

## Summary of Recommendations

### Make use of reclaimed water

Reclaimed water is used water that has been treated and cleaned thoroughly to restore its value for uses other than drinking water. Locally, reclaimed water is being made available through the LOTT\* Wastewater Alliance. The draft plan calls for LOTT and the cities of Olympia, Lacey and Tumwater to create a map that envisions where reclaimed water distribution pipes could be built in the future. The plan also recommends they identify “zones” where future land uses would be expected to tap into reclaimed water supplies for toilet flushing in commercial buildings, irrigation, and other needs. The WRIA 13 plan seeks financial support from the state to build reclaimed water pipelines.

\*LOTT stands for “Lacey, Olympia, Tumwater and Thurston County.”

**Reason:** State law considers reclaimed water a new, basic water supply similar to surface or ground water. LOTT has already built the first of four new facilities that will each produce at least 1 million gallons of Class A reclaimed water a day, and has begun construction on the second. The first reclaimed water facility, at LOTT’s downtown Olympia plant, is expected to begin production in 2004. LOTT will serve as a “wholesaler,” providing reclaimed water to cities. It will be up to each city to build distribution and storage systems for the water.

### Create a regional conservation network

The WRIA plan encourages public water systems, tribes, resource agencies, major irrigators, and the Utilities and Transportation Commission to create a regional conservation strategy. A work

group would decide which types of water use most affect stream flows, and create incentives for people to use less water for those purposes.

**Reason:** LOTT and city water providers have ambitiously promoted

conservation for many years, offering low-flow toilets and showerheads, and financial incentives for people who buy “water wise” appliances. More than 60 percent of the water used in WRIA 13 comes from water systems that are required to write conservation plans. However, nearly all farms and golf courses, and several industrial operations provide their own water from independent water sources and are not routinely required – or even encouraged – to conserve water. A regional conservation framework could be more effective in achieving conservation and protecting critical stream flows.

### FLOW FACT

An average household uses about 300 gallons of water per day.

### Protect water quality

Our local governments have invested significant resources in adopting a host of water quality-oriented policies and ordinances. But implementation and enforcement have been a secondary focus.

In place of underfunded and complaint-driven enforcement, the plan recommends an enforcement program that is systematic, sustained and comprehensive. For example, the plan recommends that Thurston County improve operation-and-maintenance programs for septic systems in two high-risk areas: Henderson Inlet, where shellfish harvesting has already been restricted because of high fecal coliform levels, and the Cooper Point Peninsula, which threatens to send bacterial contaminants to Budd and Eld Inlets.

The plan also recommends that a comprehensive public outreach campaign be launched to help curb the multiple, small sources of contamination (such as animal waste) that accumulate and degrade our streams, inlets and aquifers.

**Reason:** Despite efforts to improve water quality, shellfish harvesting is threatened by declining water quality in the Nisqually Reach, Henderson Inlet and Eld Inlet. The quality of water needed for salmon and other species is threatened in the Deschutes River and other area streams.



Residential use, including both in-house use and landscape irrigation, accounts for about 60 percent of total water use in WRIA 13.



## Where will we get our water in the future?

A citizens’ guide to the Draft WRIA 13 Watershed Plan

September 2004

*Water. Like the air we breathe, it’s always there. Thurston County is blessed with abundant water resources – from pure, deep aquifers to the rushing Deschutes River and sparkling Puget Sound. But we cannot afford to take our water for granted. While our water supplies might be abundant, they are not infinite. Our region will see significant growth over the next decade. More people will make Thurston County their home and, like us, tap our shared water supplies for drinking water and other uses. How can we continue to withdraw water for human uses, and still keep enough water in rivers and streams to support fish and wildlife? That’s a tough question, and the centerpiece of the draft WRIA 13 plan.*



Thurston County’s drinking water comes from the ground.

### Why create a watershed plan?

In 1998, the state Legislature approved the Watershed Management Act, which encourages local communities to develop plans for protecting local water resources and habitat. Lawmakers wanted local governments and citizens to develop plans since they know their own regions best. Although the 1998 law does not require planning, Thurston County and local governments chose to step up to the task. The Washington State Department of Ecology is providing technical and financial support for the effort.

### What on earth is a WRIA?

WRIA is an acronym for “Water Resource Inventory Area” (pronounced “why-ruh”). WRIs are watershed planning areas established by the Department of Ecology. Washington State is divided into 62 distinct WRIs, each loosely drawn around a natural watershed or group of watersheds. A watershed is an area of land that drains into a common river, lake, or the ocean.

### So where is WRIA 13?

WRIA 13 encompasses 270 square miles in central Thurston County. It includes the Deschutes River watershed, and other smaller watersheds that drain into Eld, Budd, and Henderson inlets. Virtually the entire city limits of Olympia, Lacey, Tumwater and Rainier, as well as the cities’ Urban Growth Areas, are within WRIA 13.

### What’s the problem?

In short: Thurston County’s population is growing but the availability of new water rights is diminishing.

The Department of Ecology has determined that no new water withdrawals (water rights) will be allowed if those withdrawals would lower critical stream flows for fish. Tribal water and fishing rights, which stem from treaties, may also require protection of instream flows.

Meanwhile, the demand for water is expected to grow significantly in Thurston County. The population in WRIA 13 alone is projected to increase from just under 150,000 in 2002 to nearly 225,000 in 2025. At “full build out” under current land use plans, population in the planning area is estimated at 300,000 – roughly double the current population.

The challenge is how to meet humans’ growing demand for water without harming the stream flows that sustain fish and wildlife.

### Public Meeting Dates

Learn more and share your views at these public meetings, sponsored by the WRIA 13 Planning Committee:

**Tuesday, Sept. 21, 6:30 p.m.**  
Rainier Sportsmans Club  
404 Alaska Street, Rainier

**Thursday, Sept. 23, 6:30 p.m.**  
Tumwater Fire Station  
311 Israel Road S.W., Tumwater

### Why should I care?

Water is a treasure for Thurston County and one of the reasons our region is such a desirable place to live. How we choose to manage this important resource affects our community and the environment, now and in the future. If our community fails to work with state and tribal governments to manage water resources, the state and federal governments will – leaving local communities with less input into these vital decisions.

Water supplies also have a huge impact on the economy of our region. Water supplies might ultimately dictate where communities are built, what type of businesses move to our area, and whether local farms and businesses can branch into new endeavors.

### Who wrote this plan?

The draft plan was written by the WRIA 13 Planning Committee. Its members represent state, tribal and local governments, as well as business and environmental interests. Also represented on the committee are the sport fishing, building, forestry and aquaculture interests. The Planning Committee has gathered data and crafted recommendations for the past three years.

### Is this plan a “done deal?”

No, the plan is still in draft form. The Planning Committee wants to hear more from residents before proceeding further. Please attend one of the September meetings, or select the “WRIA 13” button of [www.co.thurston.wa.us/wwm](http://www.co.thurston.wa.us/wwm).

### Who’s who on the WRIA 13 Planning Committee

(List current as of August 2004. Earlier representatives in parenthesis.)

#### Non-government members

**Aquaculture**  
Diane Cooper, Taylor United/Pacific Coast Oyster Growers Association

**Forestry**  
Julie Keough (Bill Johnson), Weyerhaeuser

**Development**  
Doug DeForest,  
Olympia Master Builders

**Realtors**  
Nick Adams, Hodges Realty  
(Becky Stephens, ReMax)

**Private water supplier**  
Jerry Petersen,  
Washington Water Service Co.  
Kevin O’Neil, alternate

**Fishery groups**  
Paul Sparks, Trout Unlimited  
(Larry McCallum)

**Henderson Watershed Council**  
Steve Langer

**Eld Watershed Council**  
Ed O’Brien

**Deschutes resident**  
Mike Pettit

#### Government representatives

**Thurston County (lead agency)**  
Cathy Wolfe, committee co-chair

**Squaxin Island Tribe**  
Andy Whitener  
Jeff Dickison, alternate

**State of Washington**  
Steve Craig, Department of Ecology

**City of Olympia**  
Matthew Green (TJ Johnson)  
Lynda Ring-Erickson, alternate

**City of Lacey**  
Virgil Clarkson, committee co-chair  
Lisa Dennis-Perez, alternate

**City of Tumwater**  
Jerry Murphy (Chris Parsons)  
Kathy Callison, alternate

**City of Rainier**  
Dennis McVey

**Thurston PUD #1**  
Bud Kerr

**Thurston Conservation District**  
Mike Kuttel (Kris VanGorkum,  
Kim Toal)



Are drinking water supplies running dry?

No, we're not running out of drinking water – but increased use of water threatens our stream flows.

Here in Thurston County, virtually all of our drinking water comes from the ground. Rainwater soaks through the ground and is stored in layers of loose soils and gravel called aquifers. WRIA 13 has multiple aquifers in gravels deposited by glaciers over thousands of years. These sediments range from 100 feet deep near Lake Lawrence, to more than 1,800 feet deep at Johnson Point.

Our aquifers not only provide us drinking water, they also “feed” rivers, streams and lakes during the hot, dry summer months. Coho, salmon, trout, and other forms of wildlife need these adequate stream flows to survive.



Salmon need adequate stream flows to spawn.

Does this publication contain all the recommendations?

No, this document only features highlights of the draft plan. The complete version contains 75 recommendations ranging from water rights to water quality and habitat protection. The draft plan is available from the Thurston County Department of Water and Waste Management at (360) 357-2491 or by visiting [www.co.thurston.wa.us/wwm](http://www.co.thurston.wa.us/wwm).

How does this plan differ from other plans?

There are dozens of important water plans for our region, but most focus on the *quality* of our water or on a single piece of the overall water picture. These plans address issues such as stormwater management, pollution, habitat, water temperature, and other habitat-related concerns. While the WRIA 13 plan also addresses some of these subjects, it focuses on water *supply* – a difficult and largely untouched issue in regional plans.

WRIA plans must also clear several hurdles before they can be adopted. Unlike most plans, all the participating governments and a majority of non-government participants must approve WRIA plans.

Summary of Recommendations

Improve data gathering

The draft plan calls for Thurston County and cities to install additional groundwater-measuring devices in aquifers near the Deschutes River. Water planners and regulators could then use data from the wells to measure the rise and fall of groundwater, and compare those changes with precipitation and stream-flow data. This process would help identify which aquifers have the most significant effect on stream flows in the Deschutes River.

**Reason:** While it seems logical to assume that the biggest wells have the greatest effect on stream flows, the reality is more complicated. The volume of water withdrawn from an aquifer doesn't always influence stream flows as much as *where* the aquifer is located, and how much it supports streams.

For example, about 60 percent of the water used in WRIA 13 comes from McAllister Springs and from city wells, which tap deep aquifers. While these aquifers are tapped for high volumes of water, they may have less of a connection to stream flows than wells in shallower aquifers in the upper part of the watershed.

FLOW FACT

On paper, water right holders are authorized to take about 20 percent of the mean September flow and nearly half of the lowest recorded daily flow directly out of the Deschutes River for irrigation and other uses. In reality, many of these rights may not have been used, or have been only partially used, in recent years. There is no data on actual diversions from the river.

Next steps in the WRIA process

In October, the WRIA 13 Planning Committee will edit its draft plan based on comments from the public and elected officials, and then hold a formal vote of committee members. If all government representatives and a majority of non-government representatives on the committee support the plan, the recommended plan will be submitted to Thurston County commissioners. The commissioners will then hold a formal public hearing and adopt, reject or return the plan to the committee for further work. If committee approval is not secured, the Watershed Planning Act process ends.

Update water records

The plan seeks to update state records on WRIA 13 water use. As a first step, the plan recommends Thurston County and the Department of Ecology enter all WRIA 13 water records into a modern computerized mapping and database system. This would link the original decades-old records with current property ownership and other recent information.

Thurston County has already started the process: In 2002, the county mapped 1,247 WRIA 13 water *rights* into the county's Geographic Information System and an associated database. Funding to initiate the mapping project came from a Department of Ecology grant. However, thousands of water *claims* have yet to be mapped into the system. (A claim is simply that – a *claim* to a water right that predates the state water permitting system. The validity of a claim can be confirmed only through a legal proceeding.)

**Reason:** Mapping old records into a modern computer system would improve the region's management of water rights. For example, a modern mapping system would make it easier to clean up records that have long been out of use.

A mapping system would also provide the information needed to contact water right holders to ensure they are meeting permit requirements. For example, permit conditions might require water right holders to meter water use or curtail diversions from rivers when flows drop below a specified level.

With so few new water rights being issued, water “markets” are being established. Updated records can help match potential buyers with sellers of water rights.

FLOW FACT

To use water in Washington State, individuals or groups must get a water right from the state Department of Ecology. (Some wells are exempt from a formal permit, see next page.) At the time this publication went to press, 38 water right applications in Thurston County were pending action by the department – with many pending for years. (The earliest dates back to 1988.)

Outside the state water-management system, the federal government has reserved water rights for tribes and federal purposes. Tribal water rights, provided by federal treaty, are *not* quantified in the draft WRIA 13 plan.

Summary of Recommendations

Enforce water right requirements

The WRIA plan calls upon the state to provide funding to adequately enforce water-use reporting and other permit requirements within WRIA boundaries. It also requests that the Department of Ecology consider appointing a local “water master” for WRIA 13 to help oversee water right rules and requirements within the planning area.

**Reason:** Most water rights issued by the Department of Ecology include conditions of use. One of the most important conditions requires owners of water rights to meter their water use and report results to the department. The department has not consistently enforced metering and reporting requirements in WRIA 13. The department has, however, initiated a metering-reporting program in Washington State's 16 most critical basins. WRIA 13 is not among these initial priority basins.

Metering and reporting requirements are crucial, because they reveal how much – if any – water is being used under a water right. Without this knowledge, the Department of Ecology cannot adequately protect stream flows or ensure water use does not exceed the approved quantities.

FLOW FACT

According to either state law or conditions placed on specific water right permits, more than half of the water volume held in WRIA 13 water rights should be metered and reported (or made available) to the Department of Ecology.



Irrigation for crops, grass and landscape accounts for 30 percent of water use in WRIA 13.

Make prudent use of existing water rights

Many communities across the United States are creating water banks to alleviate a scarcity of water rights. Using water banks, water users who have more water rights than they need in any given year can put the excess water rights in the bank. From there, the water allotment can be reserved to maintain critical stream flows, or sold or leased to people who need more water. The draft WRIA plan recommends creating a water bank for WRIA 13.

**Reason:** It is very difficult to get a new water right in WRIA 13 because the Department of Ecology cannot issue new rights if the withdrawals would affect stream flows. To secure water for a new project, people may buy a water right from somebody else or – if they already hold a right for a different purpose – ask the department to change the existing right to suit the new project. The department faces a daunting backlog of water right applications and change-requests; many applications have been pending for years.

Protect critical stream flows from loopholes

The WRIA plan asks the Department of Ecology to enforce an existing department regulation that would help protect water resources from problems associated with small “exempt” community wells.

Currently, wells that withdraw less than 5,000 gallons per day are exempt from obtaining a formal water right. However, these wells are *not* exempt from other water-use policies and regulations. One such rule, approved in 1980 by the Department of Ecology, is designed to protect WRIA 13 stream flows from new water withdrawals. The regulation requires a thorough review of small community wells that are proposed for new development to ensure the wells do not harm critical stream flows. The rule has not been enforced consistently. This recommendation would promote consistent consideration of how proposed exempt wells would affect stream flows.

**Reason:** The pumping of water from numerous small, unregulated wells can remove water that would otherwise flow to streams, and may have an even greater affect on stream flows than single, larger withdrawals of water. Also, exempt wells make it difficult for the state to get an accurate picture of the WRIA 13 “water budget” – how much water is available, and how much is being “spent.”

FLOW FACT

In the Deschutes watershed, exempt wells serve more than 40 percent of existing development outside the Urban Growth Areas.

Water Resource Area Inventory 13



This publication was produced by the WRIA 13 Planning Committee, and funded in part by a grant from the state Department of Ecology. Contact Tom Clingman, Thurston County, (360) 754-3355 ext. 6809. [clingmt@co.thurston.wa.us](mailto:clingmt@co.thurston.wa.us).

WRIA 13 Mission Statement

*To create a long-range water resource management framework to protect aquatic habitat and provide water for vital community needs.*

WRIA 13 at a glance

- WRIA 13 encompasses six principal independent streams: Deschutes (the largest), McLane, Woodland, Woodard, Percival and Green Cove.
- There are 22 lakes in WRIA 13.
- Total estimated groundwater use is 22,000 acre feet per year.