



Springing into action

Simple steps for lake-friendly yards

Our yards provide many benefits to us: they serve as play areas for kids and pets and function as homes for a variety of birds, insects, and furry critters. A few simple actions can make our yards healthy environments for all to enjoy and reduce our impact to fragile waters adjacent to our homes.

Lawn Tips

Here in the Northwest, we imported the lawn concept from the east coast but forgot to bring the summer rains to keep them regularly watered and lush. Keeping a lawn looking good as well as being lake friendly are not mutually exclusive. By practicing a few simple steps, you can

be well on your way to a healthier lawn and reduce your impact to the nearby lake. Here are some tips to get you started:

- Reduce the size of your lawn by replacing with native plants.
- Only use pesticides and herbicides as a last resort. Read labels carefully—most will specify use restrictions for waterfront areas.
- Become a “grassecyclor” by mowing high and



Follow simple lawn care steps to reduce environmental impacts on nearby lakes.

leaving those grass clippings behind to recycle nutrients back to your lawn.

- Improve lawns with aeration and overseeding in the fall or spring.
- Fertilize moderately in

(continued on page 3)

What's Inside...

Mild weather marks the start of spring.	2
Protecting Pine Lake	3
Laid-back Lake Margaret	4
Funding for lake projects.	4
Beavers build beneficial wetlands	5
Upcoming events.	6

Get involved!

Lakes Appreciation Week, July 1-8, 2000

This Fourth of July holiday, plan an activity to celebrate a lake near you! To draw attention to the value and importance of lakes, the North American Lake Management Society (NALMS) created **Lakes Appreciation Week** to coincide with Independence Day (July 4) in the U.S. and

with Canada Day (July 1) in Canada. Both of these holidays provide people with the opportunity to get out and enjoy lakes. So make sure to do something special for your lake during this week. For more information, check the NALMS web site at www.nalms.org/resource/lkvolmon/law.htm

Lake monitors report

Mild weather marks the start of spring

Jack Frost barely touched down this winter, despite a second La Niña year and predictions of cold, wet weather in the Northwest. Instead, mild weather led to a beautiful spring with lots of sunshine, warm temperatures, and less precipitation than usual.

Below Average Rainfall

At Sea-Tac Airport, the precipitation total for January through March this year was 26mm below the historic average of 348mm. Thirteen volunteers also reported less rainfall than the historic average, fifteen reported over, and three volunteers had partial data records (Figure 1).

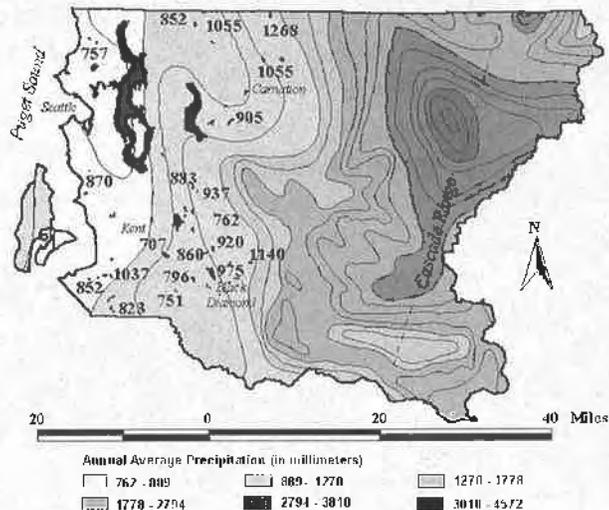
Volunteers have been collecting precipitation data on King County lakes since October 1993. For most lakes with historical data, only the spring of 1994 had less precipitation than this spring.

Rainfall by Region

Why do some lakes receive less rainfall than others? Factors that influence precipitation include storm intensity and track, topography, and proximity to Puget Sound or the Cascade Range. For example, lakes close to the Cascade foothills, such as Marcel in Carnation, Margaret in Duvall, and Retreat in Ravensdale receive the most precipitation of lakes in King County's monitoring program.

October through March precipitation totals shown in Figure 2 reflect the influence of topography and proximity to the Cascade Range. Figure 2 is an isohyt, a map that shows contours of precipitation

Figure 2. Oct-Mar Volunteer Total Precipitation (in millimeters) Compared to Isohyt of King County Annual Average Precipitation

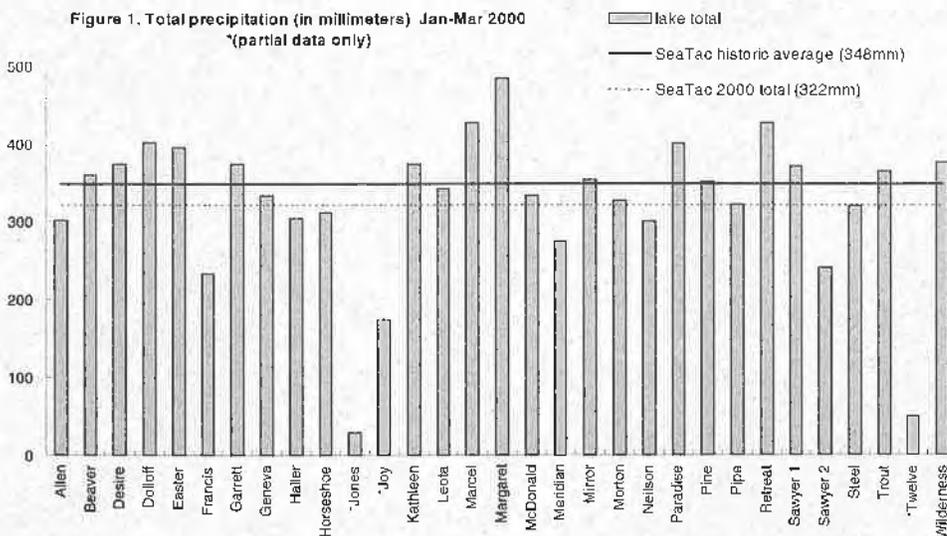


totals. This isohyt represents annual average precipitation totals for King County. Generally rainfall between October and March in this region makes up about seventy-five percent of the annual total. Precipitation totals reported by volunteer monitors this winter fit well within the contours of annual average totals.

Where to get out of the Rain

The driest lake in the volunteer program according to an average of the last five years is Haller Lake in north Seattle. But if you really want less rain, head for Washington's banana belt, located along the Strait of Juan de Fuca. Port Townsend, in the heart of the belt, receives 500mm of annual average precipitation. That is forty-nine percent less rainfall than Sea-Tac!

Figure 1. Total precipitation (in millimeters) Jan-Mar 2000 (partial data only)



Simple steps...

(continued from page 1)

September and May using natural organic or slow release fertilizers

- If you water, do it deeply and only once a week. Place a tuna can under the sprinkler area and continue watering until you can measure an inch of water in the can.

Makeover Time

Spring is a great time for giving your yard a lake friendly makeover and reducing your lawn size. You can go "hog wild" and do the whole thing or start small with a manageable area. Your winter muscles will probably prefer the latter choice. In any event, remember happy plants begin with healthy soil.



Kate Bradley and Sally paddling on Pine Lake.

Using adequate amounts of compost is fundamental to creating a healthy lawn or garden. If you have an established planting, begin by top dressing it with homemade compost or purchase compost from your local garden store.

For new areas, remove sod and work in several inches of compost to ensure a good start for your plants.

Then, select plants which are well suited for the garden area. For example, pick sun loving plants for sunny areas, and moisture loving plants for soggy areas. For more information on native plants call **Greg Rabourn** at (206) 296-1923 or log-on to <http://dnr.metrokc.gov/wlr/PI/npnursry.htm>.

Remember, a variety of resources are available to help you get started or add to a work in progress. Many of your lawn and garden questions can be addressed through the King County Yardner Program by contacting **Mary Rabourn** at the (206) 296-1977 or mary.rabourn@metrokc.gov.



Be water-wise when caring for lawns.

Volunteer spotlight

Protecting Pine Lake

Kate Bradley is a devoted nature lover who lives on Pine Lake on the Sammamish Plateau. With help from her little dog Sally, Kate has been monitoring the lake for years. She is quick to let us know when something strange is happening on the lake, and is always leaving thoughtful notes with her samples. Kate is also a lifelong learner, frequently attending workshops sponsored by the Lake Stewardship Program. Along with neighbor Irene Stall, Kate is an active aquatic weed monitor and a member of Friends of Pine Lake.

In her life outside of the Lake Stewardship Program, Kate works as a librarian and is an avid gardener. Of course, she makes time to do other outdoor activities as well, especially those that involve water and sunshine. Pine Lake is fortunate to have such a wonderful, dedicated person watching over it, and we are lucky to have her in our program. Keep up the great work, Kate!

Report from the shoreline

Laid-back Lake Margaret

Located in the foothills of the Cascades, nestled at the end of the road, Lake Margaret provides 44 acres of recreation and restful waterfront living. For such a quiet place, there is a broad spectrum of interests nurtured by the lake's presence.

In 1908 the lake was formally named through the chance misstep of a young woman. The story goes that a group of hikers were exploring the lake when Margaret Johns decided to board a raft near the shore. In an ankle length skirt she soon found herself with one foot in the soft shoreline muck and the other on the slowly departing vessel. A gallant compatriot rescued her and ever since, the Duvall schoolteacher has lent her name to this body of water.

Today the Lake Margaret community has approximately 80 full-time residents and 64 part-time dwellers. Since its platting in 1958, residents have maintained a community drinking water system. By 1990, three wells either had failed or were failing, resulting in community water rationing—a stark contrast to the immense flooding that occurred just downstream in the Snoqualmie Valley. The Lake Margaret Community Purposes Club worked long and hard on a solution. On August 1, 1997, a new state-of-the-art slow sand filtration system was dedicated and residents have been drinking lake water ever since.

One of the most active groups on the lake is the Lake Margaret Yacht Club. In its third season, this informal

organization brings together a diverse collection of community members.

Fishing is still quite popular here, too. There is a public access boat launch that was deeded to the Department of Fish and Wildlife in exchange for the annual stocking of the lake. With over 1800 acres of watershed feeding the lake, these planted fish share the waters with a number of native cutthroat and other fishes. A few of those vying for the elusive catch are osprey, eagles, buffleheads, otters, mergansers, and loons. 🐟

Thanks to Douglas Johnston, a Lake Margaret monitor, for this article.



Boats afloat on Lake Margaret.

Funding for lake projects

Got a great project but need some funding to get started? Apply for a **King County Waterworks** grant today.

Grants are available in two categories: (1) **booster grants up to \$5,000**; and (2) **Lake Focus grants up to \$50,000**. Booster grants can be used for small projects like purchasing native plants for a shoreline revegetation project, installing interpretive signage, or removing small areas of noxious weeds. Booster grant applications can be made throughout the year with awards made to projects that meet eligibility requirements.

Lake Focus grants, on the other

hand, have a deadline of July 14, 2000, and are awarded on a competitive basis. Examples of suitable project ideas include supplemental water quality monitoring (for bacteria, oxygen, heavy metals, or other pollutants), implementation of weed control plans, shoreline restoration, and application of pollution control technologies (like oil/water separators, erosion control materials, and livestock fencing).

For more information, contact **Sara Hatfield** at (206) 296-8042 or sara.hatfield@metrokc.gov. You can also check out the grant web site at <http://dnr.metrokc.gov/wlr/waterres/wsf/wsfinfo.htm>.

Beavers build beneficial wetlands

When it comes to altering a lake landscape, beaver activity is second only to humans. Beavers were almost wiped out in North America by the early 1900s due to trapping and draining of lands for agriculture. However, today, beavers are making a comeback.

American Indians called the beaver the "sacred center" of the land because they created rich habitats for other mammals, fish, turtles, frogs, birds, and ducks. Besides being a "keystone" species (a species that exerts a controlling influence upon which other critters are present), beaver reliably and economically maintain wetlands. Such wetlands are cradles of life with a diversity of critters that can rival tropical forests. These wetlands can sponge up floodwaters, prevent erosion, raise the water table and act as a filtering system for receiving waters.

Bits of Beaver Facts

Beavers (*Castor canadensis*) belong to the order rodentia, but are more closely related to woodchucks and squirrels than to mice. Adults can weigh over 40 pounds. Beavers mate for life and both parents care for the young.

The beaver's favorite foods include water lily tubers, clover, and the leaves and the green bark from poplar and other fast growing trees. A family of five or six beavers may require half a hectare

of dense poplar trees for its winter food supply. When faced with starvation, beavers will eat coniferous trees.

By damming streams, beavers raise the water level to surround their lodge with a protective moat, and also create the deep water needed for winter food storage. Like most wildlife, beaver populations self-regulate by



decreasing their rate of reproduction when occupancy reaches a certain level or as territory is reduced. However, as beaver reclaim former territory, conflicts with humans often arise.

Conflicts with Beavers?

In Washington, many small lakes and marshes have been

formed or impacted by dams built by beavers. Paradise, Cottage, Desire, and Pine Lakes are just a few examples in King County. Lake levels, downstream flows, and wildlife habitat all are influenced when lakes are altered by beaver activity. In some areas management of the population to prevent damage to farmlands, roads, and trees is a problem. To control beaver flood

damage in urban and agricultural areas, a combination of devices may be necessary. But be aware that it is illegal to remove beaver dams without appropriate permits from the state and King County.

Working with the beaver is usually the best and most permanent solution. If beavers are removed from good habitat, others are apt to move in. Proven, cost-effective devices, such as a Trickle Leveler, are available that can control flooding problems resulting from beaver dams. These techniques allow the landowner to continue to enjoy the benefits of a wetland environment without

having to eliminate the beavers in order to protect property. Check out the **Beavers: Wetland and Wildlife** website for some useful information on working with beavers (<http://beaversww.org/beaver.html>). Or contact the County Wildlife Program

(continued on page 6)

Beavers. . .

(Continued from page 5)

specialist, **Kate Stenberg** at (206) 296-7266. Information is also posted on King County's website at <http://splash.metrokc.gov/wlr/LANDS/wildlife.htm>.

If a beaver must be relocated, a permit is required. Remember, you need a permit to do any kind of trapping, a hydrologic permit to install a trickle leveler and you must adhere to the Sensitive Area Ordinance regulations of King County. For information on live trapping permits, contact the **Washington Fish and Wildlife Department** at (206) 775-1311 or write to **16018 Mill Creek Blvd., Mill Creek, WA 98012**, for assistance.

The multitudes of beavers on the

headwaters of our major streams stabilize stream flow, prevent streambed erosion, create trout ponds, and improve habitat for many forms of wildlife. They are nature's great conservationists. They merit careful and intelligent management.

Are beavers dangerous neighbors?

Rarely. Beavers are gentle social animals that have a strong inhibition against biting. They can become somewhat aggressive during the mating season, which usually occurs in the winter. Any animal, however, may bite when frightened or cornered. 🐿

Upcoming Events



Take a dip in your lake... with your secchi disk! Get involved in the seventh annual **Great American Secchi Dip-In, July 1-16, 2000**. This annual event takes a look at the water quality across the U.S. and in other countries during a single time period. King County residents have been large participants in the past, and we urge you to continue this trend in 2000. To get hooked up for the big event, please contact **Michael Murphy** at (206) 296-8008.



KING COUNTY
Department of Natural Resources

Water and Land Resources Division
201 South Jackson Street, Suite 600
Seattle, WA 98104

PRESORTED
STANDARD
US POSTAGE
PAID
SEATTLE, WA
Permit No. 6013

Lake Steward Spring 2000

Duplicate mailings? Change of address?

Call WLR at (206) 296-6519 or send your labels, with the correct address clearly marked, to the above address, marked Att: Front Desk/ Reception. Please allow 6-8 weeks for changes.

♻ Printed on recycled paper. Please recycle.