

Watershed Management Plan for the Quilcene-Snow Water Resource Inventory Area (WRIA 17)

Summary of Watershed Plan

Adopted by the WRIA 17 Planning Unit

October 28, 2003



WRIA 17 Planning Unit Members

Chimacum Grange
City of Port Townsend
Department of Ecology
Home Builders Association
Jefferson County
Jefferson County Conservation District
Marrowstone Island Groundwater Committee
Olympic Environmental Council
Port Gamble S'Klallam Tribe
Port of Port Townsend
Port Townsend Paper Mill
PUD #1 of Jefferson County
Skokomish Tribe
Sustainable Agriculture
Trout Unlimited
Water Utility Coordinating Committee
Wild Olympic Salmon
WSU Cooperative Extension, *ex officio*

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The WRIA 17 Watershed Management Plan was written by Cascadia Consulting Group, under contract to the Jefferson County Natural Resources Division.

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Summary of WRIA 17 Watershed Management Plan

WHAT IS WRIA 17?

The Quilcene-Snow watershed – or Water Resource Inventory Area (WRIA) 17 – covers more than 250,000 acres of the northeastern Olympic Peninsula, in Jefferson and Clallam counties. Port Townsend is the main population center, and nearly 27,000 people live in the watershed.

WRIA 17 extends from the northeast flank of the Olympic Mountains to Hood Canal and the Strait of Juan de Fuca. The watershed includes direct drainages to Puget Sound from Jimmycomelately Creek in the northwest to the Big Quilcene River in the south. More than 70% of the watershed is privately owned, while federal and state lands cover the remaining area.

A Brief History of Watershed Planning in WRIA 17

In 1991, the state Department of Ecology selected the Dungeness-Quilcene watershed for a pilot project to test the feasibility of local watershed planning. The resulting Dungeness-Quilcene Plan (“D-Q Plan”), completed in 1994, contains recommendations for water conservation, public education, protection of fish stocks and habitat, restoration of instream flows, protection and restoration of water quality, and provision of water for growth. The new

The Quilcene-Snow watershed contains these 10 sub-basins:

- Big Quilcene
- Chimacum
- Dabob-Thorndyke
- Indian-Marrowstone
- Little Quilcene
- Ludlow
- Miller
- Quimper
- Salmon-Snow
- West Sequim Bay

WHAT IS A WATERSHED PLAN?

The Washington State Legislature passed the Watershed Management Act in 1998. This law focuses on addressing water quality, water quantity, and salmon habitat at the local level. Under the act, the state grants funding to a Planning Unit, consisting of public agencies and non-governmental members, in each watershed.

Each Planning Unit must develop a Watershed Management Plan for future water resource management. The WRIA 17 Planning Unit has been working together since 1999. Its 18 current members, listed on the inside cover, adopted a plan in late 2003.

What Is the Purpose of the Watershed Plan?

The Planning Unit adopted this statement:

The purpose of the watershed plan is to create a decision-making tool for water resource management, including future appropriation of water and land use and development decisions. It is the intent of the plan to recommend actions to ensure clean water in sufficient quantities to provide both adequate habitat for fish and an adequate supply for human uses. Therefore the plan will include

WHAT PROBLEMS DOES THE WATERSHED FACE?

To understand the challenges confronting the watershed, the WRIA 17 Planning Unit commissioned a Technical Assessment, completed in 2000. This analysis summarizes existing scientific information about water quantity, water quality, habitat, and instream flows in the watershed. It provides a scientific foundation for watershed planning and identifies the following issues of concern:

- The lower reaches of the **Big Quilcene River** have experienced greater habitat degradation than the upper reaches. Hydraulic continuity – that is, connections between surface water and groundwater – means that pumping groundwater from wells can reduce stream flows. Accordingly, water use in the lower watershed may exacerbate these habitat issues.
- In the lower reaches of the **Chimacum sub-basin**, surface water quality is degraded, and use of both surface and groundwater is relatively high. Surface water quality is most degraded in the middle reaches of the creek. Hydraulic continuity is rated high to moderate-high for much of the basin, and habitat along both forks of Chimacum Creek has been degraded. By 2016, more than 1,500 new residents are expected to live in the sub-basin, a 30% increase.
- In the **Dabob-Thorndyke sub-basin**, Tarboo Creek faces surface water quality and habitat issues, along with high hydraulic continuity. Existing land uses in the sub-basin have degraded stream health.
- The **Little Quilcene River** has problems with habitat, water quality, water quantity, and hydraulic continuity along much of its length. Near Lake Leland, surface water use from Leland Creek is relatively high. Future growth in this sub-basin is expected to be relatively low.
- In the **Ludlow sub-basin**, habitat in Shine Creek has been degraded, while the area adjacent to Ludlow Creek is the focus of relatively high groundwater use and surface water rights near Port Ludlow. Coupled with Ludlow Creek's high potential for hydraulic continuity, this water use could affect stream flows. By 2016, population in this sub-basin will likely more than double.
- Habitat in the **Salmon-Snow sub-basin** has been altered, including creek relocation (now largely restored), and the sub-basin has relatively high potential for hydraulic continuity. In the lower Salmon and Snow Creeks, many surface water rights are allocated, which could affect seasonal low stream flows. By 2016, approximately 400 new residents will likely live in the sub-basin, a 30% increase.

WHAT ACTIONS DOES THE PLAN RECOMMEND?

The WRIA 17 Planning Unit considered a variety of options to address the challenges identified in the watershed analysis. After reviewing these options, the Planning Unit developed its final recommendations by consensus. The 43 recommendations listed below, and discussed further in the full Watershed Management Plan, are designed to protect and enhance water quantity, water quality, instream flows, and habitat in the watershed. This plan represents the culmination of four years of hard work, collaboration, and discussion among the many members of the Planning Unit. These recommendations should guide the efforts of federal, state, local, and tribal governments, non-profit organizations, businesses, universities, individuals, and other groups as they strive to balance growth and environmental protection in the Quilcene-Snow watershed.

WATER QUANTITY RECOMMENDATIONS

1. Prepare and implement water conservation plans

The Planning Unit recommends that water purveyors and major water users in the WRIA prepare and implement water conservation plans. Incentive-based water conservation programs should be considered in the plans. Examples of incentive-based conservation programs include tiered rate structures, summer surcharges, rebates on water-efficient appliances—especially toilets, and offers of free or discounted water-saving devices, such as low-flow shower heads. Water conservation plans should also include education and outreach programs. (For more information, please see Option 4.1.1.1 in the full Watershed Management Plan.)

2. Increase public awareness and education on water use

The Planning Unit recommends that all Planning Unit members collaborate to develop public education programs about water use. Two examples of strategies include charting individual water use on utility bills, and launching an education and promotion campaign. (For more information, please see Option 4.1.1.3 in the Watershed Management Plan.)

3. Coordinate regional drought contingency and system security planning

The Planning Unit recommends that water purveyors develop and coordinate drought contingency plans that consider inter-ties and conjunctive use in the event of extreme drought or contamination. (For more information, please see Option 4.1.2.2 in the Watershed Management Plan.)

4. Participate in water rights acquisition programs

The Planning Unit recommends that local governments and conservation organizations provide assistance to water-right holders who wish to participate in water-rights acquisition programs on a temporary or permanent basis. (For more information, please see Option 4.1.4.1 in the Watershed Management Plan.)

5. Protect critical aquifer recharge areas and wellhead protection zones

The Planning Unit recommends that Jefferson County define and delineate aquifer recharge areas and wellhead protection zones. Jefferson County extends property tax incentives to landowners who leave these areas forested or undeveloped. Jefferson County should regularly update zoning and development regulations to ensure these areas are protected. Water purveyors, Jefferson County, or Jefferson Land Trust could acquire property titles or development rights to these areas. (For more information, please see Option 4.1.4.3 in the Watershed Management Plan.)

6. Better implement water-metering and reporting requirements in the WRIA

The Planning Unit recommends that Planning Unit members assist the Washington Department of Ecology with implementing water metering and reporting requirements. This assistance could take the form of technical assistance or other support. (For more information, please see Option 4.1.5.1 in the Watershed Management Plan.)

7. Facilitate compliance with existing laws and regulations regarding illegal water withdrawals

The Planning Unit recommends that the state legislature fully fund the Department of Ecology's enforcement operations to stop illegal water withdrawals. Ecology should work with Planning Unit members to initiate actions to bring those who are illegally withdrawing water into compliance. (For more information, please see Option 4.1.3.2 in the Watershed Management Plan.)

8. Identify where existing laws constrain wise water use and promote changes to these laws

The Planning Unit recommends that its members work to build support for reforming Washington water law so that it promotes wise water use. Examples of potential changes include providing an ongoing mechanism to eliminate disincentives to conservation, allowing orderly transfer of conserved water to instream flow needs or other beneficial uses, allowing water storage from residential rain water catchments, modifying plumbing standards, and reducing the daily withdrawal limit on exempt wells. (For more information, please see Option 4.1.3.1 in the Watershed Management Plan.)

WATER QUALITY RECOMMENDATIONS

9. Continue Conservation District program with landowners

The Planning Unit recommends that the Jefferson County Conservation District continue its successful work with landowners to help them implement conservation practices that protect and improve water quality. The District also should continue its water quality monitoring program to track the success of these conservation measures. Funding for Conservation District educational programs, such as the "Horses for Clean Water" program, should continue. (For more information, please see Option 4.2.2.1 in the Watershed Management Plan.)

10. Protect and restore riparian vegetation

The Planning Unit recommends that member organizations work to protect and restore riparian vegetation. Specifically, the Jefferson County Conservation District should continue its work with landowners through programs such as the Conservation Reserve Enhancement Program (CREP). Jefferson County should continue its Conservation Futures grant program and focus part of the funds on acquiring and/or protecting riparian areas. The County also should enforce provisions of the Unified Development Code that protect riparian buffers. Lastly, the Planning Unit encourages the Jefferson Land Trust to continue its work with landowners, JCCD, and NOSC to identify and develop conservation easements on riparian areas. These implementers should continue to work together to ensure that protection and improvement of riparian areas is coordinated and effective. (For more information, please see Option 4.2.2.2 in the Watershed Management Plan.)

11. Reduce pesticide and herbicide use

The Planning Unit recommends that Planning Unit members implement one or more of the following programs to reduce pesticide use:

- Provide education, outreach, and technical assistance to pesticide users;
- Develop certification programs and market incentives;
- Establish a Pest Management Policy; and/or
- Ban or restrict the use of pesticides.

(For more information, please see Option 4.2.2.3 in the Watershed Management Plan.)

12. Reduce use and release of synthetic organic compounds

The Planning Unit recommends that local governments and industries work together to identify synthetic organic compounds, find ways to dispose them safely, and develop alternatives to these products. Planning Unit member organizations could encourage the state to ban or phase out specific synthetic organic compounds. (For more information, please see Option 4.2.2.4 in the Watershed Management Plan.)

13. Implement a surface and groundwater quality monitoring plan

The Planning Unit recommends that a surface and groundwater monitoring plan is implemented. This plan will help coordinate the monitoring efforts of a wide variety of agencies in the watershed. (For more information, please see Option 4.2.4.1 in the Watershed Management Plan.)

14. Encourage water quality monitoring

The Planning Unit recommends that Planning Unit members and other institutions/ organizations encourage and, if feasible, provide financial support for local citizen groups to conduct water quality monitoring programs that use citizen volunteers to collect data in a manner consistent with the protocols established in the Water Quality Monitoring Plan. Examples of such programs are the Pacific Ecological Institute's project on Leland Creek and the Jefferson County Conservation District's program with Chimacum School's hydrology class, Wild Olympic Salmon, and other volunteers. These programs must be coordinated with government agencies to ensure that the data collected are useful. (For more information, please see Option 4.2.3.1 in the Watershed Management Plan.)

15. Work with state agencies to upgrade water quality data accessibility

The Planning Unit recommends that its members encourage the Washington Department of Health and other state agencies to determine local data needs, and identify and develop a useable water quality database. These updates should include adding the Department of Ecology's unique well number to each database record. (For more information, please see Option 4.2.5.2 in the Watershed Management Plan.)

16. Adopt surface water and/or stormwater management plans

The Planning Unit recommends that Jefferson County and the City of Port Townsend develop surface water and/or stormwater management plans that describe how water quality and water resources will be protected and restored. Port Townsend and Port Ludlow already collect fees to treat and manage stormwater, and should continue their efforts. (For more information, please see Option 4.2.4.2 in the Watershed Management Plan.)

17. Adopt Stormwater Management Manual

The Planning Unit recommends that communities in WRIA 17 adopt the 2001 Ecology Stormwater Management Manual or its equivalent. (For more information, please see Option 4.2.4.3 in the Watershed Management Plan.)

18. Provide public education for water quality

The Planning Unit recommends that Planning Unit members support the water quality education efforts of not-for-profit organizations, local citizen groups, and academic groups. Existing education programs include those related to reduction of impacts on water quality from human activities, and natural systems within the watershed and water-related needs of fish and wildlife. Examples of public education programs for water quality include WSU Extension's Realtor

Education Seminars and Olympic Peninsula Water Watcher trainings and projects, 4H Natural Resources Program, the Marine Science Center programs, NOSC trainings and restoration projects, and the Conservation District's landowners programs. Water quality education partnerships with local schools and youth groups should be encouraged. In support of these efforts, Planning Unit members are encouraged to provide materials, supplemental funding, or donated time to train volunteers.

19. Compile and track public outreach and education programs

The Planning Unit recommends that a Planning Unit member or other agreed upon organization compile and track a list of public education programs being provided by local organizations. This list would be used to continue to document and evaluate public education efforts and to identify gaps in water quality public education.

HABITAT RECOMMENDATIONS

20. Support the Hood Canal Coordinating Council's salmon habitat restoration efforts

The Planning Unit recommends that all member organizations of the Planning Unit take a role in developing and implementing the HCCC salmon restoration strategy. The WRIA 17 Planning Unit supports the HCCC process and seeks to avoid duplicating this effort. (For more information, please see Option 4.3.4.1 in the Watershed Management Plan.)

21. Utilize the Limiting Factors Analysis and Refugia Study to guide habitat restoration activities

The Planning Unit recommends that Planning Unit members use the Limiting Factors Analysis and the East Jefferson County Refugia Study in guiding habitat restoration activities.

22. Support local salmon recovery efforts

The Planning Unit recommends that the coordinated salmon recovery efforts by organizations such as North Olympic Salmon Coalition, Conservation District, Jefferson Land Trust, Wild Olympic Salmon, Trout Unlimited, Hood Canal Salmon Habitat Enhancement Group, local Treaty Tribes, WDFW and other entities be supported and continued. These organizations working together have been very successful in improving and protecting salmon habitat and salmon stocks. Successful implementation of the HCCC salmon recovery strategy at the local level will depend on these groups.

23. Advocate for changes to the Conservation Reserve Enhancement Program

The Planning Unit recommends that its members should join with other planning units, agricultural interests, environmental groups, and others to form a coordinated effort to lobby for changes to the Conservation Reserve Enhancement Program (CREP). Specifically, these changes should include providing adequate funding, indefinite leases when landowners are interested, and expanding CREP to other streams that are currently ineligible. (For more information, please see Option 4.3.1.5 in the Watershed Management Plan.)

24. Conserve instream wood, formalize large wood stockpiling efforts, and collaborate on education

All Planning Unit members should collaborate on an education effort to heighten public awareness of the importance of conserving large woody debris in streams whenever possible. The Planning Unit recommends that governmental agencies make the large woody debris stockpiling part of their normal operations. (For more information, please see Option 4.3.1.6 in the Watershed Management Plan.)

25. Update and revise maps of sensitive areas

The Planning Unit recommends that its members encourage the formation of a cooperative program of landowners, the Tribes, not-for-profit organizations, Jefferson County, City of Port Townsend, Jefferson County PUD, and the Washington Departments of Natural Resources and Fish and Wildlife to collect field data to verify and improve the sensitive areas maps. This should include seeking funding for adequate stream-typing. (For more information, please see Option 4.3.2.1 in the Watershed Management Plan.)

26. Adopt and implement a Stormwater Management Manual

See Recommendation 17 in the Water Quality section.

27. Adopt countywide road maintenance standards

The Planning Unit recommends that the Jefferson County Public Works Department and the Port Townsend Public Works Department adopt road maintenance standards that protect salmon, such as the Tri-County Roads Maintenance Program. The Planning Unit should provide support to these two agencies as they seek to adopt this program. (For more information, please see Option 4.3.2.5 in the Watershed Management Plan.)

28. Continue to enforce Jefferson County development regulations

The Planning Unit recognizes the need for strong enforcement of Jefferson County's development regulations, and welcomes the County's hiring of an enforcement officer in 2003. The County should continue to monitor the effectiveness of enforcement, and dedicate additional resources to this effort if necessary. (For more information, please see Option 4.3.2.3 in the Watershed Management Plan.)

29. Transfer regulatory authority over Class IV general forest practices to local governments

The Planning Unit recommends that Jefferson County and the City of Port Townsend accept regulatory authority over Class IV forest practices, and that future cities in WRIA 17 do so as well. This transfer will aid local governments' ability to protect fish and wildlife habitat. (For more information, please see Option 4.3.2.6 in the Watershed Management Plan.)

30. Secure a permanent, stable revenue source to maintain adequate fish passage

The Planning Unit recommends that its members collaborate with other planning units and organizations to create a stable revenue source for correcting public fish passage barriers and maintaining clear passage. The Planning Unit recommends that impassable culverts be replaced as soon as funding is secure, in coordination with local road planning efforts. (For more information, please see Option 4.3.3.2 in the Watershed Management Plan.)

31. Expand citizen-based salmon habitat programs

The Planning Unit encourages not-for-profit organizations and citizen groups to address salmon habitat issues. For example, Washington State University is encouraged to expand the Water

Watcher's Program to include more salmon habitat issues. In addition, Wild Olympic Salmon, North Olympic Salmon Coalition, Trout Unlimited, and others are encouraged to continue their habitat restoration efforts through ongoing coordinated efforts as well as by developing new partnerships. In support of these efforts, Planning Unit members are encouraged to provide materials, supplemental funding, or donated time to train volunteers. (For more information, please see Option 4.3.1.4 in the Watershed Management Plan.)

32. Support the Washington Water Acquisition Program

The Planning Unit recommends that its member organizations work together to promote and support the Washington Water Acquisition Program. Ideas include conducting outreach to farmers and industries that are interested in water conservation, developing a presentation and giving it to community groups, and considering conservation banking. (For more information, please see Option 4.3.1.3 in the Watershed Management Plan.)

33. Investigate a transfer of development rights program (TDR)

The Planning unit recognizes the value of TDR programs as a planning tool and recommend Jefferson County and the City explore the possibility of establishing a TDR program in the WRIA. State agencies should be encouraged to fund these efforts by local governments through grants or other funding sources. (For more information, please see Option 4.3.1.1 in the Watershed Management Plan.)

34. Provide public education about the value of healthy habitats and the importance of habitat restoration efforts.

The Planning Unit recommends that its members encourage and support the habitat public education and restoration programs of local not-for-profit organizations, citizen and academic groups. Member support could include providing materials, supplemental funding, donated time, and assistance in procuring grant funds. Habitat education partnerships with local schools and youth groups should be encouraged.

35. Compile and track public outreach and education programs

The Planning Unit recommends that a Planning Unit member or other agreed upon organization compile and track a list of public education programs being provided by local organizations. This list would be used to continue to document and evaluate habitat-related public education efforts and to identify gaps in habitat-related public education.

INSTREAM FLOW RECOMMENDATIONS

36. Adopt instream flows

The Planning Unit is in the process of conducting additional work in order to gather technical information for considering instream flows. The Planning Unit should continue its efforts to gather information and reach a consensus recommendation for instream flows. As part of the process, the Planning Unit should also review the technical basis for the instream flow recommendations in the Dungeness-Quilcene Water Resources Plan and WDFW Policy 5204. The Planning Unit also recommends that Ecology continue to work collaboratively with the Planning Unit per RCW 90.82.080 in an attempt to achieve consensus and approval of instream flows to be adopted by Ecology.

OVERARCHING RECOMMENDATIONS

37. Pursue other funding and revenue options

The Planning Unit recommends that its members should consider all feasible funding options to implement the plan. (For more information, please see Option 4.3.3.3 and Option 4.2.1.2 in the Watershed Management Plan.)

38. Coordinate planning across numerous agencies

The WRIA 17 Planning Unit recommends that coordinated planning continue among a variety of agencies, including local planning commissions, the Jefferson County PUD #1, the Jefferson County Water Resources Council, the Jefferson County Marine Resources Committee, the Hood Canal Coordinating Council, and area tribes. (For more information, please see Option 4.2.5.1 in the Watershed Management Plan.)

39. Improve the sharing of existing information and data gathering

The Planning Unit recommends that its member organizations and other interested parties improve and expand existing information and data gathering efforts. (For more information, please see Option 4.1.5.2 in the Watershed Management Plan.)

40. Update critical areas ordinance and shoreline master program

The Planning Unit recommends that Jefferson County and the City of Port Townsend continue to update and integrate their critical areas ordinances and shoreline master programs consistent with best available science to ensure they are protective of water resources and salmon habitat. The frequency of the updates should be consistent with the timelines in state law. (For more information, please see Option 4.3.2.4 in the Watershed Management Plan.)

41. Adjust boundary line between WRIA 17 and WRIA 18

The Planning Unit recommends that the Washington Department of Ecology develop criteria to consider boundary-line adjustments between Water Resource Inventory Areas 17 and 18 to include Sequim Bay and the independent drainages in Clallam County within the boundary of WRIA 18. This adjustment would more closely align with county boundaries and therefore allow for a better-coordinated watershed management effort.

The Planning Unit would also like to explore changing the boundary between WRIA 17 and WRIA 16 to include the drainages of the Dosewallips and Duckabush Rivers in WRIA 17. This adjustment would improve opportunities for effective public participation.

42. Improve communication with the public

The Planning Unit recommends that there is improved communication with the public on water issues. As a coordinated effort, Planning Unit members should ensure that such communication occurs through a newsletter, newspaper ads or articles, or other means. The specific communication strategy should be included in the plan implementation strategy adopted by the Planning Unit meeting following plan adoption.

43. Amend or update Watershed Plan

The Planning Unit recommends that, in the absence of state legislative action, the following process be used to amend or update the Plan:

- Any Planning Unit member may offer an amendment or update to the Plan.
- The proposed amendment or update will be discussed at one Planning Unit meeting, and voted on at a future Planning Unit meeting.
- The voting process will follow the consensus requirements identified in RCW 90.82.
- The Jefferson County Board of Commissioners will have 60 days in which to approve or reject the amendment or update.