Moira Lake Invasive Species Surface Mapping Project

A Community-Led Monitoring Initiative for Moira Lake Members

Why This Project Matters to MLPOA Members

Many MLPOA members have noticed increased aquatic vegetation in parts of Moira Lake in recent years. In some areas it interferes with swimming, boating, and fishing; in others it raises concerns about long-term lake health. Eurasian Water Milfoil (EWM), an invasive aquatic plant, is known to be present in Moira Lake—but until now, there has been no consistent, lake-wide way to understand **where it is**, **how widespread it may be**, or **whether conditions are changing over time**.

The Invasive Species Surface Mapping Project is designed to fill that gap. It will create the **first defensible, geo-referenced baseline map** of invasive aquatic vegetation around Moira Lake, based on direct observations made by trained volunteers during normal boating activity.

This project is about **knowledge, not intervention**. It does not involve removal, treatment, or regulation. Instead, it provides the shared evidence needed to move future conversations about stewardship, education, and possible management in a more informed and constructive direction.

Just as importantly, the project is designed to be:

- **Low-cost** (no direct cost to MLPOA),
- **Low-risk** (non-intrusive, observational only),
- **Scalable** (useful whether 5 or 25 members participate),
- **Repeatable** (able to be done again in future years to track change).

What the Surface Mapping Project Will Do

At its core, the project answers three simple questions:

1. **Where are invasive aquatic plants being observed around Moira Lake?**
2. **How are they distributed along the shoreline and nearshore areas?**
3. **How can we track changes over time using the same method?**

During the 2026 growing season, trained volunteers will record **surface-level observations** of invasive aquatic vegetation—particularly Eurasian Water Milfoil—while boating as they normally would. Observations will be logged using a simple smartphone app that records:

- GPS location,
- A brief visual assessment,
- One or more photos.

Each observation becomes a point on a map. Over time, those points form a clear picture of where invasive species are present and where they are not.

The result will be:

- A **lake-wide map** of invasive vegetation observations,
- A **standardized dataset** that can be compared year-over-year,
- A **plain-language summary report** shared with members.

What This Project Is *Not*

It is important for members to understand what this project does **not** include.

The Surface Mapping Project:

- ❌ Does **not** involve herbicides or other treatments,
- ❌ Does **not** involve plant removal,
- ❌ Does **not** regulate shoreline activities or private property,
- ❌ Does **not** enforce rules or designate “problem properties,”
- ❌ Does **not** require professional surveys or in-water work.

This is a **monitoring and information-gathering initiative only**. Any future decisions about education, stewardship, or other methods would be separate discussions, informed by better data.

How Members Can Participate

Participation is designed to be easy, flexible, and respectful of members' time.

Who can participate?

- MLPOA members and other interested lake users.
- No technical or scientific background is required.

What's required?

- A personal smartphone (iPhone or Android).
- Normal boating access.
- Completion of a short training session.

How much time does it take?

- Most volunteers will contribute **1–3 hours total** over the season.
- Participation happens during normal recreational boating—no special survey days.
- Members can contribute once, occasionally, or more frequently if they wish.

How training works

Before the field season, volunteers will receive simple training covering:

- Basic identification of Eurasian Water Milfoil using photos and reference guides,
- How to use the Survey123 mobile app,
- Safety, consistency, and biosecurity practices.

The app works even without cell service and can upload observations later when Wi-Fi is available.

When the Work Will Happen

The project follows the natural growing cycle of aquatic plants and the MLPOA calendar.

2026 Timeline (at a glance):

- **January–February:** Project planning with Quinte Conservation
- **March–April:** Technical setup of the mapping system
- **March–June:** Volunteer recruitment and outreach
- **June–early July:** Volunteer training
- **July–August:** On-the-water data collection (peak growth period)
- **August 8, 2026:** Project status update at the MLPOA AGM
- **Fall 2026:** Data review and map production
- **Early 2027:** Findings summary released to members

The summer data-collection window is intentionally flexible to accommodate weather, water clarity, and volunteer availability.

How This Fits with the Drone Mapping Pilot

Some members may be aware of a **separate, proposed Drone Mapping Pilot** focused on Eurasian Water Milfoil. The two initiatives are related, but they are **not the same project**.

- The **Surface Mapping Project** is the foundation: broad, repeatable, lake-wide monitoring based on direct observation.
- The **Drone Mapping Pilot**, if funded, would provide targeted aerial imagery at selected sites to add visual context.

Surface mapping tells us **where** invasive species are observed. Drone imagery, where used, helps show **how those areas look from above**. Species identification remains grounded in surface-level confirmation.

The Surface Mapping Project stands on its own and does **not depend on drones** to succeed.

Who Is Doing What

MLPOA

- Sponsors the project,

- Recruits and supports volunteers,
- Oversees communications and reporting,
- Shares results with members.

Quinte Conservation

- Provides all technical support,
- Designs the mapping tools,
- Hosts and manages the GIS data,
- Produces map outputs.

Volunteers

- Collect observations following clear guidelines,
- Participate at a level that suits their schedule.

All data collected belongs to MLPOA and will be used strictly for stewardship purposes. Public maps will **not identify private property boundaries**.

Cost, Risk, and Value

One of the strongest features of this project is that it delivers meaningful value **without financial risk**.

- There is **no direct cost to MLPOA**.
- Quinte Conservation is providing technical services using existing capacity.
- Members use their own smartphones—no special equipment required.

Because the project is observational, scalable, and non-intrusive, risks are low and manageable. Even partial participation produces useful results.

What Success Looks Like

From a member perspective, the project will be successful if:

- We have a **clear, shared picture** of where invasive plants are observed,
- We establish a **repeatable way** to track changes over time,

- Future conversations about lake stewardship are grounded in evidence rather than anecdote.

A Practical Step Forward

The Invasive Species Surface Mapping Project is a practical, community-led step toward stronger lake stewardship. It reflects MLPOA's broader approach: gather good information first, engage members meaningfully, and make thoughtful decisions based on evidence.

By participating—or simply staying informed—members are helping build a clearer understanding of Moira Lake today, while laying the groundwork for responsible stewardship in the years ahead.

For more information contact the MLPOA at moira.lake.poa@gmail.com.