

Project Narrative – Enhancing Shoreline Protection

Introduction

This project creates a unique and unprecedented partnership between a county just beginning its SMP update (Clallam), a county about to implement a newly adopted SMP (Jefferson) and the Department of Ecology that will ultimately enhance the ability of all local jurisdictions to protect Puget Sound. Clallam County will serve as the grantee and will administer the grant on behalf of the three partners.

Project Plan

The ESP project includes a three-pronged approach to improving shoreline protection across Puget Sound by: using a No Net Loss framework in updating Clallam County's Shoreline Master Program; providing resources to implement and track Jefferson County's SMP; and supporting Ecology in developing solutions to major obstacles limiting protection.

The ESP project:

- Enables Clallam County to address impacts of projected growth by providing additional resources for their SMP update;
- Facilitates Jefferson County's ability to address impacts of growth by funding vital SMP implementation and monitoring work that is otherwise unfunded; and
- Addresses effects of growth across all Puget Sound watersheds by tackling common obstacles to effective shoreline protection (e.g., lack of proven incentive strategies, inadequate resources for monitoring and outreach, lack of resources for on-the-ground restoration, etc.).

Project Components

The ESP project consists of three components designed to fit the specific needs of the three partners and to collectively enhance our ability to protect Puget Sound. The lead partner for each component will be responsible for conducting the activities and ensuring outcomes in consultation with the other partners and collaborators (see Partnering below). The project's main components are as follows:

Component 1 – Identify obstacles and solutions for SMP development and implementation

Timeline: May 2010 – December 2010 | **Lead:** Ecology

The purpose of this component is to identify solutions and strategies for overcoming obstacles to effective SMP development and implementation in Clallam County and elsewhere in Puget Sound.

Activities funded by the EPA grant are identified in detail on the Project Tasks and Timeline for Component 1. In summary, work under this component will include:

- a. Conducting a minimum of four workshops with the associations of counties and cities, state resource agencies and multiagency programs (e.g., Aquatic Habitat Guidelines program and PSNERP), tribes, and representatives from the private sector, to identify procedural, technical and institutional obstacles to effective development and implementation of SMPs.
- b. Working with key stakeholders (noted above) to develop preferred solutions and strategies for overcoming major obstacles.

- c. Ensuring findings and recommendations are consistent with the intent of the Shoreline Management Act and State policies.

The primary deliverables of this component include:

- a. Written findings and recommendations for addressing major obstacles. Findings will identify responsible parties, timelines, required resources, and other pertinent information.

Component 2 – Supplement Clallam SMP Update using indicators as the basis of a NNL Framework
Timeline: May 2010 – December 2012 | **Lead:** Clallam County

The purpose of this component is to augment and enhance Clallam County's SMP update by explicitly documenting shoreline conditions using agreed-upon ecological indicators, which can be linked to key management decisions and restoration plans. A framework will be used that is based on Ecology's NNL guidance and work previously funded by the National Fish and Wildlife Foundation. Analyses will focus on areas within shoreline jurisdiction with consideration of Ecology's watershed scale characterization results. Ecology will be included in designing and evaluating the detailed scope for this Component to ensure that it adds value to the work already funded by the State. Sequim and Port Angeles will be consulted throughout the process to ensure the framework is useful in the update of their SMPs. The federal funds will allow for Clallam County staff participation in key activities and/or may be used to hire qualified consultants.

Activities funded by the EPA grant include:

- a. Defining key shoreline management / policy issues: in consultation with at least 4 meetings with SMP advisory committees and key stake holders, define key shoreline management and policy issues and refine Ecology's initial list of NNL indicators to reflect key policy issues in Clallam County.
- b. Conferring with regional science experts on key issues and effective application of the indicators.
- c. Conducting at least 3 public focus groups (multiple groups at strategic points in this process) within Clallam County to test NNL approaches and obtain feedback on potential problems, utility of NNL measures, and related issues.
- d. Mapping/documenting current shoreline conditions using ecological indicators at the river reach and nearshore drift cell scales to provide benchmarks for assessing future conditions.
- e. Identifying reach/ drift cell-specific policy/regulatory/ voluntary approaches for maintaining functions in consultation with core stakeholders.
- f. Linking restoration actions to specific ecological functions and establishing guidelines for identifying when/how specific restoration actions are triggered. This includes at least 2 workshops with Clallam County Marine Resource Committee and North Olympic Peninsula Lead Entity for Salmon Recovery representatives, the Dungeness and Elwha watershed groups, and other restoration partners.
- g. Meeting with other Puget Sound counties and appropriate cities to discuss NNL framework progress. At least 3 meetings will be held with the cities of Port Angeles and Sequim to discuss NNL framework progress.

The primary deliverables of this component include:

- a. Refined list of ecological indicators applicable to Clallam County nearshore and freshwater systems developed in consultation with Ecology, the EPA-funded Puget Sound Watershed Characterization Project, PSNERP and the Partnership.
- b. Reach-specific geospatial data and maps showing current shoreline conditions in Clallam County according to ecological indicators.
- c. Written guidance and templates documenting the indicators and their use in achieving NNL for use in/by other jurisdictions around Puget Sound.

- d. Outreach and educational materials for the public and other key audiences concerning NNL. Materials and methods of distribution will be determined at a later date in concert with SMP update partners to make best use of new information and partners' activities. For example, the Clallam Marine Resources Committee wants to sponsor some marine shoreline landowner workshops. Clallam will coordinate with the MRC on materials, depending on what the NNL exercises yield.
- e. Enhanced shoreline restoration plan showing clear functional linkages between changes caused by future development and potential restoration actions.
- f. Enhanced cumulative impacts analysis based on reach-by-reach assessment of conditions.

Component 3 – Develop tools for implementing and monitoring adopted SMPs

Timeline: January 2011 – December 2012 | **Lead:** Jefferson County

The purpose of this task is to assist Jefferson County, and by extension other local governments, in administering their adopted SMPs. Jefferson County will solicit feedback from Whatcom County and Port Townsend on how to account for NNL in making shoreline management decisions following SMP development/adoption and what barriers exist. This will allow Jefferson County to identify resources necessary to effectively implement an SMP. Other activities funded by this grant include:

- a. Using the County's existing shoreline inventory information to develop an initial report on at least 3 ecological indicators at the reach/ drift cell scale and supplementing inventory information as needed based on Clallam County indicators work (in Component 2).
- b. Reviewing recent permit history from the previous year and comparing it to aerial photos/inventory information.
- c. Field-checking development sites where necessary to identify changes to NNL indicators and determining whether changes are consistent or inconsistent with the SMP.
- d. Documenting permit decision issues and identifying tools needed to support effective decision making. Developing solutions and strategies for inconsistent actions.
- e. Reviewing restoration plans in consultation with key restoration partners and linking restoration actions to changes in key indicators at the shoreline reach / drift cell scale.
- f. Developing and implementing a technical assistance, monitoring, and enforcement program and testing its effectiveness in relationship to the NNL framework. The technical assistance and monitoring work will be coordinated for at least 50% of new development proposals with the proposed Watershed Stewardship Resource Center and Clean Water District Activities in Jefferson County.

The primary deliverables of this component include:

- a. Initial report on ecological indicators at the reach / drift cell scale to supplement Jefferson County's existing shoreline inventory.
- b. Written findings on review of permit activity to guide future decision-making.
- c. Written guidance and templates for applying NNL indicators in the context of SMP implementation and monitoring for use in/by other jurisdictions.
- d. One year of technical assistance to shoreline property owners and one year of compliance monitoring and enforcement using NNL indicators.

Enhanced Shoreline Protection

PS-00J0088-01

Timeline and Milestones

Description	2010 Q2	2010 Q3	2010 Q4	2011 Q1	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4
Task 1 Project Management											
1.1 Semi-annual report			R		R		R		R		R
1.2 Consultant selection	x	x									
1.3 Contract development and administration	x	x	x	x	x	x	x	x	x	x	x
1.4 MOU between Ecology, Clallam and Jefferson County	x	x									
Task 2 Coordination											
2.1 Quarterly call with Ecology, Clallam and Jefferson County	T	T	T	T	T	T	T	T	T	T	T
Task 3 Identify Obstacles and Solutions											
3.2 Prepare for forums		M									
3.3 Hold forums			M	M							
3.4 Follow-up meetings/ interviews				M							
3.5 Present and refine key findings				M							
3.6 Draft report; final report and recommendations					R						
Task 4 Supplement Clallam SMP Update											
4.1 Consult advisory committees and regional science experts	M	M	M	M	M	M	M	M	M	M	M
4.2 Conduct public focus groups to vet NNL measures		M			M			M			
4.3 Develop refined list of ecological indicators				R					D		
4.4 Provide geospatial data and maps w/ ecological indicators to support shoreline characterization and inventory report		D	D	D	D	D	D	D			
4.5 Ed & outreach materials for public		E&O			E&O			E&O			
4.6 NNL-based shoreline restoration plan					R	R	R	R	R	R	R
4.8 Reach-based cumulative impacts analysis					R	R	R	R	R	R	R
Task 5 Develop tools for Adopted SMPs											
Initial report on ecological indicators at reach scale					R						
Review of permit activity to guide future decision making					R						
Guidance and templates for applying NNL indicators					R						
Technical assistance to shoreline property owners						A	A	A	A	A	A
Compliance monitoring and enforcement using NNL indicators						M&E	M&E	M&E	M&E	M&E	M&E

Enhancing Shoreline Protection

A proposal for measuring and achieving “no net loss” of ecological function

Submitted to the EPA, Region 10

Puget Sound Watershed Management Assistance Program:

Protecting Puget Sound Watersheds, Water Quality and Aquatic Resources from the Impacts of Growth

Funding Opportunity #: EPA-R10-PS-1001

Applicant:

Clallam County*

WRIsAs 16, 17, 18 and 19

Contact:

Steve Gray, Planning Director
Clallam County Dept. of Community
Development
360-417-2520
sgray@co.clallam.wa.us

Abstract:

Clallam County is updating its SMP to improve shoreline protection. This grant will enable Clallam County, in partnership with Jefferson County and Department of Ecology, to: identify obstacles and corresponding solutions to effective shoreline management in Puget Sound; create a framework and tools for measuring and achieving the State’s goal of “no net loss” (NNL); and develop strategies for assessing and monitoring SMP implementation. The work is part of an interconnected effort involving the Puget Sound Partnership, Ecology, PSNERP and others to use ecological indicators to inform management decisions for Puget Sound. This work achieves a top priority of the Puget Sound Action Agenda (Near Term Action Number: A2.6) and leverages the significant investment the state is making in shoreline master planning. The project will enhance the level of protection provided to shorelines of the state in Clallam County, Jefferson County and throughout Puget Sound.



*Clallam County is not an affiliate, subsidiary, or an allied organization of Association of Community Organizations for Reform Now (ACORN).

Project Narrative – Enhancing Shoreline Protection

Introduction

The work funded through this grant will enable Clallam County to supplement and augment its Shoreline Master Program (SMP) update to enhance protection of Puget Sound. The County is required to develop policies and regulations that achieve “no net loss” (NNL) of ecological functions¹ and wants to create a more

¹ This is a requirement of the State Shoreline Master Program Guidelines, WAC 173-26.

meaningful, collaborative, and defensible framework for assessing and tracking impacts of development using indicators of ecological function. This grant would make possible a unique and unprecedented partnership between a county just beginning its SMP update (Clallam), a county about to implement a newly adopted SMP (Jefferson) and the Department of Ecology that will ultimately enhance the ability of all local jurisdictions to protect Puget Sound. Clallam County will serve as the grantee and will administer the grant on behalf of the three partners.

Description of the Watershed

This grant involves work in multiple watersheds across two counties. The counties are required to address all “shorelines of the state” in their SMPs, but this grant focuses on shorelines within WRIAs 16 (Skokomish-Dosewallips), 17 (Quilcene-Snow), 18 (Elwha-Dungeness) and 19 (Lyre-Hoko), which drain to Puget Sound/Strait of Juan de Fuca.

Clallam County – Clallam County occupies a key location within the Puget Sound Basin because it encompasses the entire 95-mile-long southern shoreline of the Strait of Juan de Fuca and a major portion of the watersheds (WRIAs 18 and 19) draining to the Strait. The County also encompasses an important part of WRIA 17, which drains to Hood Canal. These watersheds contain vast areas of intact forest land within the Olympic National Park and National Forest. Human development has been focused largely in the lower watershed, along floodplains, on the marine shoreline and in the two cities of Sequim and Port Angeles. Agriculture is a major land use in the Dungeness valley.

As the principal outlet connecting Puget Sound to the Pacific Ocean, the Strait allows for the physical exchange of fresh and marine waters, which helps keep Puget Sound from becoming stagnant. The Strait also serves as a critically important migratory corridor for numerous species of fish, birds and marine mammals. Much of the Strait of Juan de Fuca marine shoreline is still in its natural state, especially outside the major population centers near Port Angeles and Sequim. Approximately 16 percent of the marine shore is armored. Eelgrass beds are present along approximately 20 percent of the shoreline, mainly within and near the mouths of rivers and streams. Large beds of kelp are also present between Clallam Bay and the Hoko River and elsewhere along the shoreline.

The central Strait of Juan de Fuca provides important habitat for forage fish. Surf smelt spawning has been observed near the mouth of the Pysht River, at Dungeness Bluffs and at Freshwater Bay. This suggests that sediment processes are sufficient to support spawning. Spawning at Dungeness Bluffs suggests that intact feeder bluffs provide important spawning habitat. The presence of surf smelt eggs along embayed shorelines and feeder bluffs, but not spits, may be unique to the Strait’s high-energy environment.

Freshwater resources and habitats of critical importance in Clallam County include the Dungeness and Elwha rivers and numerous tributaries, lakes, and wetlands. These watersheds provide critical spawning habitat for Chinook and summer chum salmon, which are federally threatened species. The Dungeness River system is the natal habitat for seven stocks of anadromous fish. The Elwha River is the fourth largest river, by drainage area, on the Olympic Peninsula. Prior to construction of the dams, the Elwha River was legendary for producing huge Chinook salmon. Currently, the Elwha system produces the majority of the steelhead and Chinook salmon on the Strait of Juan de Fuca and is second only to the Dungeness River for coho production.

Clallam County’s aquatic resources provide opportunities for commercial, tribal and recreational fishing and shellfish harvesting, and other activities such as boating, kayaking and bird watching. Sequim Bay and Dungeness Bay are two of the most important shellfish harvest areas in the state.

Jefferson County – Jefferson County encompasses the majority of WRIA 17 and a sizeable portion of WRIA 16. These watersheds are characterized by rural residential developments, commercial village centers, rural and commercial forest lands, Master Planned Resort communities, and agricultural lands. As in Clallam County, the upper watersheds are mainly protected forest lands within the Olympic National Park and Forest.

The marine shoreline is characterized mainly by steep bluffs carved out of glacial sediments, often topped by stands of Douglas-fir and western hemlock. These bluffs, which border gravel and cobble beaches, erode and contribute fine sediments which are carried by the prevailing waves and currents to depositional areas such as barrier beaches, spits, and other accretion shoreforms.

Less than 10 percent of the County's marine shoreline is armored and most feeder bluffs are relatively intact. Areas notable for lack of armoring are the east shore of Toandos Peninsula, east Marrowstone Island, Point Whitney, Fort Flagler, Olele Point, Holly and the west shore of Kilsut Harbor. These areas are among the most pristine and ecologically dynamic in the County, with intact, forested bluffs and abundant large woody debris, owing largely to their undeveloped state.

The rivers that drain the east slopes of the Olympic Mountains provide important spawning and rearing habitat for Chinook salmon, bull trout, and Hood Canal summer chum. Major estuaries at Chimacum Creek, Shine, Mats Mats Bay, Thorndyke Bay, Duckabush and Dosewallips River deltas, Quilcene Bay, Tarboo Creek delta, Port Ludlow, and Discovery Bay provide critical functions including flood attenuation, nutrient retention and cycling, erosion protection, food web support, and habitat structure/connectivity. Jefferson County's beaches also provide important habitat for sand lance and surf smelt. The intertidal areas along the marine shore support extensive eelgrass beds and kelp forests.

Jefferson County is the third largest shellfish producing county in the state and has two of the largest shellfish hatcheries in the country. Tribal shellfish beaches are widely distributed throughout the east County. Overall, Jefferson County retains a relatively healthy amount of forest cover and impervious surface cover is relatively low—ranging from nearly zero in some sub-basins to 37 percent in more developed areas.

Description of the Threats or Emerging Problems

Top priority threats facing Clallam and Jefferson counties are: increased development pressure caused by population growth; loss/alteration of nearshore and freshwater resources caused by climate change; and resistance to land use regulations.

Growth: Between 2000 and 2025 Clallam County's population is expected to increase by about 23 percent. Jefferson County's population will grow by approximately 55 percent in the same period². This growth is going to have direct and indirect impacts on the watersheds feeding Puget Sound. Development pressure will continue to create more impervious surface, generate more runoff, and reduce the amount of intact shoreline and riparian habitat. These changes threaten shoreline processes, functions, and species, which are currently relatively intact compared to other more heavily developed areas of the Puget Sound Basin.

Shoreline areas are expected to absorb a disproportionate share of the growth because waterfront properties are among the most desirable places to live. Outside the shoreline zone, both counties anticipate continued conversion of forest and agricultural land to residential and commercial uses, which has been the trend in recent years. Development in the Dungeness watershed, for example, has led to its designation as both a high

² Source: State of Washington, Office of Financial Management

value and highly vulnerable area for fish and wildlife habitat protection. Many other rivers, streams, bays, and “pocket” estuaries have been altered by development, channelization, culverts and other changes.

The impact of increased development pressure in Clallam and Jefferson counties is especially concerning because the counties are seeing proposals for development on lots that previously had been considered undevelopable. This includes small lots that were platted prior to the Growth Management Act and lots that have wetlands, steep slopes, or other constraints. These types of development proposals can be especially taxing on County resources because they require very detailed review or pose unique scientific or technical dilemmas. Counties are challenged to ensure full and comprehensive review, and typically lack resources to monitor or evaluate outcomes--much less track net changes in ecological functions--once developments are approved. The NNL framework developed through this grant will yield critical information on which to base shoreline management strategies and will enable staff to make better permit decisions. The counties will be better able to anticipate and track development-related changes so that management decisions can be made more effectively and corrective actions can be taken before impacts become irreversible.

Climate Change: The Puget Sound Action Agenda reports climate change as a major threat that could cause the loss of more than half of the estuarine and marine beaches, major loss of tidal flats, and complete loss of Dungeness Spit in Clallam County. Rising sea levels, erosion and more frequent flooding/storms and other climate changes are expected to have similar impacts in Jefferson County. As the effects of a changing climate become more apparent to property owners, pressure to construct bulkheads to prevent erosion and flooding could increase substantially. If Clallam and Jefferson counties hope to maintain their relatively low percentages of marine shoreline armoring, they will need new, robust shoreline management strategies that reduce the need for hard armoring.

Climate change will also make efforts to protect and restore salmon habitats in Clallam and Jefferson counties more challenging because of expected increases in water temperature, increased winter runoff and altered river and stream flows. This grant will help the counties counteract these threats by demonstrating how to link restoration actions to development impacts. This is one of the specific outcomes of the grant work that would enhance Clallam and Jefferson counties’ abilities to achieve NNL.

Regulatory Resistance: Another challenge the counties face is opposition to regulation and a need to incorporate non-regulatory tools into their shoreline plans. Recent efforts to strengthen environmental protections in these jurisdictions have come under attack and attempts to implement new rules could face resistance and/or litigation. Recent court rulings (e.g., *Futurewise v. Anacortes* and *Citizens’ Alliance for Property Rights v. Sims*) demonstrate that failure to adequately involve property owners and address their concerns can spell defeat for many environmental initiatives. Proponents of new land use standards must fully document the basis for development restrictions and show a clear nexus between development impacts and ecological degradation. This can be a difficult test without defined indicators of ecological condition. The NNL framework funded by this grant will help Clallam and Jefferson counties create a scientific basis and nexus for regulatory decisions so they are more defensible in the face of opposition. The project will also demonstrate where non-regulatory strategies, incentive programs, and public-private partnerships can improve ecological protections and address landowner concerns.

Project Need

Priority A of the Action Agenda calls for protecting intact ecosystem processes, functions and structures. This project addresses this priority by leveraging the significant investment the State and local governments are making in updating and implementing SMPs.

Shoreline master programs must protect existing resources such that there is “no net loss” of ecological function. Most jurisdictions have struggled to meet this standard because there is no agreement on how to measure baseline conditions or assess changes over time. The Action Agenda recognizes this need and calls upon Ecology and its partner agencies to “*Provide local governments with guidance on how to achieve and measure no-net-loss of ecological function as required by the Shoreline Management Act (SMA) ...*”³ The Action Agenda also identifies a need to “*produce and make available a template for monitoring no-net-loss and guidance on avoidance and minimization of impacts.*” The work funded through this grant will directly address these near term actions and enhance the level of protection currently provided to shorelines of the state in Clallam County, Jefferson County and throughout Puget Sound.

This project also is significant because it directly addresses the problems and threats described in the previous section by creating tools and strategies that enable the counties to evaluate, track, and manage shoreline development. The work builds upon the interconnected efforts of the Partnership, Ecology, PSNERP and others to identify and apply ecological indicators⁴ for assessing and managing Puget Sound. Furthermore, this project tackles the fundamental obstacles preventing successful shoreline protection by defining and evaluating effective enforcement, technical assistance and incentive strategies for shoreline management. It also will create solutions to the major obstacles for effective shoreline protection through a collaborative approach led by Department of Ecology and involving local governments and other key stakeholders.

Local entities recognize the need for (and value of) this project. Drawing from priorities in the Action Agenda, the Strait of Juan de Fuca Ecosystem Recovery Network⁵ identified high priority actions and projects that would be appropriate for this funding opportunity. The Strait ERN identified Shoreline Master Program Enhancements as a top priority and selected this proposal as the one that should be submitted for this RFP from the Strait Action Area.

This project fulfills a long-term need that all local governments have for complying with the Shoreline Management Act. Local governments are required to evaluate the cumulative effects of development and report compliance with the NNL standard every seven years. The Shoreline Guidelines suggest this could involve a “joint effort by local governments, state resource agencies, affected Indian Tribes, and other parties.” This is precisely what this grant would accomplish. If left to each local jurisdiction, it is likely that assessment and monitoring practices would vary widely and thus, the opportunity to contribute to a comprehensive “Health of the Puget Sound” monitoring program could be missed. Providing guidance on what to assess, how to monitor it, and a basic template will benefit each local jurisdiction and the Puget Sound as a whole.

Project Plan

This project includes a three-pronged approach to improving shoreline protection across Puget Sound by: using a NNL framework in updating Clallam County’s SMP; providing resources to implement and track Jefferson County’s SMP; and supporting Ecology in developing solutions to major obstacles limiting protection.

³ Near Term Action Reference Number: A2 (6)

⁴ The initial list of indicators includes attributes such as % forest cover, % of shoreline armoring, # or area of overwater structures, % floodplain connectivity, etc.

⁵ Strait ERN is a local integrating organization for the Strait of Juan de Fuca Action Area working to implement and foster implementation of the Action Agenda; Includes tribal and governments leaders, agencies, NGOs, educational institutions, and key businesses/business groups from Clallam and Jefferson.

This project will enable Clallam County to address impacts of projected growth by providing additional resources for their SMP update. A portion of the requested federal funds (\$555,986) would allow Clallam County to supplement and improve their shoreline inventory, restoration plan, and assessment of cumulative impacts by applying ecological indicators to quantitatively assess baseline conditions and using the indicators to track changes in shoreline conditions over time.

The Puget Sound Partnership, Ecology, Puget Sound Nearshore Ecosystem Restoration Project (PSNERP) and others are in the process of identifying ecological indicators that can be used to measure how well we are protecting Puget Sound, but this approach has yet to be applied in the context of shoreline master planning at the local level. Clallam County would be the first to undertake this approach and could use the indicators to rank/or prioritize management actions by reach based on a comprehensive assessment of the functional integrity of each reach. This is somewhat analogous to the “Matrix of Pathways and Indicators” approach which NOAA uses to define baseline conditions for listed salmon species in terms of *properly functioning*, *not properly functioning* and *at-risk*. Using the indicators, the County would be able to display key information in a manner that is visually interesting and understandable to affected property owners and the general public. The information would describe 1) the places that need additional protection, 2) the right tools for achieving protection and 3) where restoration is needed to balance potential losses in ecosystem function. This approach will create an inclusive public dialogue that supports policy decisions in Clallam County and across Puget Sound, since other jurisdictions face many of the same management challenges. Outputs and outcomes will be shared at key points in the process with all Puget Sound counties and cities. The County is using \$320,000 of their state SMP grant funds as local match.

This project will facilitate Jefferson County’s ability to address impacts of growth because it funds vital SMP implementation and monitoring work that is otherwise unfunded. The County will review its initial permit decisions and assess how permit actions are affecting conditions on the ground. Whereas the work in Clallam County addresses the application of ecological indicators and the NNL framework during the development of an SMP, the work in Jefferson County tests the NNL framework in the context of SMP implementation. The requested funds (\$282,995) will support the development of tools for effective implementation, and will support one full time compliance monitor and one half-time technical assistance specialist for one year to test the level and type of resources needed to effectively implement the SMP. Jefferson County will provide \$10,000 worth of in-kind services to match the federal grant.

The grant also helps address effects of growth outside of Clallam and Jefferson Counties because it provides the resources to tackle obstacles to effective shoreline protection that are common across all Puget Sound watersheds (e.g., lack of proven incentive strategies, inadequate resources for monitoring and outreach, lack of resources for on-the-ground restoration, etc.). Recent SMP update experiences in Jefferson and Whatcom counties and in the City of Port Townsend exposed some of the major obstacles and highlighted the need a collaborative approach to problem solving. This grant provides funding (\$120,081) for Ecology to facilitate discussions with responsible and affected parties within the two counties and across Puget Sound. The intent of these discussions is to identify solutions to major SMP implementation obstacles.

The work funded by this grant is consistent with Ecology’s “Framework for Planning at the Watershed Scale” because it progresses through the four key phases of characterizing the watershed, prescribing solutions, taking actions and monitoring results as shown in the matrix below. The work changes decision-making (through adaptive management) at each phase based on new information.

Phase of Ecology Framework	Characterize the Watershed	➔	Prescribe Solutions	➔	Take Actions / Implement Plans	➔	Monitor Results
Work funded through grant proposal	Identify important areas using indicators of ecological function	➔	Identify management approaches that maintain functions and link restoration actions to development impacts so losses are offset	➔	Evaluate permits, enforce SMP and provide technical assistance	➔	Assess land use changes to document NNL

Project Components

This project consists of three components designed to fit the specific needs of the three partners and to collectively enhance our ability to protect Puget Sound. The lead partner for each component will be responsible for conducting the activities and ensuring outcomes in consultation with the other partners and collaborators (see Partnering below). The project’s main components are as follows:

Component 1 – Identify obstacles and solutions for SMP development and implementation

Timeline: May 2010 – Dec 2010 | **Lead:** Ecology

The purpose of this component is to identify solutions and strategies for overcoming obstacles to effective SMP development and implementation in Clallam County and elsewhere in Puget Sound.

Activities funded by the EPA grant include:

- a. Conducting workshops with the associations of counties and cities, state resource agencies and multiagency programs (e.g., Aquatic Habitat Guidelines program and PSNERP), tribes, and representatives from the private sector, to identify procedural, technical and institutional obstacles to effective development and implementation of SMPs.
- b. Working with key stakeholders (noted above) to develop preferred solutions and strategies for overcoming major obstacles.
- c. Ensuring findings and recommendations are consistent with the intent of the Shoreline Management Act and State policies.

The primary deliverables of this component include:

- a. Written findings and recommendations for addressing major obstacles. Findings will identify responsible parties, timelines, required resources, and other pertinent information.

Component 2 – Supplement Clallam SMP Update using indicators as the basis of a NNL Framework

Timeline: May 2010 – Apr 2012 | **Lead:** Clallam County

The purpose of this component is to augment and enhance Clallam County’s SMP update by explicitly documenting shoreline conditions using agreed-upon ecological indicators, which can be linked to key management decisions and restoration plans. A framework will be used that is based on Ecology’s NNL guidance and work previously funded by the National Fish and Wildlife Foundation. Analyses will focus on areas within shoreline jurisdiction with consideration of Ecology’s watershed scale characterization results. Ecology will be included in designing and evaluating the detailed scope for this Component to ensure that it adds value to the work already funded by the State. Sequim and Port Angeles will be consulted throughout the process to ensure the framework is useful in the update of their SMPs. The federal funds will allow for

Clallam County staff participation in key activities and/or may be used to hire qualified consultants.

Activities funded by the EPA grant include:

- a. Defining key shoreline management / policy issues in consultation with the SMP advisory committees and key stakeholders and refining Ecology's initial list of NNL indicators to reflect key policy issues in Clallam County.
- b. Conferring with regional science experts on key issues and effective application of the indicators.
- c. Conducting public focus groups (multiple groups at strategic points in this process) within Clallam County to test NNL approaches and obtain feedback on potential problems, utility of NNL measures, and related issues.
- d. Mapping/documenting current shoreline conditions using ecological indicators at the river reach and nearshore drift cell scales to provide benchmark for assessing future conditions.
- e. Identifying reach/ drift cell-specific policy/regulatory/ voluntary approaches for maintaining functions in consultation with core stakeholders.
- f. Linking restoration actions to specific ecological functions and establishing guidelines for identifying when/how specific restoration actions are triggered. This includes workshops with Clallam County Marine Resource Committee and North Olympic Peninsula Lead Entity for Salmon Recovery representatives, the Dungeness and Elwha watershed groups, and other restoration partners.
- g. Meeting with other Puget Sound counties and appropriate cities to discuss NNL framework progress.

The primary deliverables of this component include:

- a. Refined list of ecological indicators applicable to Clallam County nearshore and freshwater systems developed in consultation with Ecology, the EPA-funded Puget Sound Watershed Characterization Project, PSNERP and the Partnership.
- b. Reach-specific geospatial data and maps showing current shoreline conditions in Clallam County according to ecological indicators.
- c. Written guidance and templates documenting the indicators and their use in achieving NNL for use in/by other jurisdictions around Puget Sound.
- d. Outreach and educational materials for the public and other key audiences concerning NNL.
- e. Enhanced shoreline restoration plan showing clear functional linkages between changes caused by future development and potential restoration actions.
- f. Enhanced cumulative impacts analysis based on reach-by-reach assessment of conditions.

Component 3 – Develop tools for implementing and monitoring adopted SMPs

Timeline: Jan 2011 – Jun 2012 | **Lead:** Jefferson County

The purpose of this task is to assist Jefferson County, and by extension other local governments, in administering their adopted SMPs. Jefferson County will solicit feedback from Whatcom County and Port Townsend on how to account for NNL in making shoreline management decisions following SMP development/adoption and what barriers exist. This will allow Jefferson County to identify resources necessary to effectively implement an SMP. Other activities funded by this grant include:

- a. Using the County's existing shoreline inventory information to develop an initial report on ecological indicators at the reach/ drift cell scale and supplementing inventory information as needed based on Clallam County indicators work (in Component 2).
- b. Reviewing recent permit history and comparing it to aerial photos/inventory information.
- c. Field-checking development sites where necessary to identify changes to NNL indicators and determining whether changes are consistent or inconsistent with the SMP.

- d. Documenting permit decision issues and identifying tools needed to support effective decision making. Developing solutions and strategies for inconsistent actions.
- e. Reviewing restoration plans in consultation with key restoration partners and linking restoration actions to changes in key indicators at the shoreline reach / drift cell scale.
- f. Developing and implementing a technical assistance, monitoring, and enforcement program and testing its effectiveness in relationship to the NNL framework. The technical assistance and monitoring work will be coordinated with the proposed Watershed Stewardship Resource Center and Clean Water District Activities in Jefferson County.

The primary deliverables of this component include:

- a. Initial report on ecological indicators at the reach / drift cell scale to supplement Jefferson County’s existing shoreline inventory.
- b. Written findings on review of permit activity to guide future decision-making.
- c. Written guidance and templates for applying NNL indicators in the context of SMP implementation and monitoring for use in/by other jurisdictions.
- d. One year of technical assistance to shoreline property owners and one year of compliance monitoring and enforcement using NNL indicators.

Partnering

Clallam County, Jefferson County and Ecology will commit through an intergovernmental agreement to lead components of the project and ensure the outcomes are consistent with the grant conditions. Each partner will assist the other partners in the design and execution of the project components. The Partners will work with a broad range of organizations/entities with significant experience in shoreline protection. These *Collaborators* have agreed to provide assistance and expertise as summarized in Table 1. In addition to working with organizations listed below there will be extensive outreach and involvement of other organizations as described in the Outreach and Information Transfer section.

Table 1. Collaborators and Roles	
Collaborator	Role
NOAA Science Center	Consult on relationship between ecosystem functions, Sound-wide indicators and NNL framework.
Strait ERN	Strait Action Area policy sounding board for development and application of NNL framework.
Port Angeles and Sequim	Advise on the usefulness of the NNL framework to cities.
Puget Sound Partnership	Consult on relationship of the NNL framework to Sound-wide indicators, monitoring and adaptive management. Advise on solutions for SMP issues.
PSNERP	Consult on relationship between ecosystem functions, Sound-wide indicators, PSNERP’s technical work and the NNL framework.
WDFW (Aquatic Habitat Guidelines Group) and WDNR	Consult on the relationship between ecosystem function and the NNL framework. Advise on the usefulness of the framework.
Whatcom County and Port Townsend	Advise on usefulness of the NNL framework for implementing and monitoring newly adopted SMP.
National Fish and Wildlife Foundation	Provide experience from national efforts to use ecological indicators for management and assist in identifying solutions for obstacles to protection.

Anticipated Outputs and Outcomes:

Table 2 (attached) describes the project components in terms of key outputs and outcomes.

Monitoring and Measuring:

At its core, this project is about monitoring and measuring environmental outcomes. The goal of this grant proposal is to provide tools that will enable local governments to track development changes and make adaptive management decisions. The project will include development of guidance and templates for using ecological indicators to monitor changes in shoreline condition over time. The indicators used in this project will demonstrate a direct linkage to the efforts to assess and track the overall health of Puget Sound. This project also funds on-the-ground technical assistance and SMP compliance monitoring for one year in Jefferson County. This project may also uncover barriers to effective monitoring and measuring and if so, will develop recommendations for overcoming them that augment the other outcomes of the work.

Outreach and Information Transfer

Effective outreach, engagement and dissemination of results are central elements of the project plan. A significant portion of the requested federal funding will be used to design outreach/education materials and to conduct workshops and focus group meetings as indicated in the Project Components section. A majority of the outreach will occur in Clallam County with groups including but not limited to: Built Green of Clallam County, Dry Creek Coalition, Friends of the Fields, North Olympic Timber Action Committee, Sierra Club, Olympic Coast National Marine Sanctuary, Dungeness Wildlife Refuge, Chambers of Commerce, and WSU Extension. Outreach activities will vary depending on the specific group and their relationship to shoreline management as follows:

Elected Officials: The Strait ERN, Strait ECO Net Group, the Ecosystem Coordination Board, and the Clallam and Jefferson Commissioners will be asked to advise during the development of the NNL framework and to help identify solutions to SMP issues and obstacles. The development of SMP solutions also may include outreach and work with key legislators.

Tribes: Makah Tribe, Lower Elwha Klallam and Jamestown S'Klallam Tribes will provide expertise and tribal perspective to technical and policy issues. They will be invited to review materials, provide guidance, and assist in problem-solving throughout the project.

Policy-makers and key influencers: Project Collaborators as well as shoreline property owners, environmental and business advocacy groups, restoration professionals and volunteers will be engaged in reviewing materials, providing guidance and expertise, and assisting in problem-solving throughout the project. There will be workshops at key points in the process with other counties and cities involved in updating and implementing their SMPs.

Scientific and technical community: This project brings regional expertise and information to local governments through a series of working sessions and product reviews to ensure the NNL framework is both useful to local decision-making and scientifically defensible. Working sessions with permitting and enforcement staff will clarify difficult NNL decisions and identify the tools necessary for successful implementation. Working sessions and reviews with the Clallam and Jefferson county restoration and planning communities will better connect projected ecosystem losses with proposed restoration efforts.

Public: Focus groups within Jefferson and Clallam counties will test NNL approaches, obtain feedback on potential problems, understand the utility and relevance of NNL measures to the public, and understand

related issues of local importance. With assistance from Strait ECO Net, Clallam County focus groups will test the importance of regional SMP issues to the public. Clallam County will also conduct public meetings throughout their SMP process.

Products of the project including NNL framework guidance and templates, findings and conclusions/recommendations will be electronically available to the public via the Clallam, Jefferson and/or Ecology websites. The partners will ensure that Puget Sound tribes; business, private property and environmental advocacy groups; non-governmental organizations; and others identified during the process are notified and informed of all project activities and have access to project materials.

The final project results will be most significant if the project partners continue to implement and use the NNL framework and expand its use across Puget Sound. Potential venues for continued discussion include but are not limited to: Straits ECO Net Group, Strait ERN, Ecology's Shoreline Planners, Commerce's Planner meetings, Ecosystem Coordination Board, Leadership Council, PSNERP, Aquatic Habitat Guidelines Group, Coastal County Caucus, WA Association of Cities, etc. Funding for this on-going expansion is not included in this proposal.

Programmatic Capability and Past Performance

Clallam County has a long history of successfully managing and completing complex projects involving growth management planning, stormwater management and salmon habitat recovery. Currently, the County is managing grants from several federal agencies such as Department of Agriculture, Department of Interior, Department of Transportation, Department of Justice, Department of Health & Human Services, Department of Housing & Urban Development, and the Department of Homeland Security. These grants range up to \$14 million in project costs. The County's Department of Community Development (DCD) presently manages 2,346,408 in federal grant dollars and state \$3,883,764 in state grant dollars. Some of these are for multi-jurisdictional projects related to watershed planning and salmon recovery, which involve similar technical issues and challenges and have interrelated goals and benefits to this proposal. Specific examples of successful grant-funded projects of similar scale and complexity to this proposal include:

- Collaborative Stormwater Management for Sequim/Dungeness Watershed, funded by EPA; \$719,000
- Lower Dungeness dike setback design, funded by RCO, PSAR funds; \$1,118,200
- Lower Dungeness acquisition for dike setback, funded by RCO, PSAR funds; \$996,248

These three projects are currently underway and the County is meeting all of the agreement requirements. The County has been able to produce the required deliverables and reports in a timely fashion using effective project planning, efficient execution of key activities, and frequent communication with staff and involved parties.

Clallam County's plan for timely and successful completion of this project is based on a project management strategy of "goals and controls." This means that the County will begin by ensuring that project goals are clearly articulated to all involved and there is a detailed scope of work describing project deliverables and the specific tasks and subtasks necessary to produce these deliverables. The County will use a Work Breakdown Structure (WBS) that communicates the relationship between deliverables and tasks to sequence the work and allocate resources effectively. The County project manager will establish the method of monitoring and controlling project progress in accordance with EPA requirements and ensure that all project objectives are met.

Clallam County has experienced and qualified staff to lead the project and ensure that the expected outputs and outcomes are achieved. Key staff members that will be involved in this project include John Miller, Steve Gray, and Cathy Lear.

John Miller, Director of the Department of Community Development (DCD), has over 16 years of managing organizations and projects and served as the executive director of Lower Elwha Klallam Tribe for 13 years. In these capacities, John developed an in-depth knowledge of policy issues and fostered successful working relationships with key stakeholders throughout the region.

Steve Gray, the Planning Director, has over 15 years of experience as a planner for Clallam County and has been managing the Planning Department for over 5 years. During his tenure at the County he has led County efforts in development review/permitting, including administering the County's current SMP and environmental sensitive and critical area regulations, and updating County growth management plans and implementing regulations (e.g., zoning, subdivision), and has been responsible for successful administration and management of numerous land use and environmental grants. Steve understands how to lead teams through successful endeavors.

Cathy Lear, Habitat Biologist, has 10 years of experience managing complex natural resource projects for the County including the current SMP update. Cathy has direct knowledge of the ecological issues affecting Clallam County's watersheds from her work in watershed planning, salmon recovery, and habitat restoration and acquisition/easements. Cathy also represents the County on a number of committees and work groups related to salmon recovery, habitat restoration, and watershed plan development and implementation that involve many stakeholders (state and federal agencies, tribes, local organizations, etc...), so Cathy has established relationships with a network of key stakeholders that will be involved in the success of this project. Cathy and Steve will be directly involved in integrating the EPA grant work with the other SMP update efforts to ensure the County and the region receive the maximum benefit from these investments.