

Clean Water Initiative: *A Partnership to Improve Our Water Quality*

Executive Summary:

The Long Lake Waters Association is asking the Orono City Council to support collaborative clean water investments (Orono Resolution #6610, 4/26/16) by **voting YES** to contribute \$10,000 to the Partnership Agreement, which addresses water quality via Carp Tagging and Assessment/Mitigation, at the 5/14/18 council meeting.

Attached is a 2-page background summary, with timing and costs, etc. It is important to note that the project is:

- **Resident-Driven and City-Supported:** LLWA was founded by Orono residents/taxpayers, and now includes residents from Orono, Long Lake, and Medina. We have strong support from local businesses, as well as local organizations like the Orono Lions Club. We have collaborated with city staff from all three cities every step of the way, to ensure we align with the priorities of the cities and their comprehensive plans.
- **A WATERSHED Issue, Not a Long Lake Issue:** Long Lake is merely the easiest point of access to the carp, not the focus of the project. The carp tracking will occur throughout the watershed, with direct benefits to all Orono residents within the watershed (722 Orono Households or +25% of Orono households), as well as to anyone living downstream (i.e., residents that live on or enjoy Tanagers Bay and Lake Minnetonka).
- **A Smart Use of Taxpayer Money:** The initiative requires a minor investment (\$10K) that could yield major payouts (\$250K+ through grants in Legacy funding, for example) for the towns within the watershed. Without the data this project will collect, those grant monies will go to other watersheds.
- **Important for the Orono Schools:** WSB has generously offered to collaborate with the 7th grade in Orono Schools to allow the students to participate in this tagging and telemetry project, giving the students in our community the chance to participate in Citizen Science in their own watershed.
- **A Great PR Opportunity:** Local news organizations, including **Lake Minnetonka Magazine**, are interested in covering the project with photos and interviews. The project also offers great PR potential for Orono via social media, local newspapers and events, school participation, as well as regional news MPR, etc).

This project is a win on three fronts:

- **Financially:** low investment, high reward
- **Environmentally:** strong science, highly measurable results
- **PR/Politically:** an easy, inexpensive, positive PR message

Background:

In 2016, several residents in Orono came together to consider ways to improve the local water quality, as 5 of the 7 lakes in the watershed are on the Minnesota Pollution Control “impaired waters” list, which indicated the lakes do not meet certain water quality standards¹.

Any efforts to improve water quality needs to cross municipal boundaries, as the water crosses those boundaries! As an outgrowth of this awareness, the residents founded the Long Lake Waters Association.

After the cities of Orono², Medina³ and Long Lake⁴ each adopted a City Resolution to “partner with other governmental agencies to pursue and show support in the pursuit of water quality improvements and grant funding in the Long Lake Creek Sub-watershed,” a regional partnership was formed with LLWA, Orono, Long Lake, Medina, and the Watershed District.

The approach of the partnership is to collaborate, educate, and communicate – to bridge the resources between the cities within the Long Lake Watershed (hereafter: the Watershed), to improve the water quality throughout the entire Watershed with measurable outcomes.

Those cities in the Watershed include:

<i>City</i>	<i>Area (Acres) within the Watershed</i>	<i>% of the Watershed by Acre</i>	<i>Households within the Watershed</i>	<i>% of the Watershed by Household</i>
Medina	3,831.0	50%	372	20%
Orono	3,141.8	41%	722	39%
Long Lake	607.3	8%	645	35%
Plymouth	39.4	<1%	105	6%
Total	7,619.4	100%	1844	100%

Problem:

Decades of research indicates that degraded water quality in the Watershed is primarily due to: altered wetlands, Common Carp abundance, storm-water runoff, internal phosphorous loading (TMDL⁵)* and degraded water quality from upstream water-bodies.

¹ "Impaired waters" means those water bodies or water body segments that are not fully supporting or are partially supporting of the fishable and swimmable goals of the Clean Water Act and include those waters identified in

² April 26, 2016 – Orono Resolution #6610

³ April 5, 2016 - Medina Resolution #27

⁴ April 5, 2016 – Long Lake Resolution #2106-09

⁵ *TMDL stands for Total Maximum Daily Load. A TMDL defines how much of a pollutant can be in the water and still allow the lake to meet designated uses such as fish consumption and aquatic recreation. Currently Holy Name, School, Wolsfeld, Long and Tanager exceed threshold TMDL's.

Proposal: Carp Data Gathering and Mitigation:

After a methodological review of the drivers of poor water quality, it was determined to focus on **carp abundance** as it is high impact⁶ and low investment (“the biggest bang for our buck”) in terms of improving the water quality, the problem is easily understood and will yield the most measurable results which helps in terms of PR efforts, and gaining incremental grant funding. The carp problem resonates strongly with local businesses and residents, who hate the carp, and the problem impacts the entire watershed and all three towns (versus an AIS like Milfoil, which is more lake-shore focused).

In 2017, the partnership and WSB applied for a 3-year grant with Hennepin County for +\$220,000, with each City committing (via council vote) to contribute \$18,000 to cost share to conduct widespread carp tracking, tagging, and mitigation within the entire watershed. However, due to the lack of data regarding the current population size, average age, migration patterns and the location of the carp breeding grounds (“nurseries”) within the watershed, the grant was not funded.

This current smaller scale 1-year project will provide the data needed to successfully apply for Legacy grant funds. The partnership proposes to gather data regarding the size, scale, and patterns of carp within the watershed in order to pursue additional Legacy funds for carp mitigation. The focus is on collaboration, creating win/win scenarios, and efficiency.

The project fundamentally aligns with the stated values of the community, which has supported a focus on water quality for more than 40 years.

With an eye toward collaboration, we have consistently worked with city staff from all three cities, to ensure that the project is aligned with their priorities and budgets, and have updated all three City Councils along the way via emails, meetings, and updates.

More specifically, the project has been directly guided by stated Orono City policy to work collaboratively with other cities to improve local water quality, within Resolution #6610 of April 26, 2016, passed by the Orono City Council.

Implementation:

Implementation will include hiring WSB to:

- Quantify and age assess the carp population for baseline count
- Use radio tracking/telemetry to track carp aggregations (to ID spawning / migration patterns, to best target the fish for removal/mitigation later)
- Remove a significant portion of the carp population to allow natural competition to stabilize the population

⁶ The pervasive presence of carp exacerbates high internal phosphorous levels. As bottom feeders, carp are constantly recirculating phosphorous and pollutants in the water column.

Timing:

If approved, the work will begin May 2018 and will be completed by Spring 2019. Delaying commencement will exacerbate the financial and environmental costs required to mediate poor water quality within the watershed.

Costs:

Reflecting the shared responsibility and shared benefits of the project, the costs would be allocated as follows:

LLWA	\$5,530 (committed)
MCWD	\$7,000 (committed)
Long Lake (administrative lead)	\$5,000 (committed)
Medina	\$10,000 (committed)
Orono	\$10,000

Conclusion:

We believe the project will generate benefits for Orono, the Orono City Council, and all who live within the Long Lake Watershed, or enjoy the connected waters.

We urge the Orono City Council to join with your neighboring cities as well as the Orono residents / taxpayers to provide the critical support and leadership necessary to proceed with this project.