminary Management Goals

A starting point from the District – your input will refine and prioritize these

Aquatic Vegetation

- Build community buy-in and ownership of the goals
- Control nuisance plant growth that limits recreation (focus areas to be defined)
- Watch for new invasive plants and respond early

Water Quality & Nutrients

- Maintain water quality for recreation, fish & wildlife
- Review nutrient inflow from streams & creeks to implement long-term strategies for reductions
- Monitor sediment phosphorus release (post-alum)
- Track lake clarity with Secchi disc readings

Broader District Priorities

- Coordinate with Thurston County Environmental Health and County Commissioners on District activities
- Study lake water level fluctuations effects & evaluate a possible north-end dam to maintain consistent lake levels

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24

Community Discussion #3: What Management Goals Are Important to You?

Think about what success for managing aquatic vegetation in Black Lake looks like to you

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25

Next Steps In the IAVMP Development Process

- **Aquatic Vegetation Survey June 16-19**

The survey boat will be traveling back and forth across the lake taking depth readings and collecting plant samples. Please avoid the boat when it is on the water and avoid making large wakes that could disrupt their work.

- **Vegetation Survey results will be presented during the Community Workshop #2**
- **Integrate community input from today's workshop and the survey to refine management goals**
- **Based on results of the vegetation survey and community feedback draft management alternatives will be developed and presented at the Community Workshop #2**
- **Community Workshop #2 towards the end of August (Date and venue TBD)**

Focus: Vegetation survey results and review of management alternatives, tradeoffs, and costs

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26

Stay Involved

Two ways to be part of the IAVMP – stay engaged & help protect the lake



Stay engaged



Sign up for project updates

On the District IAVMP project webpage



Submit questions or concerns

To the project team, anytime



Attend future workshops

Two more public workshops to come



Be part of the solution



Clean, drain & dry your boat

Whenever you trailer between lakes



Report suspect organisms

To the WA Invasive Species Council & the District



Help protect Black Lake

Early detection keeps invasives out

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27

Thank You!

We appreciate you sharing your time and perspective on Black Lake.

Have questions? We'd love to talk with you.

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28