

Frequently Asked Questions About the Silver Lake Buffer Project

1. What is the point of this project?

Native plants are being installed to reduce the amount of pollution reaching Silver Lake. This pollution comes from eroding sediment, goose waste, litter, and storm water runoff. The plants will take up some of the excess nutrients, anchor the soil to prevent erosion and loss of sediment, and block the movement of litter.

2. If the geese are such a problem at the Park, why are we feeding them?

The goose feeding stations will be discontinued in April 2007.

3. Will the installation of the Silver Lake buffer drive geese to neighboring yards?

The native plants may discourage some of the geese from using the shoreline, in which case, they will move to other open areas of the park or elsewhere in the City.

4. Will this project reduce the goose population in Rochester?

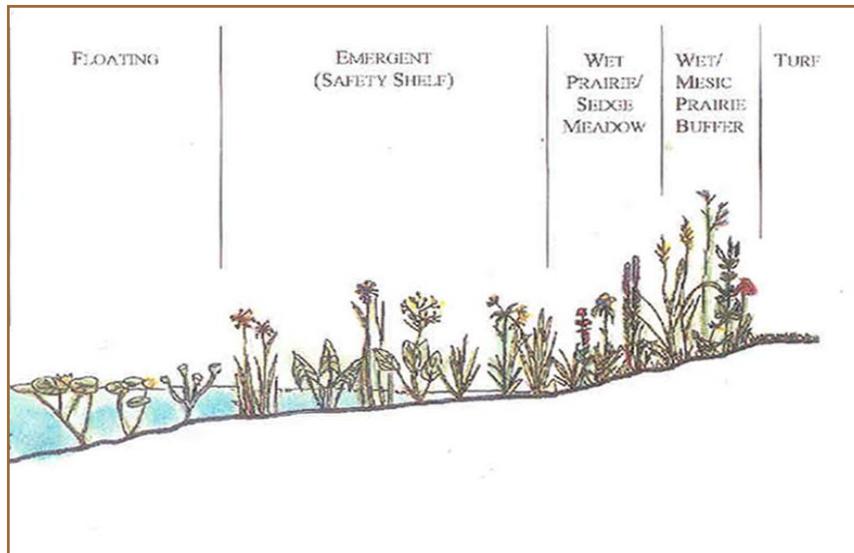
Vegetation alone will not significantly reduce the resident or migratory goose populations in and around the City. It may encourage dispersal of geese away from Silver Lake and, over time, it may make Silver Lake a less attractive migratory stop over location.

5. What will the shoreline look after this project is completed?

The buffer will average about 30 feet in width. It will consist of native plants that are well-suited to the three planting areas:

- a. An upland zone planted with prairie grasses and flowers or wetland plants (depending on the drainage conditions); this is the area upslope from the pillow rip rap. Some upland areas will also receive tree and shrub plantings.
- b. A transition zone of wet prairie/wetland species on top of the upper portion of the pillow rip rap,
- c. An emergent zone of aquatic plants for the portion of the pillow rip rap below the water's edge.

The species selected will be those that provide the best combination of pollutant removal and aesthetic enhancement in each zone. The following diagram prepared by The Kestrel Design Group presents a typical shoreline cross-section. The target plant communities for this project are the floating, emergent, wet prairie/sedge meadow and wet/mesic prairie buffer.



The shoreline buffer areas of the park will no longer be maintained as lawn-like turf. The buffer plants will vary in height and native flowering plants will add different colors and textures throughout the growing season. A planting design will be selected that retains views to the lake. Rochester does not have any examples of how the shoreline will look when it is completed, but the following pictures show the results of similar types of projects in other cities. From left to right, Row 1: Heritage Lake (Carol Stream, Illinois), storm water ponds near Lake Nokomis (Minneapolis, MN), and Nelson Park (Long Lake, MN); Row 2: storm water pond near Lake Calhoun (Minneapolis, MN) and Trillium Bay of Lake Minnetonka (Minneaprista, MN).



Native vegetation takes three to five years to become well established and achieve its ultimate “look”. During this timeframe, park users can expect to see a variety of barriers that will be installed and maintained to protect the new plants from goose and fish foraging. These barriers will be left in place for up to three full growing seasons. Park users may also expect to see patchy areas that will need replanting because of large storm or flood events.

6. How will weeds be controlled within the landscape buffer?

A combination of hand weeding, spot herbicide application, and natural resource management burns will be used to control weeds and enhance the native vegetation. Burns are most typically conducted as a spring or fall activity during mid-morning, when wind and weather conditions permit. People are least likely to be affected at these times because these are the seasons when people are less likely to have their windows open and when air quality is at its best. Neighbors within 1,000 feet of the Silver Lake Park will be notified that a burn will be conducted between certain dates.

7. Will the aquatic plants eventually fill in the lake?

We expect that bottom feeding fish and the current of the Zumbro River through the lake will prevent floating plants from migrating very far away from the shore.

8. When will the project start?

Planting will take place in phases. The first round of planting will start in April or May, 2007. The initial planting will be completed by October 2007. The installation contractor will maintain the plants during a three-year warranty period, after which the City will take over routine maintenance.

9. Can people continue to use the lake and the park trails during installation?

Yes! The trails, fishing piers, and lake will still be accessible for public use. The paddleboat and canoe concession will remain open. The rowing club will retain access to their dock and training areas. The Park Department will continue to issue permits for running and walking events. The 4th of July Fireworks display and waterski show will proceed as planned, as will the RochesterFest water ski show, however, the exact location and extent of seating areas may be modified somewhat. We do ask that Park and lake users do not disturb the trailside and lakeside measures that will be installed to protect the plants. Please report any protective measures that have been disturbed to the Public Works Department at once!

10. Will we maintain access for fishing?

Yes, access to the existing fishing piers and popular shoreline fishing spots will be maintained.

11. When I walk around the lake or sit on the benches, I enjoy the open views. Will this project impact those views?

The height of plants next to the trail will be taller than the existing grass, but lower than eye level. To maximize the views, taller plants are placed lower on the slopes and shorter plants are placed near the trails. Most of the viewing benches will be moved upslope of

the trail for better viewing. In areas where the benches are left in place, the plant height will be reduced to sustain the views.

12. Will this type of landscape impact the safety of park users?

During the design of this project, the Rochester Police Department was consulted to learn about the types of police calls received for park areas and received input regarding how to create settings that discourage unacceptable activities. The landscape design has been selected so that it does not increase safety risks for park users.

13. Are you really going to create habitat for predators near the lake?

There are certain, isolated areas around the lake that are suitable for encouraging small predators like raccoons and foxes. Reintroduction of predators in this setting will help naturally control the size of the Canadian Goose population, which is no longer in balance with the environment.

14. What will this project cost and who is paying for it?

The total budget for this project is \$550,000. Half of the money is coming from a state grant and the remainder is coming from Rochester's storm water utility fees.

15. There are private homes on the northwest side of the lake. Will public money be used to modify private shorelines?

No. The entire project will be done on public property. Although there is a small amount of public shoreline on the northwest side of the lake that abuts private parcels, the width is insufficient for an effective buffer. The City will provide information to these homeowners so that they can consider creating a shoreline buffer on their own property.

16. Who is doing this work?

The City prepared a Request for Proposals to find a firm experienced in designing this type of project. Five consultant teams responded, from which the City selected the team of Wenck and Associates, Inc. and The Kestrel Design Group. These two firms have a long history of successfully completing projects similar to this one, alone and jointly. Some of their most notable projects include Shingle Creek stream bank stabilization in Brooklyn Park, Minnehaha Creek stream bank stabilization, Prior Lake-Spring Lake wetland restorations, Lake Nokomis wetland ponds and regional park vegetation concept plan, the Lake Minnetonka – Trillium Bay shoreline stabilization, and shoreline stabilization projects in Carol Stream and Geneva, Illinois.

The City also convened a Design Task Force of representatives from interested and affected parties to provide input into the design process.

After the landscape design stage is completed, the City will allow qualified contractors to bid on the installation of the project. The installation contractor will not be selected until Spring 2007.

17. This is an exciting project. How can I, my family, or an organization participate?

There are opportunities for individuals or groups to help with this project by:

- a. Contributing funds to develop special seating areas, gardens, and woodland groves that have been identified on the master design plan
- b. Planting special gardens and trees
- c. Monitoring the new plantings and reporting emerging problems to the Public Works Department
- d. Adopting an area of the Park to keep it litter free.

18. Have we considered that we may be trading a goose problem for a mosquito problem by creating habitat that mosquitoes will love?

Staff members from the Metropolitan Mosquito Control District (www.mmcd.org) have been conducting research on mosquito habitats and breeding for several years. Their results run counter to commonly held beliefs on mosquito breeding and are summarized briefly here:

- Flooded turf grass areas have warmer, shallow water and do not contain mosquito larvae predators (e.g., fish, dragonflies, etc.) so they are the best breeding site for mosquitoes in general, and the *Culex* genus in particular (the suspected West Nile Virus Disease vector).
- Created wetlands with water depths >12” produced mosquitoes at lower rates, in general, and very low rates specific to the *Culex* genus. Deeper water habitats are not as conducive for mosquito breeding because the water surface is less likely to remain still and fish predators are present to eat mosquito larvae. Calmer and shallower edge areas typically have a plant population that supports other mosquito predators like dragonflies and other insects.
- Created wetlands with water depths <12” produced mosquitoes at higher rates than deeper wetlands but lower rates than flooded turf grass. Shallow wetland mosquitoes are the species that prey on amphibians, with very low rates of the *Culex* genus.

The existing landscape at Silver Lake has the potential to produce more mosquitoes when it is flooded than a native buffer can. The native wetlands being planted around Silver Lake will produce mosquitoes, but at low rates because of the presence of fish and insect predators. Also, as water quality improves, Silver Lake will be able to support more fish that prey on mosquito larvae. The net result is that, in general, no more and possibly fewer mosquitoes will be produced at Silver Lake Park and the opportunity for the disease carrying *Culex* genus to breed will be reduced. Finally, as the Canadian Goose population becomes less concentrated in the Park, the potential for disease transmission, if it were present, declines.