

# Lake Steward



The newsletter of the WLR Lake Stewardship program Vol. 7, No. 1 Winter 2000

Looking ahead to the new millennium

## Winter planning brings spring rewards

Thinking about adding some new plants to your lake shoreline? Dreaming of a maintenance free lawn? Looking like your sagging dock may not make it through another winter? Well, now is the time to plan your upcoming projects in a lake friendly way.

### Simplifying Your Shoreline

One of the best ways to protect the quality of your lake involves restoring native plants to the lake shoreline. These plants provide a buffer between home activities and the adjacent lake, providing food and habitat for

fish, birds, insects, and other animals that we enjoy seeing at our lakes. To get started, you can attend a workshop, view *Lakeside Living*, or pick a few plants from the *Going Native* brochure:

- Workshops**—contact info available from **Mike Murphy** at (206) 296-8312
- Lakeside Living Video**—call (206) 296-6519 to purchase a copy or borrow a copy from your library.
- Going Native Brochure**—call **Cindy Young** at (206) 296-8065

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Restoring plants along a shoreline helps protect water quality.

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Volunteer monitors needed

## Calling all lake friends, old and new

The call for Lake Stewardship volunteer monitors is a common cry in this newsletter, but we have a new twist on it. In addition to needs at our veteran lakes, we have added services at 15 new lakes. Please call **Wendy Cooke** at (206) 296-1949 or **Jessica Anderson** at (206) 296-8008, if you live on or have direct access to one of the following lakes and would like to help us track its health: **Alice, Ames, Bass, Beaver** (in Black Diamond), **Deep, Desire, Echo**

(in Shoreline), **Echo** (in Snoqualmie), **Fenwick, Fish, Fivemile, Garrett, Kathleen, Keevies, Langlois, Loop, North, Pipe, Ravensdale, Shadow, Spring, Twelve, Walker, and Walsh.**

Volunteer lake monitors record lake level and rainfall daily and make weekly boat trips onto the lake to measure temperature and water clarity. We also need volunteers to collect water samples every two weeks during May through October. 🐟

## Lake monitors report

# 20th century weather record breakers

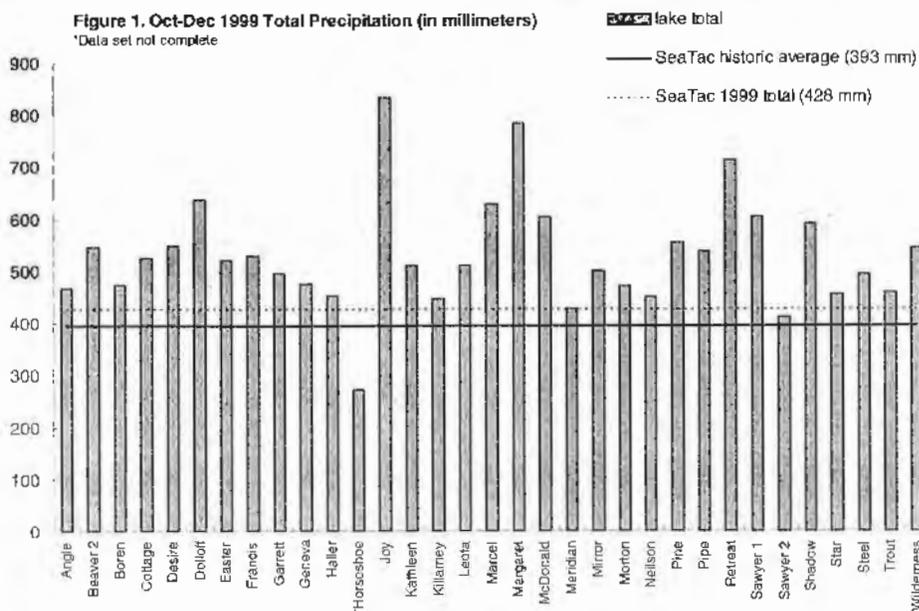
Remember November before last? A record breaking rainfall total of 298 mm fell at Sea-Tac Airport, almost twice the historical average. This November 241 mm of rain fell. Not a record breaker, but still the sixth highest November total in the last 50 years. With October and December's rainfall below average, the fall quarter's total was only 428 mm, nine percent above the 393 mm historical autumn average.

So how do our volunteers' precipitation totals compare? All but two of the participating lakes received more autumn precipitation than Sea-Tac Airport (Figure 1). Additionally, rainfall totals were above the Sea-Tac historical average for all lakes except Horse-shoe Lake, where monitoring began in mid-November. The four highest totals were recorded at lakes Joy, Margaret, Retreat, and Marcel, all of which are located near the Cascade foothills.

### More Winter Snow?

We are still caught in a La Niña pattern of colder, wetter weather for the Pacific Northwest. The National Weather Service reported that cold "conditions have been present since June 1998 and are now forecast to persist until at least April 2000." Four times in the last 50 years La Niña has persisted through two winters. Each time, the second winter was snowier than the first. As of mid-December we were keeping on track with last year's record-breaking snowpack

Figure 1. Oct-Dec 1999 Total Precipitation (in millimeters)  
\*Data set not complete



in the mountains. Chances are also good that we will have greater low-land snow accumulations than last year.

### Top Record Breakers

Speaking of snow, did you ever tell the kids stories about walking uphill through the snow to school . . . both ways? Perhaps that was the record-breaking blizzard of

1950. This storm made the National Weather Service's list of *Top Ten 20th Century Weather Events in Washington State*. We have listed the Northwest's top five in this newsletter (Table 1). To see the complete list in order of impact, visit the National Weather Service website at [www.seawfo.noaa.gov/WATOP10.htm](http://www.seawfo.noaa.gov/WATOP10.htm)

Table 1. Top Five Weather Events of the 20<sup>th</sup> Century  
(condensed from the National Weather Service List)

Date	Event	Comments
February 1996	Flooding in WA, OR, and ID	Highest flood of record on many SW Washington rivers
April 5, 1972	Tornado outbreak in Vancouver and Spokane	Washington led the nation in tornado deaths
October 12, 1962	Columbus Day Wind Storm from Northern California to British Columbia	Strongest widespread non-hurricane wind storm to strike the continental US this century
January 13, 1950	Blizzard hits the Puget Sound area	21.4 inches of snow fell in 24 hours with winds of 25-40 MPH
May/June 1948	Spring snowmelt creates flooding in WA and ID	America's largest war-time housing project wiped out in less than one hour

# Winter planning...

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## Smaller Lawns

Successfully growing grass in the Pacific Northwest can be down right difficult, requiring extensive maintenance, frequent watering, and chemical additions. To move towards a lake friendly alternative, reduce your lawn size and use organic maintenance practices. As an alternative to traditional turf, plant "ecoturf" which is available at most nurseries specializing in organic garden products. Although a lot of work is required to replace a lawn, the long-term benefits to lake quality and your family's health will be worth the effort.

For more information, call 1-888-860-LAWN or check out this web site on planting naturally

<http://www.ci.seattle.wa.us/util/RESCONS/nhome1.htm>

## Building Docks or Other Activities

If you are thinking about replacing or building a dock or have other construction activities planned for your lake front property, you will want to plan ahead and contact the County Department of Development and Environmental Services (DDES) or your city building department. An informational bulletin is available from DDES that covers residential building requirements for waterfront properties. This bulletin can be obtained at [www.metrokc.gov/ddes/](http://www.metrokc.gov/ddes/) or by calling (206) 296-6682.

## Learn about lakes

The 2000 Washington Lake Protection Association (WALPA) Conference is scheduled for April 13-15 at the SeaTac Doubletree Hotel. General conference topics include toxic algae, aquatic plants, water quality, and watershed analysis. On April 15, the morning session will focus on topics of special interest to lake associations.

WALPA is a nonprofit, all-volunteer organization working with lake users and government agencies to achieve effective lake management. For registration or more information call 1-800-607-5498.

## Volunteer spotlight

# A Lake Morton hero

King County's Lake Morton is fortunate to have Dick and Ina Balash living on its shores. Dick has been monitoring the lake for the past five years, braving all types of weather to get the job done. In fact, Dick can be seen demonstrating his excellent monitoring techniques on the *Lakeside Living* video (see article on page 1 for more information). He and neighbor Bob Wagner, are also aquatic weed monitors, protecting Lake Morton from noxious non-native water plants.

Retired from Boeing, Dick has put his energy into helping his community. Besides volunteering in the Lake Stewardship program, he is a citizen representative at the Covington Water District, the Covington Chamber of Commerce, and even helped name Kentlake High School near Lake Sawyer. Dick and his wife Ina are familiar faces at Lake Stewardship workshops and are enthusiastic advocates for Lake Morton protection. The Lake Stewardship staff considers it an honor to work with such an outstanding volunteer and all-around great guy.



Dick Balash at work on Lake Morton.

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## Report from the shoreline

# Lakeside living at Lake Sawyer

Lake Living...it's what I'd dreamed of most of my life...from the times my mother brought me to the shores of Lake Washington to swim on those hot summer days to the endless days of waterskiing with my buddies as I reached adulthood. Now as I watch my own children grow up living on the edge of Lake Sawyer, a beautiful 280-acre lake in SE King County, I see the dreams growing again.

To keep the entire lake within one community, Lake Sawyer was annexed to the City of Black Diamond in 1998. Long an active entity, the Lake Sawyer Community Club (LSCC) worked towards this end when it looked like the lake might be split between the cities of Maple Valley and Covington. Because of a shared history with the city of Black Diamond (and its coal mining days), the fit seemed to be a

natural and is working well.

In 1948, the community club was formed as the Lake Sawyer Improvement Club and in 1961, became the Lake Sawyer Control and Development Club. The club was incorporated with the purpose to "bring together all persons in the Lake Sawyer area to consider and work on any and all problems confronting the area with the hope of welding together a fine community in which to live." With a final name change in 1965 to the LSCC, the club has worked on many tasks to uphold that purpose.

One July 4<sup>th</sup> evening, I first became aware of the club activities. While we were awaiting closure of our home purchase—suddenly there was a burst of color in the sky as the annual July 4<sup>th</sup> fireworks display commenced. The Fourth is a busy time at Lake Sawyer. The holiday

weekend begins with a 5.2 mile run/walk/bike contest around the lake's perimeter. Other activities include a novice water ski competition (one of the three lakes in King County where waterskiing is available during limited hours), a fishing derby, a paddleboat/canoe/kayak race along a figure-eight island course, and a sailboat race.

This community-funded event is also joined by other annual events including a Santa Boat delivering candy canes, Adopt-a-Road clean-ups, seasonal parties at our clubhouse (built by member-labor from 1966 through 1970) and maintenance "parties."

As the lakefront recreational area developed from weekend getaways to fulltime residences, the LSCC has taken the role of nurturing our community. One of its first successes was obtaining a court decree in 1952 ordering a real estate company to construct a permanent dam and fish ladder at the lake's outlet. This structure replaced the natural log jam that had maintained the lake level.

As our population grows, new activities have begun including monitoring growth and its associated water quality issues. In recent years, important decisions have come before the community such as replacing an experimental sewer system that used an upstream wetland pond for secondary treatment of city wastewater. We've also

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Lake Sawyer is a busy, yet well maintained recreational spot.

# Glacial gouging makes great lakes

Even though we can't say for certain how each King County lake was formed, many owe their existence to glaciers that spread across the area in a series of ice ages, the most recent being only about 13,000 to 16,000 years ago. Most of the local glaciers originated in Canada, others from the Cascades. In either case, these glaciers scoured out large swaths in their paths as they grew.

As a glacier advanced, it incorporated the sediment material to produce a mixed, or nonsorted, mass of clay, silt, sand, and gravel. The extreme weight of the advancing glacier compacted the material beneath it into a concrete-like sediment called hardpan.

Much of the Puget Sound region is covered with this material — known locally as Vashon till.

As the glaciers both came and then disappeared from the area, the mass of ice in them melted and left a different kind of soil: a well-sorted material (e.g., sand or gravel) called outwash. The numerous gravel mines around the area are evidence of this process.

Water percolates readily through the top one to two meters of outwash but tends to pond and move sideways once it hits the hardpan or till surface below. Major lake basins were formed as the continental ice sheet gouged parallel depressions out of bedrock or preexisting deposits. As

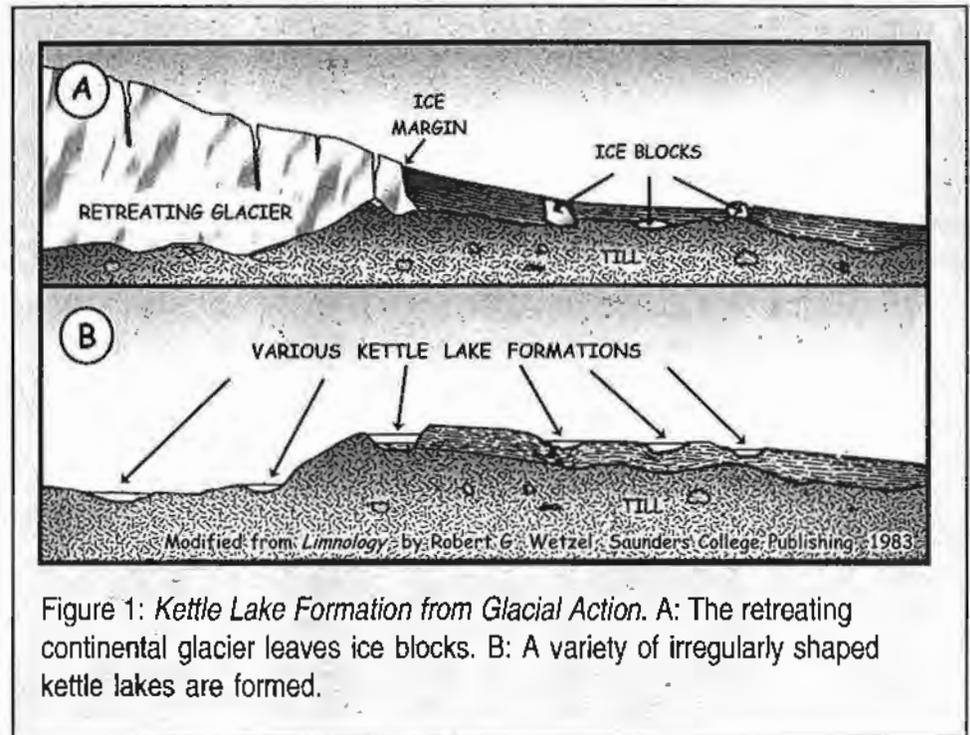


Figure 1: *Kettle Lake Formation from Glacial Action.* A: The retreating continental glacier leaves ice blocks. B: A variety of irregularly shaped kettle lakes are formed.

the ice melted, the basins filled with water, often much deeper than they are today.

Some of these depressions resulted in amphitheater-shaped lake basins called cirque lakes. Several cirque lakes can form in a valley as a series of connected lakes, each at a successively lower elevation, and fed by water flowing from the upper level lake. These lakes are typically characterized as having well defined inflows and outflows.

Landslides sometimes block natural valleys or canyons forming dams which hold back surface runoff water and form natural lakes. Evidence suggests that Lake Crescent in the Olympic National Park was created this way.

Other lakes in the Puget Sound

region were formed as buried blocks of ice (mixed with sand and gravel) were left behind and melted, forming isolated depressions called kettles (Figure 1). Not surprisingly these lakes are called kettle lakes. These lakes are generally highly irregular in shape, size, and slope, corresponding to the irregularities of the original ice blocks.

No one can say exactly how many lakes there are in Western Washington or the state as a whole. Estimates suggest that altogether, glacial action has given western Washington more than 3,000 lakes, excluding those less than one acre in surface area. To learn more about local geology look in your local library for *The Natural History of Puget Sound Country*, by Arthur R. Kruckeberg.

# Lakeside. . .

(Continued from page 4)

worked to stop a proposal that would have placed a solid waste transfer station along the upstream inlet water source. Other improvements include monitoring and minimizing floodwater intake from a nearby flooded lake community, working to minimize and control sediment-laden inflow from nearby surface mining operations, and ensuring ongoing residential development of previously forested land meets drainage and clearing standards. Our latest project is working with planners to develop the new 165-acre Lake Sawyer County Park. 🐾

*Thanks to Doug Geiger, Lake Sawyer monitor, for this article.*



## Native Plant Stewardship

Improve your native plant knowledge and educate others. The Central Puget Sound Chapter of Washington Native Plant Society is recruiting volunteers for this year's Native Plant Stewardship program. Call **Sasha Shaw at (206) 527-3210** for training times and details.

## Native Plant Salvage

March 11, 9 a.m. to 4 p.m. Get down and dirty . . .digging up native plants from a site slated for construction. Plants salvaged will be used in stream restoration projects. Contact **Michael Murphy at (206) 296-8312**.

## Weed and Feed

Volunteers are needed weekdays at a native plant holding facility in Redmond. Water, transplant, and care for plants awaiting planting at stream restoration projects. Contact **Cindy Young at (206) 296-8065** for more information.



**KING COUNTY**

Department of Natural Resources

### Water and Land Resources Division

201 South Jackson Street, Suite 600  
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## Lake Steward Winter 2000

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