Elwha-Dungeness Watershed Plan EXECUTIVE SUMMARY

INTRODUCTION

This Elwha-Dungeness Watershed Plan (a.k.a. WRIA 18 Watershed Plan, or "Plan") is produced under the direction of the Initiating Governments (IGs) for Water Resource Inventory Area 18 (WRIA 18) including Clallam County (County), City of Port Angeles, Jamestown S'Klallam Tribe, Lower Elwha Klallam Tribe, and the Agnew Irrigation District. Two Planning Teams make up the Planning Unit and have been responsible for leading the creation of the Watershed Plan: the Dungeness River Management Team (DRMT) and the Elwha-Morse Management Team (EMMT). The composition of the two teams is described in Section 1.2.1 of the Plan; the Acknowledgements page lists the team members. EMMT and DRMT have worked individually and collaboratively to develop the Plan which, upon approval by the two teams, is forwarded to Clallam County for formal public review and potential adoption. If approved, the plan will be forwarded to the State Department of Ecology and will become a guiding document in the management of the water resources and associated matters within the Elwha-Dungeness Planning Area (as defined on page 3 of this summary).

The Plan consists of three chapters and a number of appendices. Chapter 1 provides an overview of the watershed planning process, a general discussion of the Planning Units and the history of planning that has led up to the WRIA 18 Watershed Plan. This includes a review of the many related plans and planning processes that have preceded this plan and on which this plan builds. Chapter 2 includes detailed information on the past and current condition of the overall planning area (which also includes the westernmost portion of WRIA 17, comprising Sequim Bay and its drainages), together with an analysis of potential future conditions based on existing information. This Chapter presents an "assessment" of the watershed subbasins within the planning area. Chapter 3 provides the recommendations developed by the Planning Units during the planning process. These recommendations represent the outcomes of the planning process and provide a wide-ranging and significant framework for addressing current water resource issues and for anticipating future issues. The appendices include various important supplemental documents and documentation. For further detail, please refer to the Table of Contents.

BACKGROUND

Watershed planning occurs under enabling legislation passed in 1998 (ESHB 2514 codified as the Watershed Management Act, RCW 90.82). It is closely tied to planning for other water and watershed resources, including salmon recovery, local land use planning, water system planning, stormwater management, and a host of other federal, state, regional, and local laws, regulations, and planning initiatives. These were each reviewed and considered in the development of this watershed plan and, together with related recommendations from other plans, studies, and processes in the planning area, are summarized in the Plan appendices.

The watershed planning process provides a framework for locally-based watershed planning and resource management. The primary goals of local watershed planning are to assess the status of water resources within each Water Resource Inventory Area and

determine how to address competing demands for water within each WRIA. A stated purpose of the statute is "...*to develop a more thorough and cooperative method of determining the current water situation in each water resource inventory area of the state and to provide local citizens with the maximum possible input concerning their goals and objectives for water resources management and development*." Among other guiding requirements, the Watershed Management Act calls upon each Planning Unit to assess water quantity (encompassing current and future water use and water supply). The Act also gives each Planning Unit the option to consider additional planning elements: water quality, aquatic and riparian habitat, instream flows for streams and rivers, and water storage potential. The Elwha-Dungeness Watershed Plan incorporates both the required and the optional elements. As many Washington stocks of salmonids have come under the protection of the Endangered Species Act (ESA), watershed plans have generally sought to incorporate salmon recovery and develop and/or support strategies to address these listings.

While watershed planning itself is not mandatory, once a decision is made to undertake planning, the Act requires each plan to address water quantity and strategies for water supply, with the other four elements being optional. Governments at the table must approve the Watershed Plan by consensus, and are obligated to implement the Plan they approve. Recommendations on minimum instream flows must be referred to the Washington Department of Ecology (Ecology) for action. By unanimous vote, Ecology may be requested to change an existing instream flow rule. With unanimous agreement of governmental members and majority support of non-governmental members of a Planning Unit, Ecology will undertake rule-making to implement an instream flow on a stream where a minimum flow has not yet been set (RCW 90.82.080). No instream flow rule currently exists for the Elwha-Dungeness WRIA.

The Planning Unit agreed that approval of recommendations in this watershed plan requires, at a minimum, the unanimous agreement (abstentions notwithstanding) of the local, State and tribal governmental members and a majority vote of non-governmental members. If approved, the plan is submitted to the county governments with territory in the WRIA for ratification by majority vote of each elected governing body in joint session.

Initiation of Watershed Planning

The Initiating Governments signed an Intergovernmental Agreement dated December 9, 1998 to form an Elwha-Dungeness Coordinating Council, to apply for and accept grants for watershed planning, and to provide administrative support to the watershed planning process (Appendix 1-C). Geographic areas falling within the jurisdiction of WRIA 18 Initiating Governments and Planning Unit participants include unincorporated Clallam County, the cities of Port Angeles and Sequim, and tribal lands of the Lower Elwha Klallam Tribe, and the Jamestown S'Klallam Tribe. The Intergovernmental Agreement divides WRIA18 into two geographic Planning Areas:

"**Dungeness Planning Area**" – extending from Sequim Bay and its drainages, which lie in the westernmost portion of WRIA 17, westward across the Dungeness River watershed and several independent drainages to the Bagley Creek watershed (Figure

1.1-1). Under a *Memorandum of Agreement* between the WRIA 17 Planning Unit and WRIA 18 Initiating Governments dated December 10, 2001, the westernmost portions of WRIA 17 (which fall within Clallam County) have been included in the WRIA 18 Watershed Plan. These include Sequim Bay and the several drainages that feed it: Johnson Creek, Dean Creek, Jimmycomelately (JCL) Creek, and Chicken Coop Creek. This arrangement recognizes a history of planning responsibility for these drainages, as detailed in Chapter 1 of the plan.

"Elwha-Morse Planning Area" – extending from the western edge of the Bagley Creek drainage and including the Morse Creek watershed in the east to the western boundary of WRIA 18, encompassing the Elwha River Basin (Figure 1.1-2).

These two areas are frequently referred to in the Plan as "East WRIA 18" and "West WRIA 18", respectively, although the term "East WRIA 18" also includes the Sequim Bay drainages. The designation of two Planning Teams recognizes a history of focused planning in the eastern and western watershed areas of Clallam County over several decades.

PLANNING CONTEXT

Both the Dungeness (including the Sequim-Bay watershed) and Elwha-Morse Planning Areas have significant histories of watershed and related planning. In 1988/89 the county adopted the Sequim Bay Watershed Management Plan (revised in 1991), which emphasized water quality, particularly nonpoint pollution from a variety of sources. In the Dungeness, early planning was driven by concern for flood protection and management. The 1990 Dungeness River Comprehensive Flood Control Management Plan (under revision during 2003) provided general and conceptual guidance and addressed chronic problems and specific problem areas. It also provided recommendations for flood management and control including nonstructural solutions and structural measures. Specific problem sites were also identified. Most of the problem areas and specific recommendations of the 1990 plan have been implemented over the past 13 years and the County is now working to update it. In 1993, the Dungeness River Area Watershed Management Plan, a water quality-oriented watershed plan equivalent to the Sequim Bay plan above, was completed. The Sequim-Dungeness Groundwater Protection Strategy, completed in 1994, represented an important first step in addressing groundwater resources and issues that the previous studies had raised. The Dungeness-Quilcene (DQ) Water Resources Management Plan, completed in 1994, was a key milestone document, upon which the WRIA 18 Watershed Plan builds. In 1995, the Dungeness Area Watershed Analysis, driven by federal regional forestry management concerns, developed a framework of information covering "key questions" in five categories: fish/fish habitat; water quality/quantity; wildlife; vegetation; and riparian areas. A 2002 supplement provided additional information on sedimentation and stream channels. Keys to an Understanding of the Dungeness River (1996) is a compilation of diverse information on history, geology, hydrology, climate, and other natural history components. It also has an extensive annotated bibliography. The 1998 Trust Water Agreement was a milestone in regional and state-level water management inasmuch as it was the first trust water rights agreement in the state, providing a mechanism to restore flows to the Dungeness from irrigation water rights and several other important related provisions.

This trust agreement was followed by the Sequim-Dungeness Valley Agricultural Water Users Association Comprehensive Water Conservation Plan (1999), which detailed options to achieve water conservation and other trust water rights goals within the irrigation system. The Hydrogeologic Assessment of the Sequim-Dungeness Area (1999) provided a substantial technical assessment and summary of groundwater resources, use, and relationships with surface waters and resources.

Though the Elwha-Morse (western portion of WRIA 18) has a shorter history of watershed planning, important fundamental work has been completed. Two significant studies yielded a substantial amount of information about the area. The Port Angeles Regional Watershed Characterization (1994) provided a comprehensive description of the watersheds from Morse Creek west (extending into areas west of WRIA 18). Similar to the Sequim Bay and Dungeness River Area characterizations, the Port Angeles Regional characterization focused on nonpoint pollution, but also extended to examining water quantity, habitat, nearshore/marine, and fisheries conditions.

A series of studies addressing the restoration of the Elwha River represents the second major source of West WRIA 18 watershed information compiled prior to this plan. The federally-legislated Elwha River Ecosystem and Fisheries Restoration Act (PL 102-495, 1992) mandates the restoration of the river system and its associated fisheries. Two environmental impact studies and a host of subsidiary analyses have affirmed that removal of the two hydroelectric dams on the river is necessary. In addition, extensive work has gone into issues such as maintaining water quality during and after dam removal, re-establishing fisheries once the dams are out, and restoring the landscape of the drained reservoir areas and the restored riparian corridor. Though specific to the greater Elwha watershed (including Indian Creek and Little River), these studies have helped to more fully understand the overall conditions of the West WRIA 18 area, and have been referred to at great length in this plan. It is understood by the IGs and the EMMT planning group that the scope and direction of this plan will not conflict with the federal restoration effort, but will seek to complement it wherever possible.

Finally, in addition to the above watershed-oriented studies, a key study of importance to this planning effort is the WRIA 18 Limiting Factors Analysis (LFA) (1999) conducted by the Washington Conservation Commission. The LFA study focused on salmonid recovery needs, characterizing the watersheds throughout the entire WRIA 18 (a similar study done for WRIA 17 provides equivalent information for the Sequim Bay watershed). The characterizations emphasized landscape conditions, stream and riparian conditions, water quality and quantity, and stock status. In addition, numerous recommendations were provided to aid in efforts to restore watershed functions in support of salmon recovery. The LFA was intended to support watershed planning, and the WRIA 18 Plan has made extensive use of the information it contains.

PLANNING PROCESS

Following the planning guidance provided by the legislation, and building upon the background of planning work previously conducted, the WRIA 18 planning units worked for five years to develop this plan. As graphically presented in the WRIA 18 Plan "Roadmap" (Fig. 1.2-2), this process has emphasized public information and involvement from its inception. The Planning Units met regularly throughout the

process to review information, guide further analysis, evaluate results, and develop broad-ranging recommendations. In sum, the plan is the result of a lengthy, collaborative, and consensus-based process involving all key stakeholders in the watershed. The Acknowledgements section at the beginning of this document lists project participants.

WATERSHED CHARACTERIZATION

Chapter 2 of the plan assembles extensive data and other information on what is known about, or is projected to occur in, WRIA 18 as it may affect water resources. This characterization is presented in both a resource-based and a geographic framework. Section 2.1 provides background on geography, climate, geology, soils, hydrology and geohydrology (including extensive discussion of water budgets, groundwater, and water quality), and vegetation. Section 2.2 includes similar coverage of historic and current land cover and land use, demographics and an analysis of areas most susceptible to impact from future population growth and associated land use changes. Section 2.3 extensively addresses water quantity characterization and analysis, providing the essential background for many of the recommendations in the corresponding portions of Chapter 3. This section reviews water rights, water use, water availability, and future water supply requirements.

The remaining sections of Chapter 2 characterize the sub-basins on a watershed-by-watershed basis, with the last section focusing on the Strait of Juan de Fuca. To the extent that information is available, each sub-basin section looks in detail at the same range of characteristics as those covered generally in the first three sections (which cover WRIA 18 as a whole), with further detail on salmon stocks, population status, and resource condition. In addition, these sub-basin sections look more closely at stream flows and hydrographs, at particular issues and human activities in the sub-basin (including water quality conditions), at stream-specific habitat and ecosystem conditions and issues (including nearshore/marine), and at fisheries status.

RECOMMENDATIONS

Chapter 3 of the WRIA 18 watershed plan presents recommendations, and their context, in eight general categories and in an additional eight sections specific to the sub-basins that make up WRIA 18. The general sections address water quantity, water quality, habitat, instream flows, stormwater, land use and management, education and outreach, and watershed management. All recommendations are presented with brief issue statements, followed by summaries of existing conditions and current actions, and a description of the desired conditions and outcomes that the recommendations are intended to achieve.

As the mandated component of watershed planning, water quantity issues and recommendations are presented in Section 3.1. The focus of the analysis is to address current water quantity conditions and to prepare for the future of water needs—for both human consumption and to support the natural functions of the watersheds themselves. This focus is guided by an overall strategy developed by the planning groups and presented in Section 3.1.1:

Future Water Supply Strategies for People and Fish
Strategies for future water supply are described below. Each strategy is cross-referenced to the sections of Chapter 3 that contain the principal recommendations that would implement it.

- ***Emphasize Water Conservation:*** Emphasize implementation of all cost-effective water conservation measures, including public outreach and education as well as "building in" conservation for the long term through building and land use requirements. *(Sections 3.1.2(B), 3.1.7, and 3.6)*

- ***Protect Instream Flows:*** Retain flows in all WRIA 18 streams and rivers to protect instream values to the extent possible. Establish instream flows to protect surface waters not already appropriated and close certain WRIA 18 streams and rivers (at least during low flow seasons – see Section 3.3.2) to new appropriations. Minimize out-of-basin exports of water from WRIA 18 streams (however, the policy of "regionalizing" the use of existing Elwha River water rights in West WRIA 18 to meet new water demand would export water from the Elwha eastward as far as the Morse Creek watershed). *(Recommendation 3.1.3(A) and Section 3.3.2)*

- ***Continue Irrigation Water Management:*** Continue the implementation of Dungeness water management, water conservation, and water transfers under the Trust Water Agreement. Continue to implement water leases and land fallowing during low flow periods to reduce irrigation water demand and to protect Dungeness River flows. Complete and implement the CIDMP to guide irrigation water management. *(Section 3.1.8)*

- ***Emphasize Public Water Supply:*** Encourage new water demand to be served by the existing Group A public water systems wherever feasible. *(Sections 3.1.2(C) and 3.1.5)*

- ***Limit Exempt Wells where Public Water Service Can Be Feasibly Provided:***[1] Require new development to be served by public water systems rather than exempt wells wherever public water service is available in a reasonable timeframe and is cost-effective, in order to reduce the proliferation of new exempt wells in each sub-basin. *(Section 3.1.4(C) and Recommendation 3.1.5(C))*

- ***Regionalize West WRIA 18 Water Supply:*** Regionalize new public water service in West WRIA 18 to meet new demand largely from existing Elwha River and other Group A water rights. Encourage the use of existing interties between the larger Group A public water systems (e.g., City of Port Angeles and Clallam PUD No. 1), and new interties to smaller Group A systems to distribute Elwha

[1] "Exempt wells" are exempt from the requirement to apply for a water right. However, they are not exempt from other requirements. An exempt well may be used for stockwatering, or to water a lawn or noncommercial garden up to ½ acre, or for single or group domestic use or industrial use not exceeding 5000 gallons per day (RCW 90.44.050).

River water to meet new demand in West WRIA 18 to the extent feasible and cost-effective. *(Section 3.1.5(D))*

- ***Investigate Groundwater Supply for New East WRIA 18 Water Supply:*** Focus upon ground water and water gained through savings or management (i.e., storage) as the resources with the most potential for residential and municipal development in East WRIA 18. In this area, direct all new wells, exempt or non-exempt, to the middle and deeper aquifers wherever these sources occur and provide a minimum 100' wellhead protection zone around all wells. Develop a legal mechanism to allocate an agreed-upon amount of saved water to development, while protecting instream flows and existing water rights. Emphasize water service to new development from the existing larger systems (City of Sequim, Clallam PUD) wherever feasible, with the goal of integrated water delivery systems, rather than a series of separate and local water delivery systems. Explore feasibility of utilizing deep aquifer sources to meet new water demand growth, if such development can demonstrate no impairment to limited surface waters. *(Section 3.1.4)*

- ***Availability of Water for Future Appropriation:*** As a mandatory element of watershed planning, Planning Units must indicate the availability of water for future appropriation[2]. The WRIA 18 future water supply strategy relies on the use of existing municipal water rights (Elwha River) in West WRIA 18, and on existing water systems, water management strategies, deep groundwater and a potential groundwater reserve for East WRIA 18 subbasins. A limited groundwater reserve, if established for the Dungeness planning area, would utilize water savings from efficiency and conservation, subject to existing law and the development of an intergovernmental agreement. *(Sections 3.1.4(D), 3.1.5(D), and 3.3.2)*

- ***Take Advantage of Water Reclamation and Reuse:*** Take advantage of all practical water reclamation and reuse opportunities (the most significant untapped opportunities are located in West WRIA 18). *(Section 3.1.10)*

- ***Study New Storage:*** Study new storage opportunities, including aquifer storage and recovery and new off-channel surface storage. Design or retrofit new land development to facilitate groundwater recharge and runoff to wetlands, small streams and groundwater. *(Section 3.1.9)*

Water Quality recommendations, presented in Section 3.2, address issues in several specific areas:

- Programs and actions to address failing septic systems and the future installation and management of septic systems.
- Methods of improving animal-keeping practices, especially with regard to animal waste and water consumption associated with animal-keeping.
- Programs and actions to address hazardous wastes and commercial and industrial pollution.

[2] Water may be appropriated by application to the Department of Ecology for a new water right.

- Programs and actions to protect groundwater resources.
- Programs and actions to restore and protect healthy, harvestable shellfish resources.
- Expansion of monitoring activities and the assessment of water quality in an ongoing manner.
- Furtherance of the goals and objectives of the Clean Water District, established to reverse water quality decline in the greater Dungeness area.

Section 3.3 provides recommendations to restore and protect stream and riparian habitat for the benefit of humans and wildlife. The recommendations are targeted to:

- WRIA-wide habitat restoration, salmon recovery and fisheries management.
- Rural streams that typically have been exposed to agricultural, forestry, and other development, but that generally retain higher potential for supporting healthy fisheries and functioning habitat.
- Urban streams that, though often heavily altered, nonetheless offer significant potential for limited restoration and the opportunity to provide visible, educational examples of the value of healthy watersheds.
- Wetlands that provide wide-ranging and important benefits to watershed hydrology and to wildlife as habitat.
- Riparian corridors that serve as the immediate habitat that fish and wildlife are partially dependent upon.
- Wildlife management actions that complement habitat goals and objectives.
- Programs and actions to address flooding, floodplains, and flood hazard management that is integrated with overall habitat goals and objectives.

Instream flow recommendations represent the plan's explicitly-adopted approach to recommending flows that protect instream functions, while also providing for out-of-stream demand to the extent feasible. These recommendations are presented in Section 3.4.

Section 3.5 presents recommendations to address stormwater handling, especially as it relates to water quantity issues such as altered streamflows, erosion, and interaction with adjacent land use practices such as irrigation.

Section 3.6 includes recommendations to address issues relating to land conversions, development in sensitive areas, relationships between wells and septic systems, watershed planning boundaries, water conservation opportunities, and forestry practices. Land use practices and land management activities, in general, constitute one of the most direct ways to influence the future of water quantity, quality, habitat, and instream flow conditions and therefore represent a particularly significant area for recommendations.

Section 3.7 presents a range of Public Education and Outreach recommendations to reach a wide range of audiences with curriculum information, landowner education, conservation programs, community involvement activities, and others.

Section 3.8 addresses the importance of maintaining long term Watershed Management, with recommendations for the continuation of the watershed planning

units and for various specifics regarding their ongoing work. It also encourages the formation of watershed-specific groups to focus intensively on their respective "home" watersheds.

Sections 3.9 through 3.16 provide watershed-specific recommendations for each major stream, and many larger tributaries, as well as for the nearshore marine environment. For the larger systems (Elwha, Morse, and Dungeness), these specific recommendations encompass the four planning elements defined by the Watershed Management Act (quantity, quality, instream flows, and habitat, but setting aside storage). For most of the other systems, the WRIA-wide recommendations relating to those elements that are presented in Sections 3.1 through 3.6 address many of the relevant issues in each watershed. Nonetheless, these latter sections provide additional watershed-specific recommendations relating to water quality and habitat. In general, these geographically-specific recommendations seek to achieve properly functioning water quality and habitat conditions adequate to support healthy populations of all naturally-occurring anadromous stocks and to achieve fish habitat restoration addressed by appropriate agencies and local jurisdictions, with recommendations and restoration implemented to the extent feasible.

Appendices are organized by their pertinence to each Chapter. For Chapter 1, Introduction and Planning Framework, appendices include:

A. WRIA 18 Planning Framework
B. Recommendations of Others
C. Sequim-Dungeness Valley Agricultural Water Users Association Rules and Regulations
D. Intergovernmental Agreement
E. DRMT Watershed Restoration Plans & Activities 1989 to 2001, 2001 Milestones Report, and the 2002 Milestones Report
F. DRMT "Focus Workshops" Schedule: WRIA 18 Watershed Plan
G. EMMT 2002-2003 Work Plan
H. SEPA Documentation

For Chapter 2, Watershed Characterization, appendices include:

A. Concurrent Research Summaries
B. WRIA 18 Water Rights Analysis (Ecology 2000)
C. WRIA 18 Geographic Information Systems Analysis of Water Rights (Ecology 2002)
D. Water Conservation Measures
E. Detail of Chinook Plantings from Dungeness Hatcheries

For Chapter 3, Recommendations, appendices include:

A. Remaining Issues (those that have yet to be resolved)
B. Recommendations of the WRIA 18 Limiting Factors Analysis
C. Instream Flow Fact Sheet
D. Dungeness Watershed Proposed Project List 2002-5
E. Documentation of Public Hearing Process (found in Volume 2)

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