

**Friends of Green Lake
Green Lake
“To Do” List
July 20, 2016**



**Friends of Green Lake
PO Box 30544
Seattle, WA 98113-0544
friendsofgreenlake.org**

Copies of this document are available on FOGL's website.

Blank Page

**Friends of Green Lake's
Green Lake
"To Do" List
July 20, 2016**

Introduction

I. Policy Issues

- a. Camping in Green Lake Park

II. Capital Improvements

- a. Install Restroom on South Path from Bathhouse Parking Lot to Green Lake Path
- b. Provide Water and Sewer Connections to Food Service Facilities
- c. Remodel West Beach (Bathhouse) Changing Rooms
- d. Plant Trees Along Aurora Avenue Corridor
- e. Prepare Shoreline Vegetation Management Plan
- f. Provide Exterior Rinse-Off Showers at East and West Beach Swimming Areas
- g. Provide a Paved Path Linking the Green Lake Path to Upper Woodland Park
- h. Improve Water Access at West Beach

III. Maintenance Issues

- a. Install Location Markers on Green Lake Path
- b. Remove Trees and Shrubs Growing in Shoreline Wall
- c. Remove Pruned Branches from Wetlands South of Turtle Logs
- d. Control Width of Gravel Portion of Green Lake Path
- e. Inspect & Maintain Runoff Treatment Vaults Under Small Craft Center Parking
- f. Remove Litter from Pitch and Putt Golf Course
- g. Repair and Refinish Wooden Benches
- h. Improve Green Lake Path Safety Signage

IV. Staffing

- a. Wetland/Shoreline Biologist
- b. Shoreline Maintenance

At the Friends of Green Lake (FOGL) meeting on January 26, 2016, FOGL was joined by Seattle Department of Parks and Recreation (SDPR) staff including Dan Johnson, Director Parks Division; Michael Shiosaki, Director Planning & Development; Patrick Merriam, Parks Resource Manager North District; and Chris Mueller, Project Engineer. Together, we reviewed many topics including the upcoming Alum Treatment and various maintenance and operational issues at the Park. Toward the end of the meeting, Dan Johnson suggested that FOGL submit a “To Do List” of actions that FOGL thought needed to be done at Green Lake. Director Johnson’s suggestion is taken up in this document. As the discussions at the January meeting addressed Green Lake Park in general, the To Do List also addresses the Park in general and does not limit itself to the lake and its shoreline, FOGL’s usual focus. FOGL’s April 26th and May 24th meetings were devoted to drafting this To Do List. Everyone at these meetings participated in a discussion of the scope and function of FOGL’s To Do List. Some items are very general and not site specific. For example, FOGL suggests preparing a Shoreline Vegetation Management Plan. Other items are very site specific, for example, remove tree branches lopped off the willow trees over-hanging the cattails and near the turtle logs and left on top of the cattails.

FOGL’s To Do List identifies issues or problems, provides location specifics as appropriate and suggests possible corrective measures. The list is not prioritized. As appropriate, photographs have been incorporated into this document. Items on the list are grouped into four categories:

- I. Policy Suggestions (for example, camping in Green Lake Park);
- II. Capital Improvements;
- III. Maintenance Issues; and
- IV. Staffing Issues

Each item on FOGL’s To Do List provides:

- (1) Photograph with a caption when appropriate,
- (2) Location information where appropriate,
- (3) Problem or issue,
- (4) Recommended action and
- (5) where appropriate, a Discussion.

While many more items could be included on FOGL’s To Do List, we have kept the list to about 20 items. Two additional issues should be kept in mind as SDPR manages Green Lake Park. Milfoil will continue to be present in the lake and could become a major problem in the future. The status of milfoil should be monitored and management options considered as necessary.

In a comparable way, Canada Geese will continue to be present on the lake. Keeping the swimming platforms at East and West Beach clean of goose poop will be a continuing burden for the Life Guards. Many grassy picnic areas also come with a scatter of goose poop. Fecal coliform from the geese will be present. SDPR should consider management options for geese.

I. Policy Issues

I-a. Camping in Green Lake Park



Camping in a vegetation island



Camping near the wading pool



Camping near boat rental (with tapped in electricity)



Camping next to Aurora Avenue

Location: Throughout Green Lake Park.

Problem: There is a growing use by the homeless of the park for overnight camping. This is inappropriate, given the degree of use of the park by families with small children and often unsupervised use of the park by older children using skateboards, playing soccer, jogging, or participating in activities at the Small Craft Center. Refuse and human waste are often found scattered around camp sites.

The Seattle Municipal Code / Title 18 contains to cogent Subchapters:

18.12.245 Operating Hours for parks are from 4:00 AM to 11:30 PM. Outside of the operating hours the parks are closed.

18.12.250 Camping. It is unlawful to camp in any park except at places set aside and posted for such purposes by the Superintendent.

Recommended Action: If there is to be camping at Green Lake Park, the Superintendent should publicly state the Department’s objectives, establish necessary policies, determine appropriate camping sites including location, management programs and support facilities such as toilets and fireplace sites. His intentions should be published and presented at public meetings.



June 27, 2016

June 29, 2016

July 11, 2016

A recurring camp site in a fenced Natural Habitat Island south of the Bathhouse Theater

The current policy regarding camping in Green Lake Park seems to be to ‘keep them moving’ but not out of the Park. The notice pictured above orders the removal of personal property and does not address the camping violation. The pictures above documents that habitat destruction is taking place in a fenced natural habitat area. SDPR should document the extent of camping in Green Lake Park and propose measures to bring such activities within the constraints of the Seattle Municipal Code.

II. Capital Improvement

II-a. Install Restroom South of the Bathhouse Parking Lot



Path from Bathhouse Parking Lot to the Green Lake Path; tennis courts on the right.

Location: South end of Bathhouse Parking Lot near the tennis courts on the short path that connects the parking lot to the Green Lake Path.

Problem: Currently, restrooms in the West Beach Changing Rooms in the Bathhouse Building are available only when the West Swimming Beach is in operation and when Life Guards are present (from June 25th to September 6th from 11:00AM to 7:00PM).

Recommended Action: Construct small restroom open year around.

Discussion: When the bathrooms in West Beach changing facilities are closed (most of the year) there is no restroom on the west side of Green Lake. Children and older folks need frequent access to a toilet. Adding a bathroom would also reduce the frequent waiting-in-line for the limited capacity bathrooms found around the lake, especially at restrooms near the Small Craft Center.

II-b. Provide Water & Sewer Connections to Food Service Facilities



1. Food Service at West Beach



2. Food Service at East Beach

Location: Food Services at East Beach

Problem: Food service at East Beach does not have either water or sewer services. The food service at West Beach had water and sewer service recently installed.

Recommended Action: Install water and sewer services at East Beach.

Discussion: Food preparers should have easy access to hot water to wash their hands and equipment. This would reduce the potential for the spread of food-borne diseases.

II-c. Remodel West Beach (Bathhouse) Changing Rooms



Changing Room West Beach (Bathhouse)



Men's Shower, West Beach (Bathhouse)

Location: The Bathhouse located at West Beach.

Problem: The Bathhouse building was constructed in 1927. Sometime later the central portion of the building was converted into a small theater and now is operated as the Seattle Public Theater at the Bathhouse. Separate from the Seattle Public Theater, the building includes changing rooms with toilets and showers for the West Beach swimming area. The arrangement of the changing rooms, bathrooms, plumbing and lighting fixtures have received little more than maintenance over the last 60 years.

Recommended Action: Develop and implement an upgrade of the Bathhouse facilities.

Discussion: The changing rooms for swimmers at West Beach are sadly out of date and do not meet current expectations for such facilities. The changing rooms at West Beach have recently been cleaned up, painted and have new lighting. Conditions are much improved but the need for an upgrade remains. A substantial remodel will be required to update these facilities. Properly reconfigured, the bathrooms in the changing rooms could be opened year- round, which would preclude the need for another bathroom facility on the west side of the lake.)

II-d. Plant Trees Along Aurora Avenue Corridor



Gap in the trees bordering Aurora Ave. Trees between Aurora Ave. & Green Lake Path

Location: Green Lake Park along its western boundary with Highway 99 – Aurora Avenue N.

Problem: There is no shoulder for the northbound lanes on Aurora Avenue (State Route 99) as they runs adjacent to Green Lake Park. When an out of control vehicle departs the northbound lane it crosses a narrow planted strip before reaching the Green Lake Path. To date, vehicles departing Highway 99 have been stopped by small trees and shrubs in the planted strip. There are gaps in the planted strip.

Recommended Action: Plant well-spaced trees and larger shrubs in the existing gaps. An alternative would be for the State Department of Transportation to place Jersey Barriers along the curb.

Discussion: While the trees and shrubs in the planted strip adjacent to Highway 99 are a pleasant amenity, they also provided protection for the Green Lake Path. Every year or so, a north bound vehicle departs Aurora Avenue and skids down the slope towards the Green Lake Path where it could injure park users on the path. So far, no vehicle has made it down the slope as far as the path because trees and large shrubs on the slope between the roadway and the path act as a safety barrier.

II-e. Prepare Shoreline Vegetation Management Plan



Recent growth of alder and willow



Restoration site replanted in 2010

Location: The vegetation between the Green Lake Path and Green Lake extending around the lake excepting development at East and West Beaches and at the Small Craft Center.

Problem: The existing Landscape Management Plan was prepared in 1995 (no date on the Plan provided on-line). The Plan does not reflect either current conditions or current intentions.

Recommended Action: Prepare a Shoreline Vegetation Management Plan for the shoreline planting (from the Green Lake Path to the shoreline). The plan should describe goals and objectives, assign responsibility for implementing and maintaining the plan, and provide sufficient detail to guide maintenance of the plantings along the shore. The Plan must conform to the special regulatory requirements in riparian areas. The Shoreline Vegetation Management Plan is identified as a Capital Project because it will require either substantial staff time or contracting with Landscape Planners for its preparation.

Discussion: Shoreline vegetation can enhance visitor experience of the path and help protect the health of Green Lake. Vegetation can be selected that:

- does not grow tall enhancing views of the Lake;
- provides food and refuge for songbirds;
- adds to the natural experience of the Lake;
- impedes the movement of geese onto lawns and their defecating on the lawns;
- withstands the trampling of shoreline areas by anglers;
- reduces erosion and traps sediments moving down-slope from the gravel path; and
- vegetation withdraws nutrient rich groundwater before it enters the lake.

Unmaintained vegetation can become a continuous screen along the shoreline. Thus it is necessary to have goals and intentions for the shoreline vegetation clearly set out in a Management Plan and for some person on the staff to be the implementer/monitor for the vegetated shoreline. Item IV-a below suggests that a Wetland/Riparian Biologist be added to SDPR's staff. This person's responsibilities would include supervision of shoreline vegetation at Green Lake, as well as in many other parks in Seattle.

II-f. Provide Exterior Rinse-Off Showers at East and West Beach



Rinse-Off Shower at Golden Gardens



Rinse-Off Showers at Magnusen Park

Location: West and East Beaches at Green Lake.

Problem: Public Information signs along Green Lake Path recommend rinsing-off when coming out of the water. This recommendation is especially important when algal scums or swimmer's itch are present at Green Lake. At the present time, rinse-off showers are available in the changing rooms at East and West Beach only when the changing/bathrooms are open. Times vary during the year for each facility. There are no other showers along the Green Lake Path.

Recommend Action: Install exterior rinse-off showers at East and West Beach Swimming Areas, and at the Wading Pool.

Discussion: Showers are available to lake users only when Life Guards are present at West Beach and only when the Community Center is open at East Beach. Exterior rinse-off showers should be available for lake users when these facilities are not open.

II-g. Paved Path Linking the Green Lake Path to Upper Woodland Park



Two possible alignments linking the Green Lake Path to Upper Woodland Park

Location: West Green Lake Way N. separates southern border of Green Lake Park from upper Woodland Park.

Recommended Action: Develop a paved path connecting the two parks. An inviting path and direction/informational signs would connect the two parks.

Discussion: Upper Woodland Park would provide additional walking paths and help “spread the load” on Green Lake Park. There are casual paths, paved roads, picnic sites with shelters and rest rooms in Upper Woodland Park. Upper Woodland Park is very different from Green Lake Park in its vegetation and topographically, and provides an interesting and often quiet contrast to the bustle of Green Lake Park. Joggers would find a more challenging course in Upper Woodland Park. Dog walkers could approach the dog play area from another direction.

II-h. Improve Water Access at West Beach, Green Lake



Steps into Water at West Beach. From the sandy bottom to the top of the first step is 22 inches. The top of the bulkhead in the foreground is 27 ½ inches.

Location: West Beach steps into the water.

Problem: The last step into the water has a rise of 22 inches. This makes access into and egress from the water difficult for small children and persons with mobility problems. The Seattle Building Code specifies steps with a rise of 7 inches (and no more than 7 ¾ inches) and a run of 11 inches (and no less than 10 inches).

Recommended Action: Install additional steps into the water.

Discussion: In the distant past, sand was added to the beaches every few years. The last step into the water would have been more moderate when sand was being added to the beach every several years. Now the last step is a problem for small children and for persons with mobility problems. The last step from the top of the bulkhead to the sand at its base is 22 inches and further along the bulkhead it is 27 ½ inches. One cannot “jump into the water” from the bulkhead because the water is less than five inches deep at its base.

III. Maintenance Issues

III-a. Install Numbered Trail Markers on the Green Lake Path



Trail Marker on the Green Lake Path

Location: Green Lake Path

Problem: Park users, volunteer maintenance activities, and Park's maintenance activities often require specific location information. Emergency and law enforcement responses require specific location information, as well. This information is usually conveyed by referring to adjacent cross streets or familiar landmarks. For the general public, volunteer, law enforcement, rescue and first aid responders, providing accurate location information is a challenge.

Recommended Action: Install Numbered Trail Markers on the Green Lake Path. The distance from a prime location (the Community Center) would be stenciled onto the pavement every 0.1 mile clockwise around the circuit of the Path. If successful, the stenciled markers could eventually be replaced by brass markers. This has been included as a Maintenance Issue because implementation should not require substantial costs. A digital map of location markers would be provided to Park Users and to emergency responders. A poster board would also provide a map of the markers around the lake and their uses.

Discussion: FOGL believes that Trail Markers would be useful to park users, law enforcement, rescue and first aid personnel, and Park staff. Once installed, it would take a while for everyone to become familiar with the location system. After a short time, the Trail Markers would become a familiar and commonly used reference system.

III-b. Remove Trees and Shrubs Growing in the Shoreline Wall.



Alder tree growing between blocks of the shoreline wall on east shoreline.

Photo Location: Shoreline on east side of the Lake, opposite 65th Street.

Problem: Trees and shrubs growing between blocks of the shoreline wall disrupt the structure of the wall and can lead to the wall's collapse.

Recommended Action: Volunteers prune seedlings, saplings and shrubs less than 2 inches in diameter growing between the blocks of the shoreline wall. SDPR remove saplings, shrubs and all trees over 2 inches in diameter and remove cut wood from the shoreline. Remove and reset paving blocks as necessary. Parks should develop a plan for inspection of the shoreline wall and maintenance options, and assign responsibility for these activities.

Discussion: At many places along the wall, “volunteer” trees and shrubs have started growing between the blocks of the shoreline wall. Ultimately, these shrubs and trees can disrupt the structure of the wall. A failure of the wall in 2015, near the 66th Street outlet, resulted in substantial cost to the department including filing for an Hydraulic Permit from the Washington State Department of Ecology, repairing the wall and, as a condition of the Permit, designing and installing a mitigation site near the Wading Pool.

Additional photographs of trees growing from the shoreline wall are included on the following page. These pictures demonstrate the rapidity with which trees can grow in the shoreline wall.



2004: Trees & Shrubs at Sunnyside Outlet



2014: Trees & Shrubs at the Sunnyside Outlet



2015: Shoreline wall has toppled at the Sunnyside Outlet

In order to repair the wall an Hydraulic Permit was required. The permit process provides for the Washington Department of Fish and Wildlife to review and condition the permit with appropriate mitigation measures to compensate for loss of fish and wildlife habitat. Mitigation for the wall repairs was undertaken at a site near the Wading Pool. A portion of the shoreline was enhanced with new plantings, placement of large rocks and logs, and a fence to protect the plantings. Shoreline access for hand carried water craft was also included at the mitigation site.

III-c. Remove Pruned Branches from Wetlands South of Turtle Logs.



Tree branches lying on riparian vegetation. The branches are now submerged in blackberry.

Location: South of turtle logs on SE shoreline of lake, opposite paved path from 62nd Street.

Problem: Nesting habitat for red-winged blackbirds has been lost because willow branches overhanging the shoreline were pruned during the winter of 2015/16 and the branches were allowed to drop onto the riparian vegetation. The pruned branches were not removed at the time. The dropped branches provided a scaffold on which the blackberry quickly grew, shading out the cattails

Recommended Action: Volunteers or SDPR remove branches and blackberry vines for SDPR removal.

III-d Control Width of Gravel Portion of the Green Lake Path.



Gravel moving toward lake.

Location: The Green Lake Path was designed as an eight foot wide asphalt path with an additional four feet of gravel path on the lake side of the path. Since the trail was rebuilt in 1997, the gravel trail has been widened both by use and by subsequent addition of gravel to the trail.

Problem: While the widening trail facilitates the increased use of the Green Lake path by park users, it would be appropriate to impose a limit on its widening. In many locations, the gravel portion of the path now extends to the topographic break between the flat trail area and the slope to the shoreline of the lake, and gravel is now working its way downslope into the lake. Surface water runoff carries silt and associated nutrients into the shoreline waters.

Recommended Action: A "curb" treatment is needed to limit the shoreward creep of the gravel portion of the path. The treatment should permit the movement of water from the trail towards the shoreline and filter the water that passes through. The "curb" should stop the creep of the gravel portion of the path towards the lake.

Discussion: Green Lake is fortunate that there was available space for the gravel portion of the Green Lake Path to widen. This has allowed the capacity of the path to increase as the user numbers have increased in the last 20 years. However, there should be a limit to the creep of the path. A line of half buried coir logs could be used to trap sediment and limit the shoreward creep of the gravel. This solution is often used at construction sites and in other parks. The "curb" should mark a distinct change in vegetation or some other characteristic so that joggers would be aware of the edge of the gravel path.

III-e Inspect & Maintain Treatment Vaults Under SCC Parking Lot



A complex of treatment vaults, oil and water separators and aggregate trenches treat runoff coming from Lower Woodland Park playing fields and other facilities.

Location: There are water quality treatment vaults located under the Small Craft Center parking lots at the south end of Green Lake.

Problem: Surface water runoff from the playing fields, tennis courts, roads and parking areas in Lower Woodland Park is collected in a drainage system that sends the runoff through treatment vaults located under the Small Craft Center parking lots before the runoff water enters Green Lake. Functioning correctly, the vaults remove oil and silt from the runoff water.

Recommended Action: Open and inspect the vaults. Clean and treat as appropriate.

Discussion: Runoff from SDPR facilities in Lower Woodland Park is collected and passed through a complex of treatment vaults under the Small Craft Center's parking lots. The treatment vaults remove sediment, oil and other material from the runoff before the water is released into Green Lake through a number of outfalls along the lake's southern shoreline. In order for these facilities to function correctly, they must be inspected and maintained on a regular schedule. A schedule for inspection and maintenance of the several treatment facilities should be established.

III-f Remove Debris Piles from the Pitch and Putt Golf Course.



Debris piles in the Pitch and Putt Golf Course persisting over the winter.

Location: Northeastern corner of the Pitch and Putt Golf Course located at Green Lake Way N. and E. Green Lake Way N.

Problem: Tree trimming and other maintenance debris has been stored under the trees at the northeastern end of the course.

Recommended Action: Remove the debris piles.



Double-sided Bench at East Beach

Location: Many locations around Green Lake Park. The bench pictured above is one of the recently installed double facing benches at East Beach. These benches have been a marked success and are well used.

Problem: The finish has weathered off portions of the benches.

Recommended Action: Inspect the benches in Green Lake Park and refinish as necessary.

Discussion: The wooden benches in Green lake Park are one of its major amenities. The high use and exposure to the weather has resulted in the loss of the finish on some of the benches. To extend the life of the benches they need routine maintenance.

III-h. Improve Green Lake Path Safety Signage



Embedded Brass Signage



Stenciled Signage

Location: Various locations on the Green Lake Path .

Problem: Green Lake Path is often congested and there are conflicting activities including walkers, joggers, strollers with toddlers, skateboards, and racing bicycles. While there are many solo users, frequently the users are in small groups. Thus, moving blocks of people often form. One effort to reduce conflict between uses is to have “wheels” (bicycles and skaters) go counter clockwise on the street side of the path around Green Lake and to have walkers go on the lake side of the path in either direction. The traffic signs need to be readily visible and with a clear intent. The embedded brass signs achieve this goal though there are not many of these signs. The stenciled signs are more visible when new but rapidly degrade and do not have the important “**SLOW**” warning.

Recommended Action: Repaint the stenciled signs more frequently and include “**SLOW**”. With current levels of use on weekends, it may be appropriate to eliminate bicycles on the path on Saturday and Sunday from 9:00 AM to 4:00 PM. The City has made a great effort to provide bicycle lanes on streets, including Green Lake Way. Thus, on weekends, it may be appropriate to shift bicycles from the Green Lake Path to the bicycle path on Green Lake Way.

Discussion: Having won the battle for dedicated bicycle paths on the streets, perhaps it is time for the bicycles to give up the walking path at Green Lake on the weekends.

IV. Staffing

IV-a. Wetlands/Riparian/Aquatic Biologists

Problem: Green Lake is the only lake in Seattle Parks where the entire lake and its shoreline are owned by the City (SDPR). Many other parks including Discovery Park, Magnuson Park, Carkeek Park, Golden Gardens, Matthews Beach, and Licton Springs also have shorelines that need appropriate management. With the exception of Discovery and Magnuson Parks, these parks do not have a biologist addressing the special needs of aquatic and riparian areas. It seems that grounds keepers do not deal with riparian and aquatic issues. It is FOGL's understanding that no staff person with the appropriate technical background is assigned to monitor the aquatic/riparian portions of these parks and to advise Park Resource Managers and Crew Chiefs on wetland, riparian and aquatic issues.

Recommended Action: Establish a staff position of Wetland/Riparian/Aquatic Ecologist to oversee the management and maintenance of riparian and wetland areas within Seattle Parks. He/She would oversee the aquatic/riparian issues at Green Lake and at other parks. This person would advise Park Resource Managers and Crew Chiefs on issues related to riparian vegetation and aquatic issues and be involved in the on-the-ground management of these areas.

Discussion: Friends of Green Lake had the opportunity to walk the Green Lake Path with Superintendent Gallagher in 2008. FOGL made the case that the Parks Department needed a riparian/wetland biologist involved with the management of the aquatic and riparian areas within Seattle's Parks. Superintendent Gallagher agreed with our suggestion and planned to incorporate such a position in the next budget cycle. Unfortunately, the recession and resulting budget reductions intervened and the position was not created. With the improvement in Park's financial condition, FOGL believes that it is time to add such a staff position.

IV-b Shoreline Maintenance



Waste Bin Lid Near Sunnyside Outlet

Location: Many locations around the shoreline of Green Lake.

Problem: Various kinds of debris are in the shallow, nearshore waters of Green Lake. In addition, woody debris is present in the wetland areas of Green Lake. It is FOGL's understanding that this material is not removed by grounds keepers because their labor contracts preclude entering the water. SDPR should not be dependent upon volunteers to perform tasks in shallow water near the shoreline.

Recommended Action: At least some SDPR personnel should be enabled to undertake tasks in the shallow waters along shorelines and in wetlands.



Green Lake wading pool on a sunny day in June