



# Lake Steward



The newsletter of the WLR Lake Stewardship program Vol. 8, No. 2 Spring 2001

## King County Boating Regulations

### Launch into spring

Spring brings out a whole flotilla of new boaters to King County's lakes and rivers. To ensure a fun, safe day on the water, pack a little knowledge about boating and safety regulations along with the water toys.

In King County, boating activities are largely regulated through the King County Code under Section 12.44. This section specifies speed regulations, lake specific boating restrictions, equipment requirements, and other related information. Washington state marine laws also affect King County boaters. In the Revised Code of Washington (RCW) Chapter 79A.60, Regulations of Recreation Vessels,

boater information such as the requirements for personal floatation devices can be found.

#### Establishing Regulations

Each lake is unique, subsequently so are their boating regulations. These regulations were established through individual ordinances passed by the Metropolitan King County

Council. To establish a boating regulation on a lake requires the support of your Councilmember who would sponsor the legislative process for establishing specific regulations at your lake. To contact your Councilmember, call (206) 296-1000 or log-on at <http://www.metrokc.gov/mkcc/>

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King County waters offer endless recreation possibilities.

#### Backyard wildlife

### Be "bear-aware"

A multitude of animals live in rural King County including black bears. Washington black bears actually come in many colors, from black to brown to even a reddish-blond color. Black bears do not get very large, averaging only two to three feet tall from the shoulder and approximately 130 pounds for females and up to 225 pounds for males. Still, seeing one in your backyard can be unnerving if not downright scary. By remaining calm and following a few simple

safety rules, you will likely avoid harm and will have a wonderful sight to behold.

Black bears are omnivorous, meaning they will eat just about anything—grasses, berries, nuts, fruits, insects, fish and small mammals, even carrion (dead animals). In residential areas they will also eat pet food, garbage, and birdseed. Based on reported sightings, bears are more likely to be in neighborhoods near forested areas from late May through July.

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Lake monitors report

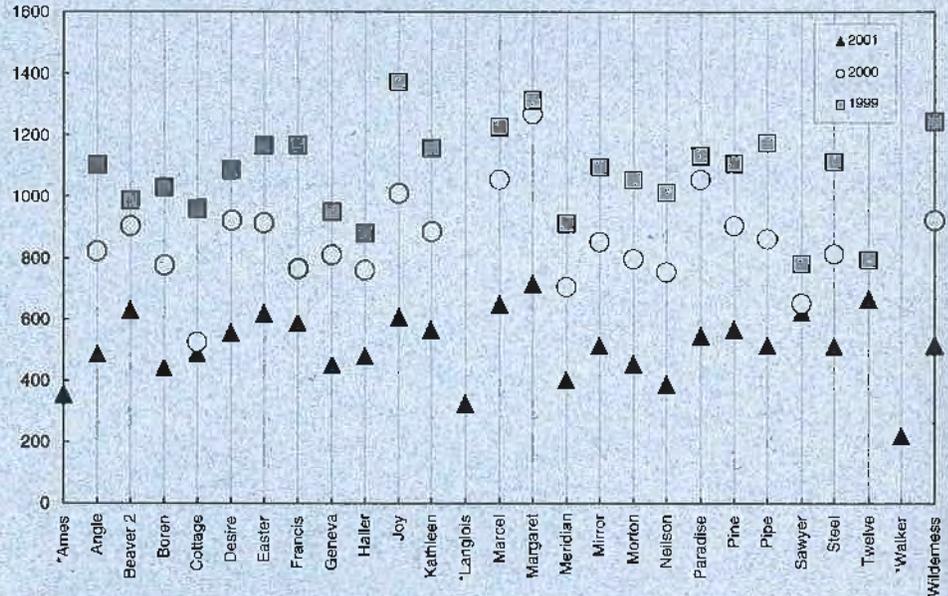
# Will spring rains stop a summer drought?

Low winter precipitation totals in the Northwest are still causing drought concerns despite recent April showers. The regional climate station at Sea-Tac Airport reported 433 millimeters (mm) total of precipitation between October 1, 2000 and March 31, 2001. That is only 59 percent of the 1948-2000 historical average of 734mm for those six months. Since 76 percent of our annual rainfall typically takes place between October and March, there is little opportunity during the coming summer to add significantly to the annual rainfall total for this water year.

The current drought conditions are reflected in the low precipitation totals reported by King County volunteer lake monitors. All volunteers reported less rainfall in the winter months of 2001 than 2000 and substantially less than 1999 (Figure 1). In fact, the region received the least winter rainfall in 2001 and the most in 1999 for the seven-year period that volunteers have been monitoring King County lakes.

Overall, lakes Joy, Marcel, and Margaret totaled the most rainfall during the three winter periods between 1999 and 2001. All three lakes are in the northeast corner of the county, close to the Cascade foothills. Lakes Boren, Meridian, and Neilson received the least rainfall in 2001 between October and March. These three lakes are distributed throughout the county.

Figure 1. Oct-Mar precipitation totals (in millimeters)  
\* incomplete data record



Ames, Langlois, and Walker lakes are new to the program and do not have complete data for this winter.

## Summer Drought

Less rainfall usually translates into lower summer lake levels. Low levels combined with sunny weather and concentrated nutrients in the lake water may lead to more algae on some county lakes this summer.

In terms of water supply, most residents in King County will probably not see mandatory water rationing this summer. Exceptions include Covington, Kent, and Sammamish which are suffering from development demands on already stressed aquifers. Residents in the Kent area have been told that yard watering will be restricted this summer. Other utilities, such as Seattle Public Utilities, are asking customers to voluntarily conserve water use by ten

percent. Electricity conservation is also important since much of our supply is hydroelectric power generated from stream flow.

## Conservation

Things you can do to conserve water include watering lawns in the early morning or late evening and limiting any lawn watering to once a week. Another alternative is to let your lawn go golden for the summer, the ultimate water conservation measure.

Avoid pressure washing to clean buildings, sidewalks, or driveways and wash your car at a facility that recycles their water. Finally, try using cold water for the laundry and wash clothes and dishes in the evening after peak electrical use. Simple changes like these can make a big difference if everyone conserves. ☽

# Launch...

(continued from page 1)

## Personal Flotation Devices

When it comes to safety, all lakes in King County follow the same basic rules. Before getting on the water, make sure you have your personal flotation device (PFD). All PFDs must meet or exceed design standards set by the United States Coast Guard. Additionally, a PFD must be available, of appropriate size, and in serviceable condition for each person on board. A new life jacket law went into effect July 25, 1999. It stipulates that children 12 years old and younger must wear a PFD whenever the vessel is underway. Children also are required to have a life jacket on when on an open deck or cockpit of any vessel less than 19 feet.

## Personal Watercraft

The U.S. Coast Guard classifies personal watercraft (such as jet skis)



as Class A inboard boats. Pursuant to this, King County Code holds jet skis operation to the same basic rules and requirements as any other powerboat:

- Sailboats (and other non-motorized watercraft), commercial vessels, and fishing boats always have the right of way.
- Operators of jet skis must be at least 14 years old, and all operators and riders must wear PFDs.
- Operation is prohibited from sunset until sunrise.

Also be aware that more and more lakes throughout the state are passing additional rules regarding jet skis and their hours of operation. New restrictions on personal watercraft typically will be posted at public boat launches and other public areas.

## Speed Limits

Generally, no motor powered watercraft can be operated on any lake in excess of eight miles per hour. Exceptions to this speed limit are specified for lakes Meridian, Sammamish, Sawyer, and Washington where a more diverse set of uses may occur (e.g., transportation, hydro-racing).

For all lakes in Washington, boaters are required to keep their vessels under control at all times and should never endanger the safety of others or harm property and wildlife. Additionally, skippers are responsible for damage caused by their vessels' wakes.

For more information on state boating regulations, go to <http://www.hoat.wa.gov/> on the Web or contact the **Washington State Parks and Recreation Commission** at (800) 233-0321. 🐾

**Will this winter's below average rainfall affect water quality in my lake this summer?**

—High and Dry



Dear H&D:

So far, our precipitation totals are about 50 percent below normal for the water year (October 2000 to September 2001). As a lakeside resident, you can probably expect to see lower summer lake levels

## Ask Dr. Lakenstein

then previous years. Additionally, with below average rainfall this winter, groundwater levels have not been replenished. Normally, groundwater supports stream flows and subsurface inflows to the lake during drier summer months. We can expect reduced groundwater flows to lakes and streams this year.

As far as water quality goes, we may see more algal growth in our lakes. This growth is likely to occur in shallow lakes and shoreline areas that warm up sooner and have plenty of light available for

generating plant growth. Lack of significant winter rainfall will also affect water quality in lakes where dilution of nutrient-rich inflows might have otherwise occurred. On the other hand, the lack of intense storms reduced erosion and transport of nutrients, partially offsetting some of the effects associated with less than normal rainfall.

We do know that eventually, as our weather patterns return to normal, we can expect water quality and lake levels to return to patterns found in previous years. 🐾

## King County at work

# Knocking back noxious weeds

The mission of eliminating or minimizing the degrading impact of invasive noxious weeds becomes bigger every year. These weeds clog our waterways and overtake native plant species. They are a threat to farmlands and wildlife. On the frontline of this war against these invaders stands the King County Noxious Weed Control Program.

### What are Noxious Weeds?

Noxious weeds are legally defined by State Law (Chapter 17.10 RCW) as plants that once established, are highly destructive, competitive, or difficult to control. Noxious weeds and other invasive species pose an increasing threat to the integrity of croplands and natural ecosystems. A leading cause of species endangerment under the Endangered Species Act, noxious and invasive species cost the U.S. economy an estimated \$123 billion annually. Only complete habitat destruction (such as through development) poses a bigger threat to native species.



**Table 1: Noxious Weed Control Program**

Performance Measure	1998	1999	2000
Information requests	84	910	1,944
Infestation reports	60	187	281
New site surveys	911	1,217	1,733
Number of sites controlled	434	656	1,014

### Getting the Word Out

The 2001 King County Noxious Weed List contains the names of 93 species from the State Noxious Weed List that are considered to be of concern or a priority for eventual eradication in King County. New to the list as a "Weed of Concern" is English ivy (*Hedera helix*), a popular groundcover, which left unchecked can overrun native plants and even choke full grown trees.

The King County Noxious Weed Control Program is responsible for getting the word out on English ivy and the many other invasive species that have been introduced to the Northwest as ornamental garden and aquarium

plants. Noxious weeds are also introduced through wildflower seed mixes, and agricultural crops.

### The Keys to Success

Prevention, education, and technical assistance continue to be the keys to the Program's success. Staffers are especially busy in the summer months working with landowners, businesses, and other agencies keeping current sites controlled and guarding against new infestations.

Over the last few years, increased funding for the Program has produced greater results. With additional staff, the Program has been able to increase field survey, public education, and technical assistance efforts throughout the County (Table 1).

### The Battle's Not Over Yet

Additional weed infestations continue to be identified each year by staffers. Giant hogweed (*Heracleum mantegazzianum*), purple loosestrife (*Lythrum salicaria*) and tansy ragwort (*Senecio jacobaea*) sites occur in the greatest numbers and control efforts continue to increase for these and other weed species each year.

To find out more about identifying, removing, and controlling noxious weeds, please call (206) 296-0290. More information can also be found at <http://dnr.metrokc.gov/weeds>. ☺

### What You Can Do

- Use weed-free seed mixes.
- Choose non-invasive or native plant species for your landscapes and garden.
- Check clothing, vehicles, tires, boats, boat trailers, and camping equipment for weeds and seeds.
- Never dump aquarium plants into a pond or stream.
- Call the Noxious Weed Control Program at (206) 296-0290 for more help.



Purple loosestrife

## Lake Ecology

# Diversity at the water's edge

King County lakes come in many different sizes, shapes, depths, and of course, water quality. Regardless of these characteristics, shorelines are the most biologically diverse and functionally important areas associated with lakes. Transitions between the lake and adjacent upland and terrestrial ecosystems, shorelines provide conditions favorable to rearing fish, as well as habitat for birds, mammals, and others vertebrates.

A lake's shore is also important to animals with biphasic life cycles (those having two distinct life phases: an aquatic larval stage and a terrestrial or semiaquatic adult stage.) Examples include aquatic insects such as caddisflies and dragonflies, and pond-breeding amphibians such as frogs, toads, and salamanders.

### The Littoral Zone

The shallow shoreline area, known as the littoral zone, accounts for much of the wildlife diversity seen at lakes. The wide variety of emergent plants such as grasses, herbs, rushes, and sedges in this zone provide the food and cover for an extensive aquatic food web starting with microscopic zooplankton such as water fleas and rotifers.

Larger, yet relatively small animals called macroinvertebrates also dwell here. Examples include the

well-known pond snail. In turn, a host of immature insects, notably dragonflies, alderflies, and diving beetles feed on the smaller insects, snails, worms, and larval amphibians.

### The Role of Plants

Without the diversity of aquatic plants and invertebrates along the lake shore, frogs and salamanders, turtles and snakes, waterbirds and songbirds, and mammals including muskrats, otters, and deer would not be found at lakes. For example, soft, thin-stemmed emergent plants provide critical egg attachment sites for breeding amphibians. Without these plants, eggs sink to the bottom where they may suffocate from sedimentation or be eaten by predators.

Aquatic plants also provide cover for tadpoles and the larvae of many amphibians and nearshore herbs and shrubs provide shady and cool habitats for newly metamorphosed frogs and salamanders.

Mallards, American wigeon, northern pintail, and other waterfowl that visit during their annual migrations or remain as breeding residents throughout the year eat aquatic plants and their seeds. Mammals such as voles, muskrats, and deer feed extensively on the succulent grasses and rushes of lake shores.



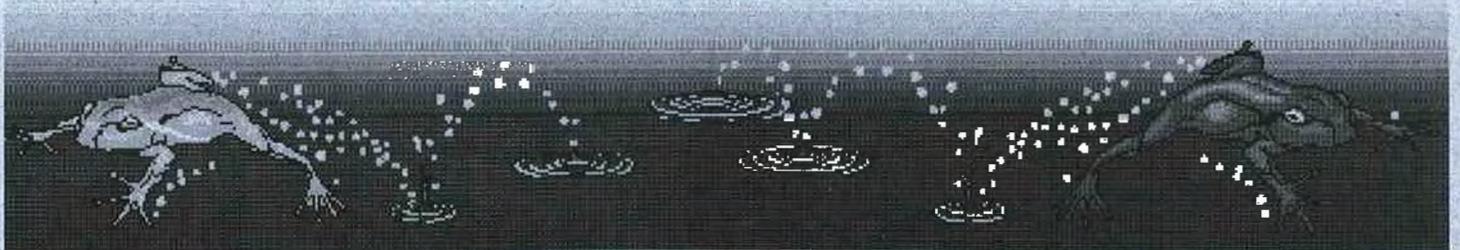
*Tadpoles are common near the water's edge.*

A whole host of critters, from the western painted turtle, common and western terrestrial garter snakes, rubber boas, to wood ducks, common Goldeneye, and Great Blue and Green-backed herons prey upon the snails, insects, tadpoles, and metamorphosed amphibians and small fish among the emergent plants.

### Vital Habitat

Riparian vegetation is also important as nesting, denning, and rearing habitat for a great variety of songbirds and mammals. Besides being close to water, vegetation found here is abundant with insects and other small aquatic animal populations, a prime food source for young songbirds and mammals. Recently, 90 bird species, 19 native small mammal species, and six native pond-breeding amphibian species were seen at 19 wetlands with open water and vegetation similar to that found at natural lakes. Clearly, this transition habitat from open water to upland forests represents the greatest biological diversity when compared against other ecosystems and highlights the importance of lakeshores and riparian areas. 🐸

*Thanks to Klaus Richter, Senior Ecologist, King County DNR, for this article.*



# Bears...

(continued from page 1)



If you do see a bear, stay calm, stand tall, wave your arms, and talk to identify yourself as a human. Move away from the bear but do not run; go indoors if you can. Give the bear plenty of room and an escape route. Black bears are typically non-aggressive and tend to avoid people. However, if frightened, they may become less predictable.

You can minimize your chances of encountering a bear in your yard by removing your bird feeders and keeping garbage cans and pet food indoors. Birds will do quite well during the summer months without the bird feeders, and they will return to your yard when you put the feeders back up in the fall. For more information, contact King County's Wildlife Program at (206) 296-7266. 🐾

## Upcoming events

### Spot Exotic Species Invasions

The Washington Department of Fish and Wildlife (WDFW) manages a **zebra mussel volunteer monitoring project** each summer. People who live on lakes and other waterways are asked to hang a piece of substrate (WDFW provides) from their dock or float and check it every few weeks to see if something is attached.

The department also wants to know about anything that appears to be out of the ordinary and is asking all people visiting wetlands, rivers, and lake shorelines to be on the lookout for new species.

For more information, please contact **Pamala Meacham** at WDFW, (360) 902-2741.

### Frog Frolic June 16

Mark your calendars for this free educational event. The second annual Frog Frolic at the **Shadow Lake Bog** promises to be fun for the whole family. The 23-acre property includes an amphibian pond. Get an up-close view of these critters and then take a walking tour into the bog to learn more about the importance of maintaining this sensitive natural ecosystem.

For more information, call (425) 432-9965.



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