

**2012 Coastal Estuarine Land Conservation Program
Dabob Bay Coastal Conservation and Natural Area Expansion
Phase II**

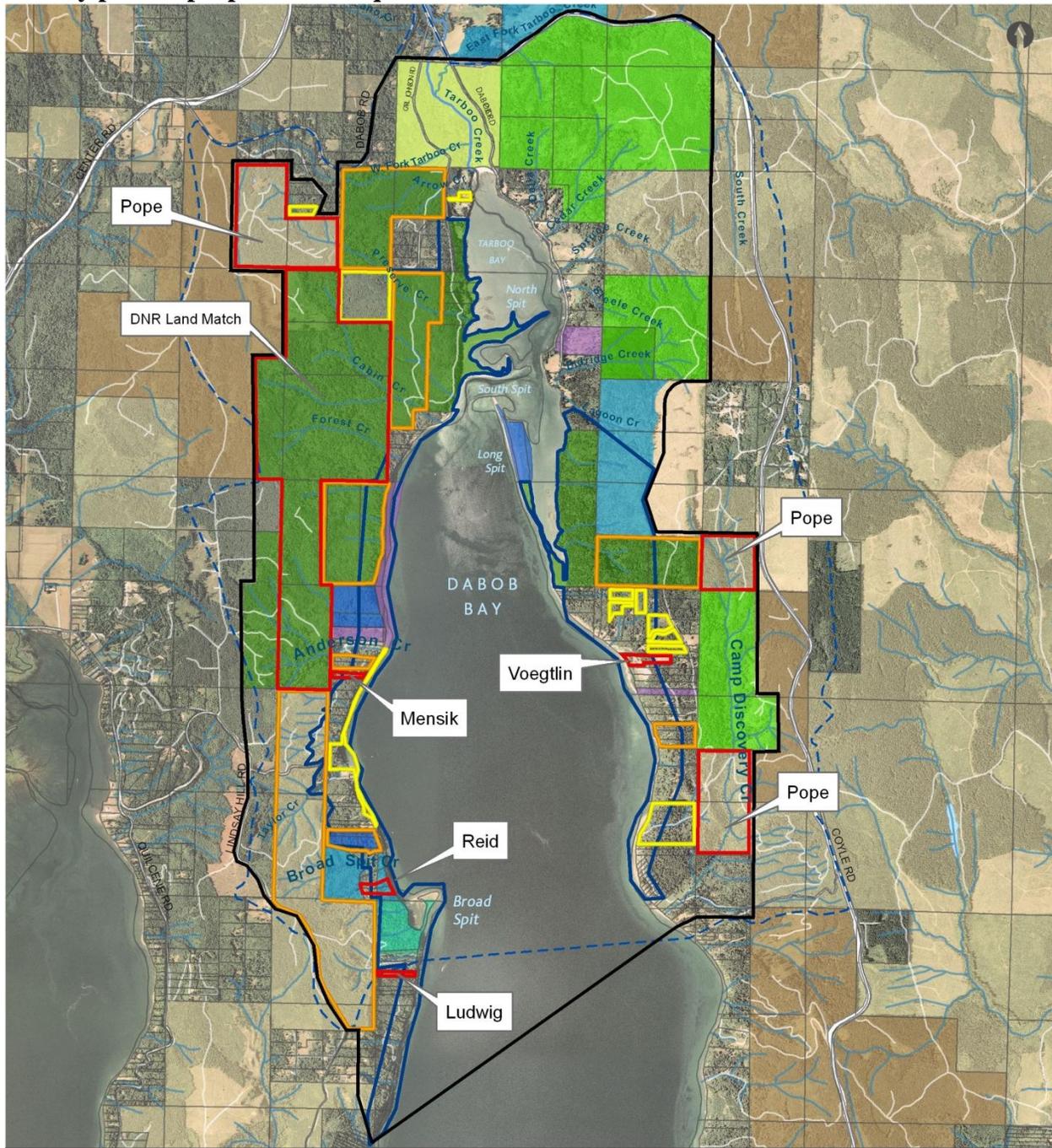


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Priority parcels proposed for acquisition and as match – CELCP FY12.



Coastal and Estuarine Land Conservation Program – Dabob Bay Natural Area Priority Acquisitions FY12

Property Ownership

- DNR Proposed Natural Resources Conservation Area
- DNR Proposed Natural Area Preserve
- Tarboob- Dabob Bay Watershed Assessment Boundary
- Coastal and Estuarine Land Conservation Program - Dabob Bay Natural Area FY12 Priority Acquisitions and Match Properties
- CELCP FY 11 Pending Land Acquisition Grant
- Other Pending Projects
- WA Dept. of Natural Resources- Natural Area Preserve or Natural Resource Conservation Area
- DNR Trust Land - Trust Land Transfer to Natural Area (In Process)
- WA Dept. of Natural Resources- Common School
- WA Dept. of Fish and Wildlife
- Pope Resources
- The Nature Conservancy
- Jefferson County Park
- Jefferson Land Trust Conservation Easement
- Northwest Watershed Institute
- Jefferson County Parcels
- Roads
- Streams

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 Parcel Data: Jefferson County, 2008 Map: Erica Simsek Date: April 2011



Washington State Department of Natural Resources
Dabob Bay Coastal Conservation and Natural Area Expansion Phase II
CELCP FY12

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Project vicinity map.



Dabob Bay Natural Area Project Location FY12 Coastal and Estuarine Land Conservation Program

- Dept of Natural Resources- Dabob Bay Proposed Natural Resource Conservation Area
- Urban/Housing Density (Less than 10 acres per housing unit)
 Source: David Theobald, Colorado State University (2008)






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 Cartography: Erica Siretek
 April, 2011



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View of east shoreline of Dabob Bay, including FY11 proposed Lazelle and FY12 proposed Voegtlin shoreline parcels along the bluff. Photo Credit: Keith Lazelle.

1 PROJECT DESCRIPTION/SCOPE OF WORK

The Washington State Department of Natural Resources is pleased to submit a request for \$2,700,000 in grant funding from the Coastal and Estuarine Land Conservation Program (CELCP) to protect Dabob Bay, within Hood Canal in Puget Sound. Located in northwestern Washington, near Seattle and within rapidly growing Jefferson County, Dabob Bay is one of the most ecologically diverse and intact estuarine bays remaining in Puget Sound.

This CELCP project aims to build on the success of the FY11 CELCP Phase I project, by continuing protection of the most threatened and ecologically important private properties remaining within the acquisition boundary of the Washington State Department of Natural Resources (DNR) Dabob Bay Natural Area via land acquisition from willing sellers. Conversion of forestlands and residential development are growing concerns in the watershed. Water quality problems in Hood Canal and Puget Sound persist as a legacy of past development and inadequate infrastructure throughout the region. Protection of Dabob Bay will address current threats before further development and land conversion greatly increases the costs and challenges of conservation in this remaining high-quality estuary.

Washington DNR's ultimate goal for Dabob Bay is to protect all lands within the approved natural area expansion boundary to provide long-term, comprehensive protection to the estuary and ensure opportunities for appropriate public use. The recently expanded natural area design represents an unprecedented opportunity to advance landscape-scale conservation of an intact coastal estuarine system, protect and restore estuarine processes, and protect the water quality in an exceptional embayment of Puget Sound. The natural area will also assist recovery of productive and diverse salmonids and other wildlife, including species listed under the federal Endangered Species Act, such as orca, marbled murrelet, Hood Canal summer chum salmon, Puget Sound Chinook salmon and steelhead trout.

Puget Sound, of which Dabob Bay is a part, is the second largest estuary system in the United States and a national treasure. Growing human populations and development present significant challenges to the health of Puget Sound. These include water pollution and sharp declines and federal listings of salmon, orcas, marine birds and rockfish. To meet these challenges, all levels of government as well as private organizations and individuals have mobilized in an effort to restore and maintain the health of Hood Canal and Puget Sound. The Puget Sound Partnership, the state agency tasked with leading this effort, has developed an action plan that identifies as a priority the conservation of high coastal habitats (*Puget Sound Action Agenda: Protecting and Restoring the Puget Sound Ecosystem by 2020*). While Hood Canal is often referred to as the crown jewel of Puget Sound, Dabob Bay is increasingly recognized as the most biologically diverse, least developed, large bay remaining in Hood Canal. The Dabob Bay conservation effort is an opportunity to preserve the best of Hood Canal and Puget Sound.

In federal FY11, Phase I of DNR's Dabob Bay Coastal Conservation and Natural Area Expansion project ranked first in the nation out of 42 CELCP projects. The Phase I project proposed protection of 718 acres, including sensitive shorelines and bluffs and critical steep forested slopes, increasing the connectivity of existing DNR lands to other forestlands and the shorelines. To date, DNR has accomplished transfer of the 375 acre match property into natural area status, TNC has purchased the Hopkins property and will transfer to DNR upon receipt of funding, and the remaining fee simple parcels are under option or in the final stages of negotiation and ready to be acquired. We expect that the entirety of the Phase I CELCP project will be completed shortly following final award from NOAA.

The project proposed for FY12 CELCP funding is Phase II of protections within the Dabob Bay Natural Area. It builds directly on the opportunities initiated during Phase I to further expand and protect the critical links between salt marsh spits, shorelines, feeder bluffs and coastal forests. Given FY11 proposed CELCP acquisitions and other pending acquisitions, we have strategically selected a set of parcels for fee simple acquisition from willing sellers that best protect the ecological processes, habitats and connectivity of the Dabob Bay Natural Area. In fact, FY11 and FY12 proposed CELCP acquisitions and match protections will protect a forested corridor along nearly the entire length of the natural area, including several new points of connectivity with sensitive shorelines. This FY12 CELCP proposal is a tremendous opportunity for the long-term conservation of this important Natural Area, which was expanded just two years ago to include all the lands critical for protection of the sensitive coastal habitats of Tarboo-Dabob Bay.

Funding from FY12 CELCP will enable Washington DNR to protect approximately 735 acres, including 265 acres of fee simple acquisition and 470 acres of state match lands within the

Dabob Bay Natural Area. Further, this project will prevent residential development of five shoreline parcels, including about 1,000 feet of shoreline bluffs and 1 acre of tidelands. It will also prevent harvest and future development of steep forested slopes that are connected to Dabob Bay's sensitive coastal habitats via two of the Natural Area's largest streams: Preserve Creek and Camp Discovery Creek. DNR is working with The Nature Conservancy (TNC), Northwest Watershed Institute (NWI), and Jefferson Land Trust (JLT) to secure funding to purchase these properties and others. DNR has also identified state match property: state forestland within the Natural Area that was recently transferred into permanent protected status as part Washington's Trust Land Transfer (TLT) Program, using part of the \$10 million allocated by the Washington State Legislature for this purpose in the FY09-11 Biennium.

History of Dabob Bay Conservation

Since the early 1980s, state and federal agencies and conservation groups have been focused on protecting the Dabob Bay estuary. In 1984, the Washington State Department of Natural Resources established a 350-acre natural area preserve to protect rare salt marsh spit habitats and associated uplands on both sides of the bay. In 1998, the Washington State Department of Fish and Wildlife (WDFW) purchased 160 acres of riparian and floodplain forest at the mouth of Tarboo Creek, the main freshwater source to the estuary. In 2002, Northwest Watershed Institute and 30 partnering organizations initiated a whole-watershed restoration effort for Tarboo Creek, protecting an additional 500 acres of streams, wetlands and floodplains in the upper watershed for salmon and other wildlife and to protect the water quality entering Dabob Bay.

In 2007, DNR undertook an intensive, interdisciplinary, one-year assessment of the Dabob Bay watershed to determine how to expand the natural area boundary for additional land acquisition that would ensure long-term, comprehensive protection of the estuary as a whole. Habitats within the area include rare, high quality saltmarsh spits, mudflats, a variety of shoreline beaches, eelgrass beds and deeper estuarine habitats. After year-long assessment, the scientific team proposed the current natural area boundaries based on a consideration of features such as steep, landslide prone slopes, feeder bluffs, patterns of longshore drift, watershed boundaries, rare plant associations, and ecological processes. The boundary proposal was rigorously reviewed by the Washington State Natural Heritage Advisory Council. In 2009, after the public and scientific review process, and with the support of a broad coalition of state and federal representatives, agencies, conservation organizations and shellfish businesses, the Washington State Commissioner of Public Lands approved the expanded 6,287-acre Dabob Bay Natural Area, which includes a core natural area preserve (NAP) and surrounding natural resources conservation area (NRCA). This expanded natural area boundary encompasses the most important lands for protecting the upland and shoreline ecological processes that maintain the diverse estuarine habitats of Dabob Bay.

Long-Term Project Goal: Protect the high habitat and functional value of the DNR Dabob Bay Natural Area.

A total of approximately 2,067 acres of private lands remain unprotected within the new boundary of the Dabob Bay Natural Area – completion of protections proposed by FY11 CELCP will reduce this figure to 1,774 acres. Because of the extensive and careful boundary delineation process, DNR and partnering conservation organizations consider this a priority conservation

area and are now engaged in a major effort to secure funds to purchase the privately owned lands most threatened by conversion.

In concert with the protection of private lands, by the end of this fiscal year, DNR expects to complete transfer of all remaining state lands within the natural area boundary that are currently managed for timber revenue to support state trust beneficiaries (1,721 acres) into protected status as part of the Dabob Bay Natural Area. This transfer under the state's Trust Land Transfer (TLT) Program required state legislative approval of more than \$10 million in the state capital budget (FY09-FY11) specifically for Dabob Bay land transfers to compensate the current state trust account. DNR successfully transferred 384 acres in 2009 (valued at \$2,825,000), an additional 603 acres in March 2011 (\$3,506,000), and plans to transfer the remaining 734 acres before the end of the state's 2009-2011 fiscal biennium (June 30, 2011). Transfers under the Trust Land Transfer Program are critical to achieving large-scale protection of the Dabob Bay Natural Area and continuance of ecological functions and processes on a landscape scale. Trust Land Transfers will prevent habitat fragmentation of upland and shoreline forests, minimize potential for large erosion events, and allow passive restoration of 20 to 200 year old forest – providing important habitat for many species of wildlife. Trust Land Transfers will also help increase the size and connectivity of DNR natural area holdings and allow increased appropriate recreational opportunities on a landscape scale.

To achieve the long-term project goal, phased acquisitions should address the short-term project objective:

Project Objective: Direct limited funding and resources to the most strategic acquisitions within the Dabob Bay Natural Area to reduce near-term threats of land conversion and expand functional linkages between upland, shoreline and estuarine habitats.

Therefore, the strategy for this second phase of acquisitions within the Dabob Bay Natural Area is to build upon past completed and proposed acquisitions through the following actions:

1. Acquire shoreline and upland parcels from willing sellers that are under the most risk of conversion to incompatible uses.
2. Acquire parcels that are of the greatest ecological value, considering criteria such as connectivity, support of ecological function, presence of rare habitat, and use by rare species.
3. Acquire parcels that will significantly expand the connected acreage of DNR's holdings.

This strategy resulted in the selection of five priority parcels/ownerships for fee simple acquisition for this phase of the Dabob Bay project. In addition, as match for this CELCP project, DNR is providing \$2.7 million of the value of lands recently transferred into Natural Area status as part of the Trust Land Transfer program. The priority private ownerships and Trust Land Transfer match for proposed CELCP funding are presented in Table 1 and shown on the Parcel Map.

Table 1. Proposed parcels.

Landowner	Acreage	Value	Result of Protection
Mensik	5	\$250,000	Prevent development. Preserve unmodified shoreline, feeder bluff, and mature coastal forest. Increase acreage and connectivity of existing DNR holdings and pending acquisitions within Dabob Bay Natural Area, including Phase I CELCP acquisitions. Protect intact estuarine intertidal wetlands.
Reid	5	\$180,000	Prevent residential development of two house sites on adjoining forested parcels within the “Last Camp” area—between Broad Spit County Park and the FY11 CELCP Hopkins property—an area previously recognized for its unique ecological importance and cultural heritage, including a historic Native American settlement site. Protect intact estuarine intertidal wetlands.
Ludwig	5	\$200,000	Prevent development. Preserve unmodified shoreline, feeder bluff, and mature coastal forest. Increase acreage and connectivity of existing DNR holdings and pending acquisitions within Dabob Bay Natural Area, including Phase I CELCP acquisitions. Protect intact estuarine intertidal wetlands.
Voegtlin	10	\$305,000	Prevent development. Preserve unmodified shoreline and mature and some rare coastal forest along one of the most active feeder bluff segments within the Natural Area. Increase acreage and connectivity of existing DNR holdings and pending acquisitions within Dabob Bay Natural Area. Protect intact estuarine intertidal wetlands.
Pope Resources	240	\$1,440,000	Most significant opportunity for DNR to increase size and connectivity of natural area holdings. Prevent clearcut timber harvest on steep, landslide-prone slopes and likely eventual residential development. Protect function of two of the largest, fish-bearing coastal streams in the Natural Area, protect and allow passive restoration of 20-80 year-old forest. Minimize potential for large erosion events. Increase size and connectivity of DNR holdings and pending acquisitions including Phase I CELCP match property. Allow increased passive recreation opportunities.
DNR (TLT)	470	\$2,700,000*	Match property: Prevent forest cutting to protect coastal stream function, protect and allow passive restoration 20-100 year forest. Minimize potential for large erosion events. Increase size and connectivity of DNR natural area holdings. Allow increased passive recreation opportunities.
TOTAL	735	\$5,075,000	

*DNR matching Trust Land Transfer appropriation

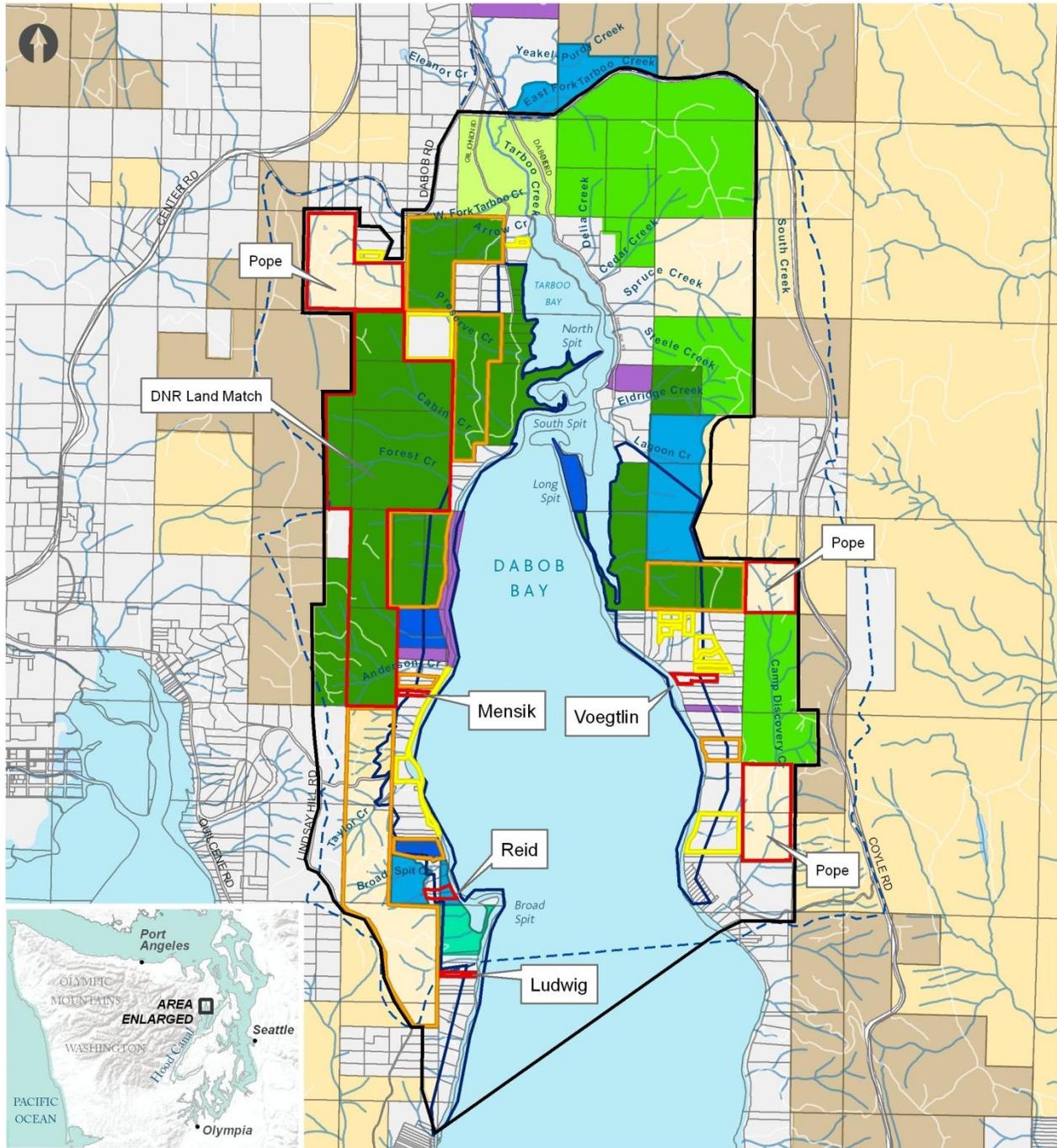
Project Approach

- NWI has secured time-limited option agreements on the Voegtlin, Reid and Ludwig parcels (1.5 to 2 years), thereby temporarily abating the threat of sale and development. NWI is currently in negotiations for purchase of an option on the Mensik property, which is listed for sale. Upon receipt of grant funds, the options will be assigned from NWI to DNR, for DNR purchase and permanent protection of these parcels as part of the natural area.
- TNC secured a willingness letter from Pope Resources and will negotiate a purchase and/or option from the landowner – expected in federal FY12. DNR will purchase from TNC upon receipt of sufficient funds.
- DNR has committed a portion of the value of lands protected in March 2011 through the Trust Land Transfer process within the Dabob Bay Natural Area as match for this project. The total value of lands transferred at that time was appraised at \$3,506,000. A portion of the lands transferred will be used to meet the \$2.7 million match. Updated appraisals will be completed within nine months prior to expiration of the grant award period.



**Canoeing in
Tarboo-Dabob Bay**

Proposed priority parcels within the recently approved Dabob Bay Natural Area boundary.



Coastal and Estuarine Land Conservation Program – Dabob Bay Natural Area Priority Acquisitions FY12

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- Roads
- Streams

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 Parcel Data: Jefferson County, 2008
 Map: Erica Simsek
 Date: April 2011



1.1 PROJECT SIZE AND RELATIONSHIP TO THE COAST AND ESTUARY

Total Acreage of Dabob Bay Project Area = 6,287 acres

Total Acreage of Proposed Dabob Bay Acquisitions = 735 acres

Total Shoreline Length of Proposed Dabob Bay Acquisitions = 1,000 feet

This proposed CELCP project, including matching acquisitions under the Trust Land Transfer Program, is the second phase of DNR's efforts to expand and connect public ownership within the Dabob Bay Natural Area – a unique, functional, and intact coastal estuarine system that has great relevance to conservation goals established for the Hood Canal region as well as for the entire Puget Sound Basin. The natural area boundary includes a total of 6,287 acres of forested uplands, shorelines, estuarine wetlands, tidelands and deep water habitat – or 3,975 acres excluding tidelands and aquatic bedlands. Within the natural area boundary, DNR currently owns and manages 1,182 acres of conservation lands – a figure that has more than doubled since last year at this time – including 470 acres that were transferred in March 2011 and that will be used as match for this project. Conservation partners, including the Washington Department of Fish and Wildlife (WDFW), Jefferson County, TNC, JLT and NWI own fee simple or conservation easement rights on an additional 609 acres, for a total of 1,791 acres of current permanently protected land within the natural area. Direct conservation actions as a result of this CELCP project (not including match protections) will add 265 acres to DNR ownership within the natural area. Further, DNR will transfer an additional 734 acres of trust lands through the Trust Land Transfer Program, bringing the anticipated acreage under conservation management at Dabob Bay Natural Area after the completion of this project to 2,790 acres – more than two-thirds of the terrestrial area of the Natural Area. This is a monumental accomplishment within just a few short years of expansion of the Natural Area and is a testament to the broad support that this project has received from local, state and federal partners and conservation organizations. This constitutes a major conservation win – significant protection of one of the largest highly functioning coastal ecosystems in Puget Sound.

Relationship to Coast and Estuary

Tarboo-Dabob Bay is located in the northern reaches of Hood Canal within Puget Sound in northwestern Washington state. The relationship of this project to the Hood Canal and Puget Sound is best explained by examining the broader ecological values of these systems, imminent threats to these systems, and the role of the proposed project.

Puget Sound is a national treasure: the second largest estuary in the country, a rich nursery for salmon and shellfish, home to 4 million people, and the hub of one of the nation's strongest regional economies. Its 33,000 square kilometers are home to an incredible concentration of marine and freshwater diversity – at last count more than 7,000 distinct species of birds, mammals, fish, plants and algae. And while greatly loved by the people who live here, the health of Puget Sound is in grave danger from its population. Land conversion, coastal development and pollution are eroding the integrity of an ecosystem that has supported shellfish and salmon, shorebirds and whales, and has shaped and supported human culture for millennia. Major changes to the Puget Sound nearshore environment (4,000 kilometers of shorelines, estuaries and deltas) and associated ecosystem processes, species, goods and services have been recently documented. For example, 43 percent of estuarine wetland habitat has been lost and 30 percent

of sediment-delivering beaches have been armored. The federal endangered species listings of keystone species in the ecosystem (e.g., salmon and orca whales) and other impacts (e.g., dead zones and shellfish bed closures; loss of more than 75,000 jobs in the recreational and commercial fisheries) have helped galvanize local action and state and federal funding to accelerate conservation and restoration of freshwater and marine habitats.

State agencies and collectives such as the Puget Sound Partnership (through the 2009 Action Agenda) and the Puget Sound Nearshore Partnership are now working to recover Puget Sound. These organizations stress the importance of protecting remaining healthy ecosystems and habitats that are otherwise in decline throughout the Sound. As the following sections will describe, Dabob Bay is one of the few high quality estuarine wetland systems remaining in Puget Sound, with largely unmodified stretches of shoreline (approximately 6 percent armored) and supporting a diversity of rare plant communities and species. Because of the recently expanded natural area, Dabob Bay is one of the last “low-hanging fruits” in the Puget Sound – ripe for protection in a relatively intact state.

Hood Canal is a marine fjord that supports highly specialized habitats. This diversity leads to ecological niches that are unique in Puget Sound: shrimp and crabs, wintering seabirds, healthy eelgrass beds, and vital populations of native oysters. The west side of Hood Canal drains the Olympic mountain range, including Olympic National Park and Olympic National Forest – significant upland areas that are largely protected and managed for conservation. In addition, Hood Canal has the longest stretch of unarmored shoreline remaining in Puget Sound. Prime habitat conditions have made Hood Canal world-renowned for its shellfish, including native and commercial oysters and geoduck clams, contributing greatly to the economy and identity of Hood Canal. Flourishing tourism, recreation and working lands (aquaculture and timber) are vital to the local economy and its sustainability and offer opportunities to build the constituency for conservation among diverse communities that rely on clean water and a healthy ecosystem for their economic livelihood.

While Hood Canal is often referred to as the crown jewel of Puget Sound, Dabob Bay is increasingly recognized as a premier example of all that Hood Canal has to offer. Dabob Bay is the least developed, best functioning large estuarine wetland system remaining in Hood Canal, supporting clean water, high biological diversity, five federally-listed species, active shellfish businesses and recreation. The following sections will detail the ecological, conservation, cultural, recreation and historic importance of Dabob Bay and the protections proposed by this project.

Unfortunately, all that Dabob Bay offers is at risk from continued growth and development pressures that drive land conversion. The effort to conserve Dabob Bay is an opportunity to preserve the best of Hood Canal and Puget Sound for future generations. Protection of Dabob Bay through this CELCP proposal offers an outstanding opportunity to address current threats before further degradation greatly increase the costs and challenges of conservation.

1.2 LEGAL RIGHTS TO BE ACQUIRED

The Dabob Bay project proposes a fee simple purchase of five ownerships, totaling 265 acres. The match property comprises an additional 470 acres of forested shorelines that DNR

transferred out of timber management for permanent protection as part of the Dabob Bay Natural Area in March 2011. All lands protected under this proposal will be owned in fee by DNR. In addition to the properties proposed for acquisition and provided as match, legislatively appropriated funds are currently available for the transfer of all remaining state trust lands within the Dabob Bay Natural Area boundary. DNR intends to complete the Trust Land Transfers during the current state fiscal biennium, no later than June 2011.

1.3 IMPORTANCE OF DABOB BAY NATURAL AREA CONSERVATION TO CELCP PROGRAM GOALS

There are several overarching values addressed by this project, which are relevant to priorities supported by the National Oceanic and Atmospheric Administration, other federal agencies, regional and state-level agencies, and local conservation organizations. The following sections (1.3.1 through 1.3.5) describe these values and benefits in detail.

The most critical values addressed by this project can be broadly described as securing:

1. Significant expansion of the acreage and connectivity of DNR ownership within the Dabob Bay Natural Area – a State of Washington prioritized protected natural area established and recently expanded for the purposes of natural resource conservation and public benefit.
2. Permanent protection of lands critical to maintaining the high functioning of one of Hood Canal’s largest and best estuarine wetland habitats – with importance locally (Hood Canal), regionally (Puget Sound) and nationally due to the substantial decline in estuarine wetlands and the high value of this habitat type for a diverse array of species (See Tables 2 and 3).
3. Permanent protection of lands that support numerous species of wildlife with local, regional and national importance because of their contribution to food webs, provision of habitat, recreational and harvest value, economic value in supporting local livelihoods and tourism, and cultural and iconic value to tribes, and local and state residents. (See Table 4.)
4. Permanent protection of lands that support important coastal processes identified by the Puget Sound Nearshore Partnership as critical to the functioning of Puget Sound.
5. Implementation of actions prioritized by numerous local, state, regional and national conservation plans, including the Washington State Coastal and Estuarine Land Conservation Plan and the Puget Sound Action Agenda. (See Table 5.)
6. An increase in lands with expected public benefits within the Dabob Bay Natural Area through expansion of DNR ownership within the natural resources conservation area (NRCA) portion of the natural area. In addition to conserving ecologically important lands and supporting the core area of the natural area preserve, the NRCA is designated for providing environmental education and low-impact public use.



View west of Broad Spit and associated steep forested slopes, including proposed Reid and Mensik priority parcels. Olympic mountains in the background.

1.3.1 The Primary Purpose is Ecological

Introduction

The original 350-acre Dabob Bay Natural Area Preserve was established in 1984 to protect rare plant communities on several intact salt marsh coastal spits. DNR expanded the natural area boundary to 6,287 acres in 2009 to encompass important ecological processes that maintain one of Washington’s highest functioning coastal spit and tidal wetland systems. Although the coastal saltmarsh spits are the rarest plant community in the Dabob Bay Natural Area, the scientific team that recommended the expanded natural area boundary – including additional lands designated natural area preserve (NAP) and also new lands designated natural resources conservation area (NRCA) – with the recognition that protecting upland and shoreline processes of wood, water, and sediment transport within natural, historic ranges was essential to long-term conservation of the estuary as a whole. As stated in DNR’s recommendation report (Crawford et al. 2008) for the expanded natural area: “The goal of the design is to maintain current ecological integrity and long-term viability of the elements on the site and to represent ecosystem types in the natural areas system for research and education. Primary threats to the upland elements are land conversion and fragmentation, invasion and spread of non-native plant species and direct physical disturbance from forest management and residential activities. Estuarine and marine features are primarily threatened by direct and indirect shoreline modification.”

The expansion of the Dabob Bay Natural Area set the institutional framework to enable protection of all the land and processes that are necessary to ensure the integrity of the entire system of interconnected Tarboo-Dabob spit and tidal marsh complexes. The expanded boundary of the Dabob Bay Natural Area contains a diversity of additional priority habitat types, including mature coastal forests with rare natural heritage vegetation types, coastal streams, feeder bluffs, forage fish sand beaches, eelgrass beds, native *Olympia* oyster beds, nearshore tidelands and mudflats utilized by juvenile salmon and shorebirds, and open marine waters utilized by salmon, marine birds, harbor seals and orcas. Although eventual acquisition of all lands within the boundaries are a priority to protect these habitats and species, this second phase of acquisitions focuses on lands at highest risk of conversion as well as lands that provide ecological connectivity and support important processes (sediment delivery and transport, coastal hydrology).

Dabob Bay Priority Acquisition Habitat Types

The habitat types of the specific acquisitions proposed for Phase II of Dabob Bay Natural Area conservation and expansion encompass much of the diversity of habitats within the natural area (Table 2). The 735 acres proposed for protection (including match lands) include active feeder bluffs with intact mature maritime forest that deliver natural rates and amounts sediment to maintain beaches and coastal spits; forage fish beaches shaded by marine riparian forest; coastal streams that contribute important sources of freshwater to the bay; rich tidelands; unmodified shoreline beaches that support a diverse array of nearshore species; and intact mixed conifer/deciduous forests on steep slopes (including rare forest plant associations) that support the health of the bay by preventing excessive sediment delivery to sensitive shoreline habitats.

Specific habitat types that occur within the Dabob Bay Natural Area (“elements” within the State of Washington Natural Heritage Plan) are listed in Table 2. All of these habitat types will be protected, directly or indirectly, by the proposed acquisitions.

Table 2. Habitat types within Dabob Bay Natural Area (Crawford et al. 2008).

Element Name	Global/ State Rank	State Priority
North Pacific Maritime Coastal Sand Dune and Strand ecological system		
Coastal Spit with Native Vegetation		*
Sea Lyme Grass – Yellow Sand-verbena	G2S2	
Red fescue – Beach Bursage	G1S1	
Temperate Pacific Tidal Salt and Brackish Marsh ecological system		
Moderate-Salinity High Marsh		3
Pickleweed – Saltgrass – Seaside Arrow-grass	G3S2	
Pickleweed	G3G4S2	
Saltgrass – (Pickleweed)	G4S2	
North Pacific Maritime Forest ecological systems		
Douglas-fir – western hemlock / evergreen /huckleberry/swordfern	G3S1	
Douglas-fir – western hemlock / evergreen/huckleberry	G2S2	2
Douglas-fir – western hemlock / swordfern	G3S3	-
Douglas-fir – Pacific madrone / salal	G3S2	2
Bigleaf maple – red alder /swordfern - fragrant fringeceup	G2G3S2	1
OTHER FEATURES:		
North Pacific Hardwood and Conifer Swamp Forest ecological system		
North Pacific Intertidal Mudflat ecological system		
Estuarine mudflat		3
North Pacific Maritime Eelgrass ecological system		
Estuarine shallow subtidal mixed-fine sediment (eelgrass)		2
Marine shallow subtidal mixed-fine sediment (eelgrass)		2
Estuarine gravel beach		3
Olympia oysters (<i>Ostrea lurida</i>)	G5SU	
Hood Canal summer chum	G5T2SU	
Puget Sound steelhead	G5TNRSU	
Surf smelt	G5SU	
Pacific sand lance	G5SU	
Harbor seal haul out	G5S4?	
bald eagle	G5S4	3

* Coastal spit with native vegetation is no longer a priority for inclusion in the natural areas system because of existing adequate representation in the Dabob Bay Natural Area and two other sites, but remains a very rare ecosystem.

Description of Rank Codes for Table 2

Global Rank characterizes the relative rarity or endangerment of the element world-wide. Two codes (e.g. G1G2) represent an intermediate rank.

G1 = Critically imperiled globally (5 or fewer occurrences).

G2 = Imperiled globally (6 to 20 occurrences).

G3 = Either very rare and local throughout its range or found locally in a restricted range (21 to 100 occurrences).

G4 = Apparently secure globally.
 G5 = Demonstrably secure globally.
 GH = Of historical occurrence throughout its range.
 GU = Possibly in peril range-wide but status uncertain.
 GX = Believed to be extinct throughout former range.
 GNR = Not yet ranked.
 Tn = Rarity of an infraspecific taxon. Numbers and codes similar to those for Gn ranks above.
 Q = Questionable.

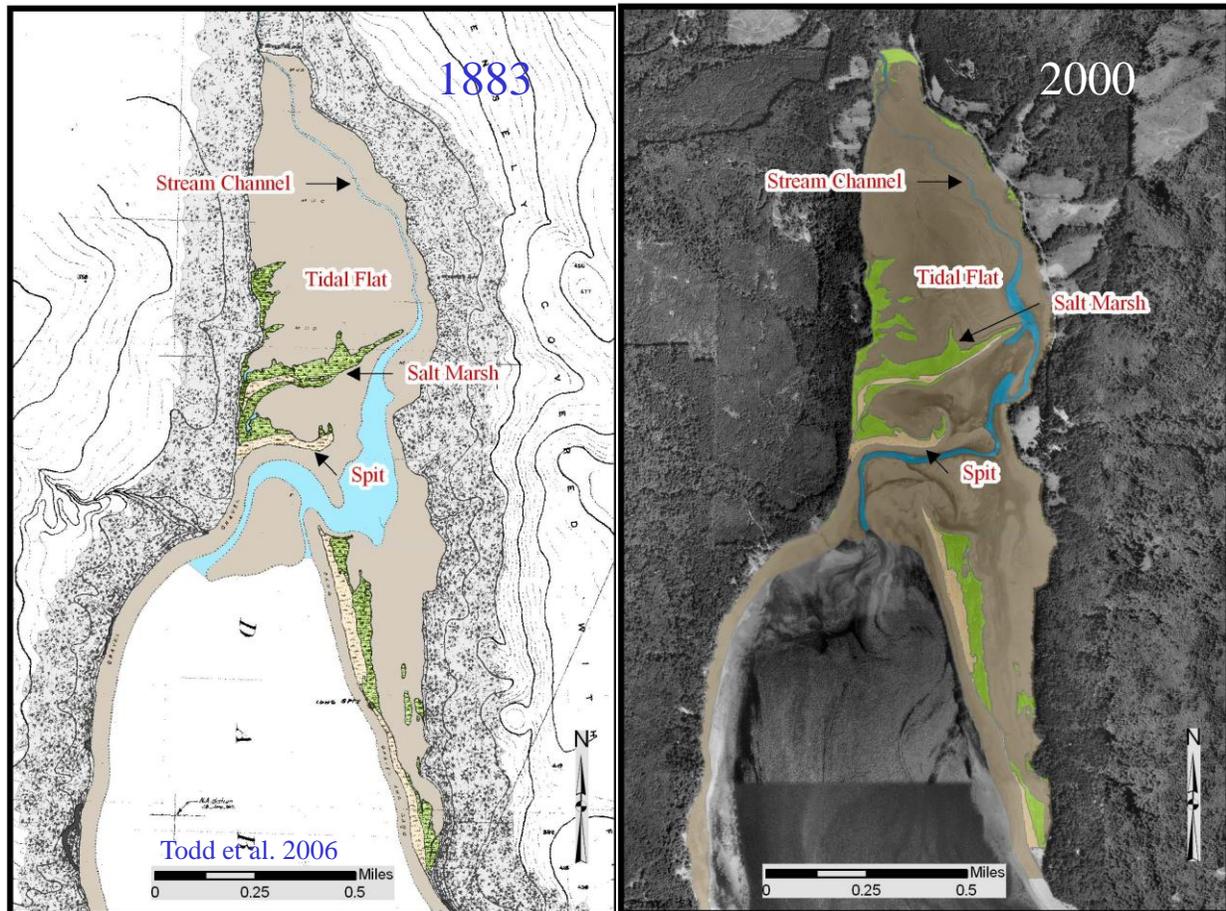
State Rank characterizes the relative rarity or endangerment within the state of Washington. Two codes (e.g. S1S2) represents an intermediate rank.

S1 = Critically imperiled (5 or fewer occurrences).
 S2 = Imperiled (6 to 20 occurrences), very vulnerable to extirpation.
 S3 = Rare or uncommon (21 to 100 occurrences).
 S4 = Apparently secure, with many occurrences.
 S5 = Demonstrably secure in state.
 SA = Accidental in state.
 SE = An exotic established in state.
 SH = Historical occurrences only but still expected to occur.
 SN = Regularly occurring, usually migratory, nonbreeding animals.
 SU = Unrankable; need more information.
 SX = Apparently extirpated from the state.
 SP = Likely to occur or to have occurred but without documentation.
 SZ = Not of conservation concern (not SE or SA).
 SNR = Not yet ranked.

In this section, these elements are condensed into three major habitat types discussed in more detail – coastal saltmarsh spits, intertidal, and maritime forest, which include feeder bluffs as an important geologic feature (Table 3).

Table 3. Estimated acreage for each of the major habitat types found on the priority parcels in this proposal.

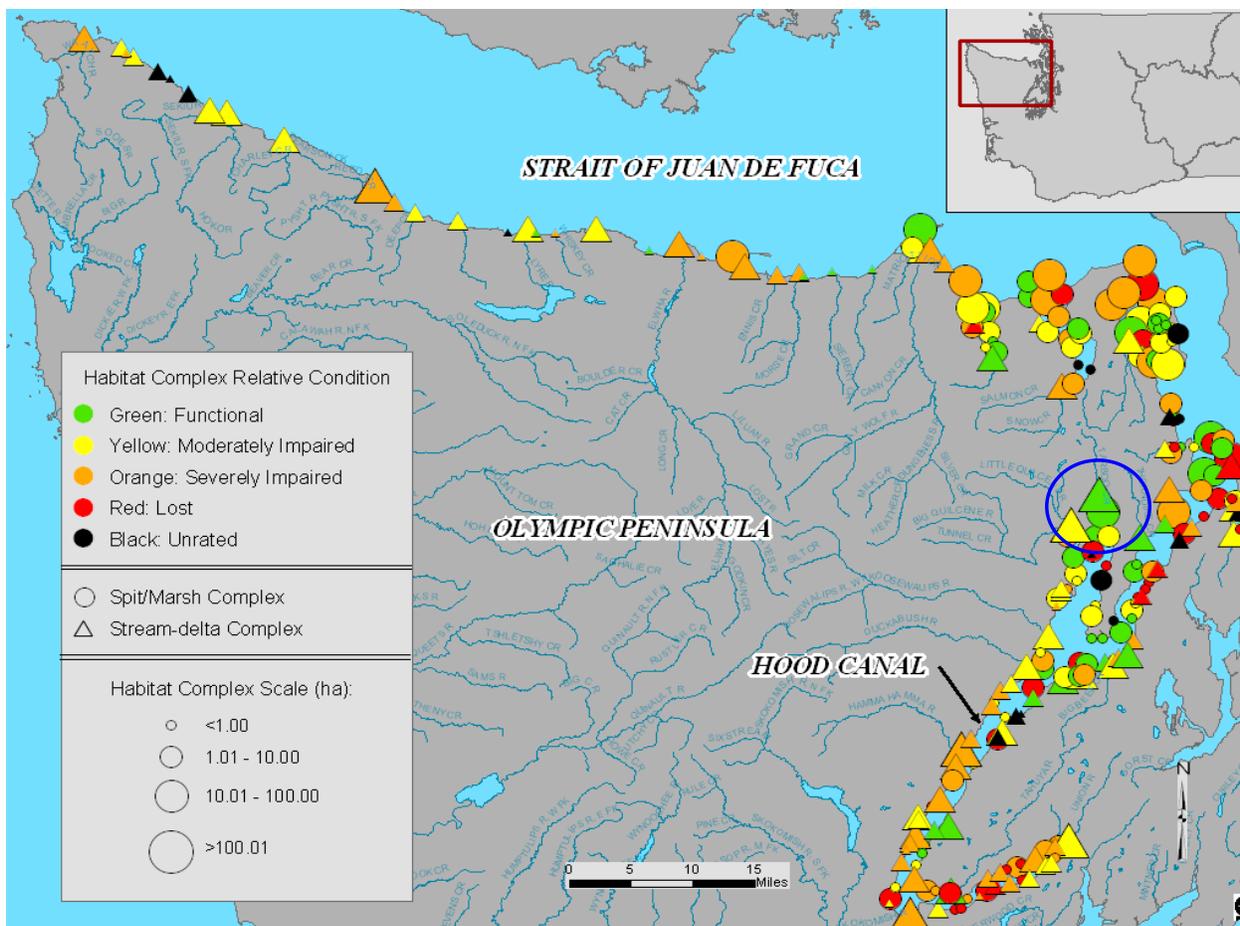
Habitat Type	Estimated Acres					DNR TLT match
	<i>Priority Parcels</i>					
	Mensik	Reid	Ludwig	Voegtlin	Pope	
Coastal Habitats						
Intertidal Estuarine Wetlands	0.5	0.5	0.5	0.5		
Coastal Spit and Salt Marsh						
Maritime Forest	4.5	4.5	4.5	9.5	240	470
Total Acres	5	5	5	10	240	470
Total Shoreline Miles	.05	.05	.05	.05	0	0



Coastal spits and salt marshes of Dabob Bay remain little changed since 1883 (from Todd et al. 2006).

Coastal Spits

The Dabob Bay Natural Area contains several prominent coastal spit features (North Spit, South Spit and Long Spit in inner Tarboo-Dabob Bay; and Broad Spit just south of the Reid parcels) that form protected coastal embayment habitat and support intact tidal wetlands and salt marsh, providing unique habitat for a wide range of species. These spits form three unique “habitat complexes” that are each classified by the Point No Point Treaty Council (Todd et al. 2006) as some of the only “functional” tidal wetland habitats in Hood Canal and the Strait of Juan de Fuca. The Tarboo Creek stream/delta tidal wetland complex is currently one of the six largest tidal wetland habitat complexes in the Hood Canal/Strait of Juan de Fuca region. It is the only of these large complexes that was rated as “functional” by this report because it has largely retained historic surface water and habitat connectivity. It is one of very few moderate or large-sized stream-delta complexes that are relatively free of diking. The Tarboo Creek stream/delta wetland complex is proposed as one of five reference complexes in Hood Canal.



Relative size and condition of saltmarsh complexes in Hood Canal and the Straits of Juan de Fuca (Todd et al 2006). Tarboo-Dabob Bay (in blue circle) has the only large “functional” stream delta saltmarsh complex and the highest concentration of large “functional” salt marsh complexes in the region.

Threats Addressed: Coastal Spits

The spits themselves are already protected as part of the state-owned natural area preserve. However, preventing conversion of functional shoreline systems to residential housing will directly address the threat of increased armoring along one-half mile of shoreline and concomitant reduction in the sediment delivery and transport processes that form and replenish the bay’s dominant spit features and associated salt marsh and lagoon habitats. In fact, the expanded boundary of Dabob Bay Natural Area was created specifically to protect the upland and shoreline functions that are critical for the high functioning of the Tarboo-Dabob tidal wetland system. As Dr. Dan Miller, consulting geologist for the Dabob Bay assessment wrote in his slope stability report: “One role of natural area preserves and natural resources conservation areas is to protect native ecosystems, which includes protection of the processes that drive ecosystem function. For Tarboo/Dabob Bay, this involves maintaining sediment fluxes to the bay within natural ranges of frequency and magnitude, which ultimately requires protection of all areas susceptible to landsliding and soil erosion. Given the pattern of ownership and land use within the basin, such widespread measures may not be feasible; yet any actions that limit human-induced changes to the erosion regime reduce the cumulative effects of all activities in

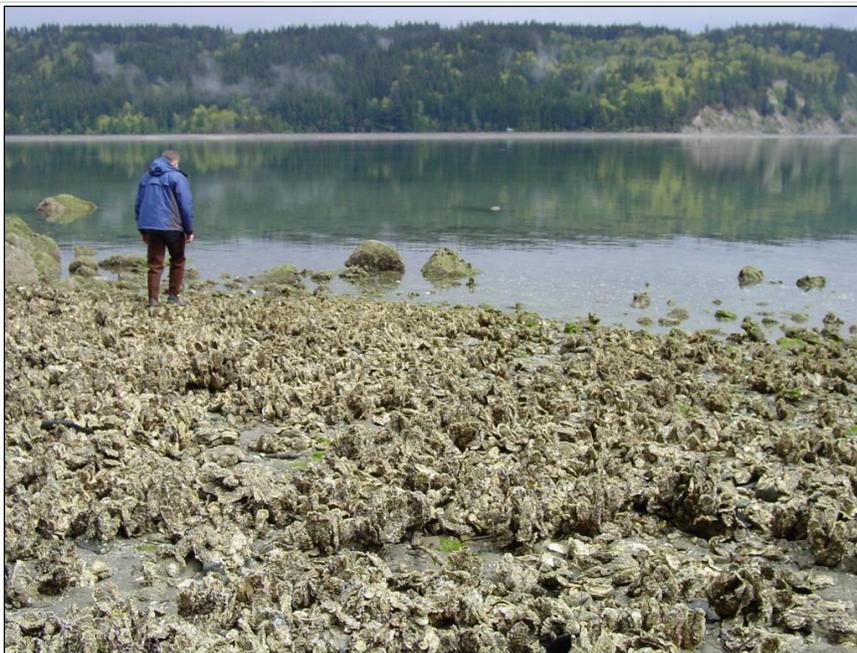
the watershed, thereby helping to restore and maintain the resilience of the bay ecosystem in the face of continuing human activities elsewhere in the watershed.”

Hugh Shipman, coastal geologist for the Washington State Department of Ecology, in his assessment of Dabob Bay, reiterated the importance of landscape scale protection to maintain these high quality saltmarsh spits: “The spits are intimately interconnected with the associated salt marshes, tidal channels, and the inner bay. These environments are sensitive to rates and quantities of surface runoff, groundwater inputs and tidal flows. Increases in fine-grained sedimentation related to more rapid runoff, increased stream erosion, and loss of floodplains and freshwater wetlands, may affect the water quality and biology, as well as the physical character of the area around the spits. Sedimentation will be increased by clearing, road construction, concentration of flows in drainage systems, and construction activities within the adjacent watershed. This will be particularly true of activities on steep, unstable slopes, and adjacent to stream channels, and I would encourage efforts to protect these areas from development as much as possible.”

Priority Parcels: Coastal Spits

Protection of 1,000 feet of shoreline along the Voegtlin, Mensik and Ludwig properties will prevent armoring and protect sediment delivery function of feeder bluffs and overall drift cell function along both south-to-north drift cells feeding inner Tarboo Bay’s coastal spit features.

Intertidal Wetlands



Intertidal wetlands with abundant oyster beds.

In addition to the estuarine wetlands protected by the three delta and spit complexes, intertidal wetlands span the rest of the length of the Dabob Bay Natural Area. While project actions will not directly acquire a large amount of tidal wetland habitat (2 acres is proposed), acquisitions as a result of this project will directly influence adjacent intertidal wetlands and will permanently protect intact shorelines and uplands that contribute to the healthy function of the entire Tarboo-

Dabob tidal wetland system through preserving intact sediment delivery and transport processes along contributing drift cells.

The intertidal wetlands of Dabob Bay Natural Area support a high diversity of species, including threatened juvenile Hood Canal summer chum, forage fish, shorebirds, eelgrass, Dungeness crabs, native Olympia oysters and other native and commercially- or recreationally-harvested bivalves. Table 4 lists these species, their federal, state and regional status and the specific project actions that will directly or indirectly assist in their long-term conservation. In addition to supporting a diversity of local and wide-ranging species, these wetlands also provide numerous important functions to the Dabob Bay ecosystem, including provision of migration pathways for anadromous species, maintenance of flow regimes, filtration of contaminants and sediment, and retention and delivery of large wood, nutrients and detritus.

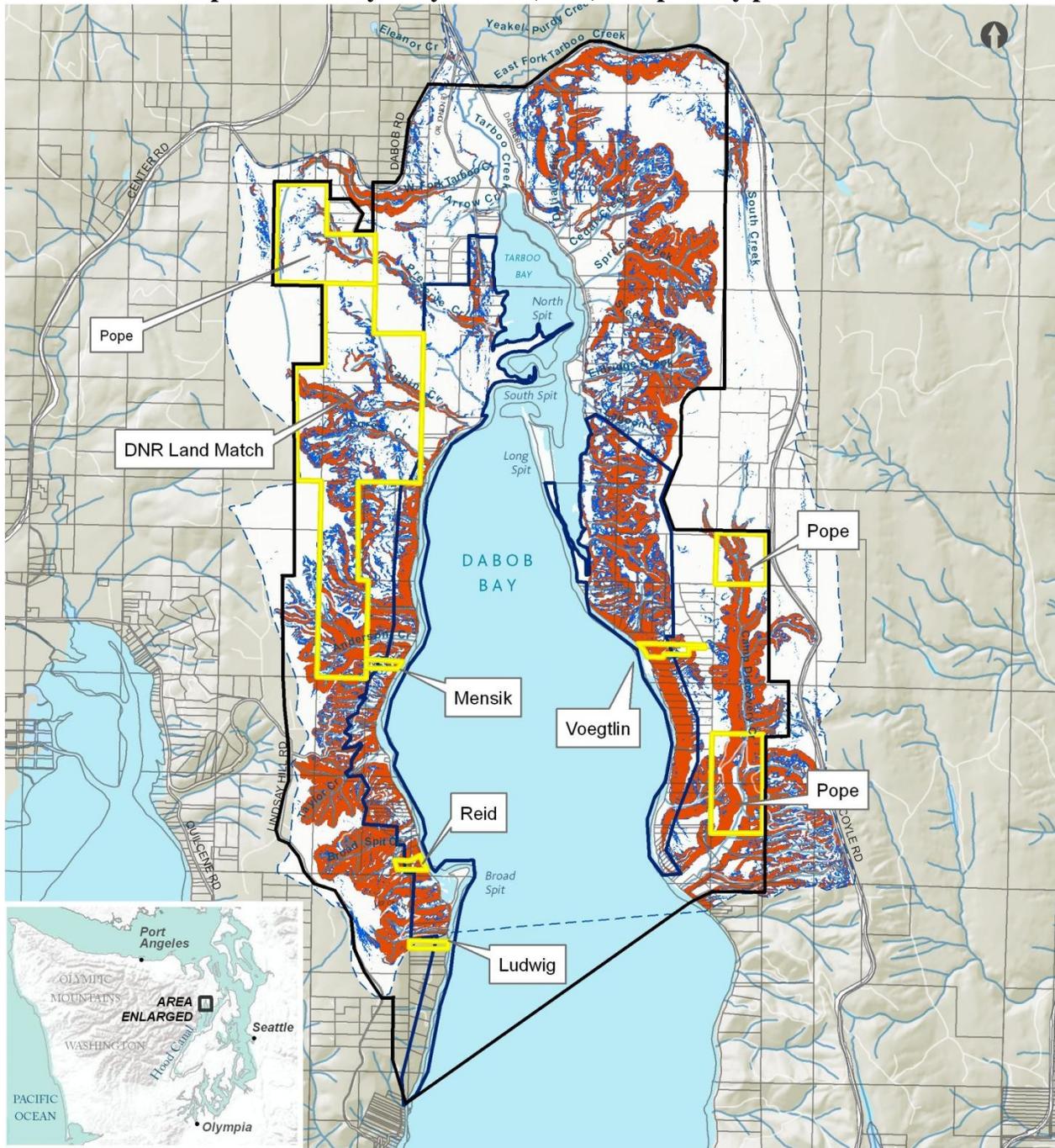
Threats Addressed: Intertidal Wetlands

Preventing conversion of functional shoreline systems to residential housing will directly address the threat of increased shoreline armoring and concomitant reduction in the sediment delivery and transport processes that form and replenish the bay's dominant spit features and associated salt marsh and lagoon habitats, as well as the intertidal wetlands that fringe the rest of the bay. Protection of 710 acres of upland parcels currently managed for forestry will also reduce the threat of excessive sediment delivery to the bay, which could impair the function of intertidal wetlands.

Priority Parcels: Intertidal Wetlands

The Voegtlin, Mensik, Reid and Ludwig shoreline properties include about 1 acre of nationally-declining estuarine, intertidal wetlands. Protection of these properties will prevent impacts to estuarine wetlands that would be caused by development, including disruption of sediment delivery and transport processes along two 6- to 10-mile drift cells that directly support the health of estuarine salt marsh fringing up drift shorelines and contained within inner Tarboo Bay. This project will also directly protect and prevent further timber harvest and development of 240 acres of forested, steep and unstable slopes on Pope Resources property that is functionally connected to DNR lands within the natural area on both the east and west sides of the bay, including the headwaters of Preserve Creek that feeds inner Tarboo-Dabob Bay intertidal wetlands just above North Spit. This will further stabilize sediment delivery processes and minimize the potential for large erosion events.

Landslide erosion potential analysis by Miller (2008) and priority parcels.



Coastal and Estuarine Land Conservation Program - Dabob Bay Natural Area Priority Acquisitions FY12

Landslide Erosion Potential

K:\USJAL\Washington\PugetSound\11\Map\1\DabobBay\DBC\CoastalEstuarineLandConservationProgramPriorityAcquisitions\Landslide_20100310_8.5x11.mxd
 Parcel Data: Jefferson County, 2008
 Map: Erica Simek
 Date: April 2011

- DNR Dabob Bay Proposed Natural Resource Conservation Area
- DNR Natural Area Preserve Proposed Boundary
- Tarboo- Dabob Bay Watershed Assessment Boundary
- Coastal and Estuarine Land Conservation Program - Dabob Bay Natural Area FY12 Priority Acquisitions and Match Properties
- Jefferson County Parcels

- Roads
- Streams
- Landslide Erosion Potential**
- Low
- High



WASHINGTON STATE DEPARTMENT OF
Natural Resources



Legacy trees (200+ years old) in maritime forests and feeder bluffs along Dabob Bay shorelines. Includes Voegtlin property above large feeder bluff.

Maritime Forest

Intact maritime forests on the steep slopes and shorelines of Dabob Bay are essential to the proper functioning of the estuary as a whole and provide important habitat, directly and indirectly, for coastal species. Forested shorelines and slopes stabilize erodible bluffs, banks and backshore areas (which are prevalent in Dabob Bay), dissipate pollution and excess nutrient runoff, and provide terrestrial wildlife habitat (Brennan 2007). Just as important, forested shorelines provide habitat features for nearshore wildlife. Overhanging vegetation provides shade that moderates temperatures along the upper intertidal, which is especially important for spawning surf smelt, which lay eggs in the upper intertidal during summer months (Penttila 2005). Overhanging vegetation also has been shown to provide organic nutrient and food inputs for nearshore wildlife such as juvenile Chinook salmon (Brennan and Culverwell 2004).

Furthermore, the maritime forests of Dabob Bay Natural Area contain five regionally and globally rare plant associations (Table 2). The alder-maple plant association, listed as globally rare (G3) and critically imperiled in the state (S2) is expected to occur on the Ludwig, Reid and Voegtlin parcels. The other plant associations occur on match lands.



Bigleaf maple – red alder / swordfern – fragrant fringecup (G2G3S2), note eelgrass beds offshore.

Finally, maritime forests provide important inputs of whole trees and other wood to the nearshore zone, providing additional shade and habitat structure for invertebrates and fish during high tides. This latter function is especially important in Dabob Bay, which is more isolated from larger rivers contributing great amounts of large woody debris from forested uplands. As Hugh Shipman states: “The ecological and geological roles of large wood are poorly understood in beach systems, but abundant wood is a defining characteristic of natural Puget Sound beaches. Some of the wood on the spits and the nearby shorelines may have floated in from elsewhere in Hood Canal, but much of it derives from the adjacent slopes, either through bluff erosion or having been flushed out of the small streams during floods. Sources of this wood, such as the eroding bluffs south of Tarboo Bay, should be maintained.”

In addition, the Dabob Bay Natural Area contains three miles of high quality coastal or feeder bluffs associated with this maritime forest habitat. Feeder bluffs provide most of the sediment that feeds Puget Sound beaches (Johannessen and MacLennan 2007). As mentioned in previous sections, sediment delivered from Dabob Bay’s feeder bluffs and transported by south to north drift cells on either side of the bay contribute to the unique sand spits (North Spit, South Spit and Long Spit) that define inner Tarboo Bay as well as the sand beaches that support forage fish, eelgrass and native and commercial shellfish.

Threats addressed: Maritime Forest

Most of the total 8 miles of shoreline of the Dabob Bay Natural Area are largely still forested, though shoreline development in a few spots has eliminated or degraded natural shoreline vegetation. Acquisition and permanent protection of five undeveloped shoreline parcels (four properties) and 265 total forested acres with the potential for residential development will prevent additional degradation or loss that could occur with home building and clearing for lawns or viewsheds and protect the important functions provided by intact and continuous coastal vegetation.

Protecting the coastal spits and other estuarine habitats around the bay is ultimately dependent on protecting the forests along the steep slopes and shorelines to maintain natural rates of sediment input. Development can inhibit the natural delivery of sediment by these processes (i.e. bulkheads along the shoreline) or it can increase the rate of erosion and likelihood of mass wasting and excessive sediment.

Priority Parcels: Maritime Forest

The Voegtlin, Mensik, Reid and Ludwig parcels contribute 1,000 feet of intact shoreline forest. The shoreline along the Reid and Ludwig parcels is mostly a low bluff-backed beach, where forests are important contributors to shading and providing organic materials to the shoreline. The shoreline along the Mensik and Voegtlin parcels are high-backed feeder bluffs, where forests help minimize large erosion events. All of these properties contain unstable slopes. The Pope Resources property is dominated by steep, unstable slopes with forests that protect against excessive sediment delivery to three of the largest and most important coastal streams in the natural area: West Fork Tarboo Creek and Preserve Creek feeding inner Tarboo-Dabob Bay and Camp Discovery Creek, a fish-bearing stream feeding the southeast corner of the natural area.

Ecological Importance for Puget Sound and Coastal and Estuarine Ecosystems

As discussed earlier in this section, the proposed project will help protect one of the best remaining examples in Puget Sound of an intact, large, estuarine bay with a diversity of rare and important habitat types and species. The expanded Dabob Bay Natural Area boundary encompasses one of the least developed and ecologically diverse large estuarine bays remaining in Hood Canal and Puget Sound. The bay has an exceptionally high diversity of high quality coastal habitats, including saltmarsh spits, lagoons, eelgrass beds, shellfish beds, gravel and cobble beaches, and a variety of coastal and upland forest plant communities. In his summary, as part of the boundary assessment process in 2008, Dr. Tom Mumford, Marine Biologist for DNR stated: “In general, Dabob Bay is characterized by relatively intact nearshore ecosystems, and in comparison to much of the rest of Hood Canal and Puget Sound, is ‘pristine.’ There is little bulkheading, residential use, or piers/docks...Clearly, protection opportunities in this watershed are great and should be actively pursued.”

Further, Hugh Shipman, coastal geologist for the Washington Department of Ecology, wrote in his assessment of the bay: “What makes Tarboo unique on Puget Sound is its setting in a much larger landscape that has been minimally altered. The area includes a complex mosaic of coastal landforms, streams, forested drainages, and marine environments.”

The landscape scale approach to conservation used to develop the Dabob Bay boundary will help ensure protection of the ecosystem processes that maintain the diverse habitats and species of the bay. Although many plans promote the consideration of landscape scale ecological processes as part of protection efforts, such as Washington CELCP and the Puget Sound Action Agenda, the Dabob Bay project is one of the few acquisition projects that is putting this approach into action in Puget Sound. As such, the project serves as model for conservation planning in the region.

Protection of the Dabob Bay Natural Area also has significance beyond its borders. Migratory species that may range much more broadly than Dabob Bay, such as shorebirds, forage fish, anadromous salmonids and marine mammals (some species of which are federally threatened),

rely on the existence of intact estuarine wetland habitat and the abundant and diverse food species and other nutrients provided by this habitat.

Dabob Bay stands out in many respects, as summarized below and discussed in more detail in Table 4 and 5 on species diversity and supporting plans. Dabob Bay provides the following:

- Important non-natal nursery habitat for federally listed salmon (Hood Canal summer chum, Puget Sound steelhead and Chinook)
- One of the largest functional tidal wetland complexes in the Hood Canal/Strait of Juan de Fuca region
- Seasonal foraging habitat for the federally endangered orca
- Extensive distribution of Olympia oysters
- Extensive eelgrass beds
- Important spawning grounds for forage fish, supporting feeding grounds for marbled murrelets
- Least developed large bay in Puget Sound
- Very few shoreline modifications (bulkheads, docks) relative to the remainder of Puget Sound
- Largest upland and marine conservation priority areas in the NE Olympic Peninsula area of the Willamette Valley-Puget Trough-Georgia Basin Ecoregional Assessment
- Diversity of high quality Puget Sound habitats represented – mudflat, saltmarsh, deep water, shoreline forest and upland
- Seasonal concentration of bald eagles – salmon spawning at mouth of Tarboo Creek in fall and midshipman spawning in spring
- Bald eagle nests, heron rookeries, marbled murrelet marine feeding area and potential nesting area, and other priority species that rely on upland forest and marine waters
- Sediment inputs to the bay that are critical to maintaining coastal spits and other features
- Extensive soil erosion, landslide and earthflow potential on steep slopes can be kept at natural rates by limiting human disturbance, including forest harvest and roads
- Extensive wintering waterfowl use and seasonal shorebird use
- Several old growth forest patches and at least one potential marbled murrelet nest area
- Extensive naturally regenerated forest adjacent or near the estuary, rare in Puget Sound
- Commercially important shellfish beds and harvest opportunities
- Extensive opportunities for trail network, and some existing trails, on more level uplands
- Numerous undeveloped lots and large parcels
- Rare opportunity to protect numerous intact coastal stream systems from headwater wetland to estuary

The estuarine intertidal wetlands supported by the Dabob Bay Natural Area have special significance at several scales:

- **National:** Intertidal estuarine wetlands are designated as a nationally declining habitat type by the National Wetlands Inventory and are supported by federal conservation efforts (e.g., the US Fish & Wildlife Service's National Coastal Wetlands Conservation Program).
- **Regional:** In Puget Sound, Washington's inland coastal estuary – a unique habitat type of its own – estuarine wetlands are underrepresented and critically important habitat, including for several species of federally-threatened salmonids that rely on healthy estuarine wetlands during the critical juvenile life stage.
- **Local:** Estuarine wetlands are an especially important habitat in Hood Canal, a fjord-like sub-basin of Puget Sound that has lost substantial amounts of tidal wetland habitat, with 22 percent remaining in Hood Canal (Todd et al. 2006).

In Puget Sound, where state agencies have been charged with restoring the sound by 2020, protection of existing intact habitat type is the number one priority because of its relative simplicity and efficiency in comparison with extensive habitat restoration (Puget Sound Partnership Action Agenda 2009).

Listed Species Supported by Dabob Bay Project Actions

The Dabob Bay Natural Area is identified as an area of high biodiversity by several local and regional reports, including The Nature Conservancy's Willamette Valley-Puget Trough-Georgia Basin Ecoregional Assessment (Floberg et al. 2004).

Eighteen species that are federally-listed species or species of local or regional importance are supported by the Dabob Bay Natural Area (Table 4). The project area provides spawning, rearing, staging, nesting, breeding, foraging habitat and nursery areas for a broad diversity of federal and state-listed and state candidate species.



Nearshore fish surveys documented use by ESA listed Chinook and Summer chum



ESA listed Hood Canal summer chum salmon use Dabob Bay intertidal areas



Western toads, state candidate species, found along forested shorelines of Dabob Bay



Pacific oyster (left) and native Olympia oyster, state candidate species (right) are both abundant in Dabob Bay Natural Area.

Table 4. Federally-listed species or species of local or regional importance that occur within the Dabob Bay Natural Area.

Common Name	Federal Status	Habitats used and project benefits	Relationship of project to conservation plans
Orca	Federal and State Endangered	Orca whales periodically feed in Tarboo-Dabob Bay, and were most recently observed in fall of 2009 pack hunting seals around the bay with Broad Spit, near the proposed Reid and Ludwig properties, used as the ambush site. Landscape-level conservation for Tarboo-Dabob Bay will help the whale population recovery by protecting relatively pristine foraging areas, restoring salmon (a key food source), and reducing catastrophic risks such as oil spills.	The project supports the 2005 “depleted population” conservation plan by protecting salmon habitat and water quality. Protection of Reid and Ludwig will buffer a known feeding site.
Chinook Salmon (Puget Sound)	Federal Threatened and State Candidate	<p>Tarboo-Dabob Bay, including the project sites, is documented estuarine habitat for juvenile Chinook that use the bay for four months in the spring before migrating to deeper water (Bahls 2003). Protection and restoration of the slopes, shorelines, and tidelands around the bay will directly benefit water quality and rearing habitat in Tarboo-Dabob Bay.</p> <p>Lower Tarboo Creek provides spawning habitat for a small population of Chinook salmon that have been consistently documented by Port Gamble S’Klallam tribal biologists and NWI biologists since October surveys began ten years ago.</p>	<p>Salmon and Steelhead Habitat Limiting Factors: WRIA 17, Recommendations to be implemented by this proposal include protection of Tarboo-Dabob Bay.</p> <p>Regional Nearshore and Marine Aspects of Salmon Recovery in Puget Sound (Puget Sound Action Team 2005).</p>

Common Name	Federal Status	Habitats used and project benefits	Relationship of project to conservation plans
Chum Salmon (Summer Run Hood Canal)	Federal Threatened and State Candidate	Tarboo-Dabob Bay is documented rearing habitat for summer chum juveniles from January to May. Chum fry have been sampled below the Lazelle and Hopkins properties. The Pope property includes steep unstable slopes above important shorelines used heavily by chum. The mudflats and saltmarsh wetlands of Tarboo-Dabob Bay provide essential food and cover for summer chum during this critical period in their life history. Although summer chum salmon are not known to spawn in Tarboo Creek in large numbers, several adult spawners have been seen in recent years and juveniles are documented rearing in Tarboo-Dabob Bay, indicating that they may recolonize this system with increasing population size in Hood Canal.	This project is following the recommendation in the Summer Chum Conservation Initiative (2000). The goal is to protect and restore estuarine rearing habitats.
Winter Steelhead Trout (Puget Sound)	Federal Threatened	Steelhead historically spawned throughout the mainstem of Tarboo Creek within the project area, but very few have been seen since the 1960s. Protection of Tarboo-Dabob Bay will provide transition habitat for outmigrating and returning fish.	NOAA –Tribal Recovery Plan in development. Tarboo Watershed Assessment, WRIA 17 Limiting Factors Assessment, HCCC Salmon Recovery Strategy
Bald Eagle	Federal Species of Concern and State Sensitive	Several bald eagle nests have been documented in the area since the mid 1990s, along the western shore and eastern shores of the Natural Area. The current status of all nest sites is unknown, however at least three are known to have been active as recently as 2005. Eagles also concentrate in the area for feeding during salmon, sandlance and midshipman spawning seasons (spring and fall). Protecting forested bluff and shoreline will benefit eagle habitat.	Bald Eagle Recovery Plan – manage habitat for breeding, winter roosting and foraging.

Common Name	Federal Status	Habitats used and project benefits	Relationship of project to conservation plans
Marbled Murrelet	Federal and State Threatened	<p>The area had one of the highest densities of summer marbled murrelet sightings in Hood Canal and lower Puget Sound (Nysewander et al. 2005 in Crawford and Wilderman 2008). One occupied nesting site is documented within one-quarter mile of the Natural Area. Growth of old growth forest along the shorelines of Tarboo-Dabob Bay, including the project sites, will eventually provide suitable nest trees. Because of the proximity of a number of nests within nearby Olympic National Forest and the high use of the Dabob Bay shorelines by forage fish, it is expected the murrelets rely on Dabob Bay as an important feeding area (Joanne Stellini, pers. comm. 2010). In addition to direct nest protection, protection of feeding grounds is one of the critical actions for murrelet recovery. Foraging habitat in the estuary will also be improved by increased prey levels (fish) in the estuary resulting from protecting project sites.</p>	Marbled Murrelet Recovery Plan –manage habitat for breeding and foraging.
Peregrine Falcon	State Species of Concern	<p>Peregrine falcons forage in open habitats preying mostly on waterfowl and shorebirds. The project would secure habitat and prey populations provide trees for perching sites from which to forage.</p>	
Western Toad	Federal and State Species of Concern	<p>Western toads are found along stream and wetlands with intact conifer dominated riparian areas. They have been observed in the forested reaches of streams in the Tarboo watershed. Protecting the forested shorelines and feeder streams around Tarboo-Dabob Bay will provide a continuous corridor of suitable habitat for increasing the distribution and abundance of the western toad.</p>	

Common Name	Federal Status	Habitats used and project benefits	Relationship of project to conservation plans
Townsend's Big-eared Bat	Federal and State Species of Concern	Townsend big-eared bat uses large dead trees for roosting. This species will greatly benefit from protection of forested shoreline and eventual recovery of old growth forest in the project area.	Species Conservation Assessment and Strategy for the Townsend's big-eared bat (Pierson et al. 1999, Idaho Fish and Game).
Merlin	State Candidate	Merlins forage during the non-breeding season in open areas such as estuaries, wetlands, and agricultural habitats, including the project area. The project will protect foraging habitat, a prey base and potential nesting sites in the tidelands and forested shorelines to be protected.	
Common Murre	State Candidate	Protecting and restoring the forested slopes adjacent to the tidelands and important forage fish spawning beaches will increase prey (fish) levels and maintain water quality in the estuary for common murre.	
Purple Martin	State Candidate	Purple martin habitat consists of open areas near water and trees that provide nest cavities. Both foraging habitat and nesting potential would benefit by the protection of 265 acres of shoreline forests.	
Western Grebe	State Candidate	Protecting and restoring the forested slopes adjacent to tidelands and important forage fish spawning beaches will increase prey (fish) levels and maintain water quality in the estuary for Western Grebe.	
Common Loon	State Sensitive	Protecting and restoring the forested slopes adjacent to tidelands and important forage fish spawning beaches will increase prey (fish) levels and maintain water quality in the estuary for common loons.	
Pileated Woodpecker	State Candidate	Pileated woodpeckers require large trees and snags for nesting and feeding. Pileated woodpeckers are occasionally seen in the existing upland forest portions of the project area. This project will restore habitat by allowing recovery of old growth forest conditions in the uplands of the project area.	

Common Name	Federal Status	Habitats used and project benefits	Relationship of project to conservation plans
Vaux's Swift	State Candidate	Vaux's swift would benefit from the protection and formation of large snags that they need for colonial roosting sites and nesting sites along forested shorelines and slopes within the project area.	
Waterfowl	General	Summer and winter waterfowl surveys conducted from 1992-1999 indicate the area receives relatively high levels of use, particularly in winter (Nysewander et al. 2005). Sixteen total species were observed including several types of ducks, grebes, loons, gulls, great blue heron, cormorants, Pigeon guillemots, and marbled murrelet. Densities of scoter, bufflehead, scaup, and marbled murrelet were high compared to other portions of Hood Canal and Puget Sound. The area had one of the highest densities of summer marbled murrelet sitings in Hood Canal and lower Puget Sound.	
Olympia Oyster	State Candidate	Dabob Bay supports a substantial population of Olympia oysters (<i>Ostrea lurida</i>), a WDFW State Candidate species (Brady Blake, pers. comm.). The southern and eastern portions of the bay (the only portions that have been searched) have large numbers, estimated in the hundreds of thousands.	

Common Name	Federal Status	Habitats used and project benefits	Relationship of project to conservation plans
Forage Fish Surf smelt Pacific sand lance Eulachon Midshipman	State Candidate (Eulachon) Others are prey species for numerous federal and state listed species	Portions of the beaches support spawning beds for surf smelt and Pacific sand lance which are important forage fish for a variety of marine organisms. Inventory conducted in east Jefferson, north Mason, and west Kitsap counties from 2001-2004 located twenty new spawning locations in the Dabob Bay area – the largest number of new locations for these two forage fish found at a single site in the entire inventory effort (Long et al. 2005). Overall, the Dabob Bay site supported the largest number of spawning sites per mile of sampling area (1.65) among all sites in the study. Much of this shoreline is “pristine with excellent spawning substrate” (Long et al. 2005). Two other forage fish species, eulachon (<i>Thaleichthys pacificus</i>), a WDFW State Candidate species, and midshipmen (<i>Porichthys sp.</i>), have also been observed on a stretch of beach on the western side of the bay, and midshipmen spawn in large numbers on cobble beaches (Peter Bahls, pers. comm.).	Protecting spawning beaches is a priority of the Forage Fish Management Plan (Bargmann 1998).

1.3.2 Conservation

Corridors and linkages

The Dabob Bay project involves an outstanding level of connectivity in conservation design. The proposed acquisitions are part of a landscape scale conservation effort to protect Dabob Bay by including the upslope contributing areas. The natural area boundary was specifically designed to provide for long-term connectivity and linkages within Dabob Bay, in terms of ecosystem processes, wildlife movement corridors between uplands and shorelines, and scenic viewsheds.

The private lands proposed for purchase will protect critical connections between the shorelines of Dabob Bay and state lands already protected as part of the Dabob Bay Natural Area, as well as other lands already protected within the Dabob Bay Natural Area. Most importantly, the FY11 and current FY12 proposed Pope lands and Trust Land Transfer lands establish a nearly completely connected corridor along the entire west side of the natural area, with numerous points of connectivity to the shoreline, including the proposed Mensik, Reid and Ludwig

properties. On the east side of the bay, the Pope parcels increase connectivity, especially along Camp Discovery Creek.

In addition, the Dabob Bay project increases the linkage to conservation of Tarboo Creek, the main freshwater source and contributing watershed to Dabob Bay. In 2002, Northwest Watershed Institute and over 30 partnering organizations initiated a whole watershed restoration effort to restore salmon spawning and rearing habitat to this productive stream. In the past 8 years, over 500 acres of stream and freshwater wetlands along Tarboo Creek have been permanently protected by conservation easement or fee simple acquisition. Extensive restoration has been completed, including correcting most barriers to fish passage, restoring 150 acres of wetlands and riparian areas, and re-meandering the stream channel and re-connecting floodplains along two miles of the previously channelized streams. Funding sources have included four USFWS National Coastal Wetland Conservation grants, and several NOAA Community-based Restoration Program and Whole Watershed Restoration Initiative grants. The Dabob Bay project is part of a larger effort to link marine and freshwater habitat conservation together in the same watershed to benefit salmonids and other wildlife.



A view south of Tarboo Wildlife Preserve along the Tarboo Creek valley and downstream Dabob Bay. Over 500 acres are now permanently protected and being restored in the upper watershed.

Potential to restore ecological values

The priority parcels require minimal restoration that can be accomplished successfully. All shoreline parcels are relatively pristine and require no significant restoration. The Pope Resources property has been partially logged in recent years, but can be successfully restored by simply allowing the forest to continue to grow. All of the tracts have largely intact native plant communities with only minor invasive species problems. Funding for restoration will be obtained in partnership with The Nature Conservancy and the Northwest Watershed Institute, both of whom are actively involved in restoration in Tarboo-Dabob watershed. The Department of Natural Resources is currently implementing a state-funded restoration project within the natural area (on parcels not related to this proposal) and will continue to be eligible for such restoration grants, if needed.

Mix of ecological, recreation, historic and aesthetic values

The sum of Dabob Bay's values is much greater than the parts. Dabob Bay's unique qualities are best explained by the manner in which a person would explore the bay. Pulling up in a small boat or kayak on one of the coastal saltmarsh spits, you would be standing on a shoreline that had been settled by Native American tribes for generations and continues to be in the Usual and Accustomed area used for hunting, gathering, and cultural purposes by four tribes of the Point No Point Treaty Council. Fortunately, you missed, by several centuries, a deep whirlpool at the end of the spit that kept the tribal village safe from attack according to oral histories collected by Elmendorf.

In the shallow waters in front of you swim schools of juvenile summer chum and Chinook salmon, both federal listed species that use Tarboo/Dabob Bay as critical non-natal nursery habitat. Under the water breathe hundreds of acres of world famous Dabob Bay oysters, cultivated by Rock Point Oyster, one of six family-based shellfish companies on the bay. Rock Point Oyster's founder, Dick Steele, first introduced the Japanese oyster here and renamed it the Pacific Oyster in the 1930s.

Looking out over the bay, you would see serene views of emerald waters and steep forested shorelines dropping to the beaches with nary a house or timber harvest in site, similar to what it may have looked like when Captain George Vancouver explored Dabob Bay for the British navy in 1792. The outer bay, past the coastal spits, drops to over 500 feet deep and supports the diversity of deep water marine life including the Hood Canal spotted shrimp, much coveted by recreational and commercial fisherman. Looking behind you onto the spit, you would see two rare saltmarsh plant communities, globally imperiled priority 1 plant associations, found few other places in the world. Beyond the spits to the north, an eagle cruises over the productive mudflats of inner Tarboo Bay, rich feeding grounds for juvenile salmon, shorebirds and other waterfowl.

In sum, the Dabob Bay Natural Area contains a rich legacy of Puget Sound's ecological, historical, and aesthetic values, best visited by kayak, canoe or other small boat. The priority parcels are key pieces necessary to maintain the outstanding values of the Dabob Bay estuary as a whole.

1.3.3 Recreational



Broad Spit is a unique water access only county natural area park, used by boaters.

The Dabob Bay Natural Area was recently enlarged to include lands designated as natural resources conservation area (NRCA) surrounding a core natural area preserve (NAP). The mission of NRCAs, in addition to conservation of natural features and ecosystem function, includes opportunities for low-impact public uses that are compatible with the site. At Dabob Bay, the NRCA will be assessed for developed access points that may include wildlife and landscape viewing points, nature trails and day-use areas. The open waters of Dabob Bay are accessible by watercraft, and provide opportunities for wildlife viewing and spectacular landscape views. Upper reaches of the bay are used for kayaking or canoeing. Currently, the area is also used for hunting, fishing, mushroom picking, hiking and bird watching.

The Reid and Ludwig parcels, which are part of this proposed grant acquisition, are nearly adjacent to Broad Spit County Park within the southwestern tip of the natural area boundary. This popular day-visit county park is accessible by water access only, and it has been proposed as an addition to the formally recognized water trails network in Puget Sound. As a whole, the Dabob Bay project area offers outstanding opportunities for low impact water-based recreation and experiencing the natural heritage of a part of unspoiled Puget Sound.

The core NAP lands at Dabob Bay offer limited opportunities for public access, focusing on research and guided environmental education, due to the sensitive features in the preserve, which is consistent with the Washington CELCP plan:

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 process.

Low-impact recreational use allowed in the NRCA fits well with the Washington CELCP plan goal. Because of the landscape scale of the conservation effort, the Dabob Bay Natural Area offers excellent opportunities for extensive hiking trails on less sensitive, flatter forest lands within the NRCA. Over time, as lands within the approved site boundary for the NRCA are transferred from state “trust land” ownership into NRCA management, and as privately owned lands are acquired, opportunities for walk-in access increase. The Department of Natural Resources intends to identify locations for development of public access points and potential trail or other facilities through a site-based management planning process that includes public participation and review. Pedestrian access on existing NRCA-owned roads will be maintained in the interim.

1.3.4 Historical

Dabob Bay is rich in cultural and archeological history, providing a window on human use stretching from Native American settlements to early logging, and oyster farming. With its rich fishery resources, Dabob Bay was heavily used by Native Americans. At least two village sites existed. Kris Miller, tribal historic preservation officer for the Skokomish Tribe states that there was a settlement on Long Spit – “Ta`bux a winter village on Long Spit, near the head of Dabob Bay [see name reference below]. Residents were Vtta`bux, an independent Twana community” (Elmendorf 1993). Another village apparently occurred inside the spits, and was kept safe by a giant whirlpool caused by tidal action off the end of one of the spits, still visible today, the topic of a legend recounted by Elmendorf (1993, 1961).

At a third site, a portion of a state registered archeological site occurs on the Reid ownership. This is a large shell midden that was discovered in 1997 by archeologist George Wesson, on contract for the Port Gamble S`Klallam Tribe. The site is believed to have been from a seasonal village site located at the mouth of Broad Spit Creek. According to archeologists, many of the low bank stream valleys around the bay may have had Native American settlements, although this is the only registered site at present.

There are likely additional sites that have not been discovered in this resource rich bay. As stated by Greg Griffith, deputy state historic preservation officer for the Department of Archaeology and Historic Preservation: “Given the location and the presence of known sites, there is high potential that other archaeological sites may remain in the project vicinity. Certainly conservation of the project area as part of the Dabob Bay Natural Area would be a compatible and recommended approach for preserving cultural resources.”

Dabob Bay remains critical to the subsistence and culture of four tribes today: the Port Gamble S’Klallam Tribe, Jamestown S’Klallam Tribe, Lower Elwha Klallam Tribe, and Skokomish Tribe. The bay is part of their Usual and Accustomed Area (U&A) reserved by the 1858 Point No Point Treaty. Within this U&A, tribes reserved their hunting, fishing and gathering rights. All four tribes strongly supported expansion of the Dabob Bay Natural Area to protect these cultural, archeological and subsistence resources.

European history began with the exploration of Captain George Vancouver’s exploration of Dabob Bay in 1792. An expedition led by Charles Wilkes followed in 1841, during which Wilkes named the bay “Dabop,” a Native American word of unknown origin.



Steelhead caught at the head of Dabob Bay in 1938.

Starting in the late 1800s, much of the shorelines were selectively logged of choice old growth trees, using oxen to drag the logs to the bay. Steel oxen shoes (similar to horse shoes) and the old log unloading ramps found along the shore are a reminder of this history.

Dabob Bay is also famous for oyster culture. Japanese oysters were first introduced (and renamed Pacific Oysters) here in the 1930s and it became one of the best spots in the world for collecting naturally spawned oyster seed raising world famous oysters.

1.3.5 Aesthetic

The scenic vistas experienced from anywhere on Dabob Bay are truly spectacular. Dabob Bay is one of the few places remaining in Puget Sound where you can see shorelines and beaches that appear similar to those experienced by George Vancouver on his early exploration of Dabob Bay over 200 years ago. Unlike most of increasingly developed shorelines of Puget Sound, Dabob Bay remains relatively unaltered by the sight of residential development, bulkheads, beach stairs, docks along the shores, and clearcuts.



View from west shore of Dabob Bay. Photo © Keith Lazelle.

The intact nature of Dabob Bay is partly a result of it being off of the major highways. Tarboo-Dabob Bay is the only major saltmarsh estuary in Hood Canal that is not crossed by a major road or highway. In addition, Dabob Bay contains a relatively large amount of state timber lands along shorelines of Puget Sound. Much of this forest is older, naturally regenerated forest with scattered old growth “legacy” trees over 200 years old. Because about 1,916 acres are anticipated to be protected within the Natural Area by June 2011, the Dabob Bay project represents an opportunity to protect an entire bay’s viewshed. The proposed acquisitions will prevent residential development of a minimum of five shoreline lots, potential timber harvest and future subdivision of 240 acres of privately owned commercial forest, and timber harvest on 470 acres of proposed state match lands, representing an essential step toward protecting the viewshed of the Dabob Bay Natural Area as a whole.

Broad Spit and Dabob Bay have been proposed for state designated water trail route, with a stop at Broad Spit (as described under the recreation section). All of the properties include steep, forested slopes that are visible for miles while on the bay in a boat or along the shoreline. Development of these properties would mar what is otherwise a unique, “semi-wilderness” boating experience in a near-pristine Puget Sound estuarine bay.

1.4 RELEVANCE TO WASHINGTON STATE’S CELCP PLAN

1.4.1 Dabob Bay Acquisitions implement CELCP Recommendations

The Dabob Bay project represents a prime example of a project that is implementing the letter and intent of Washington CELCP: 1) the project is in the endangered Puget Sound ecosystem, highlighted as a priority in Washington CELCP; 2) the very diverse, high quality habitats within the Dabob Bay Natural Area meet CELCP’s priorities for target areas of high biodiversity, habitat quality and other attributes (recreation, cultural and aesthetic attributes); and 3) the intensive assessment that shaped the boundaries of the Dabob Bay Natural Area was based on an

ecosystem processes and landscape-scale approach consistent with the ecosystem processes approach recommended in Washington CELCP.

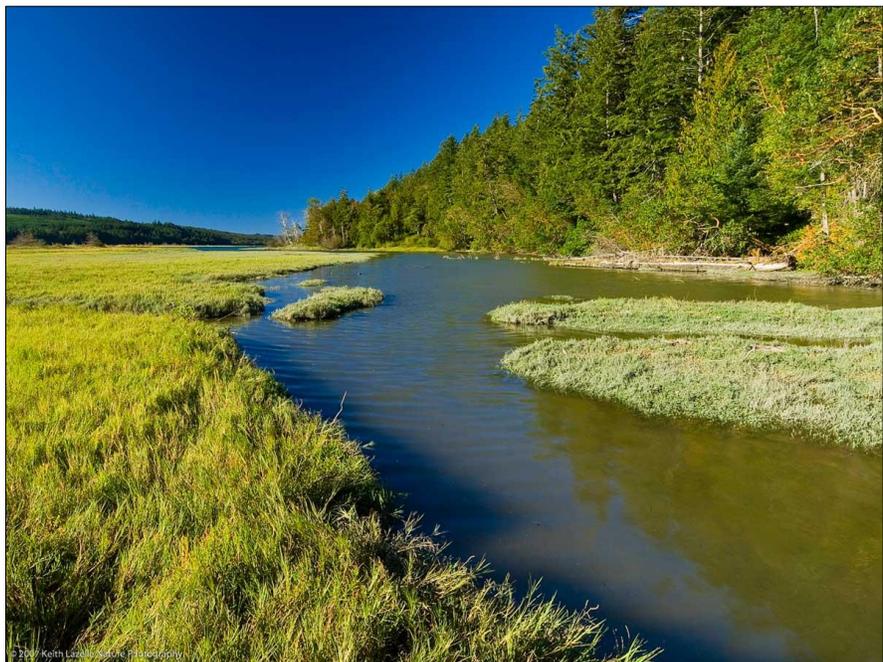
This acquisition advances multiple Washington CELCP priorities in the following CELCP criteria:

Salmon Recovery

Protection and restoration of salmon habitat is essential to the recovery of this Pacific Northwest icon. Dabob Bay provides exceptionally high quality and diverse nursery habitats for threatened salmon and forage fish. The acquisition will protect important habitat and ecosystem processes that maintain these habitats and preserve the ecological integrity of the landscape as stated in the Washington CELCP. (See pages 7, 15, 20-21 of Washington CELCP plan.)

Wetlands Protection

The Dabob Bay Natural Area includes a nationally significant salt marsh complex due to its high quality and size. The proposed project will help protect these salt marshes by protecting the steep, forested slopes and larger ecological processes that maintain natural rates of sediment movement and protect water quality. The Dabob Bay Natural Area was designed to protect ecosystem processes that maintain the diversity of estuarine wetlands. The



priority parcels, including those on adjacent uplands to the bay, are an essential part of that strategy and consistent with Washington CELCP approach. (See pages 8, 11-12 of Washington CELCP plan.)

Forage Fish

The sand and gravel beaches support abundant shellfish populations and are heavily used spawning grounds for forage fish. The naturally eroding feeder bluffs supply sediment to the drift cells that nourish beaches. Overall, the proposed acquisition will directly protect about 1,000 feet of some of the most heavily used forage fish spawning beaches in the region. Shorelines of Dabob Bay were found to have higher densities of forage fish spawning sites than any other shorelines of eastern Jefferson County, based on recent surveys (Long 2005). These natural shorelines at the base of steep slopes providing critical habitat for forage fish, salmon, and other species in the food web. Indirectly, the protection of hundreds of acres of steep, unstable forested slopes around the bay will protect beaches from an increased rate of catastrophic landslide and burial. (See page 8 of Washington CELCP plan.)

Species and Habitat Biodiversity

Dabob Bay has an exceptionally high diversity of species and habitats, including salt marsh spits, lagoons, mudflats, eelgrass beds, beaches and a variety of upland forest and freshwater wetland habitats. The landscape scale design of the Dabob Bay Natural Area is aimed at protecting this biodiversity and the ecological processes that maintain it, consistent with Washington CELCP approach to “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.” (See pages 8, 15 of Washington CELCP plan.)

Ecoregional Issues and Threats for Puget Sound

The Dabob Bay acquisition will offset ecoregional threats facing Puget Sound identified in Washington CELCP of continued rapid development and water quality impacts, while implementing immediate protection needs including preservation of estuaries and marshes, preserving large segments of the shoreline and maintaining linkages. Specifically, the proposed project and landscape scale Dabob Bay Natural Area approach implement the Washington CELCP plan by “conserving larger land blocks from fragmentation, while maintaining linkages of these areas to each other.” (See page 8 of Washington CELCP plan.)

Broader Threat of Habitat Fragmentation

According to the Washington CELCP, Puget Sound, currently home to 4 million people (two-thirds of Washington’s total), will hold a population of 9 million by 2025. Human development has already modified one-third of the Puget Sound shoreline. In contrast, Dabob Bay contains the lowest amount of shoreline modifications in Hood Canal (Hirschi et al. 2003), but this is all at risk as Jefferson County’s population growth rate will keep pace with that of the region – it is expected to grow by more than 50 percent in the next 15 years. The remaining naturally functioning mosaic of Puget Sound beaches, bluffs, deltas, mudflats and wetlands are being stressed by development. 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 issues are also threats to the economic sustainability of the region. The Dabob Bay acquisition is part of a landscape scale approach to protect one of the least developed bays in Puget Sound from habitat fragmentation, addressing a core mission of Washington CELCP. (See page 9 of Washington CELCP plan.)

Recreation, Historic and Cultural Preservation, and Aesthetics

These features are compatible with the ecological values of the site, consistent with Washington CELCP. The project also helps protect cultural and scenic viewsheds as discussed in earlier sections. (See page 13 of Washington CELCP plan.)

Core Qualities

Perhaps the most significant feature in Washington CELCP is the recognition of the need to take a landscape scale approach to protecting coastal ecosystems:

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 Dabob Bay Natural Area and the proposed acquisitions are an outstanding example of this landscape scale approach being put into action. The design of the Dabob Bay Natural Area was based on a rigorous interdisciplinary assessment of ecological processes and functions that are essential for maintaining the diverse habitats and species of the estuary. The scientific team assessed plant communities, species and landscape scale processes, including drift cell units and feeder bluffs, to arrive at a boundary. All of the properties within the boundary are considered critical to cumulative health of the estuary.

The team also considered in their overall natural area design the Washington CELCP core quality of “Corridors/Connectivity and or Core Conservation areas.” The most sensitive areas were designated as core “natural area preserve” and surrounding area as “natural resources conservation area” where additional low-impact public use was appropriate. The priority parcels in this proposal were identified to maximize multiple CELCP objectives of enhancing connectivity, while also identifying those parcels at greatest threat and greatest feasibility of success and long-term management.

1.4.2 Relevance to Other State and Local Plans

In 2007, Governor Christine Gregoire established the Puget Sound Partnership and tasked this new agency with the recovery of Puget Sound by 2020. In 2009, the Partnership completed an ambitious Action Agenda for Puget Sound that outlines the steps required to achieve recovery of this national treasure; and they are currently in the process of updating that Action Agenda to include targets for ecosystem recovery – with coastal nearshore habitats as an area of focus. One of the five overarching priorities of this plan is “protection of functional ecosystems” because it is widely understood that protection of largely-intact landscape-scale systems, with all of their integrated habitats and functions, is many times more efficient than attempting restoration, an undertaking which is not only costly but may have a dubious likelihood of success. Tarboo-Dabob Bay, as outlined by the DNR Dabob Bay Natural Area, is one of these irreplaceable systems, and DNR gained broad public support in establishing an expanded boundary that would encompass all the lands necessary to supporting a functional Tarboo-Dabob Bay estuary, tidal wetland and coastal spit complex. Protection of Tarboo-Dabob Bay is one of the last, best “low-hanging fruits” in the symbolic “orchard” of protection actions.

In summary, acquisition of the properties would help meet state and local salmon recovery goals and natural resource conservation objectives, increase public access opportunities to shoreline and upland areas, and preserve coastal resources and habitat for terrestrial and aquatic species. The acquisition of the subject properties helps to accomplish priority resources goals and objectives of larger Puget Sound. The relationship of acquisition under this grant to Dabob Bay is described in Table 5.

Table 5. Other management plans and relationships to the proposed project.

Management Plan or Effort	How this project helps implement its goals
Puget Sound Action Plan	The proposed project implements a top priority of the Puget Sound Action Plan – to protect remaining high quality habitats. The landscape scale approach and attention to ecosystem processes and functions in the design of the natural area implement the vision of the Plan.
Nearshore Chapter of the Puget Sound Salmon Recovery Plan	The landscape scale approach and attention to ecosystem processes and functions in the design of the natural area implement the vision of the Plan.
State of Washington Natural Heritage Plan (2007 Plan, and 2009 Update)	Protects State of Washington “priority” natural heritage features and plan elements (see Table 2, Habitat Types).
Pacific Coast Joint Venture Strategic Plan (Pacific Coast Joint Venture, 1993)	Protection of Tarboo-Dabob Bay is identified as a priority, of which the proposed project area is a main connective component.
Washington’s Comprehensive Wildlife Conservation Strategy (WDFW 2005)	The proposed project protects and restores four of the ten Priority One Habitats of Conservation Concern listed in the CWCS, including Westside Riparian-Wetlands, Herbaceous Wetlands, Westside Lowland Conifer-Hardwood Forest, and Bays and Estuaries. The proposed project protects numerous species of birds, mammals, fish, and amphibians listed as Species of Greatest Conservation Need, including the federal and state Threatened, Endangered, and Candidate species listed in the following sections.
Concept Plan for Wintering Waterfowl Habitat (USFWS 2005)	Lists Dabob Bay, of which the proposed project is main connective component, as key wetland habitat requiring protection and has an objective of more than 10,000 acres of protection needs in Hood Canal.
Conservation Priorities: An Assessment of Freshwater Habitat for Puget Sound Salmon (Frissell et al. 2000 for Trust for Public Land)	The Tarboo watershed, of which the proposed project area is a key part, is identified as a potential salmon refugium within Puget Sound due to the overall quality of the habitat and potential for restoration.
Coastal Zone Management Program (Washington Department of Ecology)	The proposed project area is located within Hood Canal. In this state program to implement the Federal Coastal Zone Management Program, Hood Canal was identified as an area of “particular concern” because the region has “environmental value considered to be of greater than local concern or significance.”
Historical Changes to Estuaries, Spits, and Associated Tidal Wetland Habitats in the Hood Canal and Strait of Juan de Fuca Regions of Washington State (Todd et al., Point No Point Treaty Council, 2006)	This detailed inventory of salt marsh complexes in Hood Canal and the Straits of Juan de Fuca identifies Tarboo-Dabob Bay, of which the proposed project is a main connecting component, as one of five largest functional estuarine marshes remaining in this region.
Willamette Valley-Puget Trough-Georgia Basin Ecoregional Assessment (Floberg et al. 2005)	In this Puget Sound-wide plan, Tarboo-Dabob Bay is identified as a recommended Priority Conservation Area due to its importance for freshwater, estuarine, and upland species and habitats.

Management Plan or Effort	How this project helps implement its goals
<p>The North Pacific Coast Regional Shorebird Conservation Plan (Drut and Buchanan 2000)</p>	<p>The goals of the North Pacific Coast Regional Shorebird Conservation Plan include protecting, restoring, and enhancing the quantity and quality of shorebird nesting, roosting, and foraging habitats to stabilize/maintain or increase breeding, wintering, or migrating populations of shorebird species within the region. The project contributes to these goals by acquiring intertidal wetlands and shoreline, as well as protecting forested shorelines. The Tarboo-Dabob project as a whole will provide long-term protection to Tarboo-Dabob Bay, with an estimated 1,000 acres of nearshore habitats.</p>
<p>Conservation Strategy for Landbirds in the Lowlands and Valleys of Western Oregon and Washington and Conservation Strategy for Landbirds in Coniferous Forests of Western Oregon and Washington (Altman 2000 and Altman 1999, respectively)</p>	<p>The project site includes Partners in Flight priority riparian (Lowlands and Valleys Plan) and priority upland forest (Coniferous Forest Plan) habitats for land birds. Broad scale riparian habitat goals include improvement of the quality of degraded habitat, especially for focal species, which will be accomplished by this project through hydrologic changes along with realignment and re-vegetation of the creek. Protection of riparian shoreline forest habitat in this project will assist in meeting conservation goals of several young and old-forest forest priority focal species.</p>
<p>Hood Canal Summer Chum Salmon Recovery Plan (HCCC 2007)</p>	<p>The project site is included in the Hood Canal summer chum recovery region. Nearshore surveys (Bahls 2004) documented that Tarboo-Dabob Bay provides critical estuarine nursery habitats that are used heavily by juvenile summer chum for three months in the spring. Also, in recent years, summer chum have been observed in lower Tarboo Creek indicating that they may colonize this area as population levels recover in Hood Canal. The recovery plan specifically recommends protection of high quality estuarine rearing habitat. The proposed project will directly protect documented summer chum juvenile rearing habitat and the critical contributing shorelines that maintain the water quality and estuarine habitats.</p>
<p>Salmon and Steelhead Habitat Limiting Factors: WRIA 17, Washington State. (Washington Department of Fish and Wildlife 2005)</p>	<p>The assessment recognizes the high quality of Tarboo-Dabob Bay nearshore habitat.</p>
<p>Hood Canal Salmon Recovery Strategy (HCCC Technical team, 2005)</p>	<p>The Salmon Recovery Funding Board's technical team for salmon recovery in Hood Canal specifically identifies estuarine and nearshore habitat protection as a priority.</p>
<p>WRIA 17 Watershed Management Technical Assessment (Parametrix, 2000, for Jefferson County Water Resources Council)</p>	<p>The technical assessment for WRIA 17 identified Tarboo-Dabob Bay as one of the least impacted estuaries in the region and important as a nursery for juvenile salmonids.</p>

Management Plan or Effort	How this project helps implement its goals
1.4.2.1 WRIA 17 Watershed Management Plan (Cascadia Consultants, 2003, for Jefferson County and Washington Department of Ecology)	The recent watershed management plan completed under Section 319 of the Clean Water Act for WRIA 17 includes recommendation #10 – protect and restore riparian vegetation, which this proposal will accomplish.
East Jefferson County Core Habitats and Corridors (Jefferson County 2004).	This detailed habitat mapping effort by Jefferson County’s Natural Resources Division and consultants specifically identified the proposed project area as Priority Core Habitat in Eastern Jefferson County for protecting biodiversity.
East Jefferson County Salmonid Refugia Assessment (May and Peterson 2003 for Jefferson County and Salmon Recovery Funding Board)	This scientific report identifies the project area (Tarboo-Dabob Bay) as a high priority refugium due to the strong potential for restoration of productive and diverse habitats.
Tarboo Watershed Assessment and Action Plan (NWI and 14 project partners including NOAA Fisheries, Point No Point Treaty Council, WDFW, The Nature Conservancy, DNR, and others, In Prep.)	This intensive field-based scientific assessment and action plan identifies the Tarboo-Dabob Bay project area as the highest priority site in the watershed for protection due to the extensive, high quality wetlands and undeveloped shorelines.

2 TECHNICAL AND SCIENTIFIC MERIT

2.1 Manageability of the Project Site

The Dabob Bay acquisitions comprise high quality shoreline and maritime forest parcels with minimal impacts from invasive species or development. No significant restoration will be required on any of the ownerships. No environmental remediation has taken place or is needed.

Mensik, Reid, Ludwig, Voegtlin – All of these parcels are high quality, naturally regenerated second growth forest and shoreline with minimal human impacts or non-native species.

Pope Resources – This private timberland on steep slopes includes a mix of mature older second growth forest and younger re-growth of native species with minor occurrences of invasive species, namely holly and Scotch broom. No active restoration is anticipated at this time; though passive restoration (forest regrowth) will greatly improve the ecological and habitat value of some of these lands. Because the majority of roads that access the Pope lands also access residential properties (and roads that do not access additional properties are on stable slopes), road restoration is not an anticipated need at this time.

DNR Trust Land Transfer Program match lands – Most of these lands are 70+ year old, naturally regenerated conifer forest with old growth legacy trees. Forest plant communities are healthy with minor occurrences of invasive species, namely holly.

DNR has intentionally prioritized acquisitions that establish larger connected blocks of protected lands – in this proposal and others – to increase the manageability of the Dabob Bay Natural Area. In this proposal and the past FY11 CELCP proposal, protection of large acreage within the

natural area through acquisition of Pope Resources lands and Trust Land Transfer of DNR lands into the Natural Areas Program will go a long way toward increasing the manageability of this site. Further, restoration needs here are relatively minor – and largely amount to invasive species control. Upon transfer of a significant amount of acreage into the natural area, and when funds are available, DNR will create a management plan for the area that will include coordinated restoration needs for these properties and others. DNR, NWI, and TNC have been successful in obtaining significant restoration funds for various projects around the bay and are confident that additional state, federal and private funding can be secured through partnership efforts to successfully address any future restoration issues on the proposed parcels.

2.2 Long-term Use of the Site

The proposed acquisitions will be managed by DNR as part of the larger Dabob Bay Natural Area, which includes two land conservation designations, natural area preserve (NAP) and natural resources conservation area (NRCA). The parcels include lands within both designations. Land within the NAP is the most sensitive to human disturbance and public use is limited to guided environmental education visits and research. The NRCA designation allows appropriate low-impact public use that does not degrade the ecological processes and habitats for which the preserve was established. A long-term management plan governing ecological management and public access opportunities will be developed by DNR with public involvement and review.

The Dabob Bay Natural Area and the priority parcels acquired under this proposal will be managed to protect ecological values, and NRCA lands will be assessed for compatible low-impact recreational use. Interpretive or hiking trails are possible on uplands within the NRCA as contiguous parcels are acquired. Open waters within the bay are accessible by canoe, kayak and small boats.

The proposed uses will help promote stewardship in the regional and local community and provide public access with minimum impact to the site. The area is well protected from direct vehicle access and will remain undisturbed under conservation management. The acquisition of the priority parcels plays a key role in the restoration sequencing in the larger Tarboo-Dabob Bay watershed. Large areas of natural and recovering forest have been protected and major steps completed to restore ecological function in the uplands and riparian areas of this site, as well as conserving recreation and aesthetic values present. The long-term stewardship strategy for the Dabob Bay Natural Area includes:

- 1) Systematic invasive species survey and control guided by an integrated weed management plan and often carried out by volunteers. Invasive Japanese knotweed was removed from key areas of the NRCA through this program, and volunteers have surveyed *Spartina* annually.
- 2) Annual beach cleanups organized by DNR and TNC and involving the local shellfish companies and area residents.
- 3) Decommissioning old roads, removal of bulkheads, fill and structures, and re-vegetation of shorelines where needed.
- 4) A site management plan for the Dabob Bay Natural Area will be developed following substantial completion of the site (as funding is available).

- 5) Washington State Department of Fish and Wildlife officers are the most consistent enforcement presence in the area and coordinate with DNR law enforcement. There is minimal need for law enforcement at the project area at this time.

2.3 Threat of Conversion

Lands within the proposed Dabob Bay Natural Area are highly threatened by residential shoreline development. In general, an increasingly large number of landowners are seeking to sell or develop their property. Of the over 50 small private lots (2-40 acres) that can be developed as shoreline estate properties occurring within the boundaries, more than 30 are undeveloped or with minimal improvements at present. Since September 2009, at least two new houses have been constructed along the shorelines of Dabob Bay within the boundaries of the proposed natural area. Private landowners have proven able to get county permission or exemptions to clear riparian shoreline forest for views, construct bulkheads and construct potentially unstable roads in the process of developing the property. Conservation partners are actively working to secure properties and obtain funding to realize the potential of protecting the estuary as a whole. Pope Resources, a timber and development company, is the largest private landowner, with about 660 acres within the boundaries of the natural area. Much of this land could be logged and subdivided to allow for large or small lot development and sold at any time.

The properties included in this CELCP proposal were selected because they are the most threatened within the Dabob Bay Natural Area. The properties proposed for acquisition represent a minimum of five separate parcels and potential residential house sites, not including the 240 acres of Pope Resources property that could be logged and sold for development or potentially rezoned for much higher residential development (see below). Each property involves landowners who intended to sell, log or develop their property prior to making agreements with conservation groups. If funding is not secured within the limited time frame of the option agreements, it is highly likely that the opportunity to protect these properties as part of the Dabob Bay Natural Area will be lost.

Reid, Ludwig, Voegtlin – NWI negotiated time-limited option agreements (1.5 to 2 years) for purchase of the undeveloped lots from each owner (4 parcels total).

Mensik – The landowner has listed the property (1 parcel) on the market. NWI intervened and is currently negotiating an option for purchase of this undeveloped lot.

Pope Resources – Although this land is zoned for forestry, the potential for rezone to higher density is greater because of the surrounding small lots. These lands could also be subdivided and or sold immediately as large lots (one residence per 80 acres). TNC intervened and is currently negotiating an option or purchase and sale with Pope Resources for the 120 acres on the west side of the bay included in this proposal as well as the 262 acres included in the FY11 CELCP project. Upon securing this acquisition, TNC will negotiate for purchase of the remainder of Pope Resources land within the natural area boundary (667 acres), including the additional 120 proposed in this FY12 CELCP application.

2.4 Project Readiness

The Dabob Bay project has a high probability of success. Dabob Bay is a high priority for DNR, TNC and local conservation groups, and the project is well positioned for state and federal funding. Significant progress has been made toward the proposed acquisitions (Table 6).

Table 6. Status of acquisition of proposed priority parcels.

Landowner	Acres	Protection Type	Source of Current Valuation	Current Status of Landowner Agreement
Mensik	5	Fee-simple	Sale price	Listed for sale; option under negotiation
Reid	5	Fee-simple	Estimate based on recent sales (with appraisals completed to federal standards) of similar properties within the Dabob Bay Natural Area	Option
Ludwig	5	Fee-simple	Estimate based on recent sales (with appraisals completed to federal standards) of similar properties within the Dabob Bay Natural Area	Option
Voegtlin	10	Fee-simple	Estimate based on recent sales (with appraisals completed to federal standards) of similar properties within the Dabob Bay Natural Area	Option
Pope Resources	240	Fee-simple	Appraisal & Estimated Value*	Letter of Willingness; option under negotiation
Washington Department of Natural Resources (Trust Land Transfer)	470	Deed restriction under natural area protection	Appraisal	Match Commitment Letter

*Value of 120 acres of Pope Resources land on west side has been appraised; value of remaining 120 acres on east side is based on value from this appraisal.

Landowner agreements

- Reid, Ludwig and Voegtlin have signed time-limited, legally binding option agreements (1.5 to 2 years) for NWI purchase.
- The Mensik property is on the market and NWI is currently negotiating an option agreement.
- Pope Resources has signed a willing seller letter and TNC is currently negotiating an option agreement.
- The match funding was secured in 2009 and all of the match lands were transferred in March 2011 from timber management to conservation under the DNR Natural Areas Program.

Due diligence is well underway

The Dabob Bay project can be executed within the 18 month CELCP performance period. When funding is secured, appraisals in conformance with state and federal guidelines will be completed. A final appraisal was completed in December 2010 for 120 acres of the Pope Resources property, and the value of the remaining 120 acres is estimated based on this appraisal.

DNR has completed the appraisals for the proposed match property. All appraisals for match parcels will be updated as necessary to fall within the nine month window prior to expiration of the grant award period.

Examination of preliminary title reports reveals no litigation or liens that would jeopardize project completion. Copies of title reports for the priority parcels are available upon request. No contamination or environmental hazards were identified in initial site visits; DNR will complete a Phase I environmental assessment upon grant funding.

3 OVERALL QUALIFICATIONS OF APPLICANTS

3.1 Ability to Acquire Land

The Washington State Department of Natural Resources has legal authority to acquire high priority conservation lands under the Natural Area Preserves Act and the Natural Resources Conservation Areas Acts (Chapter 79.70 RCW and Chapter 79.71 RCW, respectively) as part of its system of statewide natural areas. DNR's Special Lands Acquisition staff has the expertise to complete acquisitions for long-term conservation directly or where appropriate, through partnerships with other organizations. DNR has successfully acquired primarily fee interests in more than 134,000 acres at 84 natural areas throughout Washington state.

The Nature Conservancy has been involved in habitat conservation for over 50 years. TNC's mission is to preserve the plants, animals, and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. In Washington, the Conservancy has helped protect over 500,000 acres of land for conservation and owns and manages 55,000 acres across the state. TNC has personnel with the expertise to initially acquire the Pope parcels and complete sale to DNR as well as to advance the larger Dabob Bay Natural Area conservation project. Peter Scholes (Director of Protection) has more than 20 years of conservation real estate experience and will manage the project for TNC. Other personnel that will contribute directly to project implementation include Chris Davis (Director of Conservation Programs for Puget Sound), Melisa Holman (Hood Canal Conservation Project Manager), and Jo Smith (Marine Ecologist).

Northwest Watershed Institute is a nonprofit organization based in Port Townsend, Washington. NWI has been leading a whole watershed protection and restoration program for the Tarboo-Dabob Watershed since 2002. Working with over 30 partnering organizations, businesses and

agencies, NWI has protected and restored over 500 acres of streams and wetlands, from the headwaters of Tarboo Creek to Dabob Bay and was instrumental in galvanizing public and shellfish business support for the expansion of the Dabob Bay Natural Area. NWI owns and manages the 316-acre Tarboo Wildlife Preserve, which serves as a field center for environmental education, research and restoration in the watershed. In 2009, Peter Bahls, aquatic ecologist and Director of Northwest Watershed Institute, was awarded the National Wetlands Award in Conservation and Restoration from the Environmental Law Institute for NWI's work in the Tarboo watershed. Peter will lead the project for NWI.

3.2 Ability to Manage Land

DNR manages 30 natural resources conservation areas and 54 natural area preserves, including 12 sites on Puget Sound that include aquatic lands, such as Dabob Bay Natural Area. DNR natural areas managers are charged with management and stewardship of these critical areas. Science staff in the state headquarters office provides support to develop and implement ecological restoration and weed management plans. Through restoration grants and partnerships, seasonal staff also conduct field work, and volunteers participate in restoration and weed control.

3.3 Other Pertinent Information

Please see CELCP FY12 Attachments for additional maps, photographs, and supporting information that documents the values of the Dabob Bay Acquisition.

4 PROJECT TIMELINE

If awarded the 2012 CELCP grant, DNR, TNC and NWI anticipate completion of the Dabob Bay project with fee interest transferred to DNR within months of contracting, well before the 18 month financial assistance period ends.

Requested Award Period: July 1, 2012 – December 31, 2013

<u>Task/Benchmark</u>	<u>Schedule</u>
Identify sites for purchase	Completed
Ensure willingness to sell	Completed
Negotiate purchase agreements and options	
Reid - Fee simple two parcels	Completed
Ludwig - Fee simple parcel	Completed
Voegtlin - Fee simple parcel	Completed
Mensik - Fee simple parcel	In progress – July 2011
Pope Resources - Fee simple six parcels	In progress – May 2011
Complete appraisal and appraisal reviews	September 2012
Submit documentation to NOAA for approval	November 2012
Close on properties	no later than December 2012*

* Note that any earlier option deadlines will be extended, or purchases expedited, once grant funds have been awarded.

5 PROJECT BUDGET AND JUSTIFICATION OF PROPOSED COSTS

Federal Share

Washington State Department of Natural Resources seeks \$2,700,000 in CELCP FY12 funding to acquire 265 acres in fee simple property to be held in perpetuity and to expand the DNR Dabob Bay Natural Area, including lands to be designated as natural area preserve (NAP) and natural resources conservation area (NRCA). These 265 acres include five ownerships (Mensik, Reid, Ludwig, Voegtlin and Pope Resources). State match lands valued at \$2,700,000 to be contributed by DNR meet the 1:1 non-federal match requirement.

Land costs for the Reid, Ludwig and Voegtlin properties are based on recent sales (with appraisals completed to federal standards) of similar properties within the Dabob Bay Natural Area completed by NWI and TNC. The estimate for Pope Resources lands are based on an appraisal completed in December 2010 for one half of the proposed acquisition.

DNR will use limited CELCP funds for transaction and administrative costs, including \$228,000 for transaction costs (appraisals, title opinions, surveys and cultural resource surveys) and \$87,000 for costs related to grant administration and project implementation for DNR. The Washington State Department of Ecology, as Washington's sponsoring agency, will use \$10,000 for costs related to grant administration. Therefore, less than 12 percent of the Federal share will go toward transaction and administrative costs, with administrative costs being only 3.6 percent of the federal share. All proposed costs are consistent with the eligibility information presented in the CELCP Full Funding Opportunity notice.

Transaction Costs:

- *Appraisal* costs include \$125,000 for DNR-approved contractors to secure final appraisals in accordance with Yellow book standards for six properties (including updated appraisal for match property). Estimates are based on prior experience for similar work.
- *Title opinion and insurance* costs include \$14,000 to secure title opinions for the four ownerships to be purchased with CELCP funds. Estimates are based on prior experience for similar work.
- *Survey* costs include \$25,000 for surveys of the five ownerships to be purchased with CELCP funds. Estimates are based on prior experience for similar work.
- *Cultural resource survey* costs include \$16,500 for cultural resource surveys of the five ownerships to be purchased with CELCP funds. Estimates are based on prior experience for similar work.
- *Phase I environmental assessment* costs include \$8,500 for phase I environmental assessments for the five ownerships to be purchased with CELCP funds. Estimates are based on prior experience for similar work.
- *Baseline inventory* costs include \$30,000 for site visits, species and habitat surveys and analysis, and documentation.
- *Other direct transaction* costs include \$9,000 for closing costs, recording fees and signage for the five ownerships to be purchased with CELCP funds. Estimates are based on prior experience for similar work.

Administrative Costs:

Administrative costs for DNR are \$87,000, which includes \$71,000 for personnel costs to complete the transactions and manage the project, \$1,800 in travel to conduct site visits and attend project meetings, \$900 for miscellaneous office and field supplies, and \$50 in other costs such as postage and copies. The remainder of the administrative cost is approximately \$13,000 that reflects DNR's 18.2 percent indirect cost recovery rate as applied to the preceding direct costs of administration.

\$10,000 in CELCP funds are requested for the WA Department of Ecology to cover the basic personnel costs of administering the grant. The proposed administrative costs for this project total \$97,000, or 3.6 percent of the Federal share.

Non-Federal Share

All DNR forested trust lands currently within the Dabob Bay Natural Area boundary will be transferred out of trust ownership and timber management into ownership and management as permanently protected conservation lands. In 2009, the Washington State Legislature approved \$10 million in the Trust Land Transfer Program budget specifically for reimbursing the state's trust beneficiaries and allowing transfer of all trust lands remaining within the approved boundary of Dabob Bay Natural Area. An estimated 470 acres are being used as match for this FY12 CELCP grant proposal to meet the \$2,700,000, 1:1 match requirement. In March 2011, DNR transferred 603 acres for \$3,506,000, thus completing both the remaining FY11 CELCP commitment for non-federal match (which was a total of \$3 million) and also completing the FY12 CELCP commitment for non-federal match for this current grant proposal.

Appraisals will be updated as necessary to meet CELCP requirements of appraisal dates within nine months of the close of the grant award period and acreage used for match will be updated based on achieving a \$2,700,000 match. All lands have been transferred during the eligible CELCP period and have not been, or will not be, used as match for any other project or federal fund source.

These state lands that are being permanently protected through the Trust Land Transfer Program are directly relevant to the scope of the project. They are within the Dabob Bay Natural Area boundary and will be adjacent to CELCP project lands and/or lands already managed by DNR as part of the natural area and/or lands owned by conservation partners within the natural area. Transfer of the DNR match lands from managed forest trust land to natural area status improves the habitat value and connectivity of protected lands and addresses threats to the health of Tarboo-Dabob Bay by reducing the risk of habitat fragmentation and large erosion events. Transfer also increases the acreage of lands available for recreational use within the natural area. Further, the DNR match property nearly doubles the acreage of the lands funded by this FY12 CELCP proposal.

Cost-effectiveness

The Puget Sound Action Agenda and Washington CELCP promote the cost-effective strategy of prioritizing the protection of remaining high quality, functional habitat as part of a landscape

scale comprehensive recovery program. Protection actions in the Dabob Bay Natural Area contribute to this strategy at the scale of the Hood Canal and Puget Sound basins. Further, because of recent economic downturn, this moment in time is a particularly cost-effective period to pursue land acquisition. Missing this opportunity for protection of the properties proposed for CELCP funds may result in increased property values for later acquisition and, likely, would result in conversion of the land to residential use and loss of the opportunity to protect undeveloped priority lands.

In addition, all proposed CELCP acquisitions and match properties are functioning well as part of the Tarboo-Dabob Bay system and will require minimal restoration investment to return to a fully functional state.

Other

None of the project properties will be leased or rented, and there will be no user fees charge for public access or any other revenue received from the properties.

FY2012 CELCP BUDGET REQUEST

Category	Federal Share from CELCP	State/ Local Matching Share	Total	Funding Source (for Non-Federal share)	Funds Already Expended? (yes/no) When?
<i>Land Acquisition</i>					
Mensik	250,000	-	250,000		No. During award period
Reid	180,000	-	180,000		No. During award period
Ludwig	200,000	-	200,000		No. During award period
Voegtlin	305,000	-	305,000		No. During award period
Pope Resources	1,440,000	-	1,440,000		No. During award period
DNR Trust Land Transfer	-	2,700,000	2,700,000	WA DNR - in kind land match	Yes. March 2011.
Land Acquisition Subtotal	2,375,000	2,700,000	5,075,000		
<i>Direct Transaction</i>					
Appraisals	125,000		125,000		No. During award period
Title Opinions & Insurance	14,000	-	14,000		No. During award period
Surveys	25,000	-	25,000		No. During award period
Cultural Resource Surveys	16,500	-	16,500		No. During award period
Phase I Environmental Assessments	8,500	-	8,500		No. During award period
Baseline Inventories	30,000	-	30,000		No. During award period
Other direct transaction costs (closing, recording fees, etc.)	9,000	-	9,000		No. During award period
Transaction Subtotal	228,000	-	228,000		
<i>Administrative</i>					
WA DNR Admin	87,000	-	87,000		No. During award period
WA DOE Admin	10,000	-	10,000		No. During award period
Administrative Subtotal	97,000	-	97,000		
TOTAL:	2,700,000	2,700,000	5,400,000		

6 SELECTED REFERENCES

- Azerrad, J. M., editor. August, 2004. Management Recommendations for Washington's Priority Species, Volume V: Mammals. Washington Department of Fish and Wildlife, Olympia.
- Bahls, P. 2004. Fish Distribution and Abundance in Shallow Intertidal Habitats of Tarboo and North Dabob Bays. For Jefferson County Marine Resources Council, Port Hadlock, WA.
- Bargmann, G. 1998. Forage Fish management Plan, Washington Department of Fish and Wildlife. 66p.
- Brady Blake, Point Whitney Shellfish Lab, Washington Dept. of Fish and Wildlife, pers. comm.
- Brennan, J.S. 2007. Marine Riparian Vegetation Communities of Puget Sound. Puget Sound Nearshore Partnership Report No. 2007-02. Published by Seattle District, U.S. Army Corps of Engineers, Seattle, Washington.
- Chappell, C.B. 2006. Upland plant associations of the Puget Trough ecoregion, Washington. Natural Heritage Rep. 2006-01. Washington Department of Natural Resources, Natural Heritage Program, Olympia, Wash.
- Crawford, R. and D. Wilderman. 2008. Upper Dabob Natural Area Recommendation. Natural Heritage Rep. Washington Department of Natural Resources, Natural Heritage Program, Olympia, Wash.
- Elmendorf, W.W. 1993. Twana Narratives: Native Historical Accounts of a Coast Salish Culture. University of Washington Press, Seattle; and UBC Press, Vancouver. 306 pp.
- Elmendorf, W.W. 1961. Skokomish and other Coast Salish tales, Research Studies - a quarterly publication of Washington State University, XXIX.
- 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. 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.
- Fresh, K.L. 2006. Juvenile Pacific Salmon in the Nearshore Ecosystems of Washington State. Puget Sound Nearshore Partnership Report No. 2006-06. Published by Seattle District, U.S. Army Corps of Engineers, Seattle, Washington.
- Hirschi, R., T. Labbe, and A. Carter-Mortimer. 2003. Shoreline Alterations in Hood Canal and the Eastern Strait of Juan de Fuca. Point No Point Treaty Council, Tech Report 03-1.

- Hood Canal Coordinating Council. 2007. Hood Canal & Eastern Strait of Juan de Fuca Summer Chum Salmon Recovery Plan.
- Hood Canal Coordinating Council. 2005. Salmon Habitat Recovery Strategy for the Hood Canal and the Eastern Strait of Juan de Fuca. Hood Canal Coordinating Council, Poulsbo, WA.
- Hugh Shipman, Washington Dept. of Ecology, pers. comm.
- Johannessen, J. and A. MacLennan. 2007. Beaches and Bluffs of Puget Sound. Puget Sound Nearshore Partnership Report No. 2007-04. Published by Seattle District, U.S. Army Corps of Engineers, Seattle, Washington.
- Larsen, E. M., J. M. Azerrad, and N. Nordstrom, eds. 2004. Management Recommendations for Washington's Priority Species Volume IV: Birds. Washington Department of Fish and Wildlife, Olympia.
- Long, K., Harrington, N., Meany, A., Mackrow, P., P. Dinsmore. 2005. Intertidal Forage Fish Spawning Site Investigation for East Jefferson, Northwestern Kitsap, and North Mason Counties 2001-2004, Final Report. North Olympic Salmon Coalition, Port Townsend, WA.
- Mumford, T.F. 2007. Kelp and Eelgrass in Puget Sound. Puget Sound Nearshore Partnership Report No. 2007-05. Published by Seattle District, U.S. Army Corps of Engineers, Seattle, Washington.
- Miller, D. 2008. Tarboo-Dabob Slope Stability. Report for Northwest Watershed Institute. M2 Environmental Services. 40p.
- National Marine Fisheries Service Northwest Regional Office. 2008. Recovery Plan for Southern Resident Killer Whales (*Orcinus orca*). Report.
- Nysewander, D.R., Evenson, J.R., Murphie, B.L., and T. A. Cyra. 2005. Report of marine bird and marine mammal component, Puget Sound ambient monitoring program, for July 1992 to December 1999 period. Washington State Department of Fish and Wildlife, Wildlife Management Program, Olympia, WA. 181pp.
- Penttila, D. 2007. Marine Forage Fishes in Puget Sound. Puget Sound Nearshore Partnership Report No. 2007-03. Published by Seattle District, U.S. Army Corps of Engineers, Seattle, Washington.
- Puget Sound Action Team. 2005. Regional Nearshore and Marine Aspects of Salmon Recovery in Puget Sound. Delivered to Shared Strategy for Puget Sound for inclusion in the regional salmon recovery plan. Puget Sound Action Team, Olympia, WA.
- Puget Sound Action Team. 2005. Regional Nearshore and Marine Aspects of Salmon Recovery in Puget Sound. Puget Sound Action Team report.

Puget Sound Partnership. 2009. Puget Sound Action Agenda: Protecting and Restoring the Puget Sound Ecosystem by 2020. Olympia, WA. 218 pp.

Shared Strategy for Puget Sound. 2007. Puget Sound Chinook Recovery Plan. Submitted to NOAA by the Shared Strategy Development Committee. Seattle, WA.

Shipman, H. 2008. A Geomorphic Classification of Puget Sound Nearshore Landforms. Puget Sound Nearshore Partnership Report No. 2008-01. Published by Seattle District, U.S. Army Corps of Engineers, Seattle, Washington.

Todd, S., Fitzpatrick, N., Carter-Mortimer, A. and C. Weller. 2006. Historical Changes to Estuaries, Spits, and Associated Tidal Wetland Habitats in the Hood Canal and Strait of Juan de Fuca Regions of Washington State, Final Report. PNPTC Technical Report 06-1. Point No Point Treaty Council, Kingston, Washington.

Washington Department of Ecology. 2007. Washington State's Coastal and Estuarine Land Conservation Plan.

Washington Department of Fish and Wildlife. 2005. Washington's Comprehensive Wildlife Conservation Strategy.

Eligibility of Project

6. Project Eligibility: (Check all that apply)

The proposed project:

- is located in a coastal or estuarine area (that has been designated as part of a state's approved coastal and estuarine land conservation (CELC) plan or within a state's coastal watershed boundary);
- matches federal funds with non-federal funds at a ratio of at least 1:1;
- will be held in public ownership and provide conservation in perpetuity (note: in-kind match property may be held by a qualified non-governmental organization whose primary mission is to acquire and manage land for the purposes of conservation);
- will provide for access to the general public, or other public benefit, as appropriate and consistent with resource protection.
- protects important coastal and estuarine areas that have significant conservation, ecological, historical, aesthetic, or recreation values, or that are threatened by conversion from their natural or recreational state to other uses;
- can be effectively managed and protected;
- directly advances the goals, objectives or implementation of state coastal management plan or program or NERR management plan approved under the Coastal Zone Management Act (CZMA), national objectives of the CZMA, or a local, regional or state watershed protection plan involving coastal states with approved coastal management programs
- is consistent with the state's approved coastal management program.

Land Acquisition

7. Location and Site Maps: Site location maps are attached. Yes ___ No

The applicant should attach a map of the state or coastal county showing the general location of the project, and a map of the project site, which shows the location and extent of the proposed acquisition, as well as relationship to significant natural features (slope, wetlands, dunes, floodplains, access, etc.).

8. Title Opinion and Appraisal:

- a. Documentation of the current owner's intent or willingness to sell at a mutually agreeable price is attached. (This documentation may be in the form of a letter of intent, option letter, contract, or similar form.) Yes ___ No (*Note – option agreements attached for Reid, Ludwig and Voegtlin, willing landowner letter from Pope*).

- b. The applicant has obtained and attached an independent appraisal performed by a state certified appraiser. Yes ___ No (*Note – appraisal completed for 470 acres of DNR match lands transferred in 2011; estimates for Ludwig, Reid and Voegtlin are based on similar conservation acquisitions within Dabob Bay Natural Area; estimate of value for Pope parcel which is under negotiation; list price for Mensik*).

- c. A title opinion or title insurance report is attached. Yes ___ No (*Note – title insurance reports are available upon request*)

9. Public Benefit:

- a. The acquisition will be publicly held or under publicly-controlled easement and is for public benefit. The project does not improve private property for private or commercial gain.
 Yes ___ No

- b. The property will be accessible to the general public. Yes ___ No
(*Note: Guided access to NAP portion, for resource protection*)

- c. If the answer to the question above (9.b) is No, check any of the following reasons that apply and explain why access to the property will be limited.

___ Public Safety Resource Protection ___ Geographically Isolated/Inaccessible

___ School Outings Only Scientific Research ___ Other (please explain): _____

Portions of the proposed acquisition properties within the natural resources conservation area will be open to appropriate low-impact public uses, and the area designated as natural area preserve will be open to guided environmental education access and scientific use to protect sensitive plant communities and resources.

- d. The property will be leased or rented. ___ Yes No If yes, please explain.

- e. The public will be charged a user fee for access to or activities on the proposed property.
___ Yes No

If Yes, provide a description of the user fee which includes: how much, differential fees (if any), the need for the fees, and proposed use of the revenue.

Compliance with Other Federal Authorities

10. State Historic Preservation Officer's (SHPO's) Clearance and National Historic Preservation Act:

a. The project will affect properties listed on the National Register of Historic Places (www.cr.nps.gov/nr/), eligible to be listed, or otherwise protected by section 106 of the National Historic Preservation Act (www2.cr.nps.gov/laws/NHPA1966.htm) or a similar State Preservation Act. ___ Yes No

b. The Recipient has on file the SHPO's clearance. ___ Yes No (If No, the Recipient certifies, by signing this checklist, that the SHPO clearance is being sought and that work will not begin and land will not be purchased until SHPO clearance is received by the Recipient.)

11. National Flood Insurance Program:

a. Is the project located in a designated special flood hazard area, floodway or "V" zone on a National Flood Insurance Program Floodway Map (www.fema.gov/maps/)? ___ Yes No
(If No, go to 12)

b. Is the community in which the project is located in special flood hazard areas shown on an FIA map is participating in the Flood Insurance Program (www.fema.gov/nfip). ___ Yes No

12. Coastal Barriers Resource Act: The project is located on an undeveloped coastal barrier designated by the Coastal Barriers Resources Act (www.fws.gov/cep/cbrunits.html). ___ Yes No

If the answer is Yes, provide a brief statement below or attach to this checklist a brief analysis as to how the proposed project is consistent with the three CBRA purposes: to minimize (1) the loss of human life, (2) wasteful federal expenditures, and (3) damage to fish, wildlife and other natural resources.

13. Endangered Species Act: May the proposed project adversely affect threatened or endangered species or critical habitat under the jurisdiction of the National Marine Fisheries Service (NMFS) or U.S. Fish and Wildlife Service (USFWS) as defined by the Endangered Species Act? (www.fws.gov/angered) or (www.nmfs.noaa.gov/pr/species). ___ Yes No

If the answer is No, provide a brief statement below explaining the basis for the conclusion. If the answer to 13 is Yes, provide a description of the adverse effects (minor and significant effects), the species or habitat affected, and any coordination between the state and the USFWS or NMFS. OCRM will not approve a project that USFWS or NMFS has determined will significantly adversely affect threatened or endangered species or critical habitat.

The project proposes to acquire and protect high quality habitat at Tarboo-Dabob Bay that supports the recovery of threatened and endangered species. The project will not adversely affect federally listed species or critical habitat.

14. Magnuson-Stevens Fishery Conservation and Management Act.

Does the proposed project include essential fish habitat for federally managed fish?

Yes ___ No ___ Not yet determined (please explain).

Could the proposed project have significant adverse impacts on essential fish habitat for federally managed fish? ___ Yes No

15. National Environmental Policy Act:

a. The proposed project may significantly affect the human environment. ___ Yes No

b. The proposed project involves unresolved conflicts concerning alternative uses of available resources. ___ Yes No

c. This action would have significant adverse effects on public health and safety. ___ Yes No

d. This action will have highly controversial environmental effects. ___ Yes No

e. This action will have highly uncertain environmental effects or involve unique or unknown environmental impacts. ___ Yes No

f. The project will have significant adverse impacts on other natural resources not covered elsewhere in this checklist, e.g., beaches and dunes, wetlands, estuarine areas, wildlife habitat, wild or scenic rivers, reefs, or other coastal resources. ___ Yes No

g. The project will have insignificant effects when performed separately, but will have significant cumulative effects. ___ Yes No

If the answer to any one subpart of 15. is Yes, then an Environmental Assessment (EA) or Environmental Impact Statement (EIS) may be required. For items answered Yes, please attach a description of the resource(s) affected and the nature and scope of the effects.

16. Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970. If the proposed project involves the acquisition and/or modernization of real property, will the proposed project cause the displacement of:

Persons, ___ Yes No

Businesses, or ___ Yes No

Farm Operations? ___ Yes No

If yes to any of the above, please explain: the number of displaced persons, including businesses and farm operations; what fair and reasonable relocation payments and advisory services will be provided to any displaced persons; and what provisions will be made to ensure that safe, decent, and sanitary replacement dwellings will be available to such persons within a reasonable period of time prior to displacement.

17. Handicapped accessibility: Will the proposed project be handicapped accessible?

Yes ___ No ___ N/A

If No or N/A, provide a brief explanation below (or attach separately) as to why the project does is not required to meet ADA handicapped accessibility requirements.

18. Environmental Justice. Will the project have disproportionately high and adverse human health or environmental effects on minority or low-income populations? ___ Yes No

19. State, Local and Tribal Laws. The project is consistent with state, local and tribal laws to protect the environment. Yes ___ No

20. Contamination/Environmental Hazards (CERCLA/RCRA)

a. Are there any known or suspected contaminants on the project site? ___ Yes No

If yes, please discuss what type of contamination is on the site, or suspected to be on the site, and the status of clean-up activities.

b. Has the site been investigated, identified and/or designated as having hazardous waste contamination issues by a federal, state, or local agency (for example superfund site)? ___ Yes No

If yes, please explain the basis for the designation, the status of clean-up activities, and whether there are any legal liens or judgments affecting the property.

21. Public Coordination

Has the project for which you propose to use CELCP funds been subject to public scrutiny and coordination through a public notice or other public review process? Yes ___ No

If yes, please describe the results of that process and note when the coordination occurred.

If no, please explain.

The proposed project is the culmination of an extensive public review process conducted by Washington Department of Natural Resources (DNR) over a three year period between 2006 and 2009. DNR first conducted an intensive scientific analysis that recommended expansion of the

Dabob Bay Natural Area. This recommendation was presented in a letter from DNR sent to all landowners within the Dabob Bay assessment boundaries, discussed at a pre-announced public hearing in the Dabob Bay area attended by over 150 people, and approved by the Washington State Natural Heritage Advisory Council at a pre-announced public meeting. The final expansion boundary was approved by the Commissioner of Public Lands, a statewide elected official and administrator of DNR. Additional outreach and a local public hearing were conducted to discuss transfer of state trust lands within the natural area boundary. (These state lands represent the Trust Land Transfer lands used as match in this proposal.) The Board of Natural Resources then approved the state land transfers. Following the public review process, DNR has the authority to proceed with acquisition of private lands from willing landowners within the approved boundary of the expanded Dabob Bay Natural Area.

NOAA is requesting this information in order to adequately assess the eligibility of proposed projects. Public reporting burden for this collection of information is estimated to average 10 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Elaine Vaudreuil, OCRM, 1305 East-West Hwy (N/ORM7), Silver Spring, Maryland 20910. This reporting is authorized under P.L. 107-77 and has been approved under OMB #0648-0459. Information submitted will be treated as public record. Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection displays a currently valid OMB Control Number.