

**Washington State Department of Ecology Proposal in Response to
U.S. Environmental Protection Agency, Region 10
Puget Sound Action Agenda: Ecosystem Restoration and Protection (EPA-R10-PS-1007)**

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

October 27, 2010

Summary of Proposed Technical Approach

Our innovative technical approach develops and implements an integrated set of actions across the four activity areas: Watershed characterization, land use and working lands, strategies to manage stormwater and strategies for 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 proposal is designed to:

- 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;
- 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;
- 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).

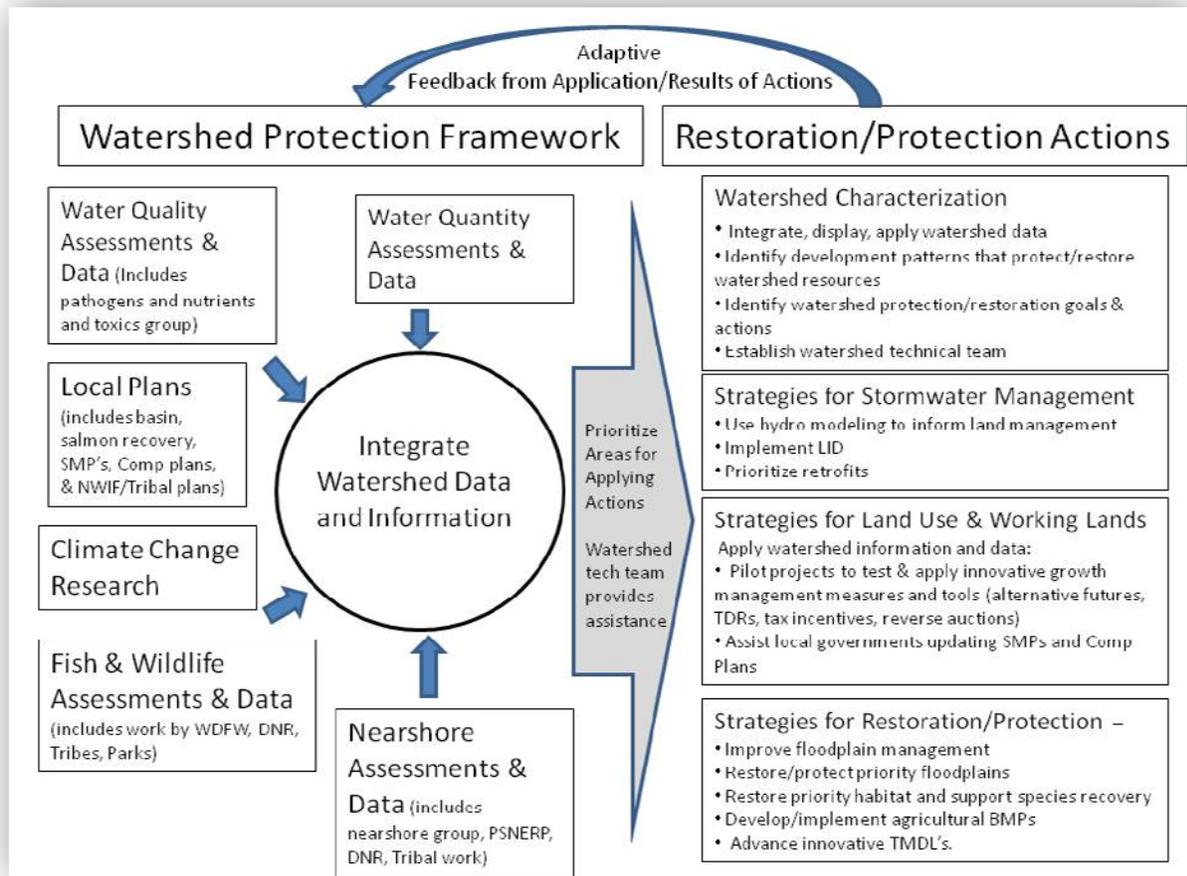


Figure 1 – Strategic framework for integrating watershed data and information and using the information to inform the individual actions for each strategy.

We propose a coordinated multi-agency approach that integrates data and basin planning information for the purpose of 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.

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;
- 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.

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. 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.

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.

Key Activities

- 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)
- 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).
- 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).
- 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).
- 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).
- 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.
- Monitor the effectiveness of solutions so that future plans can be modified to improve actions (see adaptive management section and Figure 1).
- Complete peer review on full suite of watershed characterization methods and products (consistent with PSNERP).
- 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.

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.

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 are 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. 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. High scoring projects will direct growth away from rural and resource land identified as high priority for protection and restoration. 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.

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.

Key Activities

- 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

Goal: Implement a 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.

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.

Key Activities

- 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. (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

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

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.

Key Activities

- 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)

Strategy for Ordering Items Across the Six-Year Timeframe

Watershed characterization work will be complete and results will be available in 2010. Additional early-term work will develop the necessary core analytics regarding land use, land cover changes and the rate of urban footprint expansion. 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, implementation activities that implement prior studies can proceed in putting results on the ground.

Leadership Strategy

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.

Adaptive Management

Science and adaptive management will guide our proposed six-year strategy in order to achieve significant progress toward the goal of recovering Puget Sound by 2020, as measured against quantitative 2020 ecosystem targets for the PSP dashboard indicators that represent the health of Puget Sound's ecosystem components. Establishing clear, strong targets is the essential first step in scaling our work to match the magnitude of the problem. Once set, targets that address both cumulative and synergistic effects allow the 2-year benchmarks to be established, and the actions and strategies needed to achieve the benchmarks can then be identified. By using the Open Standards, this work can be accomplished in the revision of the Action Agenda in 2011. These targets will address goals and objectives in EPA's 2006-11 Strategic Plan.

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 key to the recovery of Puget Sound. One of the first work products is establishment of an adaptive management system to measure progress on outputs and outcomes. We will use interim results from the six-year strategy to work with the Partnership to adaptively manage the Action Agenda. The subaward criteria will include this adaptive management system and its requirements of grantees, and a performance audit will be conducted in the final year of the strategy.

The adaptive 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. 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. 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. 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.

Strategic Coordination, Partnership, and Advice

Coordination with the Puget Sound Partnership Management Conference, other lead organizations, Local Integrating 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 staff, which will carry forward the highly collaborative and transparent process employed to develop the four proposals. Potential state agency lead organizations have agreed to a common, coordinated leadership strategy to develop, implement and 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 work plan for integrating and aligning our 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. The actions would likely be prioritized for early support by subaward criteria. This work will ensure that there is no overlap or duplication of efforts with activities already funded by the federal government.

Commerce and Ecology will establish a core group to oversee implementation of the strategy. We recognize an ongoing need to seek strategic advice from a broad diversity of partners including, but not limited to, other Lead Organizations; the Puget Sound Partnership, Ecosystem Coordination Board, Local Integrating Organizations, and other parts of the Management Conference; and the many organizations that have indicated an interest in this proposal thus far.

Likely advisory functions include (with the likely partners), but are not limited to:

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

We would use either a system of informal consultation with these entities through transparent implementation of the strategy, or we may find it more useful to ask these, and perhaps several other key parties, to provide a representative to a standing advisory group.

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 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

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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.

The Puget Sound Recovery Act of 2010 (S. 2739) is currently being considered by Congress. Should the legislation become law, it would direct future federal funding in accordance with an annual priority list compiled by PSP. Consistent with the proposed leadership structure, the LOs, co-leads and PSP would work to prioritize investments in each area of emphasis in consultation with the ECB.

Coordination with Canada

Please see page 200 of the 2009 Action Agenda for a discussion of coordination with Canada.

Climate Change

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.

Funding Strategy and Subaward Projects

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.

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Proposals will be expected to demonstrate these features through a logic model. Lead organizations will coordinate with both the Science Panel and the Puget Sound Institute to assure that our collective efforts to advance applied science and technical studies are complementary.

- 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.
- 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.
- 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.
- 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.

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.

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.

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.

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. 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.

Outputs and Outcomes: See Logic Model, Appendix A

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 understand 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.

Programmatic Capability and Past Performance

As state agencies, Ecology and Commerce inherently possess the required resources to provide managerial, technical, administrative, legal, contractual, fiscal, and electronic capabilities needed to successfully achieve all the objectives of the grant proposal. Both agencies have a long history of successfully managing federal grant programs that pass through federal funds to a broad variety of sub-recipients.

Department of Ecology: Ecology has consistently demonstrated the managerial, technical, administrative, legal, contractual, fiscal, and information systems capabilities needed to successfully achieve the objectives of this proposal. We have demonstrated a strong and successful record with sub-awards and federally funded projects. Ecology is ready to proceed with this grant to improve the waters of Puget Sound.

Since 2006, Ecology has managed *Revitalizing the Puget Sound Estuary Program* (X-96028501), an EPA grant providing nearly \$2.5 million to accelerate and improve efforts to address the health of Puget Sound. Activities include support for the Puget Sound Partnership; enhanced public information and

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participation; and grants to watersheds to assist with integration of the existing salmon recovery, land use, and water quality efforts.

Ecology also manages the *Puget Sound Estuary Program 2008-2009 Cooperative Agreement Enhancement* (CE-96074401-3), an EPA grant providing \$ 7,347,209 for the purpose of developing source control strategies for toxics and nutrients entering Puget Sound. This project requires complex technical work including sampling over large geographic area, laboratory and data analyses, and resultant detailed reports.

Finally, Ecology manages the *319 Nonpoint Source Program Grant* for FFY 2009 and FFY 2010 (C-900044906-0). This EPA grant totals \$7,437,000 for two years and is used to help implement the state's nonpoint pollution program.

Department of Commerce: Commerce also has long-established partnerships with the 320 local governments required to plan under the Growth Management Act. Over two decades, GMS has provided hundred of grants to local governments to plan under the GMA. GMS works with the agency contracting manager, ensuring a high level of accountability and professionalism in our grants. GMS uses custom grants management software, which has provided sophisticated levels of accountability for the grants we manage.

Commerce manages millions of dollars in federal funds. Commerce is managing more than \$180 million in ARRA funds. The programs were able to allocate the funds within 120 days, and achieve a high degree of success. GMS is managing \$900,000 in Energy Efficiency and Conservation Block Grant funds and provided grants to local government for transit-oriented development, multi-modal transportation plans, and sustainability elements to comprehensive plans. GMS also manages federal funds from the EPA for our Transfer of Development Rights Programs. Commerce and Ecology have previously jointly-operated the state's Brownfield's program in partnership.

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 deal 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.

Budget

See attached budget detail, showing conceptual level allocation of funds over the project period. The state match for year 1 of this federal grant will come from two sources: \$1.9 million is from current

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Ecology base operating budget appropriations for Watershed Planning activities (funded through the State General Fund); and \$1.1 million is from current appropriations for facilities projects from Ecology's Stormwater capital project (funded through the State Building Construction Account). These nonfederal matching funds are now committed to this proposal and they have not been previously used to provide nonfederal match for any other federal financial assistance grant or project.

Timeline

See attached project timeline on the following page.

Attachments to application

- A. Logic Model
- B. Detailed Budget
- C. Legal Authorities