

January 4, 2011

Washington State Department of Ecology

Six Year Puget Sound Lead Organization Work Plan To Restore and Protect Watersheds

A. Area of Emphasis: Watershed Protection and Restoration

B. Title: Implementation of Watershed-Scale Strategies to Protect and Restore Puget Sound

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D. Abstract: As a gateway to growing markets in Asia, Puget Sound will be a leading growth center for the United States economy. Puget Sound's population has doubled from 2 million to 4 million since 1960 and is projected to reach 5.4 million by 2025. If growth is directed to the right place and done in the right way, Puget Sound can benefit from the investments drawn to this growth. Our strategy is based on using sound science and on working in partnership with local governments, tribal governments and other regional entities to implement practical solutions that advance priorities A and B from the Action Agenda: *Protect intact ecosystem processes, structures and functions*; and *Restore ecosystem processes, structures, and functions*. Commerce and Ecology propose to implement programs across four activity areas: Watershed Characterization, Land Use and Working Lands, Strategies to Manage Stormwater and Strategies for Protection and Restoration.

E: Referred by the Puget Sound Partnership

F: \$48,000,000

G: DUNS #781347828

Note: In this application and attachments the term "year" is the same as the term "round".

Work Plan Summary

This work plan is structured in three sections. The first section describes the technical approach we will use to address watershed protection and restoration. The second section outlines the work plan components 1-9. The third section is the work plan summary chart that details sub component or tasks, deliverables and due dates under each component. Throughout the work plan, we cross-reference components and sub components (i.e. tasks).

Section 1: Summary of Technical Approach

The innovative technical approach for this work plan develops and implements an integrated set of actions across the four activity areas: watershed characterization, land use and working lands, stormwater and protection and restoration. The approach will simultaneously address multiple threats to Puget Sound, by addressing the core processes that underlie them and identifying “scientifically based” solutions. Our work under this grant will:

- Create a coordinated state and local approach to protecting and restoring Puget Sound through methods to integrate, analyze and apply existing watershed data and information including Salmon Recovery Plans and basin plans; (Component 1 and 6)
- Use watershed data, information and assessments across all spatial and temporal scales to address and understand underlying problems and root causes of ecosystem degradation in watersheds; (Component 6 through 9)
- Using this policy and technical assistance infrastructure, implement solutions through a coordinated set of pilot or demonstration projects, Sound-wide policy efforts and locally based implementation activities (e.g. Birch Bay, SMP and GMA updates, TMDL’s), and collaboration with NGO’s (land trusts, TNC). (Component 2)

January 4, 2011

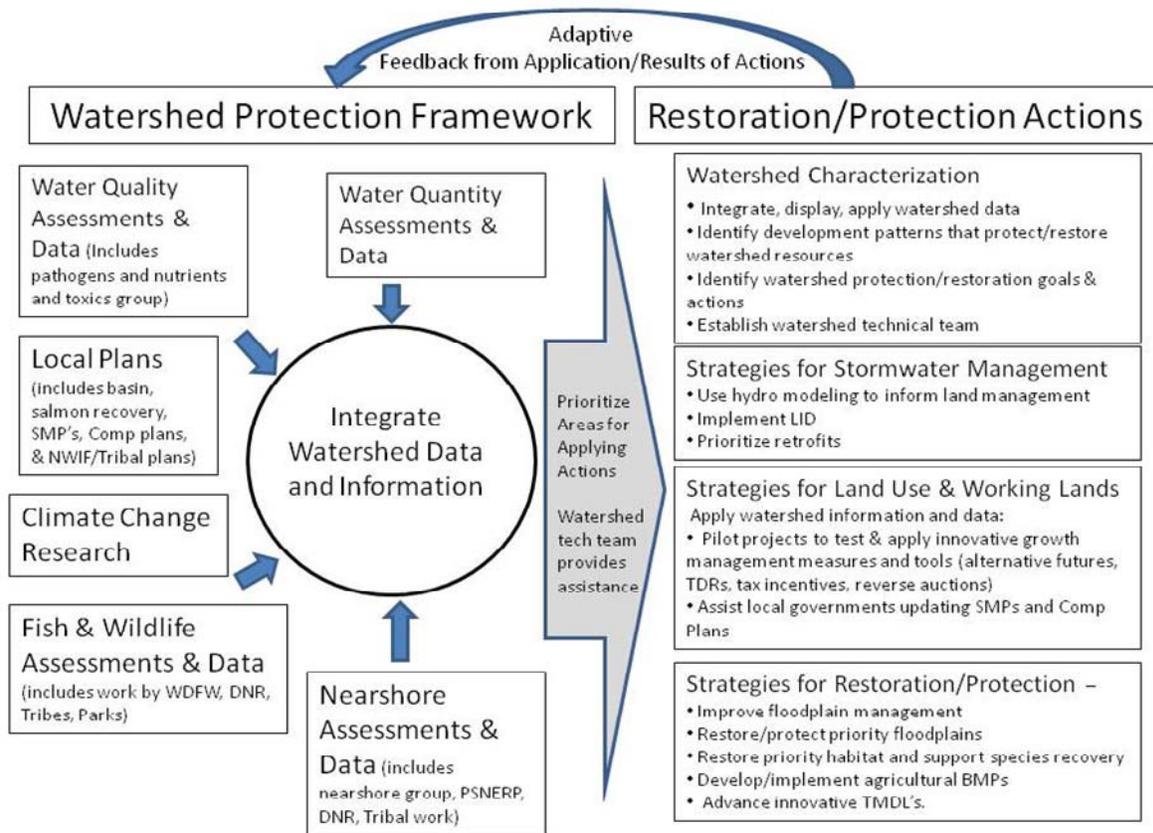


Figure 1 – Strategic framework for integrating watershed data and information and using the information to inform the individual actions for each strategy.

We will implement a coordinated multi-agency approach that integrates data and basin planning information for identifying the best areas for protection, restoration and development in Puget Sound. The framework for accomplishing this coordinated watershed approach is presented in Figure 1. (Component 1, 6 through 9)

The left side of the diagram outlines the framework that builds on and integrates existing watershed data and information for both freshwater and estuarine/nearshore waters. The development of an integrating framework will establish a flexible and adaptive methodology for interpreting and visualizing this watershed information and data.

The right side of the diagram outlines the four key investment areas proposed for the watershed protection and restoration program over the next six years. These areas were selected because they:

- Provide solutions to mid and fine scale problems and examples of implementing actions through local plans and permitting;

January 4, 2011

- Answer crucial questions, such as the specific thresholds for certain types of land cover necessary to maintain ecological integrity;
- Implement restoration and protection of key areas critical to maintaining the integrity of the Puget Sound Ecosystem; and,
- Are consistent with the Puget Sound Partnership Action Agenda.

The diagram is not intended and should not be interpreted as a reflection of resource allocation for the six-year strategy. Please see budget narrative for that information.

Strategies for Land Use and Working Lands

Examples of the types of activities that may be funded under the subaward process described in Component 2 are listed below. Component 2.1, 2.2, 2.5, 4.1 and 6.2 will establish priorities and criteria for use in the competitive subaward process. Some will be funded in years 1 and 2, and some will be funded in years 3-6. Examples of Land Use and Working Land Activities to be funded under Component 2

- Purchase or transfer development rights or use conservation easements for working lands at immediate risk of Conversion (A.4.1)
- Assist local governments in the development and implementation of urban center plans to attract growth into the redevelopment of existing urban areas.
- Support and implement recommendations from the CTED TDR Policy Advisory Committee (Action Agenda Item A.2.9).
- Support the Conservation Commission's efforts to protect productive agricultural areas consistent with the Action Agenda Priorities (Action Agenda Item A.4 .3)
- Support DNR strategies to prevent the conversion of working forestlands to other uses (A.1.2, A.2.1. and A.2.8)

Strategies to Manage Stormwater

Stormwater objectives for the six-year strategy include:

- In areas of existing development, expand stormwater facility retrofits and effective stormwater source control programs. These activities will be coordinated with strategies in the Pathogens and Toxics and Nutrients proposals.
- In priority sub-basins, use finer scale watershed characterization through hydrologic modeling to establish targets for limiting impervious area and preserving vegetation. These efforts will integrate water quality, habitat, groundwater recharge, and instream flow goals. Priority activities

will develop and demonstrate tools, guidance, and templates to develop and implement sub-basin goals.

Throughout Puget Sound, accelerate the shift in stormwater management from traditional approaches to innovative low impact development (LID). Expand and improve incentive and water cleanup programs to address runoff in rural and agricultural lands. Ecology and Commerce will coordinate this work with related tasks in the Pathogens proposal.

Examples of the types of activities that may be funded under the subaward process described in Component 2 are listed below. Component 2.1, 2.2 2.5, 4.1, and 6.2 will establish priorities and criteria for use in the competitive subaward process. Some will be funded in years 1 and 2, and some will be funded in years 3-6.

Examples of Stormwater Activities to be funded under Component 2

- Apply and expand hydrologic flow models in priority subbasins to inform land management strategies for where to direct new development and how development should occur, and to set priorities for basin rehabilitation strategies. Incorporate recent precipitation data in models to address changing climate conditions. (Action Agenda items C.2.1, C.2.2.8, C.2.6, D.1)
- Set specific subbasin targets for watershed performance including water quality, flows, land cover, and riparian and in-stream habitat condition (e.g. Action Agenda near-term action A.3 #1), integrated with existing targets such as instream flows and pollution limits in TMDLs. (Action Agenda items C.2.1.1, C.2.3, D.1)
- Develop innovative stormwater strategies and tools that use non-structural approaches to flow management for broad LID implementation at site and subdivision scale. Assist local governments in incorporating LID by enhancing education for decision makers and building public support. (Action Agenda items C.2.2.5, C.2.2.3, C.2.3, A.2.2.8)
- Develop criteria for prioritizing stormwater retrofit projects, including transportation projects, based on hydrologic, water quality, and habitat benefits. (Action Agenda items C.2.6, C.2.2.7)
- Increase the use of biologic monitoring information to list streams impacted by stormwater runoff on Ecology's 303(d) list of impaired waters. Improve TMDL Water Quality Cleanup Plan approaches for stormwater. (Action Agenda item C.2.1)
- Improve farm plan implementation to achieve state water quality standards, including implementation of incentives, technical assistance and best management practices for rural landowners, hobby farms, working farms, and nurseries (Action Agenda item C.2.3.2)
- Strengthen and expand stormwater source control programs with an implementation focus in areas of existing development. (Action Agenda items A.4,1C.1, C.1,3.2, C.2.2.3)

Strategies for Protection and Restoration

Examples of Protection and Restoration Activities to be funded under Component 2

- Support improvements to Critical Area Ordinance updates. Priority projects will better integrate watershed characterization information and/or advance protection in innovative ways, such as the Ruckelshaus Center's effort to resolve conflicts between agricultural activities and critical areas regulations (Action Agenda items A.2 .8, A.4.2, A.4.3, B.3.1).
- Support species recovery and direct restoration strategies in priority locations to repair key habitat, processes, structures, and functions. Priority projects will leverage multiple programs (e.g., linking SMP restoration and HPA compliance with salmon recovery and/or floodplain restoration) as well as those that can demonstrate multiple benefits (e.g. flood control, salmon, water quality, etc.) (Action Agenda items B.1.1, B.1.3, B.1.4, D.1.2)
- Restore and protect flood plains. A near-term focus of this work is to determine how best to comply with new salmon-friendly National Flood Insurance Program requirements as well and addressing existing levee maintenance requirements that undermine salmon habitat needs. Priority projects will integrate policies, programs and regulations to achieve improved environmental outcomes, such as integration of SMPs, CAOs and flood ordinances. (Action Agenda items B.1.3, A.2.2.5).
- Actions that improve instream flow management, such as developing and implementing water budgets, flow restoration strategies and addressing concerns created by permit-exempt wells. Priority projects will demonstrate integrated land and water management objectives. (Action Agenda items A.3.1, A.3.2, A.3.3, A.3.4, A.3.5, A.3.6).
- Prevent and rapidly respond to the introduction of invasive species. (Action Agenda items A.5.1, A.5.2, A.5.3, A.5.4)
- Improve mitigation efforts including in-lieu fee, wetland banking and water banking to encourage investment in restoration and permanent protection of ecosystem resources. (Action Agenda items D.4.6)

Section 2: Work Plan Components

There has been extensive cross work plan coordination with the other Lead Organization grantees (LO) for toxics and nutrients, pathogens and nearshore and marine. This coordination is necessary because there will be common, joint tasks that all LO will work on together during the six-year grant. To make sure that all LOs have a common direction and understanding, the LOs have collaborated to develop common work plan components, tasks, deliverables and due dates (see Section 3 “Work Plan Summary Chart”). Components 1-5 describe the common work plan components. This grant will focus on implementing the watershed protection and restoration elements of all common tasks. There are additional sub components or tasks in Components 1-5 that are unique to this grant. Components 6-9 are unique to this grant and necessary to carry out the watershed effort.

As described in the technical approach above, the foundation of this grant is the watershed framework (Figure 1) described above and Ecology’s Watershed Characterization effort. The watershed characterization work for water flow processes was complete in 2010 under an existing grant. The balance of the characterization work (fish and wildlife assessment, water quality assessment and data integration) will be complete in 2011, the first year of the grant (Component 6). Additional early-term work will develop the necessary core analytics regarding land use, land cover changes and the rate of urban footprint expansion (Component 3 and 7). These core analytics will allow for better monitoring of progress toward the 2020 ecosystem targets for land use/ land cover and will produce a data set that is updated over time and is comparable across the entire Puget Sound.

Across the remaining five years, funding will be split between the four categories with an emphasis on funding late-stage implementation of early work, including work that builds on and implements work started prior to 2010. While watershed characterization activities are building a strong analytical foundation, activities that implement prior studies can proceed in putting results on the ground.

Ecology and Commerce will manage this six-year Watershed Restoration program. Ecology serves as a Lead Organization (LO) and will draw on staff expertise from Commerce to participate in overall program guidance and use Commerce to manage the activities primarily in the Land Use and Working Lands program area. Budget detail for tasks coordinated by Ecology are outlined in components one through eight (see attachment B) and in task 9 for the Department of Commerce.

COMPONENT 1: STRATEGIC COORDINATION, PARTNERSHIP, AND ADVICE

Strategic Coordination, Partnership, and Advice

Coordination with the Puget Sound Partnership Management Conference, other lead organizations, lead entities, and other strategic partners is essential to achieving the outcomes of the six-year strategy. We propose three areas of coordination. First, the state agency lead organizations (which term includes agencies that are “co-leads”) will immediately establish a lead-staff coordinating team, including PSP EPA staff, which will carry forward the highly collaborative and transparent process employed to develop the four implementation strategies (Subcomponent 1.1). Potential state agency lead organizations have agreed to a common, coordinated leadership strategy to develop, implement and

January 4, 2011

adaptively manage the six-year strategies across the four areas of emphasis in a collaborative fashion with governmental and non-governmental entities. It will be critical that this group establish a common approach for integrating and aligning the work. For example, one of the first tasks will be to review the final work plans negotiated with EPA to identify cross-cutting actions that meet multiple objectives beyond just one area of emphasis. These actions would likely be prioritized for early support. This step will also ensure that there is no overlap or duplication of efforts with activities already funded by the federal government. (Subcomponent 1.1.1)

Second, we recognize an ongoing need to seek strategic advice from a broad diversity of partners across the Puget Sound Management Conference including, but not limited to, other Lead Organizations; the Puget Sound Partnership, Ecosystem Coordination Board, Science Panel, caucus forums and local implementing entities. (Subcomponent 1.3)

Third, Commerce and Ecology will use both the watershed technical team (Subcomponent 6.2) and a core group to help guide and oversee implementation of the respective strategies (Subcomponent 1.2). Likely advisory functions from partners include, but are not limited to:

- Providing ongoing feedback on implementation strategies, including near-term priorities; (ECB and entire Management Conference)
- Consulting on criteria for direct and competitive sub awards; (Management Conference)
- Providing review of proposed annual investments designed to implement strategy;
- Playing central role in integrating and implementing the public awareness and engagement efforts of the LOs and PSP;
- Assessing progress in achieving outcomes as they align with Action Agenda benchmarks/indicators across the Lead Organizations;
- Participating in adaptive management analysis.

Coordination on Climate Change (Subcomponent 1.3)

According to a study on Puget Sound prepared by the University of Washington's Climate Impacts Group, there is considerable evidence that regional temperatures are already rising and precipitation patterns are changing. Projections for the Puget Sound region suggest that sea levels will rise, snowpack is likely to melt earlier each season, and the damage from winter storms could increase. The ongoing and anticipated future impacts of climate change will be factored into all aspects of the six year strategy for watershed protection and restoration, including the evaluation and selection of sub-award projects.

The draft Washington State Energy Strategy reports that petroleum use, primarily for transportation, accounted for 71% of CO₂ emissions. Strategies to meet the state's greenhouse gas reduction targets rely heavily on meeting the statutory goal to reduce vehicle miles traveled. Principle five of the draft state energy strategy is to improve transportation efficiency through regional transportation planning. A key tool in meeting this goal is the redevelopment of compact urban centers and in preventing inefficient expansion of urban areas. The strategies proposed under land use and working lands will be coordinated

in partnership with the Department of Ecology and the Washington State Department of Transportation as part of the agency's partnership addressing climate change and the state energy strategy. This statewide partnership complements the national partnership between the EPA, HUD and USDOT.

Subcomponent 1.4: Subcomponent 1.4 is a critical sub-component to achieving the outputs and outcomes under this grant. The relationships we will have with the Puget Sound Partnership, Local Governments, Tribes, Federal Agencies and Canada are describes below. .

Public Coordination with PSP on Public and Stakeholder Involvement and Stewardship

This element has two basic components: (1) public and stakeholder involvement (i.e., transparency) process around the Action Agenda and respective lead organization work areas; and (2) coordination with the Partnership's awareness and stewardship programs focused on citizen best management practices. We will closely coordinate with the Partnership as they implement both the public and stakeholder involvement and stewardship programs. Ecology and Commerce will contribute information and expertise for watershed protection and restoration components.

Coordination with Local Governments

Local governments are a key strategic partner in protecting and restoring Puget Sound. Many have devoted enormous energy and resources to overcoming barriers to progress. They are indispensable partners and must be supported in their work to enforce local land use, health, and water quality regulatory programs, many of which are key to protecting and restoring Puget Sound. Their education, outreach and public engagement programs have advanced work in many areas of Puget Sound recovery. We will engage local governments through many avenues to gain the benefit of the knowledge and work to protect and restore Puget Sound.

Coordination with Tribes

Puget Sound is part of a larger transboundary ecosystem which includes Puget Sound, Georgia Basin, and the Strait of Juan de Fuca, referred to together as the *Salish Sea* and which is the ancestral home of numerous Indian Tribes and First Nations, most of whom share the Coast Salish culture extant in this region for thousands of years. Tribes' critical role in the stewardship of the *Salish Sea* region spans distant as well as recent history. The economic and cultural well-being of tribes is directly linked to the health of their homelands and the natural systems supporting their resource base. Tribes in the Puget Sound Basin have knowledge, data and on-the-ground experience of their watersheds, which could enrich the Lead Organizations ability to develop and implement the six-year strategy. They have the experience and capability to implement protection and restoration projects in their watersheds. The goal is to integrate tribal knowledge and resources effectively into the six-year strategies. In 1974, the Boldt Decision reaffirmed specific Tribes' treaty-protected fishing rights and more recent federal court rulings

January 4, 2011

upholding treaty-reserved shellfish harvest rights confirmed these Tribes as natural resource managers. The unique legal status of Tribes and presence of tribally reserved rights and cultural interests throughout the state creates a special relationship between Tribes and the state agencies responsible for managing and protecting the natural resources of the state. The foundation of the tribal co-management, government-to-government practice has substantial precedence and is the outcome from implementation of treaties, the U.S. v. Washington court decisions, and numerous subsequent decisions. The 1989 Centennial Accord between the federally recognized Indian Tribes in Washington State and the State of Washington commits the parties to a government-to-government approach to address issues of mutual concern. Tribes have consistently demonstrated their commitment and ability to be competent and professional natural resource managers. Tribal homelands are the rivers and shorelines of this state and so tribes have an inextricable link with its water resources. EPA, Washington State, Tribes and Tribal consortia, local governments, and nonprofit organizations have partnered for over 20 years to protect and restore Puget Sound through the Clean Water Act (CWA) National Estuary Program. Effective coordination of state/tribal expertise will clearly help develop programs that will be far more appropriate and efficient than either could develop alone. The Lead Organizations commit to work within a cooperative management process with tribes to develop and implement the six-year strategies.

Coordination with Federal Partners

Federal Partners represented on the Puget Sound Federal Caucus have been participating in many Puget Sound protection and restoration programs for many years, and our strategy seeks to leverage and increase their important contributions. Relationships with EPA (National Estuary Program, among others), the US Army Corps of Engineers (PSNERP), NOAA (Community Restoration, among others), as well as the US Fish and Wildlife Service, Federal Emergency Management Agency, Natural Resources Conservation Service, and many others will be essential for progress.

Aligning many federal programs with the goals of the Action Agenda has been an important piece of work by the Federal Caucus. We anticipate working with the Caucus to achieve improved alignment in programs that affect the health of the Puget Sound watersheds.

Coordination with Canada

Puget Sound is part of the Salish Sea that encompasses the Puget Sound of the United States and Georgia Basin of Canada. The international forums mentioned immediately below provide Puget Sound Management Conference partners access to Canadian environmental management agencies and planning processes on topics and issues of mutual interest and concern.

Among these international forums, the Partnership and Washington Department of Ecology work cooperatively with Environment Canada and the British Columbia Ministry of the Environment. The Partnership participates in and convenes the Coastal and Oceans Task Force with representatives from the State of Washington and the British Columbia Ministry of the Environment. This task force is empowered by the Washington State-British Columbia Environmental Cooperation Council to address coastal issues of mutual interest, and includes collaboration with the U.S. Environmental Protection Agency. Current agreements include short-

January 4, 2011

, medium- and long-term priorities for governance and information sharing; science and policy; shared indicators of ecosystem health; and issue areas for habitat restoration, climate, and water quality. The Environment Canada- U.S. Environmental Protection Agency Statement of Cooperation Working Group is another venue for collaboration.

Component 1 Work Years: Contained in Component 4, 6 and 9 Timeline: Coordination mechanisms 2/1/2011 - 4/30/ 2011; coordination implemented for duration of project (6/30/2017)

COMPONENT 2: SUBAWARD PROCESS (LINKS WITH COMPONENT 8 & 9.1)

The subaward process proposed by Ecology and Commerce is intended to efficiently provide funding to projects that most effectively and/or efficiently implement the priorities articulated in this proposal and demonstrate progress, in an adaptive management framework, toward 2020 ecosystem targets and interim benchmarks. The subaward process will include a process to competitively solicit proposals in each of the strategic areas of investment described in the Technical Approach section of this proposal. The overall process will include tracking and measuring progress toward achieving the expected outputs and outcomes. Although we would expect to formulate the specific steps of the review process during the post-award conversations with EPA, the competitive process will:

- Solicit proposals for innovative and ambitious actions that are consistent with the strategies and priorities described in our technical approach. Regardless of the type of action (programmatic or policy improvements, on-the-ground work, or scientific and technical studies), proposals will be judged on their ability to resolve long-standing barriers to implementation and to produce outputs and outcomes that advance achievement of 2020 ecosystem targets and interim benchmarks. Proposals will be expected to demonstrate these features through a logic model. Lead organizations will coordinate with the Watershed Technical Team, Science Panel and the Puget Sound Institute to assure that our collective efforts to advance applied science and technical studies are complementary. (2.1.3)
- Be coordinated with other Lead Organizations across ecosystem categories to provide an efficient, coordinated process for making and managing competitive subawards and to ensure no duplication. Lead organizations will administer the competitive subaward processes collectively to assure such efficiency and coordination, as well as a single application point.
- Identify important criteria by which subaward decisions will be made, noting especially criteria that are applicable across the ecosystem categories. These criteria will be developed and vetted through coordination with the Management Conference, including Local Integrating Organizations (LIOs) where they have been established. (2.1.3)
- Understand both regional and local priorities and create meaningful involvement for LIOs. The nature of LIO involvement may change throughout the six-year strategy as they become established and develop detailed workplans and priorities, as local priorities for implementing the Action Agenda are refined and identified as part of the work to be completed by LIOs through the EPA grant awarded to the Puget Sound Partnership to manage the Action Agenda. (Subcomponent 1.4)

- Involve technical and policy review to ensure that actions proposed for funding are consistent with the Action Agenda, Open Standards, and achieving 2020 targets and benchmarks. (Component 1.3)
- Where possible and consistent with our priorities and areas of investment, use and/or enhance existing contracting mechanisms. Lead Organizations will attempt to set deadlines to avoid conflicts with existing, major grant processes such as those related to the Salmon Recovery Funding Board, Washington Wildlife and Recreation Program, Centennial Clean Water Fund, Estuary and Salmon Restoration Program, or Aquatic Lands Enhancement Account. (Subcomponent 2.1.3)

Lead Organizations are committed to creating a seamless process that facilitates the ability of applicants to apply for funds easily and develop crosscutting proposals. A seamless process will also reduce duplication of work in contract administration, monitoring, and reporting requirements for both applicants and the lead organizations. Ecology and Commerce will use existing contracting systems and procedures to make and manage subawards. However, we will coordinate with other Lead Organizations and the Puget Sound Partnership to jointly create a single application point. This single application point will assure that potential applicants can easily access and monitor funding opportunities. Lead Organizations will also jointly create a coordinated and unified timeline to facilitate the ability to package proposals that fund crosscutting activities. (Subcomponent 2.2.1)

The subaward process may also include direct (non-competitive) contracts with other entities where we have indicated within a given area of emphasis. Such awards will focus particularly on actions consistent with the “Lead Agency” and “Partners” that are specified in the “Near-term action implementation responsibilities” table of the Action Agenda. State agencies have committed to providing a transparent rationale for any decisions that result in direct contracts with other entities that explains why the work should be performed by the entity named. (Subcomponent 2.1.2)

We will structure subaward contracts as “deliverables based” contracts that link financial reimbursement to a demonstration of meeting major project milestones and deliverables. This contracting method engages Lead Organizations and subawardees in up-front thinking to define the milestones and deliverables that the contract will result in, creates clear points of consultation between Lead Organizations and subawardees, and assures that dollars spent achieve project milestones and outputs. It provides an opportunity to coordinate among and leverage results of relevant subaward projects. In addition, all subaward contracts will include provisions to ensure implementation is monitored and that lessons learned can be disseminated among subawardees, the Management Conference, and other interested parties, as well as be used to adaptively manage the Action Agenda. Some or all contracts will be the subject of effectiveness monitoring, as well, according to the needs identified by the adaptive management component of this proposal. Subaward contracts will also embody any of the other requirements of subawards, including, for example, any monitoring, education, or outreach activities.

Program and Performance Management

The subaward criteria will include a performance management system and its requirements of grantees, and a performance audit will be conducted in the final year of the strategy.

The performance management strategy will include a significant investment in performance audits at the end of the six-year strategy to determine if funded programs are achieving both direct outputs and if the direct outputs are helping make progress toward the 2020 ecosystem targets. (Component 4.6)_Programs

that operate Sound-wide will be solicited as a six-year operating plan that includes a plan for on-going financial sustainability after five years. We propose to augment the existing efforts at land use/land cover to better track forest land conversions, wetland change and to better track development trends in targeted watersheds. (Component 3) This information will be supplemented by additional analysis of other data such as assessor's data, population estimates, employment estimates and permit data to provide a picture of changes in permitted land use capacity. (Component 7) Subawards will include an end-of-program evaluation that either supports accessing other funding sources or supports a decision to redirect resources to higher priority or more promising approaches.

Cross-Cutting Issues: Actions that Cross RFP Areas of Emphasis

There are threats to Puget Sound recovery that cross jurisdictional boundaries, disciplines, and parts of the ecosystem. As a result, lead organizations will facilitate innovative strategies and actions that resolve barriers to implementation, propose solutions, and achieve synergistic results across the ecosystem areas of emphasis defined by the EPA RFP (EPA-R10-PS-1007).

Lead Organizations will seek proposals from watersheds or jurisdictions to implement solutions that address cross-cutting issues comprehensively. (Component 2, 6 through 9) Lead Organizations will compare the six-year strategies for the four areas of emphasis to identify high priority cross-cutting issues. Examples may include:

- Identify and address critical connections among nearshore ecosystem processes and water and sediment quality (e.g., priority coastal inlets that may increasingly receive contaminated water from developing watersheds).
- Develop a comprehensive strategy to address the water quality and habitat impact of outfalls, or
- Fund a network of effective advocates for Puget Sound recovery.
- Leverage additional funding through partnering with sister agencies to enact a state comprehensive sustainable funding strategy and with private entities, such as the Puget Sound Foundation. Lead organizations will work others to identify the appropriate amount of funding to designate for this purpose, based on the nexus of the six year strategies and the objectives of potential investors.

Component 2

\$4.8 million

Timeline: 3/2011 – 2/2017

COMPONENT 3 – ADAPTIVE MANAGEMENT

Adaptive Management

Adaptive management is the cycle of exploration, action, evaluation, and adjustment that links science and policy. It is a vital element of the Puget Sound Partnerships *Strategic Science Plan (2010)* and to ongoing revisions of the Action Agenda and the Puget Sound Partnership's performance management system. It will be a key feedback mechanism for helping to ensure that new information and facts are

January 4, 2011

incorporated into the Watershed Framework (Figure 1) and are used to inform the refinement of strategies and actions necessary for the recovery of Puget Sound. Draft guidance and references for applying an adaptive management framework for improving ecosystem protection efforts will be provided by the Watershed Technical Team (Subcomponent 6.2),PSP and the Science Panel to the other Management Conference participants and Lead Organizations by July 1, 2011...

Target Setting

Lead Organizations will actively participate in ecosystem and pressure reduction target setting processes coordinated by the Puget Sound Partnership. (Component 3)

Open Standards

Lead Organizations will actively participate in ongoing and increasingly more robust development and use of the Open Standards framework coordinated by the Puget Sound Partnership at the Basin and local scales to logically align strategies and actions that will result in the reduction of pressures and the achievement of ecosystem goals, and help to develop clear, specific measurable outcomes. (Component 3)

Integrate Economic and Land Use Data

It is vital that available economic data be integrated with land use data and information sources. For example, building permits should be a source of detailed information on land development. It would be a significant complement to existing land use data such as land cover. However, this building permit information is highly dispersed and not readily available. This project intends to make economic context data available and integrated with other information, such as watershed characterization. Steps to accomplish this are outlined below.

3.5 Integrate Economic and Land Use Data with and Characterization Results/Data with Land Use Cover Performance Target from the Action Agenda

- 1 Review Available Economic Data for Integration with Land Use Land Cover and Characterization Results/Data
- 2 Identify Key Economic Context Data for Monitoring
- 3 Develop Methodology for Refinement and Standardization of Economic Context Data
- 4 Develop Reporting and Display Methodology
- 5 Coordination with Communications Strategy
- 6 Refine Logic Model Based to use standardized economic context data
- 7 Recommend economic context data inclusion in PSP benchmarks and indicators
- 9.4.8 Use results of tasks 7.1.1 through 7.1.7 to update and refine watershed framework (Component 6.2)

Performance Audits

January 4, 2011

Performance audits will be conducted at the end of the six-year strategy to determine whether funded activities are achieving direct outputs, and whether these direct outputs are resulting in measurable progress toward 2020 targets.

Component 3 -- \$2,650,000
12/01/2011; other work on-going

Timeline: Target development process established 6/30/2011 –

COMPONENT 4 – PROJECT MANAGEMENT

We will structure subaward contracts as “deliverables based” contracts that link financial reimbursement to a demonstration of meeting major project milestones and deliverables. This contracting method engages lead organizations and subawardees in up-front thinking to define the milestones and deliverables that the contract will result in, creates clear points of consultation between Lead Organizations and subawardees, and assures that dollars spent achieve project milestones and outputs. It provides an opportunity to coordinate among and leverage results of relevant subaward projects. In addition, all subaward contracts will include provisions to ensure implementation is monitored and that lessons learned can be disseminated among subawardees, the Management Conference, and other interested parties, as well as be used to adaptively manage the Action Agenda. Some or all contracts will be the subject of effectiveness monitoring, as well, according to the needs identified by the adaptive management component of this proposal. Subaward contracts will also embody any of the other requirements of subawards, including, for example, any monitoring, education, or outreach activities.

Financial Management Systems

Ecology uses an integrated, centralized financial management system model. Each year, Ecology successfully manages \$550 million dollars in grants and contracts in Washington State (\$83,029,619 in federal project expenditures in the fiscal year ending June 30, 2010), along with a \$500 million loan portfolio.

Washington State ranked Best in Nation for ARRA: The national ARRA process tested the financial management capabilities of every state agency involved. Washington State was #1 in the country for the speed, accuracy, and completeness of our work. [Appendix ##]

Successful financial management is accomplished through active sub-grant management and support, and through stable, well-maintained information systems. We have actively managed sub-grants since the mid-1980's, without significant audit findings. Budgeting and accounting are conducted through centralized statewide systems. (<http://www.ofm.wa.gov/isd/sysdefinitions.asp>) Integrated with the statewide systems are agency systems tailored to specific functions. Ecology manages and tracks payments on loans and contracts using our Contracts and Grants Payable system, a stable agency system with updates to run on a contemporary platform. With well-designed systems and experienced, well-trained staff, Ecology can not only award grants and contracts with confidence, but also detect and resolve potential problems early.

Our regional and field office staff watch projects start and develop, confirm performance on-the-ground, and help us take corrective action early where needed. Our good working relationships with sub-grantees allow us to collaborate quickly to respond to unforeseen challenges, and ensure successful results within guidelines.

Ecology's reliable financial systems have been designed and refined to budget, account for, and track the non-federal match linked to each federal fund source and sub-grantee project. Experienced staff understands federal match requirements, and are alert to any potential double-counting.

Within the agency, our time management system accurately distributes labor costs according to how time is actually spent. This positive time management system records the actual time employees spend on different projects. It provides a solid, accurate basis for the proper distribution of direct labor costs and the allocation of indirect overhead costs.

Ecology incorporates environmental outcome monitoring and reporting within the scope of our sub-grantee project agreements. Sub-grantees continue to conduct monitoring and report results for a minimum of three years after project funding is closed.

Staff Expertise and Qualifications

Ecology staff and project managers have been leaders in the fields of nutrient, pathogen, and toxics removal and treatment, statewide NPDES permit policy and management, and NPDES permit implementation. Other staff working on these projects deals directly with development and implementation of dangerous waste regulations, and with NPDES, water rights, and water quality policy and procedure development. The Department of Ecology has the scientific, technical, administrative, and project management expertise to successfully manage this grant and its sub-awards.

Commerce employs a staff that is primarily comprised of land use planners, some with a natural resource background. Commerce's nine growth management planners are assigned to each city and county in the state. The expertise of these staff and the existing relationships will help to ensure that communities have access to expert planners, statewide resources, and other assistance they may need to complete projects successfully. Commerce also employs a staff of contract specialists and can draw on the expertise of senior level contracts managers, an internal auditor and a performance manager and a research and program evaluation team.

Component 4 Work Years: 32 work years total for six-year program -- \$5.6 million Timeline: 2011 – 2017

COMPONENT 5 – NONFEDERAL MATCH

Ecology has identified matching state funding in support of this application for years 1 & 2 in the amount of \$12,000,000. The Remedial Action Grant program (RAG) is funded by the State Building Construction Account and the Local Toxics Control Account. The remedial action grant program provides funding to local governments in and around the Puget Sound area for the purposes of investigating or cleaning up hazardous sites. Funds to be used for match are already appropriated to Ecology.

Future match funding beyond years 1 & 2 in the amount of \$36,000,000. Funds are appropriated by the legislature to Ecology in the capital and operating budgets for managing pass through grant programs. Grants are awarded competitively to local jurisdictions and communities in and around Puget Sound for high priority watershed planning, water quality improvement, stormwater, and toxic cleanup projects. These funds are projected to be available in sufficient quantities in years three through six of the program to support state match requirements for Federal funds under this agreement. Ecology assumes the Governor and legislature will continue funding support for major ongoing programs in the Puget Sound region such as the Centennial Clean Water capital program, the Remedial Action Grant (RAG) capital program which cleans up toxic contamination, Watershed Plan Implementation capital projects, and Watershed Planning activities from the operating budget. These programs and projects are well established and supported by stakeholders. They help communities work towards a variety of Puget Sound environmental improvements such as managing stormwater, building and updating wastewater treatment facilities, cleaning up aquatic and upland toxic contamination, improving streamflows, and protecting and recharging aquifers. They also contribute to economic development opportunities and job creation in the Puget Sound region..

Tasks or Subcomponents

Task 5.1 – Year 1. Report showing state funds spent (3 million in matching funds) for eligible activities.

Task 5.2 – Year 2. Report showing state funds spent (9 million in matching funds) for eligible activities.

Task 5.3: Years 3 – 6 - Identify and document match for eligible activities.

Years 1 and 2: \$12,000,000

Years 3 – 6 (sources to be determined) \$36,000,000

Timeline: 6/30/2013 –12/31/2016

COMPONENT 6 – WATERSHED CHARACTERIZATION

Goal: Develop and implement a watershed-based framework for organizing, integrating, and interpreting physical and biological data and information in a manner that informs and supports effective protection and restoration of Puget Sound ecosystems.

Rationale and Objective

The first area, watershed characterization, will help build and refine the watershed protection framework outlined on the left side of figure 1.

Ecology, in conjunction with other agency scientists, has developed an assessment methodology to evaluate the relative importance of watershed processes among different analysis units of a watershed, and the relative impairment to these processes from human activity. The objective is to identify areas of the landscape that are important for maintaining watershed processes, and to characterize to what degree human activity has impaired these processes. This information can identify areas that are:

- important to protect,
- a high priority to restore, and
- less sensitive to impacts from new development and changes in land use.

The characterization consists of two phases: Phase I of the project included the assessment of water flow process for 19 Water Resource Inventory Areas which is now complete; Phase II will develop and implement a watershed-based framework (Figure 1). This will include the integration of information from four components at a watershed scale for water flow, water quality, fish, and wildlife and information from existing basin and Salmon Recovery Plans. (Component 6.2) It will synthesize the components into a format that can inform planners on the appropriate type, location and intensity of new development and restoration/protection actions. Together, the information from the components and the Puget Sound Nearshore Estuarine Restoration Program (PSNERP) will constitute a characterization for Puget Sound. Phase II will be completed by June of 2011. This information will be used to help inform subawards (component 2) and will be updated and improved by the results of work conducted in the components such as the land use and working lands analysis (Component 7) and stormwater (Component 5 - e.g. analysis of relationship between land use and generation/transport of stormwater pollutants).

The formation of an interagency watershed technical team will provide the necessary assistance to effectively communicate the results of the characterization so that intended users can use it to inform their decision-making processes, especially during the update of SMP/Comprehensive Plans, Critical Areas Ordinances updates and development of watershed based subarea plans. The watershed technical team will include tribal, local government, and PSP representatives as well as watershed scientists with expertise in hydrology, geomorphology, water quality, ecology, fisheries and wildlife. (Component 6.1)

Tasks or Sub Components

- 6.1 Establish a watershed technical team consisting of a hydrologist, geomorphologist, watershed ecologist, water quality scientist, fisheries biologist, wildlife biologist, and watershed planner – include representatives from tribes, local government and PSP (D.1,D.2,D.3,D.4,D.5) (Also includes task 9.2)
- 6.2 Refine and complete the Watershed Protection Framework based on the results of the Phase II of Characterization (organizing, integrating and interpreting physical and biological data).
- 6.3 Incorporate the Channel Migration Zone analysis (2010 – 2013, DOE SEA Program) into the characterization framework. This will address watershed processes at the mid scale (water flow processes assessed at the broad scale). (Funded through EPA Grant #00J28101-1)
- 6.4 Integrate and display characterization data and information including water quality/quantity, fish and wildlife data and information (Action Agenda Priorities A, B, C,D and E). (Funded through EPA Grant #CE9607440-4)
- 6.5 Based on the integrated data and information, a watershed science team shall: develop watershed based goals and actions, at both the WRIA and mid scales; and, identify a development patterns that protect and restore watershed processes (Action Agenda Priority A,B,C & D). (Funded through EPA Grant #CE9607440-4)

January 4, 2011

- 6.6 Work intensively with local governments and private landowners to identify and implement actions that reduce the impacts from human activities while also addressing other state and local policy priorities. These actions will both apply and test innovative approaches to addressing key watershed problems such as stormwater, flooding and habitat degradation. (Year 3-6)
- 6.7 Monitor the effectiveness of solutions so that future plans can be modified to improve actions (see adaptive management section and Figure 1). (Year 3-6)
- 6.8 Complete peer review on full suite of watershed characterization methods and products (consistent with PSNERP). (Funded through EPA Grant #CE9607440-4)
- 6.9 Develop a comprehensive outreach component to train local land use planners, NGO's , consultants on the use and application of the watershed framework integrated information to the development of local plans, policies, development standards and protection/restoration projects. (Component 6.2).

Component 6 -- \$1,576,104

Timeline: 2/01/2011 – 2/2017

COMPONENT 7 - STORMWATER

Goal: Implement comprehensive, integrated watershed approach to managing stormwater to reduce stormwater-related impacts.

Rationale and objectives

Declines in watershed health are directly tied to human activities that change the land cover by removing native vegetation and creating impervious surfaces. An integrated watershed solution to land use development in urban and urbanizing areas requires a comprehensive stormwater management strategy that both expands innovative stormwater techniques in new development and addresses the altered flows and degraded water quality from stormwater discharges in existing developed areas. Local proof-of-concept projects would refine the watershed characterization information to integrate future growth, watershed protection, and restored flows and quality.

In rural areas, the watershed strategy will improve polluting runoff from ex-urban and agricultural lands through integrated incentive programs, funding and technical assistance, and innovative water cleanup plans. Key partners include the Conservation Commission, Natural Resources Conservation Service, EPA, Washington Department of Agriculture, and Conservation Districts.

The Puget Sound region will advance stormwater objectives by building science-based criteria for prioritizing retrofit projects, and by setting sub-basin targets to guide land use and watershed integrated management. In addition to Ecology and Commerce's state and local partners, the Stormwater Technical Resource Center (STRC), co-managed by Washington State University and the University of Washington Tacoma along with their partners, is positioned to assist in developing tools, guidance, and models.

Tasks or Subcomponents

7.1 Identify priority watersheds for conducting hydrologic modeling in order to establish land use development thresholds. Use characterization data and results to assist in prioritization.

7.2 Incorporate results into watershed framework

Component 8: -- \$10,770,000

Timeline: – 2/1/11 - 6/30/17

COMPONENT 8 - PROTECTION AND RESTORATION

Goal: Implement a comprehensive, integrated habitat protection and restoration strategy that advances ecosystem recovery and increases ecosystem resiliency to changing climate conditions.

Rationale and Objective

Actions to be funded in this portion of this proposal address other components of the watershed strategy not captured in the previous three. Some of these actions are relatively straight forward, such as getting innovative mitigation programs to regional scale and activities that improve management of critical areas, hydraulic project approvals, floodplains, instream flows and invasive species.

Other priorities are activities designed to better integrate and prioritize various restoration and protection actions within an ecosystem and socio-political context. This requires not only an improved understanding of the watershed but of the regulatory context in which protection and restoration actions are occurring.

The Action Agenda states that “restoration strategies once focused on what was called the ‘low hanging fruit,’ referring to specific projects on individual sites. These projects were ready to go, relatively easy to fund, construct, and report on, but they do not necessarily focus on restoring key ecosystem processes.” Consequently, it is increasingly important to understand how restoration actions are informed by watershed information to address key ecosystem processes. In some areas of the Puget Sound, proposed restoration projects have been well vetted and informed by such watershed information. However, this is not uniformly true throughout the basin.

In addition to improved watershed information, it is also important to better understand how restoration projects fit into the broader regulatory context to ensure their durability. For example, strong and/or improved compliance of SMP and floodplain ordinances will benefit riparian acquisition and restoration efforts. Priority will be placed on activities that advance an understanding of how the various strategies reinforce and leverage one another. A more integrated approach to watershed strategies will better leverage and integrate the broad array of tools, including incentives, regulatory, restoration projects, compliance, technical support and markets.

Component 2.1, 2.2 2.5, 4.1 and 6.2 will establish priorities and criteria for use in the competitive subaward process. Some will be funded in years 1 and 2, and some will be funded in years 3-6.

Tasks or Subcomponents

8.1 Identify priority watersheds for restoration and protection actions. Use characterization data and results to assist in prioritization.

8.2 Incorporate results of restoration and protection into watershed framework

Component 8 -- \$11,644,329

Timeline: 12/30/2011 –12/30/2017

COMPONENT 9 – LAND USE AND WORKING LANDS

Goal: Reduce conversion of undeveloped land and high value forest cover through protection of rural and working lands. Direct new growth to existing urban areas and encourage development practices that restore and protect Puget Sound. (Includes Components 2, 6.2)

Rationale and Objective

Over the six-year life of the project, local governments will be conducting 10-year review of the urban growth areas; will be reviewing their comprehensive plans and development regulations; and will be completing updates to their shoreline master programs and critical areas ordinances. Throughout Puget Sound, local governments have designated urban centers in existing urban areas. Growth directed to these areas can relieve significant pressure by redeveloping with more modern techniques, can both increase densities and reduce impacts to Puget Sound even within the site.

These activities work in tandem with additional investments designed to reduce the conversion of working lands to urban uses. Working lands are an important economic resource and also provide important environmental benefits. Market mechanisms and improved policies will be deployed to permanently protect these lands from further conversion to other uses. Protecting these lands is vital to meet the sub-basin targets for minimum impervious area and native vegetation retention identified in stormwater basin modeling analyses. Each of these steps is an opportunity to better protect Puget Sound by addressing watershed scale processes of urbanization and land conversion.

Ecology and Commerce will solicit competitive awards for local or Sound-wide projects that accomplish these objectives.(Component 2) Projects will be selected based on the ability of the sub-award sponsor to directly link the outputs of the project to local land use decisions and on the ability of the local sponsor to directly use inputs from the watershed characterization process.(Component 2.1 and Component 2.2, 6.2) High scoring projects will direct growth away from rural and resource land identified as high priority for protection and restoration (watershed framework, component 6.2) . High scoring projects will direct growth toward redevelopment of existing urban centers that have been:

- designated through a regional priority setting process;
- include high levels of existing impervious surface
- are outside of the floodplain
- and will use more Sound-friendly development techniques.

January 4, 2011

Projects must also demonstrate a high degree of local leadership support, demonstrated effectiveness and will include strategies to create and maintain grassroots local support for implementation. Although Ecology and Commerce do not foresee funding hard costs, such as infrastructure investments directly with this funding source, it expects to use this process to leverage existing state and federal infrastructure programs that target investment to regionally designated centers

Tasks or Subcomponents

9.1 Program Management for Land Use and Working Lands Program and LO Coordination Team Participation

9.2 Participation in Watershed Technical Team

9.3 Competitive Subawards for Land Use and Working Lands

Component 9 -- \$11,966,808

Timeline: 2/2011 – 1/2012

Section 3: Work Plan Summary Chart

This attached chart details each component, sub component or tasks, deliverables and due dates.

JOINT EVALUATION PROCESS

Consistent with 40 CFR§35.115, the grantee agrees to submit semi-annual performance reports. The Lead Organization will submit performance reports through EPA's Puget Sound Financial and Ecosystem Accounting Tracking System (FEATS). These reports will state accomplishments toward completion of work plan commitments, a description of work performed for all components, and description of any existing or potential problem areas which could affect project completion (See 40 CFR Part 31.40). If the EPA Project Officer, after reviewing the report, finds that the recipient has not made sufficient progress under the work plan, EPA and the recipient will negotiate a resolution that addresses the issues.

ROLES and RESPONSIBILITIES - Washington Department of Ecology and EPA

The Washington Department of Ecology will carry out the work plan components as outlined above, oversee the management of resources and personnel, and perform the duties of the work plan. This funding is committed through a cooperative agreement because EPA anticipates participating in project activities over the 6 year project period. At a minimum, EPA will monitor progress and provide technical assistance as well as participate in the Core Group and the Lead Organization Team.

Attachments to application

January 4, 2011

- Application (SF 424)
- Budget Information (SF424A)
- Detailed Budget Narrative
- Project Timeline with Tasks and Milestones.
- Key Contact List
- Logic Model:
- Copy of current Negotiated Indirect Cost Rate Agreement.

Previously submitted

- Assurance, Non-Construction Program (SF424B) –
Submitted by Ecology as bundle on 12-17-2010
- Pre-Award Compliance Review Report (EPA Form 4700-4)
Submitted by Ecology as bundle on 12-17-2010
- Certification Regarding Lobbying – required if the requested EPA funding is more than \$100,000.
Submitted by Ecology as bundle on 12-17-2010