



A watershed connects people to one another and to the natural landscape. The purpose of watershed planning in WRIA 16 is to manage this shared resource to benefit both people and the environment.

Local Watershed Planning— Vital to Your Future

Here's why...

1. Local citizens and governments will set priorities and develop the Watershed Plan. The people who live and work in the watershed have practical knowledge of the water resources, the people—their needs, values and aspirations—and the environment. They have the biggest stake in the wise, long-term management of the area's water resources.
2. The plan will guide local and State management of water resources, and other related resources. For example, the Dept. of Ecology will use the technical information on water quantity, and the recommendations on priority areas for water rights, as guidelines when it makes new water rights decisions.

The plan may also contain recommendations that would be used to guide funding priorities by the State Departments of: Natural Resources, Health, and Fish and Wildlife.

3. The plan will contain information that will be valuable to local businesses. For example, information on water quantity can help identify the most cost-effective and sustainable places for new development, or new business sites.

Information and recommendations to protect water quality will help sustain the health of Hood Canal, and the health of local rivers and streams. Good water quality is vital both to environmental health and to the economic health of local businesses and industries, e.g., shellfish, real estate, and recreation. It is more cost-effective to preserve water quality than to restore it.

4. The Plan will protect existing water rights; it cannot make any recommendations that would interfere with existing water rights.

Top Water Resource Priorities

The Planning Unit is currently considering these three important issues:

- 1) water supply for the Brinnon area,
- 2) water quality for Hood Canal, with a focus on the extremely low dissolved oxygen levels, and
- 3) establishing stream flows to protect fish habitat.

Water Supply in Brinnon

Brinnon is projected to be one of the population growth areas in WRIA 16. It will need increased water supply, which almost certainly will be groundwater. The area's geology— 90% bedrock— and its geography— 90% national forest and park— limit the potential sources for the needed water supply. It's likely the water for new water rights will come from groundwater in the aquifers along the lower reaches of the Dosewallips River.

The Planning Unit has contracted for a hydrology study to determine whether the groundwater in the area's aquifers is connected to the water in the Dosewallips River. The Department of Ecology will use the results of the study when it processes pending, and new, water rights applications.

Water Quality in Hood Canal, Low Dissolved Oxygen (DO)

Hood Canal is critically important to residents, aquatic species, and businesses in the watershed. The options and recommendations in the Watershed Plan will reflect this.

Although no one knows the exact cause of the extremely low levels of dissolved oxygen that have occurred recently, we do know that freshwater flowing into Hood Canal affects near-shore marine water quality. Stream water carries mud and silt into the Canal during storms. It may also carry fecal coliform from flooded septic systems, fertilizer runoff from lawns and farms, and other pollutants.

On Thursday, March 11, members of the WRIA 16 Planning Unit will join with WRIA 14 and 15, for a joint meeting to consider a coordinated regional watershed planning approach to the low-dissolved oxygen (DO) problem in the near-shore marine water of Lower Hood Canal.

The box on the facing page contains information about this meeting.

You are invited and welcome to attend.



Front row: L to R Shannon Kirby, Mason Conservation District; Constance Ibsen, citizen, Lower Hood Canal Implementation Committee, Fran Arnold, citizen,, Dave Christensen, Jefferson Co.. 2nd row, L-R, Bob Barnard, WDFW; Warren Dawes, rep. GMA ; Jeff Heinis, Skokomish Tribe. Back row—L-R, Bob Fink, Mason Co. Planning Dept.; Steve Holloway, PUD# 1; Jason Manassee, Mason Co. Planning Dept.; Phil Wiatrak, Dept. of Ecology. Not shown, George Sickel, citizen, Brinnon.

Establishing Streamflow to Insure Available Surface Water and Protect Habitat

Salmon are important for environmental, economic and recreational purposes. The rivers and streams of WRIA 16 are important spawning and nursery sites for Coho, chum, pink and Chinook salmon. The Dosewallips and Duckabush Rivers provide some of the highest quality salmon habitat in the region. Recreationally important steelhead and cutthroat trout are also residents of WRIA 16.

Each kind of salmonid needs a certain amount of streamflow, i.e., water in the river, for each of the different stages in its life cycle— eggs, alevins, fry, parr, and smolt. The necessary amount of water must be available at the precise time it's needed. If the needed water isn't in the river, the salmon population may suffer losses that threaten the population's sustainability.

In considering whether or not to approve a water right application, the Department of Ecology considers the water source, and whether or not withdrawal would impact streamflow and be harmful to fish populations.

Watershed Resource Inventory Area 16— Progress Report, Spring, 2004

Water Quantity

Goals: 1) Determine the amount of surface water and ground water available. 2) Develop recommendations that insure water for the future.

Accomplishments

1. Calculated the amount of surface water that flows through rivers and streams. Developed a water balance.
2. Identified two different patterns of how water levels vary in the four major rivers— one pattern for rivers fed by snow pack, and one for rivers fed directly by rainfall.
3. Identified existing water rights and how much water has been allocated.
4. Estimated future water demand based on population growth projections.
5. Identified where future growth is expected to be concentrated— South Shore, Lower Skokomish, and Brinnon area.
6. Contracted for technical study in Brinnon area to investigate potential connections between aquifers and the Dosewallips River. The Dept. of Ecology will use this information when it processes new water rights applications for Brinnon.

What's Next?

1. Complete hydrology study in Brinnon: December, 2004
2. Consider options for water storage, e.g., storing water in wetlands to improve streamflow.
3. Determine water use by sub-basin.

Issues and Questions

1. How accurate is our estimate of groundwater seepage to Hood Canal?



2. What aquifers have ground water that is connected to surface water in rivers?
3. What priorities for use are most beneficial to the watershed as a whole?
4. What recommendations for water rights that have never been used are most beneficial to the watershed as a whole?
5. What affect will climate change have on future water availability in WRIA 16?

Water Quality

Goal: Insure clean surface water and ground water for residential, commercial and recreational uses, and for protection of aquatic species.

Accomplishments

1. Initiated study of impact on nearshore marine water quality of streams and rivers flowing into Hood Canal's South Shore.
2. Identified impaired freshwater and marine water bodies:
 - Impairment from fecal coliform: Happy Hollow Creek, Purdy Creek, Hunter Creek, Skokomish River, Ten Acre Creek, Weaver Creek, Hood Canal (South).

- Impaired by low dissolved oxygen: Great Bend, Lynch Cove,
- Impaired by pH: Happy Hollow Creek, Twanoh Falls, Great Bend, Lynch Cove.

3. Complete the WRIA 16 Water Quality Monitoring Strategy.

What's Next?

1. Complete "Assessment of Surface Water Impacts on Near Shore Marine Water Quality on the South Shore of Hood Canal."
2. Develop recommendations that incorporate findings of the assessment.

Issues and Questions

1. What recommendations will protect water quality for aquatic species and the shellfish industry?
2. Stay up-to-date on research findings and legislative initiatives for low dissolved oxygen (DO) in Hood Canal.
3. What is the role of watershed planning in addressing low dissolved oxygen in Hood Canal?

InStream Flow

Goal: Set instream flow for, at a minimum, the Dosewallips, Duckabush, and Hamma Hamma.

Why Is this Important to Do? To insure that there is enough water in the rivers to supply people and habitat for fish.

Accomplishments

1. Hydrology study in Brinnon is underway.
2. Reviewed existing instream flow study.
3. Began year-long stream-gauging study.

Issues and Questions

1. Instream flow negotiations will begin in 2005. Outcomes will be included in the watershed plan due in December, 2005.

The current focus is on improving the

Planning Unit's understanding of the issues and the data related to setting instream flows.

Instream flows must take into account low seasonal flows in late summer.

Fish Habitat

Goal: Maintain salmon and fish habitat while meeting future water needs of people.

Accomplishments

WRIA 16 is coordinating its habitat efforts with the Hood Canal Coordinating Council (HCCC). The HCCC is the lead entity for salmon recovery in the Hood Canal and E. Strait of San Juan de Fuca. Contact: Scott Brewer, Salmon Recovery Program Manager: (360) 531-0575. For more information on the HCCC's salmon recovery program visit:

<http://www.hccc.org.wa.us/salmon.htm>

What's Next?

Draft of summer chum recovery plan: Summer, 2004.

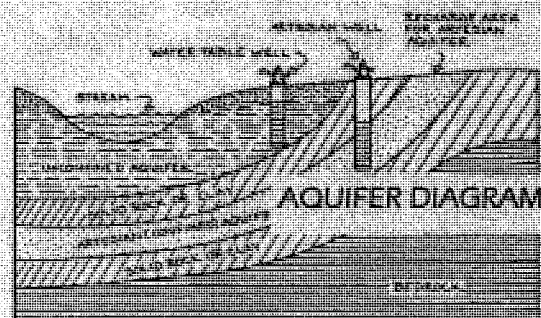
Issues and Questions

Several of the HCCC's top priority salmon recovery projects are for WRIA 16 rivers and streams:

- Skokomish River Estuary Phase Two
- Dosewallips Estuary Restoration Phase One
- Duckabush River Estuary Assessment and Restoration

The Salmon Recovery legislation, RCW 77.85, is available at

<http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=77.85>



Water Quantity and Water Quality Recommendations: Examples from the Quilcene-Snow Watershed Plan

The Dosewallips-Skokomish watershed plan might include options and recommendations like these from the Quilcene-Snow Watershed Plan recently approved by the WRAI 17 Planning Unit.

To insure sufficient water quantity for current and future needs.

1. Establish incentive-based water conservation programs through water purveyors. Examples:
 - Tiered rate structures that increase per-unit charge as water consumption increases.
 - Summer surcharges for water use above a certain threshold during summer months when demand is highest.
 - Rebates on water efficient appliances, especially toilets.
2. Establish water conservation programs for rural residents on individual wells.
 - Education programs to encourage conservation.
 - Rebates on water-efficient appliances, especially toilets.
 - Other free or discounted water-saving products—showerheads, faucet diffusers.
3. Increase public awareness and education on water use, e.g., chart individual water use on utility bills.
4. Identify where existing laws constrain wise water use and promote changes to these law.

5. Enforce existing laws and regulations regarding illegal water withdrawals.
6. Participate in water rights acquisition programs, in which water-right holders voluntarily dedicate the rights to maintain streamflow, restore habitat, and improve water quality.
 - Sell all or part of a water right
 - Lease all or part of a water right.
 - Donate all or part of a water right.
7. Create a Water Conservancy Board that can accept or process applications to change or transfer water rights.

To protect and enhance water quality:

1. Establish a special-purpose surface water management district to raise funds for projects and enforcement.
2. Continue Conservation District programs with land owners.
3. Reduce pesticide use through education and market-incentives, e.g., free advertising and promotion for EnviroStars businesses.
4. Reduce use and release of synthetic organic compounds, e.g., dioxins, and PCB's.
5. Adopt surface water management plans to decrease storm water impacts on nearshore marine water quality.

Source: Watershed Management Plan for Quilcene-Snow Water Resource Inventory Area (WRIA 17), Oct. 28, 2003

LOW-DISSOLVED OXYGEN IN HOOD CANAL— REGIONAL WATERSHED PLANNING MEETING

WHEN: Thursday, March 11, 1:30-4:30 p.m.
WHERE: N. Mason School Board Office, Belfair
WHO: WRIA 14, 15 & 16 Planning Units and **You!**
WHAT: What are local organizations doing to address low dissolved oxygen (DO)?
What outcomes do they expect?
What can watershed planning units do to help solve the low DO problem?
Q&A
Discussion among Planning Units
Public Comment

Contact Susan Gulick, (206) 548-0469 Soundres@earthlink.net for more information

RIVERS FOR LIFE—
WRIA 16 WATERSHED PLANNING
 411 N. Fifth , PO Box 279
 Shelton, WA 98584

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You can get information on progress on water rights changes,
 water conservation, Washington water acquisition program and
 other water topics at:
<http://www.ecy.wa.gov/programs/wr/wrhome>.

FUTURE PLANNING UNIT MEETINGS

Thursday, March 11, 2004 SPECIAL MTG.

"Low Dissolved Oxygen in Hood Canal"
 N. Mason School Board Office, Belfair
 1:30-4:30 p.m.

Thursday, April 8, 2004 PUD#1, Potlatch
 2:00-4:00 p. m.

Thursday, May 13, 2004 Brinnon Booster Club
 2:00-4:00 p.m.

For information on agendas, contact:
 Susan Gulick, (206) 548-0469, or
 Soundres@earthlink.net.