

3.7 PUBLIC EDUCATION AND OUTREACH RECOMMENDATIONS

3.7.1 Public Education and Conservation

Well-coordinated public education and conservation efforts can be very effective in fostering and motivating good environmental behavior, water conservation, and private resource management. This can be achieved through a coordinated public outreach effort within WRIA 18.

Issue: There is a general need to improve understanding among the public regarding human impacts to watershed resources.

Existing Conditions and Current Actions

Many public outreach and educational efforts throughout WRIA 18 are successful and ongoing; participation in such groups as Streamkeepers is at an all-time high rate of participation. Port Angeles School District, for example, has environmental education programs for grades K-12. On the east side, the Jamestown S'Klallam Tribe, the Rainshadow Natural Science Foundation, the Olympic Peninsula Audubon Society, and the National Audubon Society work together to operate many educational programs at the Dungeness River Audubon Center at Railroad Bridge Park.

In order to maximize economic use of existing curriculum and resources, a more coordinated and easily accessible public education and conservation program is needed. Although many people demonstrate responsible stewardship and understanding of human impacts to watershed resources, others may not have the information they need to make informed and watershed-oriented stewardship decisions.

Desired Outcomes

- An informed, involved public able to effect positive changes in the community, such as strong and credible input to the planning process and a consistent voice for responsible resource management.
- Programs provide outreach to audiences such as the home-schooling community, Port Angeles School District, Sequim School District, Peninsula College, landowners, and watershed and conservation-oriented organizations.
- Programs improve public awareness of human impacts to watershed resources and encourage stewardship of them.

Recommendations

- Central clearinghouse: WRIA 18 local jurisdictions should work towards developing a central clearinghouse for all conservation and environmental education outreach work going on within the watershed. WRIA 18 should also work with the Clallam County Marine Resources Committee to coordinate nearshore and estuarine environmental education outreach work.
- Educational curriculum: WRIA 18 school districts, nonprofit organizations, and local jurisdictions should develop school curricula, continuing education for professionals, and public outreach for general adult education. Examples of accepted curricula are the Pacific Education Institute programs. Objectives could include:

1. *Stream, wetland, riparian function terminology*: Develop a means to incorporate an understanding of stream, riparian, and watershed ecological functions and services at a level appropriate to the target audience. Focus on limiting factors, properly functioning conditions, and how drivers of change in WRIA 18 affect these.
 2. *Conservation actions*: Information on actions that can be taken to conserve and wisely use stream, riparian and watershed natural resources. Include options for non-polluting and water-conserving approaches to lawn maintenance, the management of golf courses, parks, and pasture, timber or other agricultural or silvicultural lands; and for Best Management Practices for erosion control and sediment management on both developed and undeveloped lands, including roads.
- C. Landowner programs: Provide information on services and resources available to assist landowners in watershed resource management, such as the WSU Cooperative Extension, Clallam Conservation District, and Clallam County resources.
- D. Citizen involvement: Citizen involvement should be encouraged in ongoing planning efforts at local and regional levels addressing all aspects of natural resources planning and management to restore and protect watershed resources (see Chapter 1) and the nearshore. Provide volunteers with time-specific opportunities, i.e., “we need four hours/month.” Include a variety of commitments that would appeal to different people, work schedules, physical abilities, and areas of interest.
- E. Conservation Easements: Encourage landowners to protect sensitive areas through donated or purchased conservation easements. Inform landowners of financial assistance that may be available for costs related to obtaining conservation easements and for purchase of development rights. Encourage the creation of private property forest, wetland, and stream resource management plans in areas where (1) high habitat values exist or (2) restoration is necessary to address limiting factors and create properly functioning conditions.
- F. Sub-Basin Groups:
1. Support efforts to involve the community in planning and ongoing efforts to restore and protect watershed habitat.
 2. Support efforts to provide information to landowners about the benefits of conservation easements.
 3. Support efforts to obtain funding to purchase development rights in areas that will contribute to protection and restoration of the watershed, estuarine environment, and other parts of the ecosystem needed for the stream’s healthy functioning.
 4. Develop interpretive programs on degradation, restoration, and protection of an urban riparian, marine, and nearshore ecosystem for the broader public.
 5. Explore possibilities for taking advantage of Ennis Creek’s location within the Port Angeles urban area, crossed by the Olympic Discovery Trail, and near downtown, the City Pier, Visitor Information Center, and Feiro Marine Life Center.
 6. Find ways to use Ennis Creek’s history to tell a story that could help provide insights about what a stream apparently needs if it is to stay healthy and

productive. This history includes the Y'inis Klallam village, Puget Sound Cooperative Colony, and various mills at its mouth--from the 19th century sawmill, to the mill that was ready to help produce spruce airplanes before World War I ended, to Rayonier's sophisticated chemical cellulose factory. At minimum, interpretive signs could provide information. Interest could be enhanced with structures and people recreating some of the area's history. Interpretive signs could be coordinated with others at all stream restoration sites along the Olympic Discovery Trail.

7. Support the continued operation and development of the Dungeness River Audubon Center at Railroad Bridge Park for watershed interpretive and educational programs. Support the development of the Olympic Discovery Nature Center on Morse Creek. Support the Feiro Marine Life Center in Port Angeles.
8. Educate landowners in the watershed and along the marine shoreline on the importance of providing functional salmon habitat, particularly in regard to LWD, watershed and marine riparian vegetation, shoreline armoring, overwater structures, and preventing animal access to the channel.

G. Neighborhood learning opportunities: Encourage the home school community, Port Angeles School District, Sequim School District, Peninsula College, cities and County, and Clallam Conservation District, in collaboration with the Jamestown S'Klallam Tribe and the Lower Elwha Klallam Tribe, to seek private funding for programs (meeting school criteria) to use local streams for "hands-on" educational opportunities. On the west side, for example, Ennis Creek's location just below Roosevelt Middle School and Monroe Elementary has been used to increase students' knowledge about the watershed and to encourage them to become more responsible stewards of riparian habitats. Use of trails to access the creek should provide an additional learning opportunity about avoiding damage to the creek from erosion and sediments; students should be supervised to avoid damage to the environment. On the east side, continue and expand collaboration efforts between the partners of the Dungeness River Audubon Center (Jamestown S'Klallam Tribe, Olympic Peninsula Audubon Society, Rainshadow Natural Science Foundation, National Audubon Society), the Sequim School District and other school districts and organizations for programs to increase student knowledge of riparian function and watershed issues.

H. Cooperative efforts among organizations: Encourage the cities and County, in collaboration with the tribes, to identify resources for establishing cooperative programs involving such organizations as Olympic National Park, City of Port Angeles, Clallam County, Clallam Conservation District, Clallam County Economic Development Council, area Chambers of Commerce, Olympic Discovery Trail, Feiro Marine Life Center, Olympic Park Institute, Olympic Peninsula Audubon Society, and service clubs in projects that would complement their goals, such as a corridor for wildlife, greater fish production, increased understanding of watershed values, and an environment that adds to the region's attractiveness as a place to live and visit.

I. Educational programs: Develop educational programs on river processes, using Pacific Woodrush seminars as a template. The success of Pacific Woodrush

seminars can be attributed to attractive advertising, frequent newspaper coverage, posters in frequented places and well-prepared seminars.

- J. Enforcement support: Complement existing enforcement of wildlife regulations, particularly in spawning streams, with interpretive signs and handouts for use by neighborhood and river and creek watch groups.
- K. Targeting outreach opportunities: Develop an outreach and education plan, which should include meeting with the various resource-based groups (e.g., the Clean Water District, Flood Planning Committee, CCD, Friends of Ennis Creek, Pacific Woodrush, Valley Creek committee, et al) to define targets and messages for outreach.
- L. Water Quality Education & Outreach:
1. Continue to develop effective strategies to deliver public education, such as the Conservation News and the Clean Water Herald newsletters and workshops on subjects such as pasture management, septic systems, shellfish, nearshore processes, and native landscaping. Improve strategies as possible and necessary.
 2. Seek adequate funding and use monitoring or pre/post surveys to evaluate the effectiveness of education efforts.
 3. Continue public outreach on non-point pollution concerns using a variety of methods (newspaper, radio, fairs/festivals, newsletters, public meetings, watershed tours, small focus groups, and websites).
 4. Develop an education program to educate well owners on the proper use of well water, including an understanding of the groundwater exemption of 5000 gallon/day and the one-half acre rule.¹
 5. When encouraging cleanup of a particular pollution source (e.g., septic systems), provide additional information on other clean-up activities (e.g., animal keeping, pet waste).
 6. Increase outreach to all watershed residents on the appropriate application of acceptable pesticides and herbicides as well as on environmental stewardship and the use of environmentally benign alternatives.
 7. Provide information to all watershed residents on the impacts of upland activities on the marine environment.
 8. Continue to implement the Groundwater Guardian Program
 9. Provide septic maintenance information to homeowners with the final building permit.
 10. Inform development professionals (e.g., realtors, banks) regarding the importance of septic location & maintenance in purchase and sales transactions.
 11. Provide information on best management practices (BMPs) to landowners.
- N. Conservation: Establish a water resource conservation education program including "life style" changes.²

¹ DQ Recommendation C.11.11

² DQ Recommendation R. 2.4.10

O. Recreation: Develop an education program to encourage responsible use of our rivers and other sources of recreation.³

P. Watershed Management:

1. Education for riverside and marine shoreline landowners should be considered a vital component of the habitat management planning effort.
2. Explore possibilities for one or more 501(c)(3) organizations to represent watershed groups in applying for grants and other activities requiring that non-profit status.

Q. Curricula: Encourage the development of school curricula, continuing education for professionals, and general adult education with the following objectives:

1. Understanding of stream, riparian, watershed, and nearshore ecological functions and services at a level appropriate to the target audience. Focus on limiting factors, properly functioning conditions, and how these are affected by change.
2. Information on actions that can be taken to conserve and wisely use stream, riparian and watershed natural resources. Include options for non-polluting and water-conserving approaches to lawn maintenance, the management of golf courses, parks, and pasture, timber or other agricultural or silvicultural lands; Best Management Practices for erosion control and sediment management on both developed and undeveloped lands, including roads.⁴

R. Public Education and Conservation: Implement the recommendations on education and conservation covered in the DQ Water Resources Preliminary Education Plan.⁵

1. Public education and conservation programs should be continued and expanded, targeting schools, well owners, riparian and wetland land owners, members of the Planning Commissions, Critical Areas Committee, City Council members, real estate agents, recreation groups, agriculturalists (commercial and hobby), and others.⁶
2. Provide public education and conservation programs appropriate to each sub region.⁷
3. Continue to promote and support river festivals, such as the Dungeness River Festival and Streamfest.

3.7.2 Annual State of the Watershed

Issue: An annual update on the state of WRIA 18 watersheds is not currently provided. Such an update could provide a basis for adaptive management and progress monitoring.

³ DQ Recommendation R.13.6

⁴ DQ Recommendation C.7.1.14

⁵ DQ Recommendation C.15

⁶ DQ Recommendation C. 15.1

⁷ DQ Recommendation C. 15.2

Existing Conditions and Current Actions

DRMT annually reviews milestones and activities. A west-side Watershed Council is recommended (see Section 3.8.1), but is not currently operating. Watershed conditions are reviewed by local jurisdictions in periodic plans (e.g., the DQ Plan 1994 and others described in Chapter 1), but a regular summary of information is not currently provided to decision- and policy-makers.

Desired Outcomes

- Annual update on watershed conditions across WRIA 18 is compiled at a “summary level” for the public and for policy-makers.

Recommendations

- A. State of the Watershed Report: Local jurisdictions should seek funding and work collaboratively, with technical support from the State, to develop an annual “state of the watershed” layperson’s report to the public.
- B. Report content: The annual state of the watershed should include:
 1. Updated buildout and water supply, including summary of land use conversions from forest and agriculture; number and location of new residential units; new commercial and industrial development; number and location of new exempt wells (GIS); changes in public water service (changes in boundaries, numbers of new connections, new Group A or B systems, changes in source water rights and amounts, satellite management); and changes in water use for agriculture and fish propagation.
 2. Habitat restoration projects proposed and undertaken; status of work ongoing; and accomplishment against long-term goals and objectives for WRIA 18 rivers, streams, estuaries and nearshore, and wetlands. Include summary of SRF Board activity on WRIA 18 projects.
 3. Instream flow data for previous year, including summary statistics where real-time gages are installed and periodic measurements taken on other WRIA 18 rivers and streams.
 4. Water quality results from previous year’s monitoring in WRIA 18 rivers, streams, groundwater, and nearshore. Include summary of any new TMDLs prepared and any changes in 303(d) listings.
 5. Layperson’s Summary of Former Industrial Sites and Existing Landfill Monitoring (see Section 3.2.4): An annual summary should be provided by local jurisdictions, with technical support from the State, through the watershed councils to translate into layperson’s terms the outcomes of water quality monitoring of former industrial sites and existing landfills. These summaries should include information about contaminants found in testing that could adversely affect water quality, an overview of the testing and monitoring methods used, and updates on cleanup activities and any closures.
 6. Consensus recommendations for revisions and/or updates to the watershed plan’s policies and implementation, based on updated information and conditions.