

Washington State's Coastal and Estuarine Land Conservation Plan



April 2007

Washington State Department of Ecology Shorelands and Environmental Assistance Program Publication #05-06-018

Washington State's Coastal and Estuarine Land Conservation Plan

April 2007

Washington State Department of Ecology Shorelands and Environmental Assistance Program

If you need this publication in an alternate format, please call Ecology's Shorelands and Environmental Assistance Program at 360-407-6096. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Acknowledgements

This plan was developed with dedicated funds from the United States National Oceanic and Atmospheric Administration's Office of Coastal Resource Management and administered through the Washington State Coastal Zone Management Program.

Development of this program plan would not have been possible without the technical guidance, review, and general assistance from the following individuals (listed in alphabetical order):

Neil Aaland Washington Department of Ecology Doug Canning Washington Department of Ecology

Michelle Connor Cascade Land Conservancy

Lauren Driscoll Washington Department of Ecology

Keith Dublanica Skokomish Tribe

Jim Eychaner Interagency Committee for Outdoor Recreation

John Gamon Washington Department of Natural Resources Natural

Heritage Program

Bill Jolly Washington State Parks and Recreation Commission

Marc Krandal Snohomish County Parks

Joe LaTourrette Washington Department of Fish & Wildlife &

Washington Pacific Coast Joint Venture

Phil Miller Governor's Salmon Recovery Office
Dana Mock Washington Department of Ecology

Doug Myers Puget Sound Action Team

Barbara Nightingale Washington Department of Natural Resources Aquatic

Lands Program

Elizabeth Rodrick Washington Department of Fish and Wildlife Terry Stevens Padilla Bay Natural Estuarine Research Reserve

Curtis Tanner U.S. Fish and Wildlife Service Jacque White The Nature Conservancy

Project coordination and plan write up:

Jane Rubey Washington Department of Ecology.

Table of Contents

Introduction	I
Authority for the Program	1
Definition of a CELCP Plan	1
Project Funding Process Overview	1
Coastal and Estuarine Land Protection Priorities	2
A. Geographic Extent of Coastal & Estuarine Areas in WA	2
Geographic Overview	
WA State CELCP Plan Definition of Coastal and Estuarine Areas	3
B. Lands and/or Values to Protect in Washington's CELCP	7
Washington's CELCP Plan Goal	
Ecologically Significant Lands and Values	
C. Identification of "Project Areas"	
Ecological Features – "Target Areas"	
Other Attributes	
Core Qualities	13
Threat	
CZM Consistency	
D. Description of Existing Plans	
WA's CZM Program	
TNC's Ecoregional Assessments	
DNR's Natural Heritage Plan	
WDFW's Comprehensive Wildlife Conservation Strategy	
Washington Salmon Recovery	
The Lower Columbia River Estuary Program/Plan	
Local Ecological Assessments	
Future Elements	
State Process for Implementing the CELCP Plan	24
A. State Lead Agency	
B. Eligible Land Holding Agencies	
C. State Nomination Process.	
Solicitation of Projects	
State Review and Prioritization	
Match Funding Sources	
Coordination and Public Involvement	20
A. Interagency Coordination	
B. Public Involvement	
B. 1 done involvement	
Certification and Approval	31
A. Certification of Consistency	31
B. Plan Approval	31

Bibliography	32
WEB Site References	33
Appendix A	34

Washington State's Coastal and Estuarine Land Conservation Program Plan

Introduction

Authority for the Program

The Department of Commerce, Justice, and State Appropriations Act of 2002 (Public Law 107-77), directed the Secretary of Commerce to establish a Coastal and Estuarine Land Conservation Program (CELCP) "for the purpose of protecting important coastal and estuarine areas that have significant conservation, recreation, ecological, historical, or aesthetic values, or that are threatened by conversion from their natural or recreational state to other uses," giving priority to lands which can be effectively managed and protected and that have significant ecological value. Washington's CELCP Plan follows the federal guidelines directing the content, development, and implementation of state CELCP Plans, accessed at: www.coastalmanagement.noaa.gov/land/welcome.html

Definition of a CELCP Plan

A Coastal and Estuarine Land Conservation Program Plan (CELCP Plan) is developed by each coastal state in order to participate in the federal grant funding program for coastal and estuarine land conservation. The purpose of the Plan is to provide an understanding of priority coastal and estuarine land conservation needs and create a process for nominating and selecting land conservation projects within the state.

Project Funding Process Overview

When grant funding is authorized at the federal level, the National Oceanic and Atmospheric Administration (NOAA) will notify states of a project submittal opportunity and timelines for applications. The state (WA Dept. of Ecology) will then release a request for proposals (RFP) to eligible applicants (select state agencies, tribal and local governments). When proposals are received they will be reviewed and prioritized by the state using the established criteria in this plan. Top ranking projects will then be submitted to NOAA's Office of Ocean and Coastal Resource Management (OCRM) in Washington D.C. to compete in the national review competition. Only those projects that compete well at the national level will receive funding. Funding will be provided by NOAA to the state for granting to the successful applicant(s). During the grant funding process, assurance of permanent land conservation will be required by the state.

Coastal and Estuarine Land Protection Priorities

A. Geographic Extent of Coastal & Estuarine Areas in WA

Geographic Overview

Washington's coastal zone can be broadly characterized as: (1) the Pacific Ocean coastal area, (2) the lower Columbia River estuary, and (3) the Puget Sound basin or marine inlet. Numerous freshwater rivers and streams empty into these water bodies creating estuarine environments at their mouths.

Pacific Ocean Coast

The Pacific Ocean coastal area includes the Pacific Ocean and the coastal strip of rocky shores and sandy beaches. Washington's Pacific Coast stretches from Cape Flattery, at the northern tip of the Olympic Peninsula, south to the mouth of the Columbia River. In between lay spectacular beaches and dramatic rock formations. The north coast is characterized by narrow, rocky beaches backed by high, forested bluffs. Rocky outcrops and islands are common offshore. The south coast is a broad coastal plain with wide, sandy beaches, dunes, and extensive lowlands. In the southern portion of the coast, powerful rivers spill into the sea, forming intertidal estuaries that attract countless species of birds and other wildlife. Three large coastal estuaries are Grays Harbor, Willapa Bay, and the lower Columbia River. Grays Harbor and Willapa Bay are shallow estuaries extensively utilized for shellfish culture.

The Lower Columbia River

The Columbia River estuary is a large dynamic river mouth that is home to an international port and heavy fishing use. The Columbia River is an interstate and international river. From its origins in the Canadian Rockies, the Columbia travels over 1,200 miles before reaching the estuary on the Pacific coast. It is the largest watershed in the United States, draining 259,000 square miles and receiving waters from seven states and two provinces. It has the second largest water flow of any river in the United States. Hundreds of species dwell in the waters, banks, and surrounding shores of this river.

Puget Sound Basin

East of Cape Flattery runs the Strait of Juan de Fuca linking the open Pacific Ocean with the Puget Sound Basin and backed by the Olympic Mountains, home to the only temperate rainforest in the world. The Puget Sound Basin is nestled between the Olympic and Cascade Mountains in northwest Washington. The Basin includes the Strait of Juan de Fuca, the straits and bays in the San Juan Archipelago, and the entire Puget Sound including Hood Canal. The Basin covers more than 16,000 square miles of land and water. Roughly eighty percent is land and twenty percent is water.

Puget Sound offers a breadth of landscapes – the rocky shores of the San Juan Islands, the forested slopes of the Olympic Mountains, Skagit Valley's fertile floodplain, and rich, tidal mudflats in the southern inlets. The Puget Basin watershed extends landward from its shorelines to encompass streams and rivers originating in the Cascade, Coastal, Vancouver Island, and Olympic Mountain ranges. This watershed provides an annual flow of about 39 million acre feet of freshwater to the Basin through a drainage network of more than 10,000 streams and rivers. Between the protected bays of Puget Sound and the forested foothills of the Cascade Range lie rich farmland and Washington's greatest urban concentration – the metropolitan corridor of Bellingham, Everett, Seattle, Bellevue, Tacoma, and Olympia. Here, a burgeoning population in 2001 of 3.5 million people in the Puget Sound Basin continues to grow.

Washington's Coastal Statistics

Within these broad geographic regions, Washington's 2,337 miles of marine shoreline encompass 157 miles of outer Pacific coastline, 144 miles of coast along the Strait of Juan de Fuca, 89 miles in Grays Harbor, 129 miles in Willapa Bay, 34 miles on the Columbia River, and 1,784 miles bordering Puget Sound and the Strait of Georgia. These figures include the shorelines of 172 significant islands of the San Juan Archipelago. Of the shorelines, beaches represent 73 percent and the remaining 27 percent includes rocky headlands, marsh areas, and other shoreline types. (Note: these 4 sections are excerpted, with slight modification, from *Managing Washington's Coast*.)

WA State CELCP Plan Definition of Coastal and Estuarine Areas

WA State CELCP Plan Definition of Coastal and Estuarine Areas

CELCP's focus is on the protection of coastal and estuarine areas. Therefore, consistent with Washington's definition of coastal zone influence under CZM, the definition of coastal and estuarine area inclusion for Washington's CELCP Plan will apply to waters in the fifteen counties of the coastal zone focused on areas where salinities are of 0.5 ppt or greater.

Federal CELCP Guidance on Defining Coastal and Estuarine Areas

The federal guidelines offer the following guidance for definition of "coastal and estuarine areas" as: "Those areas within a coastal state that are part of the state's coastal zone, as designated in the state's federally approved coastal management program under the CZMA or within the state's coastal watershed boundaries as described in NOAA's Coastal Zone Boundary Review (October 1992). The coastal watershed boundary is defined: for estuarine drainage areas by the inland boundary of those 8-digit USGS hydrologic cataloguing units that contain the head of tide, and; for the Great Lakes region or those portions of watersheds along the marine coast that drain directly to marine waters by those cataloguing units that are located adjacent to the coast."



Map of coastal counties and the coastal and estuarine areas potentially eligible for CELCP. See text for specific criteria.

Background on Washington's Coastal Zone Designation

Washington's federally approved Coastal Zone consists of 15 coastal counties (see map.) Fourteen of the 15 counties are obvious in their inclusion: they front on Puget Sound and/or the Pacific Ocean. "The basis for the inclusion of Wahkiakum County on the Columbia River Estuary is the presence of measurable quantities of salt water up the Columbia River to Pillar Rock" (Washington Department of Ecology, 1976: 121, 2001: 18). Pillar Rock is both a small island in the Columbia Estuary and a small community on the Washington shore, at about Columbia River Mile 27, about half way between Grays Bay (eastern Wahkiakum County) and the town of Skamokawa (central Wahkiakum County).

The source of the information used in Washington's 1976 decision to locate the upper limits of the salt wedge in the Columbia Estuary at Wahkiakum County is now unknown. However, subsequent mapping by the U.S. Army Corps of Engineers for their Columbia River Estuary Atlas placed the upper limits of the salt wedge at various locations off the Wahkiakum County shore depending on the season and the water depth.

Saline vs. Tidal Influence

By oceanographic definitions, the upper limit of an estuarine salt wedge is a salinity of 0.5 ppt. The lateral location of this upper limit varies, of course, because the wedge of saline water running up an estuary is over-lain by the layer of fresh water flowing out to the sea. At times of low tide and high river flow the salt wedge will be more ocean-ward; at time of high tides and low river flow, the salt wedge will be farther inland.

Some states and regulatory programs reference the upper limits of tidal influence to determine the inland extent of ocean influence or the coastal zone. It's not recorded why Washington chose to use salinity over tidal influence; however, it is reasonable to assume that the use of tidal influence would have extended the coastal zone a seemingly unreasonable distance up the Columbia River. A tidal fluctuation of a few tenths of a foot can be detected up the Columbia River to River Mile 146 at the Bonneville Dam in Skamania County. (The mean range of the tide at the mouth of the Columbia is 5.60 feet as measured at the Columbia River Entrance North Jetty tide gauge.)

8 Digit HUCs

The USGS 8-digit hydrologic cataloguing units (HUC) system is rarely used in Washington State because it is so much at variance with the older and statutorily-mandated WRIA (Water Resource Inventory Area) system.

Washington's WRIA system was developed by the state in the 1960s, and is partly consistent with the U.S. Geological Survey's 8 digit HUC. There are 25 WRIAs in Washington's coastal zone, WRIAs 1 through 25. There are 28 HUC-8 watersheds within Washington's coastal zone (see Appendix A for a comparison table.) A few WRIA watersheds appear to be identical to a HUC-8 watershed; many are closely similar; in other instances there is no corresponding HUC-8 watershed for a WRIA watershed or *vice versa*.

Upper Limits of Estuaries

Determining the upper (inland) limits of an estuary based on readily available information can be challenging, as Washington's CZM program has no maps showing extent of saline influence. Salinity and tidal influence information can be lacking for most streams and rivers. The high variability of the effects of both measures on high gradient streams and low gradient rivers can produce seemingly inconsistent results.

The Chehalis River, for example, has a strong tidal influence at River Mile 13 at Montesano (Mean Range: 6.78 ft), but seems to be above saline influence based on limited observation of river bank 'tide flat' vegetation.

On the other hand, there is probably a fairly close correlation between tidal influence and saline influence in the steep gradient streams which empty into Hood Canal. These streams are "steep gradient" systems which begin to braid at the head of tidal influence demonstrating a reasonable equivalent to estuarine saline influence.

Certain areas, such as the Snohomish River Estuary, are designated "Areas of Particular Concern" in Washington's coastal management program (Washington Department of Ecology, 1976: 12-21). Many of these areas are poorly defined or not defined at all regarding the saline edge. One indicator of salinity, for defining the upper limits of an estuary in these systems, is the presence or absence of salt sensitive plant species. Using this indicator, the Snohomish River estuary appears to extend up river at least to southern Ebey Island at the crossing of the Route 2 bridge (City of Everett, SEWIP, 1997.)

B. Lands and/or Values to Protect in Washington's CELCP

Washington's CELCP Plan Goal

Washington State's Coastal and Estuarine Conservation Program Plan emphasis is on "Sustainable biodiversity of coastal and estuarine resources with a focus on preservation of watershed/shoreline processes, functions, and connectivity of natural systems." How acquisition projects which achieve this program goal are selected is defined in the review criteria for proposed projects and in the following description of coastal and estuarine areas of ecological significance in Washington State.

Ecologically Significant Lands and Values

Ecoregions are defined by Robert G. Bailey as "ecosystems of regional extent differentiated according to a hierarchical scheme modified from Crowley (1967) and using climate and vegetation as indicators of the extent of each unit" (Bailey, 1995). There are two ecoregions within Washington State which encompass all the coastal and estuarine shoreline of the State. These are the Puget Sound and the Northwest Coast. Each ecoregion shares similar climate, geology, landforms, and native species. Each supports an extraordinary wealth of biological diversity.

Significant Lands and Values

<u>Salmon</u>: Icon of the Pacific NW, the many species of migratory salmon are indicators of the over-all health and productivity of Washington's waters. Impacts to salmon runs in the numerous watersheds of Washington's coastal and Puget Sound region, resulting in salmon listings of both threatened and endangered populations, has elicited a massive salmon recovery effort at the state and local level. The Washington State Salmon Recovery Strategy, *Extinction is Not an Option*, lays the foundation for a concerted effort to protect and return salmon habitat for strengthened salmon runs.

Protection and restoration of salmon habitat is both a complex and essential task for the recovery of functional watersheds and ecosystems. The life history needs of salmon encompass a broad range of ecological environments that support the evolution of these anadromous species through stages of spawning, fry development, and outbound and inbound migration. Wetlands and riparian areas play a key role in the support of salmon by providing side-channel refuges along rivers, over-wintering estuarine feeding sites for acclimation, and marine refuge during early growth stages of the fry. All spawning, foraging, and refuge take place in fresh or marine shoreline areas. By protecting these core habitat features for salmon, the ecological integrity of the landscape is also preserved for a wealth of other species as well.

Immediate stressors to salmon include: loss and/or simplification of deltas and delta wetlands; alteration of flows through major rivers; modification of shorelines by armoring, over water structures and loss of riparian vegetation; transformation of habitat types and features via colonization by invasive plants; transformation of land cover and

hydrologic function resulting from urbanizations; contamination of nearshore and marine resources; and alteration of biological populations and communities (Puget Sound Salmon Recovery Plan, 2005).

Wetlands: Estimates of coastal and estuarine wetland loss along Washington shorelines vary, but are especially significant within the Puget Sound. Estuarine wetlands are, by far, the most likely to be impacted by human development, as has been demonstrated in the Puget Sound Basin. The 1980 figures for Puget Sound show that 70% of the tidally influenced emergent wetlands have been lost due to diking, dredging, and filling, while urbanized areas have suffered 90 to 98% loss (Canning, D and M. Stevens, 1989: pg 1. Bortelson statistics). Development in the Puget Sound has resulted in a loss of salt marshes, mudflats, and deltas and their subsequent vegetation and vertebrate/invertebrate communities which sustain entire ecosystems from fish populations to shorebirds and marine mammals.

<u>Forage Fish & Shorelines:</u> Along Puget Sound shorelines, critical spawning areas for forage fish are becoming increasingly scarce and threatened by shoreline development. Four species of forage fish (surf smelt, herring, sand lance, and anchovy) support the entire food web of the nearshore and marine waters of Puget Sound. Three of these species spawn along the open beaches of the Puget Sound. Their feeding and forage areas are the eelgrass beds and salt marsh environments along the shore. Salmon depend on these species for nourishment when they reach saline waters. And numerous other species from otters to Orcas depend on salmon for sustenance, thus, creating a finely linked ecosystem and food web.

<u>Species and Habitat Biodiversity:</u> Each of the above values speaks to the overriding need to preserve and maintain diverse and rich habitats for species support in coastal & estuarine areas. Richly productive shoreline and adjacent upland areas in native vegetation are needed to maintain both the ecological and economic vitality of Washington State.

Ecoregional Issues and Threats

<u>Puget Sound:</u> The Puget Sound Ecoregion is dominated by industrial/urban/suburban development, military bases, and agriculture. Here development has resulted in the conversion of more than 50% of the area from native vegetation to other types of ground cover (concrete/asphalt and non-native vegetation, etc.) (Washington Natural Heritage Plan 2003). Immediate threats to the region include continued rapid development, water quality impacts, and non-native species invasion. Specific conservation needs are: preservation and restoration of estuarine marshes and tidal flats, maintenance of estuarine shoreline integrity by preserving large segments from development and/or degradation and restoring lost connections, and overall restoration of riverine systems. Conserving larger land blocks from fragmentation, while maintaining linkages of these areas to each other, are immediate needs of the Puget Sound region if ecological integrity and functional performance of the landscape is to remain intact.

<u>Pacific NW Coast:</u> Washington's Pacific Northwest Coast Ecoregion includes two of the largest estuaries on North American's west coast (Grays Harbor and Willapa Bay), as well as the large estuarine mouth of the lower Columbia River. These estuaries support large populations of shorebirds and migratory waterfowl. Coniferous forests dominate the vegetation of this ecoregion. In the coastal fog belt, where Sitka spruce once predominated, most rivers are still salmon-bearing.

Dominant land uses on Washington's Pacific Northwest Coast are forestry, recreation use of the shoreline, and conservation within national park areas. Immediate threats to biodiversity in this region include: incompatibility of some timber management activities, low to medium density development in coastal areas, and non-native species invasion. Specific conservation needs of this area are: protection of inter-dunal wetlands (especially scarce natural forested bogs), coastal lagoons, estuarine and forested wetlands, riparian areas and sphagnum bogs.

Lower Columbia River: The lower Columbia River estuary is dominated by the international commerce of Portland and Vancouver. The lower Columbia River and estuary suffer from a variety of human-induced problems that have adversely affected the ecosystem. Degradation is evidenced by habitat loss and modification, and toxic contamination. Historic wetland types such as emergent and forested wetlands have been greatly diminished. The habitat undergoing the most dramatic decrease is tidal swamps with over 23,000 acres lost from 1870-1980 (Lower Columbia Estuary Partnership 2004). Conservation priorities are lower estuarine floodplain areas, emergent wetlands and tidal swamps.

Broader Over-all Threats

There are numerous broad threats and problems facing Washington's efforts to preserve biodiversity of coastal and estuarine habitats and ecosystems. These include:

- (1) Habitat isolation/fragmentation, degradation, and conversion
- (2) Water issues such as water pollution and water rights conflicts, and salt water intrusions to wells
- (3) Exotic species invasion
- (4) Global climate change

<u>Habitat Fragmentation</u>: The Puget Sound nearshore is key to the life in the Puget Sound estuary. More than 10,000 streams and rivers drain into Puget Sound. Approximately 1,800 miles of shoreline surround the estuary, which is a mosaic of beaches, bluffs, deltas, mudflats, and wetlands. While much of the Puget Sound is healthy, rapid growth and development in the region are stressing the system. A steady loss of habitat, alarming declines in some fish and wildlife populations, and closures of shellfish beds are signs that the very best of the Puget Sound is threatened. These threats to the Puget Sound ecosystem equate to threats to the economic sustainability of the region as well.

Human development has modified one-third of the Puget Sound shoreline. Changes to the nearshore such as artificial structures (tide gates and bulkheads) have modified shorelines and reduced the necessary movement of sediment, which is critical to successful spawning for forage fish and productive shellfish (Draft Puget Sound Salmon Recovery Plan 2005). Fragmentation of natural shorelines from development leaves barren stretches of once richly productive nearshore challenging the passage of migratory salmon populations. Degradation of nearshore wetlands and conversion of lower river systems to urban uses continue the decline of rich habitat nurseries that support the food web. Puget Sound, currently home to 4 million people (2/3rds of Washington's total population), will support a population of 9 million by 2025 (State of the Sound 2004). These expectations underscore the urgency to address the preservation of critical estuarine areas before further habitat loss occurs.

Habitat fragmentation is not unique to the Puget Sound region. Habitat loss is the primary issue of concern in the Lower Columbia River as well. Habitat loss and fragmentation are endemic problems in our urbanizing culture. Even coastal rural areas are sustaining increased habitat impacts and loss of connectivity leading to significant ecosystem decline.

Water Issues: Water pollution from various sources, including failing septic systems and agricultural and industrial activities, cumulatively contributes significant harm to the complex and fragile estuarine systems. Pollution in parts of Puget Sound has caused lesions and tumors in flatfish that seals, porpoises, eagles and other birds eat. These problems are also evidenced in the Lower Columbia River. The impacts of decreased dissolved oxygen in rivers, increased sediment, and other water pollutants in Washington's waterways are major contributors to the listing of salmon populations. Polluted waters of the Puget Sound, in combination with declining salmon populations, are contributing to the decline of the resident Orca whale population (Puget Sound Action Team, 2004.) Over-allocation of water rights in many streams and rivers has also added to decreased annual stream flows, impacting salmon populations and estuarine habitats significantly.

Exotic Species: The invasion of exotic species is a persistent problem both within the Puget Sound and along the outer coastal estuaries. Willapa Bay, historically one of Washington's richest shellfish growing areas, now is failing due to the invasion of *Spartina*. Efforts are underway to address the infestation both in Willapa and other areas around the Puget Sound through the use of chemical applications. *Spartina* is one of a number of highly invasive exotic species that severely limit the diversity of native plant and animal communities. Many of these invasive species change the composition of entire ecosystems in brief periods of time.

<u>Climate Change</u>: Global climate change is the background question of increasing urgency facing all of us. How will global climate change affect coastal and estuarine areas? What actions are most critical to prepare for the soon to be experienced impacts? Certainly, current upland areas in the vicinity of shorelines will play a key role in the potential evolutionary change of our coastlines.

Of these major threats to Washington's coastal and estuarine areas, land acquisition can have a direct and major impact for addressing the first threat of habitat fragmentation,

degradation and conversion. However, it is also reasonable to assume that project opportunities will arise where land acquisition can remediate other threats as well.

C. Identification of "Project Areas"

Project areas will be identified based on the presence of target ecological features at a geographic site. If a quality example of a target ecological feature is present, then the site becomes eligible for a broader examination of other attributes and core qualities. Project sites which provide the broadest complement of qualities compatible with the definition of these elements will rate highest on Washington's nomination list. This list is an outline of the categories and elements, with a description of each area following below.

Target Areas:

Ecological Features: Wetlands (tidal/estuarine, interdunal, fresh, forested bogs)

Shoreline (ocean, estuarine, fresh, floodplain, etc.)
Adjacent Upland (native vegetation/woodlands)

Evaluation Factors for Projects in the Target Areas:

Other Attributes: Recreation/Public Access

Historic or Cultural Aesthetic Attributes

Core Qualities: Landscape Processes & Functions

Corridors/Connectivity and/or Core Conservation Areas Biodiversity: Salmon, Wildlife, Native Plant Communities

Feasibility of success (property availability)

Long-term ease of management

Buffers (appropriate width protection for feature)

Condition: non-fragmented, water quality

Threat: Imminent development or use impact

CZM Consistency: Natural Features and Core Qualities address CZM

Ecological Features – "Target Areas"

The fundamental features of coastal and estuarine areas are: wetlands, shorelines, and adjacent upland areas. Each of these ecological features, when in good condition, provides a core contribution to the integrity of the coastline. Coastlines, being places where land and water meet, are by nature ecotones. Coastlines are ecologically rich species and habitat areas due to the blending of qualities of both land and sea.

Therefore, preserving high quality "ecologically significant" features such as wetlands, shorelines, and their adjacent uplands is critical. Because these features are the ecological core of Washington's CELCP Plan, they are targeted as mandatory elements for any application to proceed to nomination. Any viable project must have one or more of these features to be eligible.

(1) Wetlands

In Washington wetlands come in diverse forms. As previously mentioned, most of the intertidal estuarine wetlands within the Puget Sound have been lost and, therefore, those remaining are essential areas to preserve. In the Puget Sound, freshwater wetlands often will grade into estuarine systems offering a mix of environments. Freshwater wetlands behind barriers are often found in agricultural areas along the Puget Sound. Many of these wetlands, if restored to intertidal influence would offer rare "intertidal" freshwater or brackish systems important to migratory salmon and marine biota.

Along the outer coast, interdunal wetland systems are under great threat due to development impacts. Coastal wetland lagoons are essential habitats for a diversity of shorebirds and wildlife. Along Washington's southern coast peninsulas, are the remains of extremely unique and rare forested wetland bog systems. Here freshwater is perched in long-linear, sandy interdunal areas above a salt-water environment. Many of these old spruce bogs have been lost to cranberry production, or broken up by development. The younger interdunal areas support shrubby wetland systems, often with fledgling sphagnum colonies.

In the lower Columbia River the estuary is lacking floodplain wetlands, emergent wetlands, and tidal swamps due to the upstream dams.

(2) Shorelines

Natural vegetated shorelines, home to forage fish and critical to salmon migration, are increasingly threatened. Essential sand and gravel beaches are under increasing threat in all coastal areas. Human uses continue to impact, directly and indirectly, the movement of beach material, the ecological integrity, and the long-term sustainability of shoreline functions. Outer coast accretion and erosion rates, Puget Sound nearshore degradation, and confinement of riparian floodplains are all impacts which have resulted from human abuse of the shoreline. Retaining longer segments of unimpacted shoreline, and securing key natural segments within highly modified areas are essential for salmon migration and over-all nearshore sustainability. Beaches, dunes, and flats are all important features of concern.

(3) Adjacent Uplands

High quality natural uplands adjoining shorelines and wetlands are essential to the health of these water environments and are rich habitats for a multitude of water-dependent wildlife. Healthy adjacent uplands make for healthy shorelines and wetlands. A vegetated shoreline in its natural condition not only supports the fish

species in the adjacent waters, but the wildlife in the adjacent upland. Healthy uplands provide essential habitat components for wildlife during a broad range of life history stages. Consideration would be given to natural uplands adjacent to preserved shoreline and wetland areas. These "adjacent uplands" must be either physically adjacent or in immediate proximity to parcels that are physically adjacent.

Other Attributes—To Be Used As Evaluation Factors

In addition to the core ecological features which are the target areas for CELCP funding,, a project may also gain additional credit during the review process for the presence of recreational, historic/cultural, or aesthetic attributes. Additional value is awarded only when public use and enjoyment is compatible with the ecological values of the site and the site is physically suited to such use. Again, credits would be awarded for those attributes that are high quality and appropriate.

(1) Recreation/Public Access

CELCP interprets recreational access to land acquired under CELCP as allowed, and often desired, but not mandatory in all acquisition cases should the sensitivities of the resource preclude recreation due to degradation and/or loss of the features being conserved. (This implies that any recreational access that results in degradation or destruction of the conserved resource works against the purpose of investing in its conservation and thus wastes taxpayer dollars.) Washington will encourage, where possible, the integration of low-impact nonconsumptive human activities with natural settings, consistent with the state comprehensive outdoor recreation planning (SCORP) process (IAC, October, 2002).

(2) Historic/Cultural

Historic and cultural resources are important to Washington citizens. Documentation of historic, archaeological, and/or cultural resources recorded with the Washington Office of Archaeology and Historic Preservation or identified in Tribal documentation will serve to verify significance of this attribute.

(3) Aesthetic

A good portion of Washington's economic vitality is attributable to the aesthetic amenities of the dramatic mountains to sea landscape the Pacific NW offers. Although aesthetic amenities are a more subjective attribute, these qualities will be considered important additional contributions, approved through majority agreement of the reviewing team.

Core Qualities

(1) Landscape Processes and Functions

Recognizing the integral linkages across watershed and shoreline landscapes, Washington's Coastal Zone Management Program increasingly addresses landuse management decisions from the perspective of first understanding the underlying processes and functions at work that support important landscape features. "Environmental processes operating at a landscape scale, such as the movement of water, wood and sediment, control both the type of habitat that forms in response to processes and how it will function. By considering the interaction of these landscape processes with climate, geology, and topography, a basic "picture" of habitat conditions, including alterations, can be obtained and preliminary measures to protect and restore these habitats identified." (Stanley, 2004)

Assessing the underlying workings of landscape processes, affords a clearer understanding of which landscape features are providing the most essential functional contributions to the integrity of the overall ecosystem. The term landscape includes the concept of marine "drift-cell units" where marine and aquatic elements of these dynamic interactive systems are part of the "processes" at work in the landscape.

Applying a landscape/shoreline ecological assessment of processes to build a network of sustainable estuarine and coastal biodiversity is a foundational concept in Washington's CELCP Plan. The use of this practice leads to a broader interpretation of "values" for preservation. When applying this concept what becomes worthy of preservation is a balance of those features which are both: 1) already known to be limiting and thus are identified generally as "important" and the 2) further local identification, when an ecological assessment of processes is conducted, which informs us the area may be "essential" for maintaining watershed function. Therefore, this plan presents an overview of those features which are known to be limited and therefore "important" to Washington. However, those target areas that are identified as "essential" to the maintenance of processes and functions within discrete landscape/shoreline areas are very location-specific and are still in the process of being identified as new and ongoing ecological assessment work progresses in Washington.

Projects that contribute significantly to landscape/shoreline processes and functions, as substantiated by a scientifically sound ecological assessment, will receive higher consideration in the project selection process.

(2) Corridors/Connectivity and/or Core Conservation Areas
From the understanding of landscape processes and function a network of core
preserves and/or protected management areas ("hubs") can be established.
Connecting these by corridors ("links") to each other builds the capacity for
sustaining biodiversity (Trust for Public Land, 2002). Candidate projects will be
examined for how they enhance existing protected areas to build the capability of
separated smaller "islands" of habitat to be more sustainable, or to provide a new
core area of protection that builds the capacity for sustaining biodiversity on the
landscape overall. A project may also add to the connectivity of protected

habitats and/or improve linkages to habitats of key importance as corridors of migration.

(3) Biodiversity: Salmon, Wildlife, Native Plant Communities Sustaining Washington's coastal and estuarine biodiversity includes addressing the importance of wildlife and their habitats. Species that are threatened or endangered and vegetation communities that are imperiled certainly come to the top of the list as being of immediate concern. Non-listed species and plant communities considered to be rare, declining, or vulnerable to disturbance are also of special concern. Additionally, those species and habitats that are being monitored for changing trends in populations or are currently still "common" are important to maintain in their status as common, such that further listings are not necessary. More and more it is recognized that keeping species from being listed in the first place means paying closer attention to the protection of the supporting ecosystems that sustain not only one species of interest, but a broad range of diverse species. Rather than being species-centric, Washington's CELCP Plan approach will be ecosystem-conscious by carefully considering the mix of listed and non-listed, rare and common, and unique and ecologically significant species compositions available in coastal and estuarine shorelines.

(4) Feasibility of success (property availability)

Under feasibility of success, sites will be evaluated for their readiness to proceed with acquisition. This readiness will certainly include property availability; timeliness and timelines of the project; public interest & local community support; established partnerships; options for purchase and opportunities on the property, *etc*. Demonstrated support from the local community and jurisdiction will be a significant factor in assessing timeliness of project completion.

It is generally known that land acquisition helps sustain the functional contributions of the landscape retaining natural infrastructure and contributing to the economic vitality of the local community's tax base (WA Dept. of Ecology, 2005). This understanding has also been identified in the Washington State Interagency Committee for Outdoor Recreation's (IAC) June 2005 report on *Habitat and Recreation Land Acquisition in Washington* to the State Legislature for Senate bill 6242 (IAC, June 2005). Since only local governments, conservation state agencies and tribal governments are eligible to submit project proposals under CELCP, tax-base issues will be addressed either directly by the local government's own decision to proceed or by any state agency acquisition oversight provided by the Interagency Committee for Outdoor Recreation (IAC) under Senate bill 6242.

(5) Long-term ease of management

Ease of management covers a number of issues. First is the need for inclusion of buffers to protect the desired features and for those buffers to be the appropriate widths. Additionally, the current condition of the property will be examined for level of environmental impacts. This will examine the condition of the habitat, the water quality, any known toxics present, and what invasive species are on the site. Adaptive management and monitoring needs will also be identified.

Threat

Imminent development of, or heavy use impacts to, a high quality coastal or estuarine area is of highest concern in this Program's focus. Threats which are immediate and most dangerous to an identified high-quality system for preservation will raise the likelihood of that candidate project being nominated for funding.

CZM Consistency

The elements above are consistent with Washington's Coastal Zone Management Program. Certainly, protecting the features of wetlands, shorelines, and adjacent uplands is a focus of the Coastal Zone Program. Those features are clearly identified and discussed within the Washington CZM Plan.

The concepts presented in the "Core Qualities" category are also emerging "core" elements of Washington's current CZM efforts. Ecological assessment of landscape/shoreline processes is a new direction under Washington's Shoreline Management Act (SMA) guidelines (the regulatory arm of the program). Local governments are being provided with technical assistance to apply the concepts of best available science to conduct sound ecological assessments for making land management decisions. These local ecological assessments, as they are completed, are guiding implementation actions under local regulatory efforts which include SMA and the state's Growth Management Act (GMA). Increasingly, more local governments are recognizing the importance of establishing strong non-regulatory programs to address the preservation and restoration issues identified in these ecological assessments. Ecological assessment work has just begun, and promises to provide important new insights into our understanding of the landscape and how to maintain a functioning and diverse environment.

D. Description of Existing Plans

Project site identification and nomination for funding will be supported by several efforts already completed or underway within Washington. The following plans call out natural resource areas of highest interest and importance to the state in the respective areas of salmon, wildlife, native plant communities, biodiversity, and landscape/shoreline processes. These plans (and their resource databases) will be used as core references, providing assessment information which will help identify what areas should be focused on, thus serving to substantiate the relative value of a candidate project site. These

plans, however, are not the exclusive references or definitive works on which a project approval will be based.

Best professional scientific judgment will also be applied to the evaluation of a proposed project site to balance missing gaps in data information available to these plans. This should assure that a significant area which may not have been pre-identified (up to this point) is provided equal opportunity for protection provided it clearly meets the Program's focus for conservation of ecologically significant coastal and estuarine lands.

Washington is rapidly developing new ecological assessment information. Some information has just been completed and some is currently underway, while more is planned for development in the very near future. Several factors contribute to this fortuitous situation. First among them is the decline of salmon runs in the Pacific Northwest. Although this situation itself is unfortunate, an outcome has been a large mobilization on the part of government at all levels and citizen/community interests to better understand salmon habitat needs and the ecological workings of watershed systems on the landscape.

Conflicts over allocation of water rights resulted in state-legislated watershed planning funds to mobilize the creation of watershed-wide planning councils to examine resource conditions and address allocation solutions that consider maintenance of in-stream flow. Additionally, regulatory planning and implementation in Washington has shifted in recent years to a greater emphasis, partly under legislative mandate, toward improved protection of sensitive critical areas and shoreline environments. Updates to local planning and regulatory efforts are directed to incorporate a "best available science" understanding of natural resource needs.

To accomplish all of the above requires more scientific information about watershed and shoreline processes and functions on the landscape. Thus, more locally conducted ecological assessment work is underway at all levels from watershed and sub-watershed to county and city jurisdictions. The sharing of information about available ecological assessment approaches and implementation solutions is spreading rapidly leading to more jurisdictions conducting ecological assessment work.

Thus, it should be noted that the following list of reference assessments and program efforts is ever expanding. And as it does, new and valuable information will become available regarding ecologically significant coastal and estuarine areas. It is in the best interest of coastal and estuarine resource protection in Washington that the CELCP Plan be open to "new science" in the form of new assessment data as they become available, thus substantiating a project site's ecological role. Therefore, the list below highlights broader state and/or regional efforts, but does not detail all of the prolific and evolving local assessment work that will also be referenced in determining a proposed project's significance.

Washington's CZM Program

Washington's Coastal Zone Management Program will certainly provide the background guidance for all project proposals. Within the Plan several areas of the coastline are mentioned as coastal areas of interest. This does not place the focus of efforts exclusively on these areas, but rather encourages the awareness of their uniqueness and discrete environmental issues. The awareness of these discrete issues is maturing as more environmental work in these locations is completed. By recognizing these emerging coastal issues as they unfold in the respective regions of the state, Washington's CZM Program can incorporate this knowledge into the candidate project selection process under the Plan's review of current threats and ecologically significant issues.

The Nature Conservancy's Ecoregional Assessments

Across the nation, The Nature Conservancy (TNC, a national, non-profit land preservation organization) has conducted ecological evaluations to target highly diverse areas of the landscape under a process called "ecoregional assessment." These ecoregional assessments examine discrete areas ("ecoregions") of the country which have distinctly different geology, topography, climate, and vegetation. These ecoregions are big enough to encompass natural processes and to capture the distribution of representative species and communities. Conservation blueprints are developed from these assessments that contain the important ecological representations of the ecoregion.

In Washington, there are two ecoregions that encompass the entirety of Washington's coastal areas. These are the *Willamette Valley-Puget Sound-Georgia Basin (WPG)* and *Pacific NW Coast* ecoregions. The assessment for WPG was completed in March 2004, and the Pacific NW Coast assessment in January 2005. With the completion of these two assessments Washington has a portfolio of "regionally significant" conservation target areas that are rich in species and habitats of interest to the resource community of scientists, agencies, and non-profit conservation groups.

Strengths & Weaknesses: The ecoregional assessments are recognized as a highly valuable assess to Washington States CELCP Plan; providing a foundation for project site understanding across the region. The ecoregional assessments do, however, have certain strengths and weaknesses which must be recognized in their application to the CELCP Plan and its consideration of other database and assessment tools that are valuable as well.

Coarse Scale: This assessment identifies larger blocks or polygons of rich biodiversity that are targets as "regionally significant" sites, thus providing a "coarse scale" of identification across the region. It is an excellent tool for quickly targeting the remaining rich biodiversity in the region. However this course scale needs to be matched with a "finer scale", more locally-based, project site identification as well.

Habitat Coverage: The assessments examined three types of habitat environments: terrestrial, marine, and freshwater. Through a series of data

overlays specific to each of these environments, augmented by consultation with scientific experts, the composite of highest quality sites was identified. Contributing datasets to the assessment included numerous State and Federal Program resource databases such as: Natural Heritage Program, State Priority Species and Habitats, State Aquatic Resources, National Wetlands Inventory, *etc*. The strength of this work lies in the compilation of these different datasets for identification of areas where multiple data hits indicate biodiverse systems of importance.

The weakness of this work is in the limitation of the data: where survey efforts are not comprehensive, species' needs are not known, or species themselves are entirely overlooked (such as invertebrates and mollusks for example). One species which the assessment data did not include comprehensively was salmon. A diverse array of information is being gathered by local salmon recovery groups in Washington and is in various stages of completion. The breadth of effort needed for the addition of this information was beyond the scope of this assessment therefore experts were relied upon to generally assure that important salmon reaches were included as products.

Threat: Ultimately the sites which TNC selected as targets of regional importance where those located away from urbanized areas where land blocks were both more intact and land costs were lower. Areas with diversity in more disturbed and threatened areas were not the target for selection in the "portfolio". This makes sense in the context of The Nature Conservancy's mission for land preservation – securing high quality essential areas quickly before they are lost. However, in the context of CELCP's focus on securing essential coastal and estuarine areas that are under immediate threat, the portfolio of sites might not necessarily correlate with immediate threat in urbanized locations. In fact, by excluding urbanizing areas, some quality sites worth purchasing may be missed, since the portfolio selection is driven by a land percentage limit for the region-wide package. Thus, to some degree the focus on only sites in the selected portfolio may limit recognition of non-portfolio sites which may still have high diversity values but be more vulnerable to immediate threats from human-use.

Connectivity and Corridors: Corridors and connectivity across environments were admittedly not a focus of the ecoregional assessments. Again this level of identification may best be examined at the finer-scale level of locally-based environmental assessment work.

Washington Department of Natural Resources Natural Heritage Plan

In 1972 the Washington State legislature passed the Natural Area Preserves Act to be administered by Washington's Department of Natural Resources (DNR.) The legislation recognized the importance of preserving for current and future generations unaltered natural ecosystems and the plants and animals living within them. Under this legislation,

the work of the Natural Heritage Program has been to preserve highest quality remaining examples of native plant communities and habitats within the state. Natural area selection is driven by the presence of priority ecosystems and species. Lists of these priorities are available on the Natural Heritage Program website at: www.dnr.wa.gov A supporting database of quality sites (Tier I and Tier II) is maintained by the Heritage Program as well. This database helps to inform local decisions on land use management, as well as provide targets of quality habitats to preserve under other conservation program efforts.

The Natural Heritage Program database will be an asset to the CELCP Plan project review process in identifying ecologically high quality coastal and estuarine sites.

WDFW's Comprehensive Wildlife Conservation Strategy

The Washington State Department of Fish and Wildlife has completed a Comprehensive Wildlife Conservation Strategy (CWCS), developed under the new federally authorized Wildlife Conservation and Restoration Program. The program helps state and tribal agencies address the unmet needs of wildlife and associated habitats with grant funds to implement the CWCS. The comprehensive strategy (1) includes information about the distribution and abundance of wildlife species, including low populations and declining species, which is indicative of the diversity and health of wildlife in Washington,(2) addresses the extent and condition of wildlife habitats and community types essential to the conservation of priority species, (3) identifies problems that may adversely affect priority species or their habitats and factors to conserve them, and (4) determines actions needed to conserve priority species and habitats and establishes priorities for implementing these conservation actions. A goal of the strategy is to keep "common species common".

WDFW's general species and habitat goals include the protection of a full range of fish and wildlife diversity, maintenance of healthy fish and wildlife populations and habitats, recovery of endangered and threatened species, and providing sustainable harvest of game and commercial species. Toward this end, the Department maintains the *Priority Species and Habitats* database. This database includes information about a broad range of species, and identifies key species, their habitat locations, and population numbers.

This database, in conjunction with the CWCS guidance, will be used for documentation of coastal and estuarine species associated with proposed projects under Washington's CELCP Plan. These products are accessed at the website: www.wdfw.wa.gov.

Washington Salmon Recovery

In 1999 the Governor's Salmon Recovery Office was created and a statewide strategy to recover salmon entitled "Extinction Is Not An Option" was released. In the context of this plan a roadmap for salmon recovery was laid out. Alongside directives for

addressing hydropower, harvest, and hatcheries, was the major concern for a key salmon element – habitat. A mobilization to remove barriers to habitat access began.

Local watershed groups were created that focused on salmon habitat needs. Inventory and assessment work was begun, and funding programs were established to secure and restore salmon habitat. Local communities and salmon recovery groups started on-the-ground work to give habitat back to salmon.

Currently, there are major efforts underway, both statewide and regionally, to address salmon recovery needs. From these efforts a considerable amount of ecological assessment work and project site identification has been completed using various levels of scientific rigor. One of the ecologically-valued models receiving a strong level of scientific support is the Ecosystem Diagnosis and Treatment Model (EDT). Numerous watershed assessments, but not all, have incorporated EDT as the foundation for prioritizing preservation areas. EDT examines aerial photography to compare historic habitat to current levels and applies a model that identifies habitat attributes that are most likely to have caused salmon decline. The result is the identification of degraded habitat attributes and reaches, but not site parcels.

Major salmon recovery assessment work and planning is underway throughout the Puget Sound and the lower Columbia River Basin. Within the Puget Sound a new non-profit organization called the "Shared Salmon Strategy" (SSS) is mobilizing players across watersheds to collaborate on recovery efforts. It is providing standardized guidance to watershed groups and local governments for how to conduct assessment work and offers an over-all organizational structure for the process of recovery. It specifically identifies estuarine areas and lowland riparian protection and restoration as keys for salmon recovery. With the SSS standardized guidance, local communities will conduct additional local-scale ecological assessment work.

Washington's CELCP Plan will consider ecologically sound scientific assessments conducted to benefit understanding of salmon habitat needs during evaluation of proposed project sites. These assessments would include those conducted by tribes and intergovernmental watershed councils, as well as other sanctioned research efforts.

The Lower Columbia River Estuary Program/Plan

The Lower Columbia River Estuary Program (LCREP) is an excellent example of an ecosystem recovery effort that addresses the broader spectrum of ecosystem issues necessary to achieve effective end results. The LCREP Partnership is a two-state, public-private initiative that focuses on the 146 miles of the lower Columbia River up to Bonneville Dam. The Lower Columbia River became part of the National Estuary Program in 1995. The LCREP was the first national estuary program to integrate a comparative risk assessment into its management plan development. The comparative risk ranking helped focus attention on the most significant problems in the river. Working with citizens and technical experts, the ranking resulted in the identification of

the "loss of wetlands and other habitat" as the number one problem, posing the greatest threat to human health, ecosystem health, and quality of life.

The LCREP embodies the committed engagement of citizens, local governments, state and federal agencies, ports, tribes, industry, agriculture, *etc*. A full complement of the "public" of the Lower Columbia River has been engaged in management plan development. High on the list of management goals is an increase in habitat and habitat functions in the estuary. The Lower Columbia River Estuary Program Partnership is currently engaged in a habitat mapping project to assess aquatic and wetland habitat condition in the Lower Columbia River. The identification of critical habitats for the life stages of native species such as salmon will help guide future projects, allowing resource managers to make prudent, science-based decisions on protecting and restoring habitats critical to native species. Two years into the project, efforts are concentrated on the estuarine portion of the river from the river's mouth to River Mile 46.

Washington's CELCP Plan will consider the assessment work of the LCREP as a quality reference for project site identification in the Lower Columbia River.

Local Ecological Assessments

Numerous locally-based ecological assessments have been conducted around the Puget Sound to document watershed/shoreline processes and identify appropriate sites for protection and restoration. Some of these assessments are being used as the foundation of regulatory programs and ordinances to protect shorelines and critical areas within the jurisdiction's boundaries. Other site identification work is focused on non-regulatory preservation and restoration needs alone. Most often, as local jurisdictions complete ecological assessments, they are using them as a foundation for both regulatory and non-regulatory actions in a more proactive fashion. Most of the ecological assessment is in its' fledgling stages. A few assessments are done, several are in process, and many more are expected in the coming few years.

Several of these local assessments are breaking new ground by examining drift cell processes along the marine nearshore such as in the *City of Bainbridge Island's Nearshore Study* (2004.) Others are comprehensive inventories and analyses of shoreline areas to identify and prioritize sites with the highest biological importance, applying project feasibility criteria to the mix, such as the *Skagit County Blueprint* (2004.)

Additionally, there are local planning efforts underway which analyze the landscape from the perspective of avoiding development impacts to natural and critical areas. In Washington, some jurisdictions are applying this "Alternative Futures" analysis to redirect development and identify important acquisition and restoration areas. A high degree of scientific rigor is used to understand the sensitivities and limitations of landscape features and demonstrate these on a map showing alternative futures for development. The end result offers clear substantiation for why particular features and/or natural areas should be preserved.

These types of assessments are just coming on line, while others are under development. Although these assessments are moving forward, one-by-one, they are highly valuable for their integration of landscape processes and their site-specific project identification. Therefore, the Washington CELCP Plan will reference those local ecological assessments, conducted in a scientifically sound manner, as a basis for project site evaluation and identification. These local assessments are the "fine" filter site identification that matches the "coarse" filter assessments conducted by TNC at the ecoregional level. Each will be considered in Washington's CELCP Plan project selection.

Future Elements

A few additional elements are worth mentioning for their value to Washington's CELCP Plan in the future. There are three large efforts underway which cover important areas for CELCP.

(1) The *Puget Sound Nearshore Ecosystem Restoration Program* (PSNERP) is a large-scale comprehensive initiative to protect and restore the natural processes and functions of the nearshore ecosystem in Puget Sound. The program is constructed around a federal cost share agreement between the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife.

PSNERP goals are to protect and restore both: 1) the natural processes that create and maintain the Puget Sound and 2) the functions and structures that support the nearshore ecosystem. Two of the implementation strategies are to connect and integrate PSNERP with related restoration and protection efforts, and to develop a strategic restoration plan based on a spatially explicit assessment of nearshore ecosystem restoration needs. Toward this end PSNERP is working with local communities to integrate fundamental guiding principles into nearshore ecological assessment work. This integration should augment local efforts with a strong restoration component that will be of value to the ongoing CELCP effort.

- (2) Washington State is developing a statewide *Biodiversity* report due at the end of 2007. This effort will elaborate on biodiversity conservation needs throughout the state and engage communities, local governments, and citizens in biodiversity awareness and action. Biodiversity conservation is an important component of the Washington CELCP Plan. The state will take any needed actions to link the CELCP Plan and the Biodiversity Conservation effort as it unfolds.
- (3) The Trust for Public Land (TPL) is in the process of finalizing the *Puget Sound Greenprint*. The Greenprint should identify important conservation areas with an eye to public recreation and aesthetic issues as well. Greenprints, by their nature, examine the connectivity of protected areas and corridors of importance at the local scale. This

product should provide additional information to inform the CELCP Plan project selection process by incorporating these additional elements in a formal assessment.

State Process for Implementing the CELCP Plan

A. State Lead Agency

The agency responsible for coordinating the establishment and implementation of the CELCP in Washington is the Department of Ecology (Ecology). Ecology has been the lead agency implementing Washington's Coastal Zone Management (CZM) Program since 1976. Within the Department, the Shorelands and Environmental Assistance (SEA) Program administers Washington's CZM efforts. The SEA Program oversees implementation of the state's Shoreline Management Act (SMA) which regulates development activities within 200 feet of Washington's shorelines. Coastal Zone Management in the SEA Program also focuses on watersheds, floodplains, and wetlands management in general. SEA Program staff provide direct technical assistance to local governments and local watershed groups/councils working on these resource management issues. The SEA Program also houses the administrative staff for the Padilla Bay National Estuarine Research Reserve.

Ecology's principal mission is to regulate and manage environmental pollution for the protection of Washington's essential air, water, and land resources. With this mission, Ecology has not been the principal land holding agency of the state. However, Ecology has been an active participant in assisting local governments and other agencies to secure important resource areas, both under CZM 306a funding and using other federal and state funding programs. When Ecology has passed funding through to local or tribal governments or to other state agencies, conditions and terms for land management have been placed on the property deeds.

Under the CELCP Plan Ecology will not hold full-fee title to the project properties, but will continue the practice of conditioning deeds with grant funding terms and any appropriate conservation conditions. Should a change from conservation status occur, the conditioning with grant terms and or conservation deed restriction will provide a course of action for minimizing the conservation loss and/or recovering the financial investment.

The conditioning of deeds with grant terms is also the practice used by the Washington Interagency Committee for Outdoor Recreation (IAC). The IAC is the state's largest granting agency, providing funding to local governments and state agencies for recreation lands, conservation lands, and salmon recovery. It administers the state's Washington Wildlife and Recreation Program (WWRP), the Aquatic Land Enhancement Account (ALEA), and the Salmon Recovery Fund (SRF), as well as certain other recreation grants. The WWRP, ALEA, and SRF grants provide state/federal funds to local, tribal, and state agencies, as well as non-profit organizations, for the purposes of acquiring and/or

restoring lands. The IAC is not a land-holding agency either. It too, relies on restrictions on property deeds to assure compliance in perpetuity with conservation terms.

B. Eligible Land Holding Agencies

Ecology will be allocating CELCP funding to the following eligible recipients:

- (1) Local governments
- (2) Governments of Federally recognized Indian Tribes
- (3) Padilla Bay National Estuarine Research Reserve (NERR)
- (4) Washington State agencies:
 - a. Department of Fish and Wildlife (DFW)
 - b. Department of Natural Resources (DNR)
 - c. Washington State Parks and Recreation Commission (State Parks)

Local Governments: Fifteen Washington counties will have lands within saline-influenced range under Washington's CELCP Plan. These include the counties of Clallam, Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum, and Whatcom. Both counties and the cities within them have the legal right to own and manage resource lands. Local governments are also expected to be key players in the protection of ecologically significant coastal and estuarine lands within their local geographic boundaries. Local governments are likely to play the role of supporting important projects that have been identified in local ecological assessment work that covers either the jurisdiction or basin/sub-basin. They are also most likely to work in collaboration with local marine resource councils, watershed councils/committees, and citizen initiatives.

Tribal Governments: Washington State has 29 federally recognized Indian Tribes. Not all of these tribes are situated in the vicinity of Washington's coastline, but many, if not most, of them are. Tribal government sovereignty extends to the management of fish and shellfish where concerns focus on maintaining watershed health for sustained resource viability of salmon and other species. Tribal work addresses the protection and restoration of key habitats with major emphasis on in-stream water flows and protecting essential areas from loss. The coastal and Puget Sound tribes are expected to be important players in protecting significant marine resources under CELCP.

Padilla Bay NERR: National Estuarine Research Reserves are eligible for funding under the federal guidelines for the competitive portion of CELCP. The Padilla Bay National Estuarine Research Reserve is the only NERR in Washington. It is administered by the Department of Ecology and, therefore, is potentially eligible to receive grant funding under CELCP for direct land acquisition. With Ecology as the lead agency for administering Washington's CELCP Plan, funding would come directly through the Shorelands and Environmental Assistance Program in which the Padilla Bay NERR is also administered. Although Ecology does not directly purchase and/or own full fee title to conservation lands, the agency can accept less-than-full fee ownership in the form of a

conservation easement or deed restriction. Padilla Bay, as a NERR, falls outside this limitation. Unlike the agency of Ecology, it is authorized for outright fee-title ownership of conservation lands as part of the Reserve. Therefore it too is eligible to receive direct funding from CELCP.

State Agencies: The state agencies that have traditionally owned and managed resource lands have been the Departments of Fish and Wildlife (DFW) and Natural Resources (DNR), and the Washington State Parks and Recreation Commission (State Parks). Each of these agencies provides a key role in protecting important resource lands of high value to the state. The DFW owns and manages critical fish and wildlife habitats supporting life history stages of valued populations. The DNR owns and manages state forest lands, Natural Heritage rare plant communities, Natural Resource Conservation Areas, and aquatic resources. State Parks conserves various types of valued resource lands around the state with a general focus on recreation, although some of its lands are internally classified and managed as natural areas. State Parks also administers the Seashore Conservation Areas along the Pacific Coast, per state statute. Each of these agencies will have an active role to play in protecting regionally significant coastal and estuarine lands under Washington's CELCP Plan.

C. State Nomination Process

Solicitation of Projects

The process for submitting projects for national review begins with receipt of a Request for Proposals (RFP) from NOAA. NOAA begins the notification process to states when federal allocations have been authorized for CELCP expenditure. This may or may not occur on an annual basis, as it is solely at the discretion of Congress.

Once an RFP has been received, Ecology will solicit project applications from the qualified entities. At Ecology's discretion, an annual project solicitation may focus on specific priorities or areas identified in the approved CELCP Plan, as deemed necessary based on urgency of resource need. Candidate project proposals may also be conditioned with a minimum threshold funding request (i.e., funding "floor") to limit overall project submittals to a manageable number.

Based on the requirements of Ecology's solicitation for project applications, eligible applicants would submit proposals within the allotted timeframe. A framework of necessary information will be provided to the applicant at that time to guide both structure and content of the project proposal. Details of Washington's CELCP Plan priorities and review criteria questions will be provided such that the applicant is aware of the parameters for scoring and prioritizing proposals. As stated in the federal guidelines, "a project proposal that includes several separate and distinct phases may be submitted in phases, but any succeeding phases must compete against other proposals in the year submitted."

State Review and Prioritization

<u>Proposal Acceptance</u>: Ecology determines whether a proposal should be accepted for consideration on the basis that it is (1) complete and (2) eligible under the national and state criteria. If the application is incomplete, Ecology can choose to provide additional time for the applicant to submit missing information. It will be recommended that applicants notify Ecology early regarding a pending project submittal. This will: (1) afford technical guidance regarding proposal content to be offered prior to the closing deadline, and (2) allow for a project's competitive viability to be assessed prior to the applicant's investing extensive time in completing a full proposal.

Proposal Review and Ranking: Project proposals will be ranked according to the degree to which they meet Washington's CELCP Plan criteria. Thirty percent (30%) of the total points will be based on the project's Ecological Values and thirty percent (30%) on Conservation Values. The remaining forty percent (40%) will be spread out to rank the Threat of Conversion, Manageability, Proponent's Ability to Acquire Land, Public Access, Historic or Cultural Attributes, Aesthetic Attributes, and Project Support and Partnerships. Project evaluations will be conducted by a state CELCP review panel. The CELCP review panel will consist of no less than eight and no more than twelve members. A panel of this size allows for enough scorers to balance out the scoring and provide for a fair and equitable process. Panelist selection will seek to incorporate a range of expertise relevant to the coastal and estuarine resource areas of interest. The panel membership will include a mix of local, state, and tribal representation, nonprofits, university and other researchers, Padilla Bay NERR, and project team members with special resource expertise (such as PSNERP Nearshore Science Team, Lower Columbia Estuarine Partnership, etc.) A full disclosure of ground rules will be provided to reviewers prior to project review.

Project proposals will need to validate any claims of resource attributes present on the site with clear documentation. Project applicants may reference existing state databases, scientifically sound ecological assessments, and research/study documents, as well as scientific expertise, to make the case for a project site's quality.

Once all project proposals are submitted to Ecology, the CELCP review panel will be convened and the proposals ranked. It is not anticipated that in-person project presentations will be required of applicants; however, clarification questions may be addressed to the applicant by Ecology at the time of project review and ranking. Notification of project status will be provided to the applicant following panel review and selection.

The final step is when a list of prioritized projects is submitted to NOAA for consideration at the national level competitive review.

NOAA will publish a Federal funding opportunity notice to solicit project proposals from eligible states each year. The schedule for this process may vary. Based on the federal RFP, Ecology would then announce a formal request for proposals to all eligible parties, with a reasonable turnaround time (such as a month) to complete the project proposal. Applications submitted within the appropriate timeline would be reviewed and ranked by the CELCP review panel and submitted to NOAA within the federally authorized timeline.

Match Funding Sources

Washington State has several strong funding programs that could provide the 50% match required for CELCP project applications. Of course, there are many other match funding options, but these exceptional programs are worth mentioning.

(1) Salmon Recovery Funding Board (SRFB) – "state funded portion" The SRFB provides project funding for land acquisition and/or restoration of salmon habitat throughout Washington. Projects are prioritized for submittal to the state SRFB by each local watershed lead entity. (Note: A lead entity represents the community, within watersheds, on salmon recovery efforts at the local government level.) Historically, the SRFB has received \$14 to \$35 million annually. Project awards vary but range from \$5,000 to \$1.4 million. (Note: Administered by the IAC.)

(2) WA Wildlife & Recreation Program (WWRP)

The WWRP provides grants to tribes, state agencies, or communities for a broad range of land protection, park development, preservation, conservation, and outdoor recreation activities. It has two goals: to assist with rapid acquisition of the most significant lands for wildlife conservation and outdoor recreation purposes before they are converted to other uses; and to develop existing public recreation lands and facilities to meet the needs of present and future generations. Historically the program has received \$45-\$65 million per biennium. Project awards vary across categories but range from \$10,000 to \$1 million. (Note: Administered by the IAC.)

(3) Aquatic Lands Enhancement Account (ALEA)

This program increases public recreation, shoreline access, environmental protection and other public benefits associated with state aquatic lands. Grants are provided to tribal, state, and local governments for acquisition of land (tideland, freshwater shorelines, uplands, and wetlands); restoration of critical marine, estuarine, and riverine habitats; and public access to water. Available funds depend on state allocation of revenue generated by Department of Natural Resources managed geoduck harvesting and leases of state-owned aquatic lands. Historically, the Program has received \$3 to \$6 million each biennium. Project awards range from \$5,000 to \$1 million. (Note: Administered by the IAC.)

(4) Local Conservation Futures (CF)

Under the state Current Use Taxation Law (RCW 84.34, Section 200) local governments are authorized to raise funds for open space preservation through purchase of easements, development rights or full-fee purchase. Counties, at their discretion, are authorized to adopt a property tax levy of up to \$0.0625 per \$1,000 of assessed valuation. The funds may be credited to a special conservation futures fund and accumulated funds may then be used to acquire interest in conservation lands as authorized by the statute. The statute specifically authorizes the preservation of natural and scenic resources; wetlands, beaches, or tidal marshes; parks, preserves, and open space; recreation and historic sites, etc. At least ten of the fifteen coastal counties have enacted CF funds. These counties have a distinct advantage with this immediate funding source to use it as match for leveraging additional preservation funds from state and federal grant programs.

Coordination and Public Involvement

A. Interagency Coordination

The Washington State CELCP Plan was developed in cooperation with a number of knowledgeable participants. Early in the process, Ecology established a CELCP Technical Advisory Group (TAG) that convened to discuss set-up of Washington's Program. The CELCP TAG consisted of representatives from:

- (1) Each of the State's land holding agencies of DFW, DNR, and State Parks.
- (2) Puget Sound Action Team which oversees Puget Sound marine Issues
- (3) Governor's Salmon Recovery Team
- (4) IAC which oversee grant funding to state, local, tribal, and non-profit groups
- (5) Washington Pacific Coast Joint Venture
- (6) Padilla Bay National Estuarine Research Reserve
- (7) U.S. Fish and Wildlife Service's Puget Sound Program
- (8) Tribal Government the Squaxin Tribe
- (9) Local Government Snohomish County
- (10) Land Trust Non-profit: The Nature Conservancy and Cascade Land Conservancy

Each of these agencies, governments, or organizations has had an active role in the management of coastal and estuarine resources. Each is engaged in land acquisition and restoration issues, either directly or by providing management guidance to others. Each individual participating from these agencies, governments, or organizations has a wealth of knowledge about the ecological significance of Washington's coastal and estuarine resources.

The guidance provided by this team facilitated an expeditious resolution to key questions needing definition in the CELCP Plan. Members participated in both the development and early review of the plan and many are likely to be participants in the project review phase as well.

In addition to this technical team of advisors, the national conservation organization The Trust for Public Land has provided valued technical insight and advice during CELCP Plan development and finalization.

B. Public Involvement

Prior to convening the CELCP Plan TAG, a series of contacts were made with the major estuarine management groups and organizations around western Washington's coastal communities. These contacts were conducted to: (1) inform about CELC Plan development, (2) scope out regional concerns, and (3) identify resources considered to be of high ecological significance. Some of the regional areas examined were: the lower Columbia River, Willapa Bay, the Northwest Straits, Skagit Estuary, Snohomish Estuary, Hood Canal, and Nisqually River. Conversations were held with the Lower Columbia Estuary Partnership, Willapa Bay Water Resource Coordinating Council, Northwest Straits Commission, Skagit Watershed Council, Hood Canal Coordinating Council, Nisqually Chinook Recovery Team, the Quinault Indian Tribe, and others.

All tribal nations were notified of the CELCP Plan development and their involvement solicited to serve on the technical advisory group. Numerous technical specialists were consulted regarding advice about completed ecological assessments, watershed studies, and resource data. Additionally, websites were consulted for resource information from a broader range of watershed groups, local technical councils, and non-profit resource groups engaged in coastal and estuarine resource issues.

At the outset Ecology prepared a web address with information about the CELCP Plan for broader information distribution to the general public. From this advertised web page, a copy of the Draft Plan was posted for public notification and comment. Advertisement of the Plan's availability was sent to local governments, tribes, agencies, and other interested parties. Following the draft review period, public comments were reviewed and the Final Plan completed.

Certification and Approval

A. Certification of Consistency

This plan was prepared by the lead state agency responsible for administering the federal consistency provision of the Coastal Zone Management Act, and is consistent with the enforceable policies of the state's federally approved coastal zone management program.

B. Plan Approval

Gordon White Shorelands & Environmental Assistance Program Manager

Bibliography

Bailey, Robert G. 1995. *Description of the Ecoregions of the United States*. 2nd ed. Misc. Publ. No. 1391, Washington, D.C.: USDA Forest Service.

Canning, Douglas, and M. Stevens. October 1989. *Wetlands of Washington: A Resource Characterization*. (white paper) Washington Department of Ecology. Olympia, WA.

City of Everett, Environmental Protection Agency, WA Dept. of Ecology, & Puget Sound Water Quality Authority. April 1997. *Snohomish Estuary Wetland Integration Plan*. Pg. 3-2.

Floberg, J., M. Goering, G. Wilhere, C. MacDonald, C. Chappell, C. Rumsey, Z. Ferdana, A. Holt, P. Skidmore, T. Horsman, E. Alverson, C. Tanner, M. Bryer, P. Iachetti, A. Harcombe, B. McDonald, T. Cook, M. Summers, D. Rolph. March 2004. Willamette Valley-Puget Trough-Georgia Basin Ecoregional Assessment, Volume One: Report. Prepared by The Nature Conservancy with support from the Nature Conservancy of Canada, Washington Department of Fish and Wildlife, Washington Department of Natural Resources (Natural Heritage and Nearshore Habitat programs), Oregon State Natural Heritage Information Center and the British Columbia Conservation Data Centre.

Fung, Jessemine, K/O'Connell. M. Calvi, P/Bloch J. White. April 2004. *Northern Skagit County Bays and Shoreline Habitat Conservation and Restoration Blueprint*. Prepared for Skagit County Marine Resources Committee. People for Puget Sound. Seattle, WA

Interagency Committee for Outdoor Recreation. 2002. State Comprehensive Outdoor Recreation Plan (SCORP). Olympia, WA.

Interagency Committee for Outdoor Recreation. 2005. *Toward a Coordination Strategy for Habitat and Recreation Land Acquisition in Washington State*. Final Report submitted to the Washington State Legislature. Olympia, WA. Website: www.iac.wa.gov/documents/IAC/6242/draft_material/appendices-links.htm

Puget Sound Action Team. 2005. *Draft Puget Sound Salmon Recovery Plan*. Edited by Redman, Myers, Averill. Olympia, WA.

Puget Sound Action Team. 2005. State of the Sound 2004. Olympia, WA.

Stanley, Stephen. 2004. *Landscape Analysis for Wetlands Being Used in State*. About Growth. Washington State Department of Community, Trade and Economic Development; Olympia WA.

Trust for Public Land with National Association of Counties. 2002. *Local Greenprinting for Growth.* Austin, Texas.

Washington Department of Ecology. 1976. Washington State Coastal Zone Management Program. Washington Department of Ecology, Olympia.

Washington Department of Ecology. Teri Granger (editor). 2005. *Wetlands in Washington State, Vol. 2: Guidance for Protecting and Managing Wetlands*. Pub. #05-06-008 at http://www.ecy.wa.gov/biblio/0506008.html.

Washington Department of Ecology. Therese Swanson (editor). 2001. Managing Washington's Coast: Washington State's Coastal Zone Management Plan, Publication #00-06-029. Olympia, WA.

Washington Department of Natural Resources. 2003. *State of Washington Natural Heritage Plan.* Olympia, WA.

Washington Governor's Salmon Recovery Office. 1999. *Statewide Strategy to Recover Salmon: Extinction is Not an Option.*. Olympia, WA.

Williams, Gregory, R. Thom, N. Evans. 2004. *Bainbridge Island Nearshore Habitat Assessment, Management Strategy Prioritization, and Monitoring Recommendations*. Prepared for City of Bainbridge Island. Battelle Memorial Institute.

WEB Site References

City of Bainbridge Island Nearshore Habitat Assessment: www.ci.bainbridge-isl.wa.us

Lower Columbia River Estuary Partnership & Program: www.lcrep.org

Puget Sound Nearshore Restoration Project: www.pugetsoundnearshore.org

Shared Salmon Strategy: www.sharedsalmonstrategy.org

The Nature Conservancy's Ecoregional Assessments: www.tnc.org

The Trust for Public Land, Greenprint for the Puget Sound, www.tpl.org

WA DOE Coastal Zone Management Program: www.ecy.wa.gov

WA DFW Comprehensive Wildlife Conservation Strategy: www.wdrw.wa.gov

WA DNR Natural Heritage Program: www.dnr.wa.gov

WA CELCP Plan April 2007

Appendix A

Water Resource Inventory Areas Numbers & Names

WRIA	Name	HUC 8	HUC Name
01.	Nooksack	17110004	Nooksack*
		17110001	Fraser*
02.	San Juan	17110003	San Juan Islands
03.	Lower Skagit-Samish	17110007	Lower Skagit*
04.	Upper Skagit	17110005	Upper Skagit*
		17110006	Sauk*
05.	Stillaguamish	17110008	Stillaguamish
06.	Island	Contained v	within Puget Sound 17110019
07.	Snohomish	17110011	Snohomish*
		17110009	Skykomish*
		17110010	Snoqualmie*
08.	Cedar-Sammamish	17110012	Lake Washington
09.	Duwamish-Green	17110013	Duwamish
10.	Puyallup-White	17110014	Puyallup
11.	Nisqually	17110015	Nisqually
12.	Chambers-Clover	Uncertain which HUC-8 a part of	
13.	Deschutes	17110016	Deschutes
14.	Kennedy-Goldsborough	**	
15.	Kitsap	**	
16.	Skokomish-Dosewallips	17110017	Skokomish*
17.	Quilcene-Snow	**	
18.	Elwha-Dungeness	17110020	Dungeness-Elwha
19.	Lyre-Hoko	17110021	Crescent-Hoko
20.	Soleduck-Hoh	17100101	Hoh-Quillayute
21.	Queets-Quinault	17100102	Queets-Quinault
22.	Lower Chehalis	17100105	Grays Harbor*
		17100104	Lower Chehalis*
23.	Upper Chehalis	17100103	Upper Chehalis
24.	Willapa	17100106	Willapa Bay
25.	Grays-Elochoman	**	

Notes:

^{1.} In the WRIA system, Puget Sound waters are a part of their adjacent WRIA basin; in the HUC system, Puget Sound waters form its own 8 digit HUC: 17110019.

^{2.} HUC names marked with an asterisk (*) indicate HUC-8 watersheds which don't exactly match the bounds of their corresponding WRIA watershed. In some instances a single WRIA occurs as two HUC-8s and is indicated in the table.

^{3.} HUC numbers marked with a double asterisk (**) indicate WRIAs for which there is no suitably synonymous HUC-8 watershed.

^{4.} HUC names marked with a triple asterisk (***) indicate WRIAs which are partly contained within the HUC-8 Strait Of Georgia watershed (17110002).