

# PugetSoundPartnership

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Draft Action Agenda Comments

*Federal Agencies*

Nov. 6 - 20, 2008

Set 4 of 8



DEPARTMENT OF THE NAVY

NAVY REGION NORTHWEST  
1100 HUNLEY RD.  
SILVERDALE, WASHINGTON 98315-1100

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Ser N40/ 4130  
20 Nov 08

Mr. William D. Ruckelshaus  
Chair, Puget Sound Partnership Leadership Council  
P.O. Box 40900  
Olympia, Washington 98504-0900

Dear Mr. Ruckelshaus:

The Navy supports the efforts of the Puget Sound Partnership in protecting and restoring the environmental quality of Puget Sound, and we appreciate the opportunity to comment on the *Draft 2020 Action Agenda for Puget Sound* (Agenda). It is our understanding that the Agenda will be a living document, and that through adaptive management and development of task-specific work plans, additional clarifications and details will become available.

In developing strategies to improve the Puget Sound, it is important that a thorough evaluation is conducted to assure that proposed initiatives are scientifically sound, are economically feasible, and that the net benefits will make real improvements in the environmental quality of the Puget Sound.

Through various Executive Orders and Navy policies, the Navy has established programs to protect the environment, many of which will directly support near-term actions proposed in the Agenda. Our specific comments point out a couple of these opportunities.

As a natural resources trustee and a Puget Sound neighbor, the U.S. Navy looks forward to supporting the Partnership in this important endeavor. Our specific comments are attached. If you or your staff has questions, please call Ms. Renee Wallis (360) 315-5400.

Sincerely,

JAMES A. SYMONDS  
Rear Admiral, U.S. Navy  
Commander, Navy Region Northwest

Enclosures: 1. Navy Region Northwest comments to the Draft 2020 Action Agenda for Puget Sound

Copy to: Mr. David Dicks  
Director, Puget Sound Partnership

Mr. Ron Kreizenbeck  
Senior Advisor, Puget Sound Partnership

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Navy Region Northwest Comments to the  
Draft 2020 Action Agenda for Puget Sound  
Dated 6 November 2008

**Specific Comments.**

*1. Question 1, Pg 3: Indicators and Bench Marks*

**Comment:** The Navy's toxic clean up program on National Priority Listed sites, is risk driven, as required by Comprehensive Environmental Response and Liability Act (CERCLA). Risk is developed on a site specific basis.

Is it intended that the Provisional Benchmark/Indicators be used on toxic clean up sites where the indicator is not an attribute to site specific risk? If so, how and which ones?

*2. Question 3, para A.1.2 - Prepare and consistently use a regional habitat protection decision-making framework to guide land use protection and restoration decisions in marine, freshwater and upland terrestrial areas; and para. A.1.3 - Use watershed characterizations to set priorities for local protection and restoration work.*

**Comment:** Navy-owned natural resources are managed according to natural resource management plans and mission requirements in accordance with the Chief of Naval Operations (CNO) Environmental Readiness Program Manual (OPNAVINST 5090.1C dated 30 October 2007).

*3. Question 3, Para. A.2: Near Term Actions #7 - Change Shoreline Management Act statutes and regulations to require a shoreline conditional use permit for bulkheads and docks associated with all residential development; for all new shoreline hardening; for all seawall/bulkhead/revetment repair projects; and for new docks and piers.*

**Comment:** Request clarification on whether the "no-net-loss" requirement includes provisions for mitigation for projects with clear public and national security benefits.

*4. Question 3, Para. A.3: Near Term Actions #1 - Complete setting flow rules in watersheds that currently do not have instream flow rules, with priority given to critical basins or those with known significant problems meeting instream or out-of-stream demands.*

**Comment:** Request clarification on flow rules as they relate to federal water rights authority.

*5. Question 3, Para. A.5, Near Term Actions #1. Advocate for national or west coast regional ballast water discharge standards.*

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**Comment:** Recommend that the Puget Sound Partnership adopt the International Maritime Organization and the U.S. Coast Guard voluntary standards for ballast water exchange to prevent the introduction of invasive species into the Puget Sound. The U.S. Navy, as required by Section 1103 of the National Invasive Species Act of 1996, has incorporated these standards into ballast water management standard operating procedures. These standards are delineated in the CNO Environmental Readiness Program Manual.

As an international fleet, it would be difficult for U.S. Navy vessels to adopt local standards for managing discharges. The Uniform National Discharge Standards (UNDS) program, 33 U.S.C. Sec. 1322(n), was developed to allow the Navy to manage vessel discharges at a national level in a way that is protective of assets like Puget Sound.

*6. Question 3, B.2.2 Expand and fund “green port” and clean marina programs to foster environmental stewardship for port and marina development and management.*

**Comment:** Request clarification on how “green port” and clean marina would apply to DOD facilities. All Navy shore installations are required to develop, implement, and update Pollution Prevention Plans in accordance with fleet directives.

*7. Question 3, Para. C.1.2.1: Expand oil spill prevention and interagency spill response programs.*

**Comment:** Request clarification. It is unclear what expansion of oil spill prevention and interagency response programs is required. The Oil Spill Advisory Council and the Dept. of Ecology have expanded the oil spill prevention programs and oil spill response programs to meet the targeted overall pollution reduction strategy. The program recently expanded and has resulted in advances in the operating requirements for all shoreside overwater transfers.

*8. Question 3, Para. C.1.2.3 - Establish No Discharge Zones for all or parts of Puget Sound that are nutrient-limited, have high vessel use, and are significant for shellfish production; and Para. C.1: Near Term Actions #5 - Petition EPA to establish Puget Sound as a No Discharge Zone to eliminate bacteria, nutrients and pathogens from being discharged into Puget Sound.*

**Comment:** Request clarification on what is intended for “No Discharge Zones.”

*9. Question 3, Para. C.2, Near Term Actions #1 - Establish a regional coordinated monitoring program for stormwater, working with the Monitoring Consortium of the Stormwater Work Group; and Para. C.3, Near Term Actions #1 - Ensure that AKART (All Known and Reasonable Technology) or better standards are met in nutrient sensitive areas such as Hood Canal, South Sound, and the Whidbey Basin.*

**Comment:** A thorough evaluation should be conducted to assure that proposed initiatives are scientifically sound, are economically viable, and that the net benefits will make real

Enclosure 1

improvements in the environmental quality of the Puget Sound. AKART standards should be required only when the technologies will actually achieve measurable improvements in environmental quality. Coordinated regional monitoring has proven to be very effective in identifying problems and appropriate corrective actions during the Navy's ENVVEST study for Sinclair and Dyes Inlets.

*10. Question 3, Para. C.3.3: Wastewater Treatment Plant Nutrient and Pathogen Loading*

**Comment:** The draft Agenda requires “federal facilities to reduce nutrient and pathogen loading consistent with the Action Agenda priorities.” While the Navy understands that reducing nutrients and pathogens is important in implementing the Action Agenda, there is no reason to assume, at this stage, that reductions from federal/Navy wastewater treatment plants are required. Recommend that the Action Agenda have a wider focus on wastewater treatment plants as a general category to include all entities, not just federal facilities.

*11. Question 3, Para. C.5: Prioritize and continue to implement toxic clean up programs for contaminated waterways and sediments*

**Comment:** How does the Action Agenda change the current process Ecology has for prioritizing clean ups? Will the Action Agenda change any on going clean ups, or will they continue as they have been?

*12. Question 3, General Priority D: Work effectively and efficiently together as a coordinated system to ensure that activities and funding are focused on the most urgent and important problems facing the region.*

**Comment:** The management system that will be used by the 2020 Action Agenda for Puget Sound is described in the Priority D section. This management system follows the Plan, Implement, Check, Improve type management structure.

Per Executive Order 13148, the Navy is currently implementing an ISO 14001 Environmental Management System (EMS) that has the same type of Plan, Implement, Check, and Improve management structure. Other federal, state, municipal, or private entities may also have similar environmental management structures. Recommend the Partnership consider aligning the management structure of the 2020 Action Agenda for Puget Sound with other existing management systems.

*13. Question 3, Para. D.4.1: Align federal, state, and local agency regulatory programs in Puget Sound to improve coordination, efficiency, and effectiveness of implementation.*

**Comment:** Agree that federal, state, and local agency regulatory programs should improve coordination. The process to obtain an NPDES permit is one example where overlap and conflicts occur making the permitting process inefficient.

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The issuance of NPDES permits for Navy industrial facilities could take advantage of alternative regulatory strategies under Phase II of the ENVVEST proposal to achieve greater environmental performance at lower cost.

The improvement of processes and problems could be managed through use of an Environmental Management System such as the one the Navy has adopted (see comment 12 above).

*14. Draft Action Priorities, North Central Action Areas, Priority Action Strategy C, Reduce Sources of Water Pollution, Prevent Pollution: "Focus education and outreach activities to reduce pollution from live-aboards, boating and water-based activities."*

**Comment:** The Navy is accomplishing this locally, in the case of one of our bases, though participation in the Kitsap Peninsula Clean Runoff Collaborative. The initial stage, currently underway, consists of surveying area residents to determine attitudes/knowledge/behaviors with respect to pollution prevention. Follow on efforts will develop targeted education and outreach measures based on the survey results.

*15. Draft Action Priorities, North Central Action Areas, Priority Action Strategy C, Reduce Sources of Water Pollution, Manage Urban stormwater runoff: "Use and increase site-appropriate LID techniques; encourage use of technologies and approaches that replicate natural ground water systems to manage for future planned growth."*

**Comment:** The Assistant Secretary of the Navy, Installations and Environment, Low Impact Development (LID) Policy Memorandum of 16 November 2007 set goals of no net increase in stormwater volume, sediment or nutrient loading from major renovation and construction projects. The memorandum defines "major" as renovation projects exceeding \$5 million and construction projects exceeding \$750K. Beginning in FY 2011 all major renovation or construction projects with a stormwater component must include LID design concepts which attempt to meet the goal of no net increase in storm water volume, sediment or nutrient loading. If LID design concepts are not appropriate for a project due to site constraints, the requirement must be formally waived by the regional engineer. The Navy is currently developing guidance, engineer training programs and updating the LID Unified Facilities Criteria in order to meet the LID policy.

Enclosure 1

**From:** Paul Kluckner, Environment Canada

**Comment:** Thank you for the opportunity to review and provide comments on the Draft 2020 Action Agenda for Puget Sound. This is a very comprehensive document with significant and achievable actions in each of the priority areas. Many of the priority areas identified in the Draft Action Agenda are of course priorities for Environment Canada and other agencies north of the border.

Given that the Puget Sound and Georgia Basin share a common airshed, common watersheds, a common home for migratory birds and fish, and common urban growth pressures, we recognize the importance of continued transboundary collaboration in addressing our shared challenges. To this end, we are pleased to see that one of the actions under Priority D is to “work cooperatively with Canada on management and scientific investigations to increase collaborative problem solving and information sharing” (D.3.8). A good example of this collaboration is the Joint Statement of Cooperation on the Georgia Basin and Puget Sound Ecosystem, signed in 2000 by Environment Canada and the US Environmental Protection Agency (Region 10).

We are also encouraged by the efforts to engage other “partners” (cities, state agencies, Puget Sound tribes, etc.) in implementing Action Agenda priorities and look forward to exploring opportunities to share information and lessons learned with agencies and groups on this side of our shared transboundary ecosystem. The upcoming 2009 Puget Sound Georgia Basin Ecosystem Conference presents one such opportunity. We are looking forward to co-hosting the conference and contributing to ongoing engagement and action on shared priorities.

Attached, for your consideration, are comments on specific areas of the Draft Action Agenda that we hope you will find useful. Please don't hesitate to contact me if there are any areas where we can provide further information.

Again, thank you for the opportunity to review the Draft 2020 Action Agenda. We look forward to its successful implementation and the opportunities it presents for continued transboundary collaboration in the Puget Sound-Georgia Basin.

## **Question 1 – Indicators of a healthy Puget Sound**

- The theme of indicators as metrics to measure success toward legislated goals and to support adaptive management from an ecosystem perspective is a theme that permeates the draft Action Agenda. It is significant that these indicators are strongly tied to ecosystem targets with specified dates as well as benchmarks to gauge progress and adjust management strategies in the interim toward targets.
- Six indicators are proposed for each of the targets, including shellfish growing areas, areas of farmland, toxics in pelagic fish, eelgrass status and trends, instream flows and salmon and steelhead status and trends. Overlap with the current Puget Sound-Georgia Basin transboundary ecosystem indicators, both in many metrics and the timing of reporting, may facilitate coordination of planning and implementation for both initiatives, and possibly transboundary decision making, which is the ultimate goal of transboundary indicators.
- The PSP website posts a provisional indicator chart updated on November 7, after the date of the November 6 draft. The following comments reflect the more current indicator chart:
  - The benchmark for shellfish growing areas is a net increase of 1,000 acres open for direct harvest each biennium and a net increase of 10,000 acres open by 2020. However, meeting the benchmarks state for each biennium will not yield 10,000 acres open by 2020.
  - Many studies have shown that once impervious surface area exceeds a threshold of about 10% to 15% of a watershed's area, serious ecological degradation can occur (Limburg and Schmidt, 1990; Imhof et al., 1991; Weaver and Garman, 1994; Wichert, 1994,1995; Moscrip and Montgomery, 1997; Wang et al., 1997, 2000). The target by 2020 for impervious area below 1000 feet is less than 120% of the 2001 level. It is unclear whether this target would yield impervious areas greater than 10% of the watershed's area.
  - ESU should be added to the list of acronyms as "Evolutionarily Significant Unit".
  - Increased flooding (as well as increased drought) events are expected to occur with climate change in the Puget Sound-Georgia Basin. A benchmark or target for instream flows to exceed minimum low flow levels during wet years does not seem strongly associated with ecosystem health if associated with climate change.
  - Environment Canada released an ecological screening assessment report on PBDE in June 2006 which revealed that PBDE levels in Canadian biota are rising with dramatic increases in tissue concentrations particularly evident over the last two decades. A benchmark reflecting 2004 PBDE levels in Georgia Basin herring and a target that PBDE levels in herring from south and central Puget Sound are not higher than levels in herring from the Strait of Georgia may not be associated with ecosystem health.

## **Priority A – Protect Intact Ecosystem Processes, Structures and Function**

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- We encourage Puget Sound partners to become familiar with the work of the Intergovernmental Partnership in BC and Alberta on the issue of land use patterns on aquatic habitats as described at [www.waterbalance.ca](http://www.waterbalance.ca).

### **A.1.3.1**

- Mapping ecosystem function at multiple scales is an approach that has been applied in the Georgia Basin as well. The shore zone mapping now available in BC and Washington is a good starting point but it might need to be a finer resolution in some priority areas and needs to be updated on a regular basis in order to provide trend statistics.

### **A.2.1**

- There is a great deal of related Canadian experience to draw on, both in terms of effective management of individual Marine Protected Areas (MPAs) and joint efforts by the Governments of Canada and BC to develop a coast-wide network or system of MPAs. There may be opportunities to link up the networks and consider a transboundary approach to MPAs in the Puget Sound-Georgia Basin ecosystem. The recent workshop on MPAs organised by the BC-Washington Coastal and Ocean Task Force provided an opportunity for Washington to learn from Canadian experience on the Pacific coast and will presumably contribute to the actions in this area.
- There are now two complimentary databases in BC of Crown and NGO conservation areas ([www.naturetrust.bc.ca/conservation\\_g.php#c5](http://www.naturetrust.bc.ca/conservation_g.php#c5)). The BC Conservation Land Forum provides efficient coordination of land securement and land management efforts of provincial and NGO agencies.
- The Pacific Coast Habitat Joint Venture ([www.pcvj.org](http://www.pcvj.org)) is actively engaged in establishing population targets for bird species and linking these to quantitative habitat targets, including acres of farmland. It is worth remembering that it is not just the extent of farmland that determines its habitat value, but also the type, timing and intensity of agricultural activities taking place (e.g. pasture vs. greenhouses).

### **A.2.2**

- PSP may be interested in looking at the experience and tools developed in BC around shoreline protection ([www.greenshores.ca](http://www.greenshores.ca)). As in Washington, BC faces the challenge of shoreline armoring especially in light of sea level rise.
- National Wildlife Federation and Ducks Unlimited Inc (both US-based) are both actively engaged in modeling sea level rise and resulting impacts on coastal habitat using the US EPA SLAMM Model, Version 5.0 (Sea Level Affecting Marshes Model). The Model and preliminary results are available at [www.nwf.org/sealevelrise](http://www.nwf.org/sealevelrise) and [www.spea.indiana.edu/wetlandsandclimatechange/SLAMM-View.htm](http://www.spea.indiana.edu/wetlandsandclimatechange/SLAMM-View.htm).

### **A.2.2.5**

- PSP may want to look at the Green Bylaws Toolkit (<http://www.greenbylaws.ca/>) developed in BC as a resource in the development of their model ordinances. While the regulatory framework is different the concepts could be shared.

### **A.3**

- The introductory remarks to this agenda item highlight concerns over impacts to surface water flow and groundwater in watersheds within the Puget Sound region, however the proposed action items focus primarily on instream flows (surface water) rather than the interaction of groundwater and surface water. Environment Canada has been engaged in regional aquifer studies in the Lower Fraser Valley for several decades and has an extensive aquifer monitoring program in the transboundary Abbotsford-Sumas aquifer, where land-use activities (primarily agricultural) have contributed to a degradation of groundwater quality with potential implications for surface water quality in streams that are hydraulically linked to the aquifer. More recently, Environment Canada has also been involved in the review of large-scale groundwater supply proposals, with a strong interest in the evaluation of potential impacts to instream flows.
- Some additional considerations for this section of the Action Agenda include:
  - Implementation of concurrent groundwater and surface water management strategies/plans rather than separately managing both parts of the hydrologic system.
  - Water balance studies for watershed should include both groundwater and surface water terms in order to effectively understand overall water availability
  - Source water protection for aquifer areas is important in the context of protecting groundwater users but also with respect to stream quality.
  - Engage in educational outreach on groundwater protection and the linkages between aquifers and surface water flows.
- Environment Canada hydrologists have conducted considerable work on how landscape and landscape changes affect streamflow characteristics. While much of this work is now national in scope, we are updating the detection of change in streamflow in the Georgia Basin-Puget Sound. These methods developed would be useful in predicting streamflow in watersheds where no data exists, and in validating projections made by others. Information and models developed would contribute to actions A.1.2 and A1.3 at a coarse scale.

#### **A.3.1**

- EC has partnered with an academic research group in the study of stream and riparian zone conditions and influences on water quality and groundwater/surface water interaction in the Lower Fraser Valley. EC is engaged in monitoring of transboundary aquifers and characterization of groundwater flow and groundwater/surface water interaction.

##### **A.3.1.1**

- An area that merits additional consideration is the assessment of instream flow rules within projected scenarios of climate change to see how they can continue to function as part of an overall watershed management framework that allocates water among several users. PSP may want to consider adding "...ensure instream flow rules are based on the most complete science pertaining to hydrologic processes, including the potential impact of climate change, and assessment of effectiveness of drought management and climate change adaptation measures" to this section/action.

##### **A.1.3.2**

- Consider the rare elements (species and ecosystems) as entities in addition to the on-the-ground occurrences of those elements to determine priorities for action. BC's Conservation Framework (in development) uses clearly defined scientific criteria to determine priorities and the most appropriate management actions for species and ecosystems of conservation

concern (<http://www.env.gov.bc.ca/conservationframework/whatis.html> ), and may provide some ideas for establishing priorities for action, and defining what those actions should be. IUCN also has a classification scheme for conservation actions at <http://conservationmeasures.org/CMP/IUCN/browse.cfm?TaxID=ConservationActions>.

### **A.3.2**

- Environment Canada is active in understanding impacts to groundwater quality in the Lower Fraser Valley (primarily in the Abbotsford area) and is working with stakeholders at provincial, municipal and industrial/agricultural sectors to reduce water quality impacts through improved land management in affected areas.
- An example of work in the Georgia Basin that may be of interest to PSP is the BC Ministry of the Environment Pilot Study in the Township of Langley. Under recent amendments to the BC Water Act, area-specific water management regulations are being implemented in an area of the Lower Fraser Valley that is experiencing declining groundwater levels in several key water supply aquifers with projected impacts to instream flow availability. Measures are being considered to improve regulations around groundwater use to help ensure the sustainability of the groundwater resources as well as the instream flows that are sustained by groundwater.
- Watershed stewardship programs are active in some areas of the Lower Fraser Valley, including educational outreach and water conservation incentives to improve action, awareness and public buy-in with respect to source water protection and conservation.
- Protecting instream flows through Puget Sound wide water conservation strategies may be challenging in the climate of the Pacific Northwest where there are no water shortages in most areas for most of the year. Addressing water shortages in a manner specific to the time and place they occur may be a more sellable solution with the public.
- British Columbia's Living Water Smart Plan(<http://www.livingwatersmart.ca/>) is an additional resource to consider in PSP's work on protecting freshwater resources.

### **A.5**

- The Spartina Driftcard Study (a BC-WA study) clearly illustrated that there is considerable movement of water between Puget Sound and Georgia Basin and outside of Juan de Fuca Strait. This is an area where increased transboundary cooperation on strategies may be beneficial in addressing invasives in the shared waters of the Georgia Basin-Puget Sound.

## **Priority B – Restore Ecosystem Processes, Structures and Functions**

### **B.3**

- A recent initiative in the East Kootenays might be of interest. Recently, Columbia Valley residents voted in favour of creating a Local Conservation Fund, a dedicated fund for the Upper Columbia Valley of up to \$230,000 annually through a \$20/parcel property tax. The East Kootenays Conservation Program is working with the Regional District of East Kootenay in the Upper Columbia Valley to establish this fund, with three proposed themes: fish and wildlife habitat conservation, watershed conservation, and open space conservation including family ranches and forested land ([http://www.ekcp.ca/EKCP\\_LCF.html](http://www.ekcp.ca/EKCP_LCF.html)).

- Also, see <http://www.islandstrustfund.bc.ca/naptep.cfm> for information on the Natural Area Protection Tax Exemption Program, which provides landowners with a 65% reduction in property taxes when they protect through conservation covenant (easement) sensitive ecosystems or other special features on their land.
- Environment Canada is interested in learning what methods are effective (and not) at expanding landowner participation in incentive programs.

### **Priority C – Reduce the Sources of Water Pollution**

- Environment Canada carries out long term water quality monitoring and we are looking at water quality trends in some Georgia Basin waterways. We also report on the status of water ways, using the Canadian Council of Ministers of the Environment (CCME) Water Quality Index. This is not something being used in the US; however, it does comment on water quality condition, relative to protection of aquatic life so may be useful. We also employ the CABIN (Canadian Aquatic Biomonitoring Network) approach to assess the biological condition of waterways. These approaches may be of interest to PSP for your work in the freshwater environment. Information and data on this work is available on the web at: <http://waterquality.ec.gc.ca/EN/home.htm>.

#### **C.1.1**

- The actions in this section could benefit from an approach that sees science /biology /toxicology move forward as one. Human waste will continue to be the major input into sewage treatment plants and any reductions in pharmaceuticals and personal care product inputs to this will require not only outreach with the public, but also work with the pharmaceutical industry to design products that are non-biologically active to aquatic organisms. Infrastructure research and engineering new technology for sewage treatment of pharmaceuticals and other emerging chemicals (nanomaterials) is also needed.
- Recommend that a “biological” bioassay using “omic” technologies and relevant species for each trophic level be developed to provide a “canary in the mine” detection to alert regulators of potential problems with drugs and their metabolites that will cause food chain level toxicological effects.

#### **C.1.2.1**

- While transboundary mechanisms for dealing with emergency oil spill response are in place (CANUS-WEST and CANUSPAC), cooperating with research on chronic oiling such as through the Birds Oiled at Sea program (BOAS) is also necessary to better understand and address impacts on water quality in our shared waters and the fish, birds and mammals that inhabit them.

#### **C.1.2.4**

- Environment Canada has carried out work estimating the benefits associated with air quality improvements. This work has benefitted greatly from partnerships formed through the BC Lung Association.

#### **C.2**

- Metro Vancouver is currently planning an ambient monitoring program for Boundary Bay and has already approached PSP with regards to collaboration opportunities. Details of the ambient monitoring program are not yet known, however stakeholders from across the

region are meeting in December to discuss the program in more detail. This initiative could potentially contribute to some of the action items under this section of the Action Agenda, or at least have related outcomes.

### **C.3.1**

- Not discussed in this section are the bio-solids (sludge) from the wastewater treatment facilities. These are prime sources for estrogenic compounds. Greater investigations are warranted in this area to prevent potential contamination from land based applications and eventual leaching of the chemicals into water ways. This is particular relevant to the Pacific Northwest with the huge amounts of rainfall we get.
- The section acknowledges that wastewater treatment facilities are outdated. Puget Sound has an opportunity to invest in innovative science and engineering to build and treat for not only the conventional issues of BOD, low dissolved oxygen and nutrient but also the low level concentrations of the estrogenic compounds that are making their way into the receiving waters of Puget Sound.

### **Priority D – Work effectively and efficiently together as a coordinated system to ensure that activities and funding are focused on the most urgent and important problems facing the region.**

#### **D.1**

- Environment Canada is interested to learn about PSP's experience, after the action agenda is in place and some analysis is done on realigning programs, what was most effective (and not) in realigning existing programs.

#### **D.2**

- Environment Canada conducts studies that address detection and projection of the impacts of climate and land use changes on hydrology as part of the national Water Cycle Prediction program. Statistical and dynamic downscaling from GCM and RCMs are being developed to improve assessment of future impacts of climate, and studies and research on land use change can also contribute. In the Georgia Basin-Puget Sound, it is critical that these are not separated as the scale of the effects of urbanization and other land use conversions may be greater than the climate driven impacts.

#### **D.2.2**

- There is an opportunity to consider the integration of the West Coast Governors' Agreement with the Action Agenda more broadly than just with respect to climate change adaptation, as there are many areas of overlapping or complementary interest (e.g. combating pollution and marine debris, improving oil spill prevention and response, improving coastal air quality, and marine and estuarine habitat protection and restoration).

#### **D.2.3**

- Engineers Canada recently did a national engineering assessment of the vulnerability of Canadian public infrastructure to changing climate conditions. One of the case studies was the vulnerability of the Vancouver Sewerage Area Infrastructure to Climate Change ([http://pievc.ca/e/Appendix\\_B.3\\_Metro\\_Vancouver\\_British\\_Columbia.pdf](http://pievc.ca/e/Appendix_B.3_Metro_Vancouver_British_Columbia.pdf)).
- To meet the climate change challenge, Engineers Canada and its partners have established the Public Infrastructure Engineering Vulnerability Committee. Co-funded by Natural

Resources Canada (NRCan) and Engineers Canada, the Vulnerability Committee is a major Canadian initiative involving all three levels of government and non-governmental organizations. It is looking broadly and systematically at infrastructure vulnerability to climate change from an engineering perspective. The Committee's work will result in the First National Engineering Vulnerability Assessment.

#### **D.3.8**

- The EC-EPA *Joint Statement of Cooperation on the Georgia Basin and Puget Sound Ecosystem* has provided a vehicle for transboundary information sharing and problem solving. The 2008-2010 Action Plan: Initiatives for the Salish Sea outlines some specific actions that will be undertaken over the next couple of years, including ongoing work on transboundary indicators, aligning of work plans with the Coast Salish Gathering and the BC and Washington Coastal and Ocean Task Force and facilitating transboundary demonstration projects. We look forward to PSP's ongoing participation on the Statement of Cooperation Working Group and as co-host of the Puget Sound Georgia Basin Ecosystem Conference.
- Suggest changing Puget Sound Georgia Basin "Research" Conference to "Ecosystem" conference to reflect the change in title.
- One area that could benefit from improved transboundary coordination is climate change. There is an opportunity for this currently fragmented community to build greater cohesion through a workshop or network, as is being developed by the Climate Impact Group out of the University of Washington.

#### **Priority E. Build and implement the management system to support the implementation and continual improvement of the Action Agenda.**

##### **E.1.3**

- This section calls for the development and implementation of an information management system to support ecosystem management decision making. The transboundary indicators group is also currently examining possibilities for an information system that will facilitate future updates and stronger linkages to decision making. The intent is to facilitate timely information exchange among scientists and policy makers.

##### **E.3**

- It would be interesting to explore monitoring efforts that are consistent on both sides of the border. The Coastal Waterbird Survey is being run by Bird Studies Canada on the BC coast using volunteer citizen monitors, and there has been some talk of Audubon running the program in the Puget Sound region. If the two programs could be run so that data could be consolidated and compared across the border, it would help facilitate communication.

##### **E.3.1 and E.3.3**

- These sections recognize the value of strong linkages among indicators, monitoring and reporting. Specific references to the transboundary indicators are not made, however these should play a key role in reporting on the State of the Sound. Consistent between PSP and transboundary indicator initiatives are near term plans to develop projections of future scenarios based on historical data and conduct spatial analyses to evaluate current ecosystem status, threats and drivers to inform management decisions.

#### **E.4.3**

- This section talks about strengthening K-12 environmental programs. PSP has the opportunity to involve young people in many aspects of the plan and its implementation. Today's youth will be implementing the action agenda in the decades to come, so we need them on board and engaged at all ages. Another important group to be considered are young adults (post grade 12 – college and university students).
- The Implementation Table lists no near-term actions for Priority E, where Environment Canada and EPA may be identified as partners for their role in transboundary indicators (through the EC-EPA Joint Statement of Cooperation).

**Puget Sound Partnership**  
our sound, our community, our chance



**UNITED STATES DEPARTMENT OF COMMERCE**  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Northwest Fisheries Science Center  
2725 Montlake Boulevard East  
Seattle, WA 98112-2097

November 20, 2008

Mr. William Ruckelshaus  
Chair, Leadership Council  
Puget Sound Partnership  
P.O. Box 40900  
Olympia, WA 98504-0900

Dear Mr. Ruckelshaus:

This letter, on behalf of all NOAA offices in the Pacific Northwest, provides comments on the *DRAFT 2020 Action Agenda for Puget Sound*. We recognize that the Action Agenda is the result of extensive outreach and considerable input. It involved a great deal of effort by the Partnership to synthesize the comments to develop this important step in setting an agenda for recovery. We appreciate the opportunity to comment.

NOAA is encouraged that the Partnership has described the issues facing Puget Sound clearly and that it has outlined tangible objectives for the recovery of the Sound. The *DRAFT 2020 Action Agenda* does well in taking a comprehensive look across all issues facing the Sound, tackles difficult issues, such as stormwater impacts, and correctly identifies the recovery of species, such as Chinook salmon and Puget Sound Orcas, as high priorities. Like all major projects completed under a short timeframe, there are areas for improvement. We would like to touch on a few of those and have included additional suggestions as an attachment.

As you move forward through these tough economic times, we would like you to consider our offer of further using NOAA's expertise in ecosystems, climate, weather, coastal mapping, bathymetry and marine research as you continue to build and deploy the Action Agenda. The agencies that stand ready to assist, in addition to NOAA's Fisheries Service, include NOAA's National Ocean Service, Office of Oceanographic and Atmospheric Research, Office of Marine and Aviation Operations and National Weather Service.

We agree with you that improved accountability is a cornerstone for success. NOAA is relying, for example, on scientifically sound monitoring and adaptive management programs to guide implementation of actions for the recovery of ESA-listed species and for other program goals and it is critical that our mutual efforts be sustained and funded. To this end we concur with your characterization of the Partnership's indicators as "provisional". In our view, the Action Agenda should include information on how scientific data or principles were used to inform the selected targets and benchmarks, thus illustrating their foundation. The basis for selection of the



benchmarks related to lowland forest loss, gain in impervious service, improvements in eelgrass habitat, toxics levels in forage fish, and instream flows, would benefit from more explanation. We find these to be some of the key benchmarks for species and their habitat under NOAA trust responsibility.

As noted, we recognize the tight time lines that the Partnership is under to have this first draft completed and again commend your efforts. This tight timeline, however, also limited our ability to conduct a comprehensive review of all of the material in the *DRAFT 2020 Action Agenda*. We reviewed the DRAFT published on the Partnership's web-site on November 6, 2008. We look forward to continued collaboration with the Partnership as the *DRAFT* is finalized and implementation begins. Please contact us if you have questions about this letter or would like to discuss further.

Sincerely,



D. Robert Lohn  
Regional Administrator  
Northwest Region

and



Usha Varanasi, Ph.D.  
Science and Research Director  
Northwest Fisheries Science Center

On behalf of the National Oceanic and Atmospheric Administration

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At Question 2 Species and Food Webs: the proposed Action Agenda measure states that the “target is to have two to four viable populations in five regions by 2055.” NOAA requests that the target be modified to read “target is to have two to four viable populations of Chinook in *each* of five regions by 2055”. We further recommend that the Action Agenda establish interim targets for evaluating progress in 2020 toward the longer-term (2055) Chinook recovery plan goals.

At Question 2, the proposed Action Agenda measure for freshwater resources states: “The 2020 target is to have instream water flows in wet years that exceed established minimums in all watersheds.” NOAA recommends this measure be modified to consider the full range of hydrologic and climate conditions affecting Puget Sound watersheds. We suggest the measure be revised to evaluate the adequacy of instream flows for ecosystem function and species needs in both wet and dry years.

Question 2/Page 1- Suggest a change from "starving orcas" to "endangered orcas". Although we have identified prey availability as a potential threat to the whales, we do not have evidence at this time that the whales that disappeared from the population died of starvation or that the current population is starving.

Question 2/Page 3- "More losses of southern resident killer whales occurred this year, possibly from hunger stemming from a lack of salmon." Similar to the above comment, we do not know the whales that disappeared were hungry from a lack of salmon. Suggest a change to ...possibly related to changes in salmon availability.

Question 2/Page 4, last sentence- Suggest a change from "starving resident orca" to "endangered resident orcas"

Question 3/Page 29- D.1.5 "Make the southern resident killer whale plan actionable with assignments and implementation timelines and implement the plan." There are many actionable recovery measures identified in the southern resident recovery plan with responsible parties and timelines listed in the implementation schedule. A number of these measures are currently underway. The actions are being implemented by NOAA and a variety of partners and include development of vessel regulations, preparing a plan for oil spill response, education and outreach programs, and an active research program to address the data needs identified in the plan. The recovery plan identifies an adaptive management approach to prioritize, refine and implement additional actions as more information becomes available. We suggest a change to: “Implement the southern resident killer whale recovery plan and continue to prioritize and identify actionable recovery measures with assignments and implementation timelines.”

Responsibility for species under the ESA is a mandate for NOAA. We offer the following language for Partnership consideration in the Strategies (at Introduction page 3 and elsewhere): at Priority B, “Protect the intact ecosystem processes and species that sustain Puget Sound”, and



at Priority C, “Implement restoration projects that will reestablish ecosystem processes and recover species.” We believe these changes would strengthen the prospects of both species and ecosystem recovery.

NOAA is pleased to see that there is a recommendation under Priority C Near Term Actions page 23 for establishing a regional coordinated monitoring program for stormwater. It is important to integrate monitoring of water quality, habitat, and other ESA requirements so that duplication is eliminated between municipal, county, state, tribal, and federal monitoring programs.

NOAA supports the development and implementation of the Steelhead Recovery Plan identified under Priority D Near term Actions as soon as possible. Steelhead have a potentially greater impact upon the management of the Puget Sound basin because they enter smaller watersheds and move higher into watersheds than do Chinook salmon.

The item D.3.1.2, "Clarify and align the roles and responsibilities of the numerous collaborative planning and implementation groups...." in Puget Sound is an ambitious and admirable proposal. NOAA supports coordinated implementation of local and regional plans where possible, with the expectation that such collaboration will facilitate more rapid and successful achievement of plan goals.

NOAA supports the Near Term Action under Priority E calling for the finalization of the salmon recovery adaptive management plan. The current Shared Strategy Monitoring and Adaptive Management Plan (MAMA) needs to be completed to fulfill ESA requirements. The MAMA plan should include specific information about which salmon populations are to be monitored, where, and by whom.

NOAA recognizes that the Partnership legislation targets recovery plan implementation for Chinook salmon in Puget Sound, but not other listed salmonids. Because ESA-listed Summer Chum occur in a substantial portion of the Action Agenda area, there is a need to coordinate recovery plan implementation across Evolutionarily Significant Units (ESUs) and recovery planning areas. NOAA recommends the Partnership and Hood Canal Coordinating Council coordinate on Puget Sound Chinook and Hood Canal Summer Chum salmon recovery plan implementation in areas where the ESUs overlap.

At E.3 near term action number 11, NOAA recommends the PSP add a description of how the indicators, including salmon recovery information, will be reported to NOAA Fisheries Service for evaluation of ESA status. This section of the near term action agenda describes assembling and synthesizing findings in mid-2009 for the State of the Sound report. NOAA believes the information gathered for the State of the Sound report could also inform NOAA’s species evaluations and we would welcome review of the report.

At Question 3/Page 16 Bullet 1 at top of page NOAA recommends that Partnership consider including some of the following language:



The Action Agenda emphasizes the implementation of salmon recovery projects and identifies the restoration of Puget Sound estuaries as important to the ecosystem.

Restoration funding should be based on a prediction of restoration action outcomes. Uncertainty in those predictions should be identified through efficient science-driven review of restoration projects, and capital programs organized to evaluate and resolve those uncertainties to improve the effectiveness and efficiency of future restoration investments.

The potential ecosystem scale effects of large actions should also be considered. By designing one or more of the large estuary restoration projects as experimental treatments that can be measured, scientists and resource managers would be better poised to answer whether actions work as planned; the role of nearshore biology, physical processes, and functions in the broader ecosystem context; and what findings can inform similar projects around Puget Sound.

We recommend that the Partnership consider the following additions/suggested changes to near term actions:

B.2 - Natural Resource Damage Assessments (NRDA) provide a mechanism for identifying potentially responsible parties who through criminal activity or negligence have injured the public, and for negotiating settlements to make the public whole through remediation and restoration. This has resulted in over \$30 million in restoration and protection activities in industrialized estuaries in Puget Sound. With support this effort could be expanded.

Add B.2.3: Complete an inventory and prioritization of sites identified under federal CERCLA statutes and support state, tribal and federal programs that collaborate to complete priority Natural Resource Damage Assessments and Restoration activities.

Mitigation and certain restoration activities frequently suffer from lack of long-term stewardship. Existing budget mechanisms do not provide mechanisms to support stewardship of habitat in perpetuity. Five-year compliance is insufficient. With state assistance, an innovative strategy being developed with the Duwamish Waterway NRDA Trustees could provide a model for integrating long-term stewardship into existing mitigation and NRDA systems.

Consider the following for B.2.4: Within Duwamish Waterway and Commencement Bay, provide for long-term stewardship of NRDA and mitigation sites through establishment of a long-term stewardship trust that funds community-based stewardship of habitat sites.

B.3 - Existing restoration activity can directly engage communities in exciting and inspiring stewardship of their local watersheds. Field-experienced restoration professionals are critical



resources for increasing high quality technical assistance. Linking restoration action and community engagement creates synergy, reinforcing both activities.

Consider the following for B.3.1: Implement coordinated incentives, training, and technical assistance programs for private landowners through the Conservation District, WSU Extension, and local governments. Integrate this coordinated outreach into existing restoration project activity and professional expertise, using community-involved restoration to leveraging adjacent private landowner action.

D.3 - Marine Resource Committees (MRC's) are a unique and irreplaceable effort to bring diverse stakeholder groups into ecosystem recovery, and to support counties in consideration of impacts of county regulation on marine habitats.

D.3.2 - Consider adding MRC's to the list of those recommended for collaborative support. Fund salmon recovery and other collaborative groups, such as Regional Fisheries Enhancement Groups, Marine Resource Committees, and 2514 watershed planning groups, in the near-term to allow them to continue existing work.

Existing high priority action agenda efforts like the Estuary and Salmon Restoration Program are directly engaged and supported by federal programs like NOAA's Community-based Restoration Program, and these programmatic links should be valued and improved as part of building a diverse federal interest in Puget Sound Ecosystem Restoration.

D.3.6 – Consider modifying to read: Inventory and actively support appropriations to federal agency programs that are actively coordinating with state and local partners to implement Action Agenda priorities, like NOAA and USFWS support for Nearshore Ecosystem Restoration, and NOAA support for Salmon Recovery.

The following comments have been provided for your consideration in revising the benchmarks and targets.

NOAA recommends additional description and documentation be added to the Action Agenda to establish the relationship between the proposed targets and benchmarks for lowland forest and impervious surface area, and ecosystem recovery by 2020. The current proposed targets for lowland forest area and impervious surface area, of “no more than a 10% decrease in lowland forest area (from the 2001 area) or no more than a 20% increase of impervious surface area (from the 2001 area” appear to need additional scientific documentation.

NOAA recommends the targets and benchmarks for eelgrass be further refined to be able to be directly linked to improvements in eelgrass status and trends. The current target for eelgrass of “having a greater number of sites with increased eelgrass than sites with less eelgrass” appears somewhat imprecise, since the sites could be of different size.



NOAA observed that the PSP's proposed indicator for percent exceedance of instream flows does not mention needed flow in dry years. NOAA recommends revision of the target to be based on flow levels that are adequately protective of ecosystem functions and species. The same principle applies to the benchmark for the instream flow provisional indicator. The 2020 target for instream flow protection states that instream flows should "exceed minimum levels set by rule or other agreement." The proposed target assumes the rules or agreements are sufficiently protective of ecosystem functions and species to support recovery by 2020. Because instream flow rules are typically set to achieve multiple objectives for both species protection and consumptive uses, the proposed target may not lead to improved ecosystem functions nor species protection by 2020 as desired.

NOAA recommends the PSP consider further refining the targets and benchmarks for toxics in pelagic fish. The proposed targets relate to meeting an unspecified level of toxics in herring in the Strait of Georgia without (apparently) first establishing that the level in the Strait of Georgia is adequate. Using toxic load levels in herring may be an appropriate target or benchmark, but NOAA believes additional refinement and scientific documentation would strengthen this target.

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**From:** Elizabeth Babcock, NOAA

**Comment:** We will be submitting a letter to the Partnership that reflects input from several line offices of NOAA, not just the National Marine Fisheries Service. As such, the comments are at a more general or thematic level, rather than a specific and comprehensive one. We offer suggestions for improving the 2020 Action Agenda measures related to habitat restoration and nearshore protection, instream flows, adaptive management, and the salmon recovery plan. We offer NOAA's technical and management expertise to the Partnership as implementation proceeds.

I wanted to propose some additional ideas for your discussion with the RC on Thursday:

NOAA recognizes that the Recovery Council and watershed leads, in coordination with the tribal governments and watershed partners, are uniquely positioned to implement the recovery plan and monitor progress toward salmon recovery goals. We believe it will be important for the Partnership to continue to support to the watersheds and the Recovery Council as implementation proceeds.

We believe that completion and implementation of a scientifically-based monitoring and adaptive management program for the recovery plan is absolutely critical and needs to be a high priority for both the Recovery Council and the Partnership in 2009-11. NOAA will help you as you and your team continue your effort to complete this work. As I said at the retreat, NOAA is not as well positioned to develop and implement this work as your team is. We do, however, have a responsibility to ensure that a monitoring and adaptive management program gets implemented and assists in the evaluation of the status of the species and habitat in Puget Sound. This is a fundamentally important part of the overall recovery approach, and NOAA likely would need to step in to develop the specifics of such program if it were not produced through the existing technical teams at the watershed and regional level.

Finally, there were a few specific statements in the draft 2020 Action Agenda that I want to be sure your members are aware of, should they choose to comment on them. Under Species and Food Webs, Question 2, the Action Agenda measure states "....The target is to have two to four viable populations in five regions by 2055." Clearly, the RC would expect the target for this measure to be two to four populations in each of five regions. Also, if the agenda is striving for recovery by 2020 and the salmon recovery plan aims at 2055, some reconciliation of the goals is needed. We don't want to be at the year 2020 and be on a trajectory that would not lead to success by 2055, but have to wait 35 years to confirm that reality. Interim targets are needed to make this section of the Action Agenda more useful and credible.

NOAA made some specific comments about the instream flow protection section of the 2020 Action Agenda as well. The language under Question 2 pertaining to Freshwater resources states that the Action Agenda measure is "...to have instream water flows in wet years that

exceed established minimums in all watersheds." What about dry years? We suggest the Action Agenda measure consider the full range of hydrologic and climatic factors the watershed may experience. We also recommend the target and benchmark for instream flow be modified to be more precisely worded and thus protective of listed species. The current wording is based on flows set by rule or agreement rather than based on flow levels that are protective of species and habitat.

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Topic: Comments to Draft 2020 Action Agenda for Puget Sound

To: Puget Sound Partnership

From: Seattle District Corps of Engineers

### **General Comments**

We recognize that the Draft Action Agenda provides a starting point for restoring the health of Puget Sound by 2020 and include in this section general suggestions that may serve to improve the overall plan.

While we acknowledge that the state legislated deadline constrained the available time for review, we had difficulty reviewing the document due to the short review period and to Action Agenda version changes made after the initial Nov. 6<sup>th</sup> release. We identified that different versions were posted on the website for review between November 6-13, 2008, which made it difficult to respond to specific sections of the document. We responded to the November 13 version unless otherwise noted in the comments.

- Proposed federal actions in the draft Action Agenda will require that NEPA requirements be satisfied prior to implementation of those actions. We suggest that the Federal Caucus or participating federal agencies could be charged with preparing the necessary NEPA documentation with reviews prior to implementing the proposed programs, projects, and activities.
- Individual Action Agenda recommendations are loosely organized around very broad objectives with weakly explained rationale for selection. An objective reviewer can not determine what trade-offs were considered before the recommendations were determined. Also, if all recommendations are fully implemented, it is unclear what outcome will result. While there are some simple indicators in the introduction, the individual Action Agenda recommendations are not linked back to the overall indicators. Please revise to note whether all recommendations each support all indicators or, whether some individual recommendations support a subset of the overall indicators.
- The Action Agenda appears to focus on restoration opportunities in lieu of restoration planning (e.g. Priority B introduction found on Q3, page 16- and Priority B.1.3 found on Q3, page 17). Suggest that by shifting the emphasis to planning efforts which shape restoration, significant progress can be achieved. If we keep working only where opportunities exist we will perpetuate the "random acts of kindness" approach that characterizes so many current restoration actions.
- We suggest that briefly discussing the lessons learned from previous Puget Sound restoration plans and applying those lessons to the current situation would be useful. For instance, the Puget Sound Estuary Plan as adopted by the

EPA national estuary plan as a Comprehensive Conservation and Management Plan was developed under a similar process as the Action Agenda with many of the same threats or concerns identified. In fact it contained many of the same programs and action items that this plan contains. We suggest that identifying barriers to implementation from past plans will result in a more robust Action Agenda.

- The many existing environmental regulatory laws at the local state and federal level with an enforcement component are an important component for a robust regulatory program. However, existing enforcement programs are often hindered by lack of personnel and funding. We suggest partnering with regulatory agencies to develop a comprehensive approach to enforcement, establishing specific goals, to leverage limited agency resources. This, paired with a strong educational program that underscores the importance of regulatory efforts would support the PSPs message of the need to restore Puget Sound by 2020.
- Current economic incentives (i.e., property taxes, flood insurance) to develop in sensitive areas of Puget Sound should be addressed in the Action Agenda. We suggest that once economic incentives are removed the trend to exploit these important habitats will diminish.

### **Specific Comments**

*1. Question 1, page 4, provisional indicators, Toxics in pelagic fish.*

This section appears to have a narrow focus on both pelagic fish and PBDE. There are health advisories in both the Duwamish and Commencement Bay for Salmon and shell fish. Some of these are forage fish for the endangered Orca and have bioaccumulation concerns as well. Chemicals such as PCBs and mercury are of real concern and tissue concentrations would make excellent indicators as well as excellent goals. Reference your discussion on Question 2, page 2 current condition under human health.

*3. Question 3, Page 5 Protect Intact Ecosystem Processes, comprehensive protection strategies.*

Please identify mechanisms for protection, which appears to be the focus here.

*4. Question 3, Page 6, A.1*

We suggest increased involvement with GMA plans as they are meant to address many of these issues.

*5. Question 3, page 8, A.2*

The Plan discusses protection but does not explain a strategy or method to achieve protection. It would help to identify the mechanism (i.e., legislation, purchase) for protection.

*6. Question 3, Page 34, D.4.1.5*

There currently exists a streamlined permit process for habitat restoration projects. For the Clean Water Act there is a Nationwide permit and a programmatic ESA consultation. There is also a coordinated JARPA process that ensures all of the regulatory agencies are talking to each other. One word of caution, you still need review and provide oversight for restoration since not every project identified as a restoration project is beneficial to the environment. Sometimes near-shore development comes in the guise of “restoration”.

*7. Question 1, page 3, table and Question 2, page 2, Human Health, Action Agenda Measure.*

Suggest including Tribal and recreational shellfish growing areas are they are equally as important and are an indicator of the health of Puget Sound.

*8. Question 3, page 5, Priority A, Current situation.*

The concept of looking at ecosystem processes fits in quite well with the Corps and EPA’s new mitigation rule for a watershed approach to assessing and approving mitigation proposals.

*9. Question 3, page 7, A.1.3.*

Suggest partnering with the Mitigation that Works’ initiatives in developing and using watershed characterizations.

*10. Question 3, page 7, A.1.3.1.*

This work needs to also be performed in collaboration with Federal, state, and tribal entities.

*11. Question 3, page 7, A.1.3.4.*

Using the phrase “Incorporate the findings into federal ... regulations” makes this sound like a foregone event with no input required and/or desired from the federal agencies, even with the caveat “as appropriate”. We suggest making this a collaborative effort and as the comment above states, include all parties in the development and analysis of the watershed characterization studies.

*12. Question 3, page 9, A.2.2.*

Please discuss Federal regulatory programs as they will influence the PSP’s ability to make the changes as shown.

*13. Question 3, page 21, C.1.*

In item 7, need to also list tribal shellfish areas.

*14. Question 3, page 33, D.4.1.1.*

Amending, realigning, or eliminating the Clean Water Act or the Rivers and Harbors Act may prove to be very difficult and time consuming, at best. We suggest that we first use the new tools (e.g., mitigation rule), and existing programs such as those listed in D.4.1.3 to support the needed changes before seeking reauthorization of existing national environmental legislation.

*15. Question 3, page 33, D.4.1.3.*

The description of the different types of general permits as written is incorrect. Both types of general permits require the actions to be authorized be similar in nature and minimally impacting both individually and cumulatively. Both also could require mitigation. Regional general permits (RGPs) are very similar to the Nationwide permits proposed by Corps HQ, the geographic scope is just smaller, a region. This allows them to take into account more of the local issues when putting together the terms and conditions. The programmatic general permits (PGPs) are used to avoid duplication with an existing Federal, state, or local agency's regulatory program. For example, King County has a very strong regulatory program that is protective of aquatic resources, including wetlands. The Corps could issue a PGP to King County to avoid the duplicative review of both King County and the Corps. The advantage of RGPs and PGPs when compared to NWPs is that the Corps will complete at least the ESA consultation and at least set up the process for the Section 106 consultation as a part of the authorization. This greatly speeds up the review of permit applications. Please revise this section for accuracy.

*16. Question 3, Page 35, D.4.*

In Item 3 please include Section 10 of the Rivers and Harbors Act in the list of permits required from the Corps. As much of the work could take place in Puget Sound proper and other designated navigable waters Section 10 authorization will be required in addition to any 404 authorization.

In Item 6, the in-lieu fee program needs to look at more than just restoration projects. Creation, enhancement, and preservation can also be components of a viable in-lieu fee mitigation program. Also, discussions are still on-going regarding the appropriate sources of money to pre-capitalize the program. Care needs to be taken to not use funds that would cause "double dipping" to occur. The new Mitigation Rule has some restrictions related to Federally funded restoration projects. Suggest changing the wording to "pre-capitalized with appropriate funding sources".

*17. Question 3, page 38, Rationale for Action.*

If the last sentence of the first paragraph is meant to imply that the "implementers" (the regulatory agencies) will need to align their reporting requirements to meet PSPs standards, regardless of what programs or agency requirements are in place, then this action appears unrealistic. For the Corps, we have a nationally mandated tracking program that we are required to use and therefore, we can only provide the information available in that system. Additionally, the Corps does not have staffing to enter information into another system. Reporting requirements need to be developed in collaboration with the regulatory agencies and take into account their constraints. This comment also applies to E.1., Item number 13. For the US EPA Data Exchange, which is not widely understood or explained in the Action Agenda, to be used, then legacy data from existing systems must be able to be electronically transferred into the Exchange across agency databases.

*18. Question 3, page 51.*

The number of geographic action areas in the first and second paragraphs does not match. Please clarify whether it is 7 or 8 geographic areas.

*19. Near-term Action D.3.1 (Question 3 page 32 of 6 Nov 08 draft version).* Please revise to read as follows: "Integrate the work of the Puget Sound Nearshore Partnership (PSNRP), including the Estuary and Salmon Restoration Program, into the Puget Sound Partnership to focus sufficient state, federal, tribal and non-profit organizational resources on Priority A and B sites identified during the investigation."

*20. Near-term Action B.2 (Question 3, page 17).*

Suggest Deschutes Estuary (Capitol Lake) Restoration or Bremerton Waterfront Improvements would also be good candidates for revitalizing waterfront communities in the near-term.

*21. Near-term Action A.4.1 (Question 3, Page 13).*

Please replace "conversation" with "conservation."

*22. Question 3, page 16, Priority B, Rationale for action, Improving strategies and actions over time, second paragraph of bulleted section.*

The sentence should begin: "The ability to model future ecosystem impacts ..."

*23. Priority D, Current Situation, 1st bullet (Q3, page 27).*

Suggest the first sentence would be more accurately stated by adding "sole" before "mission", so it would read in part ...."until the Partnership was created, no single entity had the sole mission to protect and restore Puget Sound."



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10

1200 Sixth Avenue, Suite 900  
Seattle, WA 98101-3140

REGIONAL ADMINISTRATOR

November 21, 2008

Mr. William D. Ruckelshaus  
Chair, Puget Sound Partnership Leadership Council  
P.O. Box 40900  
Olympia, Washington 98504-0900

Dear Mr. Ruckelshaus:

Thank you for the opportunity to comment on the *Draft 2020 Action Agenda for Puget Sound* (Agenda). The document represents an important milestone in the history of Puget Sound. EPA is pleased to offer our overarching comments in this letter. More detailed comments have been provided directly to staff.

We appreciate the Leadership Council's recognition that the new Action Agenda must constitute a significant change from past approaches that have only slowed the deterioration of Puget Sound. The draft Agenda offers an extensive array of proposed actions and places an appropriate emphasis on protection of intact ecosystem processes, structures, and functions, as well as restoration and prevention activities. However, we believe the final Agenda should incorporate (1) a greater degree of *focus* to the "near term" actions compiled under Question 4 - "Where do we start?" and (2) stronger accountability mechanisms to assure progress. The comments below relate to these two themes and we encourage the Partnership to take these into account as you modify the Action Agenda for release on December 1<sup>st</sup>.

**1. A More Focused "Where do we start?"** The "Guiding Principles for Ecosystem Management" listed (Question 3, p. 4) provide an excellent framework for developing a recovery strategy, but the Agenda needs to provide a clear schedule and aggressive target dates for actions over the next 12 years to achieve the goal of a healthy Puget Sound by 2020. The draft response to Question 4 more or less aggregates the near-term actions presented under Question 3. The December 1<sup>st</sup> Agenda should provide a sharper focus to get the Partnership off to a strong start. We suggest the following be included in a more focused list of priorities:

**Local Watershed Protection Framework** A.1.3. It is critical to integrate protection, restoration and prevention activities with sound land use decisions by local governments. While the high level characterization studies proposed in A.1.3.2 are being conducted, local governments will continue to make land use decisions that have long term effects on the health of Puget Sound. We recommend the Partnership establish the expectation of planning and action at the local/watershed scale consistent with the framework in Ecology's draft "Protecting Aquatic Ecosystems by Understanding Watershed Processes: A Guide for Planners" (June 2008). The Partnership should then identify watersheds with high quality resources and high

growth pressure and direct necessary funding to these areas to assure local decision makers have the information they need to accommodate expected growth while protecting Puget Sound.

### **Stormwater**

1. (1)The Agenda should recommend (rather than “investigate” as worded in C.2.2.2) expansion of the geographic scope of National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) program within the Puget Sound basin.<sup>1</sup>
  2. C.2.2.3 and C.2.2.4. To achieve more rapid and thorough implementation of LID, the Partnership should set forth a firm set of state and local actions with short and longer-term timeframes and accountability. LID should become the accepted standard practice for Puget Sound over the next 2-4 years.
- **Persistent bioaccumulative toxics**
    1. C.1.1.4. should reflect that air deposition of polybrominated diphenyl ethers (PBDE) represents ~90% of the current loading to Puget Sound, and air sources of polycyclic aromatic hydrocarbons (PAHs) are also very significant.<sup>2</sup> Thus, under C.1.2.4., air quality management plans should be strengthened, as necessary, to address these toxics and then implemented.
    2. C.1.3. Ecology should list waters as impaired under Clean Water Act 303(d) based on biological and toxic information. As stated in our letter to Ecology, dated October 27, 2006,<sup>1</sup> Ecology has the authority to do this now, and EPA remains willing to assist. This would help drive protection and restoration work in areas where individual pollutant levels are within standards but the cumulative impact of all the pollutants are having severe effects on the ecosystem.
  - **Nutrients** During the critical growing season for algae, 80% of the nitrogen loading to south Puget Sound comes from municipal point sources.<sup>3</sup> Before the problems in South Sound become as severe as Hood Canal, Ecology should update its definition of All Known and Reasonable Technologies (AKART) for wastewater treatment and require advanced wastewater treatment where nutrient discharges degrade water quality.
  - **Enforcement** Although compliance is addressed in 3.D.5, enforcement, which is one of the drivers for compliance, should be included explicitly as a priority near-term action. The Partnership should send a strong message that it expects federal, state and local regulatory agencies to enforce their regulations now and not wait for changes to existing rules.
  - **Capacity Building** D.3. There is a strong need for a structure or mechanism to make available the best information and technical support to local and tribal governments as they plan for growth while protecting the natural resources of Puget Sound. We recommend including the development of a center (or centers) similar to what has been proposed by the Puget Sound Local Integration Task Force and EPA.

<sup>1</sup> EPA’s letter to Jay Manning, dated Oct. 27, 2006, and the draft Action Agenda itself justify action now.

<sup>2</sup> *Control of Toxic Chemicals in Puget Sound -- Phase 1: Initial Estimate of Loadings*, Ecology 07-10-079, November 2007.

<sup>3</sup> *South Puget Sound Dissolved Oxygen Study – Data Report*, [http://www.ecy.wa.gov/puget\\_sound/dissolvedO2\\_datareport.html](http://www.ecy.wa.gov/puget_sound/dissolvedO2_datareport.html).

- **Monitoring (E.3.1) and Information Management (E.1.3)** should be Question 4 priorities and adequately funded as a baseline requirement for an accountability system (priority E isn't in the Q4 discussion now).
- **Communication (E.4)** As the Agenda places such an emphasis on public awareness and personal (and we would add, corporate) stewardship, we suggest it be a Question 4 priority.

**2. Accountability** Monitoring, information management, and communication (recommended above as areas of priority focus) are necessary elements of a strong accountability system. Additionally we offer the following comments relating to accountability that can be addressed *after* the December 1<sup>st</sup> version is released.

- **Indicators** We commend the attempt to develop a preliminary list of indicators, but believe the proposed list does not adequately bridge on-the-ground actions and environmental results. The six indicators should be expanded, or a secondary set of measures defined, to more closely link outcomes with the strategies and actions proposed. The currently proposed indicators are linked only to the high level legislative goals for the Partnership and may not be particularly sensitive to change in response to actions.
- **Issue-related Strategies** We recommend developing a cross-cutting matrix of actions as they relate to the major issues (habitat, toxics, nutrients, bacteria, stormwater, etc.) impacting Puget Sound to add clarity to how the proposed actions integrate into strategies.
- **Organizational Processes** The description of "Next Steps" in Question 4, page 1 should be expanded to give the public a better idea of how the Partnership will operate once the plan is submitted to the legislature (related to E.1.1.). Questions to address include: What changes can be expected? How will decisions be made about implementation, funding, and future changes to the "living" Action Agenda? How will the Partnership use its funding authority under its establishing legislation to encourage governmental actions consistent with the plan? How will the public be involved? These questions relate to accountability and also will need clarification during the coming National Estuary Program review.

We understand that the Action Agenda will be submitted to EPA for review and approval as the updated Comprehensive Conservation Management Plan (CCMP) under the National Estuary Program, after the state's 2009 legislative session. As we have discussed with Partnership staff, some modifications and additional content will need to be provided, and a longer public review process must be conducted for EPA approval. While this additional public review process is needed for EPA approval, we also believe that a more thorough review of the Action Agenda and related materials next year will provide an opportunity to refine and focus the Agenda on the implementation and accountability elements necessary for success.

EPA and other federal agencies have trust responsibilities to the 19 tribes that reside in the Puget Sound basin. We applaud the Partnership's inclusion of tribal representatives in the

Leadership Council and Ecosystem Coordination Board and strongly support recognition of the tribes' co-management authority for aquatic resources.

EPA and the State of Washington have a long history of working with Canada on transboundary environmental issues. We urge the Partnership to continue effective coordination and collaboration with Canada to assure the larger Puget Sound-Georgia Basin issues are addressed, and offer any assistance we can provide. We presently have existing collaborative agreements and models, such as EPA and Environment Canada's federal Joint Statement of Cooperation and the Coast Salish Gatherings. The Coast Salish Gathering is a unique process, as it provides an environmental policy dialogue between the governing bodies, the western Washington Tribes and British Columbia First Nations to address policy and action within this pristine ecosystem.

Again, thank you for the opportunity to comment. We understand that the Partnership will receive many and differing priorities in response to this draft Agenda, but we encourage you to arrive at a focused list of the highest priorities. EPA stands ready to assist directly and through the Federal Caucus as the Partnership moves forward to implement its Agenda. If you or your staff have questions about EPA's comments please call Tom Eaton (360) 753-8086 or John Gabrielson (206) 553-4183.

Sincerely,



Elin D. Miller  
Regional Administrator

cc: David Dicks  
Executive Director, Puget Sound Partnership

**EPA Detailed Comments on the Draft 2020 Puget Sound Action  
Agenda  
November 21,2008**

**Supplemental to EPA’s letter to the Partnership dated  
November 21,2008**

**General Comments**

	A comprehensive statement of the condition of the Sound should be provided. A factual, concise summary of the actual state of the Sound could powerfully set the stage for the importance of the actions the Action Agenda calls for.
ASAP	Appreciate the breadth of scope of the initiatives and categories of actions proposed. However, many of the actions identified do not have adequate information or detail to be actionable. There needs to be more information regarding specific action outputs and how those outputs will lead to identified environmental outcomes. (who what when where – priorities and funding)
	The agenda needs to establish stronger connections with the indicators listed in Question 1 and each of the Question 3 topics– which indicators are affected by the proposed actions?
	<u>Proposed Actions to Improve Dissolved Oxygen Conditions</u> should reference scientific assessments underway and acknowledge that the results would be factored into plans as they become available.
	<u>Lack of Context for Priority Action Items</u> - For many actions, there is little or no mention of efforts currently underway, making it hard to put some of the suggested actions in context.
	Given that the Action Agenda needs to make the case for establishing and achieving ambitious priorities for ecosystem protection, <u>the document needs to include references to support and document the basis of the recommendations.</u>  <u>Examples of Undocumented Generalities.</u> <i>Number one contributor to the decline of Puget Sound is all the harmful and toxic chemicals we add to the water . . . (Introduction, page 6); we have also categorized the threats facing the region and have identified two critical threats . . . (Question 2, page 1); The Partnership has identified six broad categories of threats . . . (Question 2, page 4); overriding problems of habitat alteration and loss (Question 2, page 7); identify the five strategic priorities (Question 3, page 2).</i> So what is the priority for action? The 2020 action agenda should be explicit in stating that part of the agenda is to identify and prioritize the issues having the largest adverse effects on Puget Sound based on scientific evaluations, rather than making broad generalizations regarding what is adversely affecting the Sound.
	We strongly support A.1 (focus growth away from ecologically important areas), A.2 (permanently protect intact areas that function well), and C.2 (comprehensive, integrated approach to stormwater) and applaud foresight to identify both growth and climate change as key factors to address through a long term ecosystem protection approach.

	Strategic objectives expressed as benchmarks or environmental outcomes are still lacking for many key topics (e.g. nutrient source control, watershed scale habitat protection and restoration, water quality protection, etc...). EPA would like to see a more systematic approach for identifying targets for each key objective and also a set of indicator metrics that track the driver/pressure-state/condition-response relationship for each key objective. This was our understanding of the role of the Integrated Ecosystem Assessment and Ecosystem Indicator work tasks that EPA funded NOAA/NWFSC to help accomplish. Even providing some of the basic elements of a conceptual model linking actions to outcomes would be helpful (e.g. Chesapeake Bay program uses such a conceptual model for organizing and linking different actions to outcomes.)
	Water quality at recreational beaches and shellfish growing areas should be added as a provisional water quality indicator as it relates directly to outcome targets and is very responsive.
	Ecosystem scales are not distinguished in the document. Not clear what actions are initiated across the basin, across the respective action areas or within local watersheds. At the local level, watersheds should be recognized as the basic unit for protecting ecosystems, both large and small.
asap	It must be clear how these many tasks and actions come together and result in attainment of environmental outcomes. Actions are spread throughout the document and cannot easily be grouped to see how they are related and work together, through time and across the various Action Area geographies to achieve specific targets, milestones, or protection or restoration objectives.
asap	EPA urges the Partnership to, in future development of the Action Agenda, to develop a working conceptual model of the ecosystem. Such a model could be used to graphically diagram/flowchart the relationships between Agenda actions and anticipated ecosystem responses to those actions and could be an extremely useful communication tool. It could also potentially be useful in helping prioritize among actions by the extent to which they reduce ecosystem threats or preserve ecosystem characteristics and services.
now	<u>Clearer recognition of Tribes' roles in Puget Sound efforts.</u> Tribes within the Basin have long been formally involved in specific efforts to restore and protect Puget Sound. The Partnership should ensure that the Agenda development facilitates appropriate reflection of the roles, responsibilities, and resources that Tribes bring to past, current and future work on Puget Sound recovery and protection. EPA urges the Partnership to continue to work with Tribes to appropriately reflect their knowledge, data, work products, responsibilities, and authorities in the development of the Action Agenda.

## Introduction

now	The "What can people do..." on pages 6-7 could use some boldness. What are the "big" things people can do? Choose to live closer to work. Don't build in a flood plain. Don't armor shorelines. Don't fill wetlands on your property. Buy local products. Consume less.
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## Question 1

	The provisional targets and benchmarks for evaluating ecosystem recovery (Question 1, page 3) could be significantly improved if these were to specify adoption and implementation of an index of biologic, chemical and physical measurements. Such measurements may be combined to provide the best information about current status and trends in the health of these waters.
	The rationale for the instream flows targets applying only during wet years should be explained. Dry years would seem to be the critical condition.
	We have a concern that the proposed land cover indicator target and benchmark represent additional degradation to local watersheds.

## Question 2

	Question 2, pages 2 & 3	The Action Agenda discusses using lower levels of contamination in herring as one measure of success. While this is a good measure we would also suggest using other indicators such as lower levels in english sole, crab, clams, and/or geoducks as measures of success.
now		
	Question 2 Page 5	For the following statement “Emerging contaminants from medication and personal care products often pass through sewage plants without treatment” requires some clarification. It would help to clarify that the issue is with primary versus secondary treatment or that the sewage treatment does not remove PPCPs. I believe studies have shown that treatment plants reduce the concentrations of PPCPs in waste water. Providing a more succinct statement will result in a more attainable solution.
	Q2/p2 – Human Well Being Measures	To be discerning across geographic areas and to be able to show any significant change from baseline conditions, most of the land use indicators (impervious cover, forest cover, etc.) should be presented as a % of local watershed area.
	Q2/p3 – Land Use and Habitat Measures	The basis for the eelgrass target and the complement of necessary actions and investments needed to attain the target need clarification and reference or more detail. It is also not clear if we have the baseline or routine methods to monitor and distinguish change in this habitat type from baseline across so much of the sound. Causes of extensive eelgrass loss are also not clearly understood and may be the result of many different factors.
	Q2/p3 – Freshwater Resources Measures	Is there a technical basis that can be provided for this target based on river basin flow statistics? Please clarify and provide reference.
	Q2/p3 – Water Quality Measures	Not sure which toxic compounds in herring would be monitored as source reduction target at this time. <u>Pathogen levels affecting recreational beaches and commercial and recreational shellfish beds</u> would be a more direct and locally responsive water quality metric to include and links directly to 2020 target.
	Q2/p6 – Harvest	Also consider <u>derelict gear and ghost fishing implications</u> through lost pots and nets, particularly in certain locations.

## Question 3

The “Guiding Principles for Ecosystem Management...” on p. 4 is well done. For each strategic priority (A-E) it should be explained how that strategy inter-relates with the others.

Question 3A

		Please clarify the relationship of B & C to protection: Watershed assessments need to drive B & C so that protection is effective.
	A.1.1.	...must result in science-based watershed scale land use plans
	A.1.3	GIS maps should be developed at both the WRIA scale (broad view) and the basin-scale for basins near population areas. It's really important for cities and counties to understand how the land they protect (critical areas, etc) fits into the broader picture of the basin and WRIA. This will be very helpful in garnering the political support to protect these areas. The Next Steps should include the completion of a specified number of maps.
	Q3/p5 – Rationale for Action	Land cover <u>must be protected at the catchment or watershed scale to protect water quality</u> . Ad hoc protection at site scale is of marginal benefit.
	A.1.	Perhaps more quickly adopted and focused changes to SMA and GMA should be considered given that updates to these programs are currently supposed to be completed by 2013.
	Q3/p8 – A.1 #1	There are many ecosystem scales. An ecosystem perspective across the basin's jurisdictions is important and A.1.1 could help support this. Emphasis should be on building local capacity for protecting important local watersheds and sub-basins.
	A.5	Ballast water – The near term actions listed seem to imply that there are no current state ballast water discharge standards. The WDFW web site at: <a href="http://wdfw.wa.gov/fish/ballast/ballast.htm">http://wdfw.wa.gov/fish/ballast/ballast.htm</a> describes current standards.

Question 3B

	3B	This section could also be strengthened by discussing and addressing hydrologic alteration as a specific theme or linking to the discussion in A.3.
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Q3/p15 -	Establishing watershed based restoration priorities (link to "A") would be a good point to list in the bullets of this section, particularly related to water quality restoration and upgrade of shellfish beds.
Q3/p16 – B.1.2	Please add the Lower Elwha watershed restoration work to this list of major near term projects requiring completion.
Q3/p17 – B.2.	Please add Duwamish source control and toxic remediation to this list of important urban bay implementation efforts being initiated in the near term.

### Question 3C

C. Page 19 – Improving Actions Over Time	There is discussion of a watershed-scale study of stormwater management strategies on pollutant loads. Such a study would advance the understanding of stormwater and its contribution to pollutant loads. However, none of the near-term actions focus on funding or initiating/completing this study. If stormwater runoff is a major source of pollutants into Puget Sound – this study would help ensure cleanup efforts are focused in the right area.
C.1., C.2., or C.4.	The Kitsap Co. Pollution Identification and Control (PIC) program is a well-regarded local program to address nonpoint pollution in an integrated and cost effective manner. An action should be added to promote its use as a model local program with potential applicability for other areas.
C.1.1. and C.3.	Pharmaceuticals and personal care products (PPCPs) include a wide range of substances that we commonly use in everyday living. PPCPs disposed into water when we flush toilets and wash our bodies account for a majority of the PPCPs that reach wastewater treatment plants and septic systems. Note: very little is contained in stormwater runoff as implied in C.1, page 21 (CSO's excluded, of course). Drug take back programs are a positive step but could at most reduce PPCPs in wastewater by about 20%. Depending on the compound, PPCPs and their breakdown products are not completely removed by the secondary treatment which is routinely used by municipalities in the Puget Sound area. Literature from various studies has documented that advanced treatment for reducing nutrients in wastewater can also significantly reduce the amount of PPCPs in the treated effluent. The focus of concerns about potential environmental or human health effects of PPCPs should be focused on improving treatment of domestic wastewater and eliminating CSOs.
C.1.1.2	This is unclear. If the reference is to TSCA, there are already national authorities for regulating new and existing chemicals – with different regulatory approaches for each category (new or existing as of the effective date of TSCA). The agenda should be more specific in describing this action item. There is also a national PBT strategy under TSCA.

	C2	Given the multiple planning processes and laws available to local governments in Puget Sound, implementation of watershed permitting may not be the most effective tool to address stormwater. In October, 2008 the National Research Council published a comprehensive analysis of the CWA NPDES stormwater permitting program. Over the next couple of months EPA will be evaluating the recommendations. At that time we will be better able to comment on the stormwater watershed permit related recommendations in the action agenda.
	C.2.? Or D.4.?	Ecology's reliance on conventional pollutants for Section 303(d) listing results in a significant number of waterbodies impaired by stormwater being excluded from the list. This reliance creates a gap in coverage for Ecology's water quality program and its ability to protect salmon uses. EPA recommends that in the next Section 303(d) that in the next Section 303(d) listing cycle, Ecology assess and list waterbodies as impaired based on biological and toxic information under its current water quality standards. We encourage Ecology to target watersheds that are important to salmon habitat. These listings and subsequent Total Maximum Daily Loads (TMDLs) will provide important feedback to guide stormwater management implementation.
	C.2. #1	WQ monitoring is critical to accomplishing items C.2.1-C.2.3. Near term action C.2.1 appears to address the WQ monitoring issue to some extent, but it is not clear whether the thrust of this is monitoring coordination, or expanded monitoring efforts.
	C.2.2.2 (Question 3, page 22)	The Action Plan clearly articulates the contribution of pollutants to Puget Sound from urban stormwater discharges; therefore, rather than "investigate expansion of NPDES permit coverage," the Partnership should require expansion of the NPDES permit program to include such additional discharges as necessary. Through this Action Plan, it is reasonable to designate jurisdictions within the Puget Sound watershed as "significant contributor(s) of pollutants," and require the implementation of comprehensive stormwater control programs consistent with Ecology's Phase I and Phase II MS4 permits for Western Washington.
	C.2.2.3. and C.2.2.4.	LID provides site scale and neighborhood scale solutions that local implementers need to place into the watershed framework to protect and restore watershed processes. The Partnership needs to promote the full range of LID techniques including infiltration, evapotranspiration and capture and reuse in Puget Sound. The Partnership should aggressively support the actions in C223 and C224 to set the stage for successful implementation of LID in Puget Sound, with target dates for completing training and education that line up with changes to NPDES stormwater permits. Note that LID may not actually lead to a healthy Puget Sound, we may have to get closer to "No-impact Development"
	C.2.2.5 and C.2.	Near-term action #5 should be removed or changed (similarly the action for PSP to convene a CSO group specifically for King County and Seattle and EPA that is included in the implementation table). EPA is currently in negotiations with both the County and City, under signed confidentiality agreements, regarding CSOs. There isn't an appropriate role for PSP as convener at this time.

	C.2.3.2 & near term C#2	Recommend adding an action item to focus on pesticide reduction in Puget Sound. Oregon DEQ is leading efforts to reduce pesticides in water and fish tissue in the Columbia River through pesticide stewardship efforts with the agricultural community in Oregon. There are excellent opportunities to expand this type of work into Washington. The work could include expanding legacy pesticide collection events, doing outreach to reduce pesticide use near waterways, and making better pesticide choices to reduce impacts to aquatic resources. For example, EPA could partner with Washington Department of Agriculture, watershed councils, Tribes, and NRCS to do the work. (C.2.3.2 and C.2 Near-term Actions, page 23 hints at this action but in a more general way.)
now	C.2.3.3.	Enforce CAFO permits (added action)
	C.3	Many studies have cited the lack of wastewater treatment infrastructure as a critical national problem, with significant funding shortfalls identified as a critical issue. The PSP agenda should identify funding needed to accomplish this task, perhaps in the manner of a GAP type analysis similar to what has been done at the national level: <a href="http://www.epa.gov/waterinfrastructure/infrastructuregap.html">http://www.epa.gov/waterinfrastructure/infrastructuregap.html</a> A GAP type analysis should also be considered as a way of managing and prioritizing some of the other tasks listed in this section, including those storm water and septic system tasks described in C.2 and C.4 that would require funding support to local governments.
	C.3.	Municipal discharges into south and central Puget Sound contribute a large amount of the nitrogen that is causing low dissolved oxygen levels and algae blooms. Improving wastewater treatment should be clearly highlighted as an important immediate need.
	C.4 #3	Prepare proposals for possible funding with economic stimulus funding that may be added to CWSRF
	C.4.	The number and density of septic systems installed in many Puget Sound watersheds exceed the loading capacity of the soils in some areas. The result is not only septic systems which "fail" (defined by most local health departments as surfacing septage) but which increase the amount of nitrates and pollutants in septage reaching shallow ground water. Nitrates in some Puget Sound aquifers already exceed or are approaching concentrations that are a concern to human health. Impacts on aquatic organism occur at lower concentrations than those of concern to humans. A more immediate concern is that these vulnerable aquifers also provide most of the water in Puget lowland streams during the critical warm season. Higher concentrations of nitrates from septic systems are being carried to marine waters of Puget Sound where they cause or contribute to low dissolved oxygen and algae blooms.
	C.5	The agenda should consider recommending "cumulative effects" type analyses for high priority clean-up decisions on the Sound. At present most clean-up decisions are done on a site specific, piecemeal basis.
	C.5. near term action	The plan should reflect here EPA's sediment cleanup goal for 2009-2013 (200 acres of "construction complete" at Superfund sites).

	C.6	Near-term Actions, lists: 1) Fund the swimming beach monitoring program, and 2) Fund the shellfish and fish advisory monitoring programs. This leaves the reader with the impression that these are not funded now. If these programs are currently being funded, these near-term actions should be re-worded to reflect this (e.g., "Continue to fund...").
	C.6 Near Term actions	The following Near Term Action should be included: "Evaluate existing contamination of Puget Sound shellfish, and based on this evaluation, develop a sampling and analysis plan to quantify chemical contaminants levels in Puget Sound shellfish."

### Question 3D

now	D.3.5.6. and D.3. near-term #4	Actions D.3.5.6 and Near Term Action D.3.4 need to be written to clearly express that PSP proposes to conduct these actions (not EPA) and that no federal funds will be used for lobbying activities. A grant recipient cannot use federal funds to request federal funding, influence federal legislation, or have congressional offices direct agency staff or implementation of federal agency programs.
	D.3.1.1.	The Federal Caucus should be included in this list.

Question 3E

	E.4	Overall, PSP has done a good job of identifying specific audiences they want to reach - citizens, educators, students, volunteers – but more details on how they are going reach these audiences is needed.
	Page 46	It is imperative that the PSP recognize the different roles of applied science (particularly in support of regulatory actions) and basic research. Both types of scientific work are needed in Puget Sound, and failure to recognize the distinctly different “playing fields” of applied science and research will lead to confusion and inefficiency. In particular, regulatory agencies have different documentation and public disclosure demands than academic researchers.
	E.3.4.4.	Suggest re-write of E.3.4.4. to:“Develop and follow processes to ensure the integrity of science, including: define gaps in applied science (e.g., to support regulatory decisions) and basic research, clarify differences in applied science and research work (e.g., peer review, documentation, public disclosure), develop competitive bidding approaches, promote quality assurance planning and internal/external peer review.”

Question 3. Action Areas

	South Central Area Action Area Profile - This profile lists the Lower Duwamish Waterway and Commencement Bay Superfund sites. It should be noted that many other Superfund sediment sites are in this area, including Harbor Island, PSR, and Lockheed West Seattle.
	For the North Central Action Area Profile - The text on Toxics reads" Toxics: Hundreds of acres of contaminated sediments, especially at Sinclair and Dyes inlets, Liberty Bay, and Eagle Harbor from a history of naval and industrial activities; groundwater contamination from Eagle Harbor superfund site" We suggest that this text should mirror the South Central Profile, listing the Wycoff/Eagle Harbor, Puget Sound Naval Shipyard, and Manchester Lab Superfund Sites, and citing "recontamination of previously cleanup up sites" as a concern. In fact, all of these sites have undergone sediment cleanups and the major concern is recontamination. It is not clear why groundwater contamination from Eagle Harbor is highlighted. Groundwater contamination and other upland sources are threats to all sediment cleanup sites.

Question 4

	The table should include, or incorporate by reference, priority actions in the Science Work Plan.
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## Financing

		The draft financing plan is very general in its references to the state's current infrastructure financing programs. The Partnership needs to give some serious thought to how it will interact with the state agencies that have the lead for infrastructure finance. <b>This needs to be a priority task given that the next new Federal economic stimulus package could include substantial new appropriations for infrastructure programs including the Clean Water State Revolving Fund.</b>
		While there may be a desire to see specific types of programs applied to the PSP efforts (e.g., E.2.3.2), here also careful research should be undertaken to determine which type of incentive/incentives (economic, market-based, non-market-based) can best achieve the environmental and policy goals.
	Financing Chapter (p. 6),	This section suggests that "EPA should support and help fund the creation of water quality trading policy and programs in the Puget Sound region." The identification of a TMDL for a pollutant suitable for trading is a crucial first step. The TMDL is essential to provide the appropriate environmental context for trading. Also, we have learned from an early grant effort in Oregon (1997) that establishing a broad trading framework without a pilot project underway leads to guidance and tools that may not actually work in practice. Therefore, EPA would prefer to see language that identifies several TMDLs in the Puget Sound Basin that are being considered for implementation with the water quality trading tool, and that further analysis will determine which one(2) are appropriate, and that a pilot project with one of them will be used to develop a trading framework for the Basin and/or the State. If they don't have any specific TMDLs in mind yet, then they need to describe that as the first step to take before committing to water quality trading.
		Trading impermeable surface area, while posing many challenges, is an interesting approach to cap and trade linked to land use changes that affect water quality.

## NEP Related Comments

	<b>Recommendations for Moving from This Draft Action Agenda to a Draft CCMP</b>
	<ul style="list-style-type: none"> <li>o The Action Agenda as a Comprehensive Conservation and Management Plan needs to organize and link related actions into a coherent implementation scheme that leads to clearly defined outputs and environmental outcomes. Currently, actions are spread throughout the document and cannot easily be grouped to see how they are related and work together, through time and across the various Action Area geographies to achieve specific targets, milestones, or protection or restoration objectives. Until we establish critical implementation paths to achieving specific targets, we will not advance beyond the current opportunistic and random patterns of implementation.</li> </ul>
	<ul style="list-style-type: none"> <li>o The CCMP will need to specifically identify the major water quality and living resource issues and then lay out priority actions to address each problem; the more specific, the better.</li> </ul>
	<ul style="list-style-type: none"> <li>o Need more information about how actions/activities will be implemented, since information about the process of implementation will be the basis for each year's proposed activities (which will be submitted to the Region in annual work plans) and associated funding to both lead agencies and action area priorities.</li> </ul>
	<ul style="list-style-type: none"> <li>o Decision making roles and processes of the management conference are not provided in this document. What is the decision-making process regarding prioritization and funding of initiatives and actions. This is very important because funds originating from the 2008 federal budget must be obligated and committed to specific work by April 2009.</li> </ul>
	<ul style="list-style-type: none"> <li>o Need to lay out the organizational and staffing structure of the Partnership's implementation structure, i.e., the organization managed by the Executive Director; which is the entity responsible for translating Management Conference decisions and direction into CCMP implementation and is accountable for attainment of targets. Currently, many actions and initiatives are identified to be convened by PSP staff, which will likely require a different staffing structure.</li> </ul>
	<ul style="list-style-type: none"> <li>o A realistic implementation schedule with predictable procedures and that covers the next biennium of work would be very helpful to keeping the overall management conference working together in a productive way.</li> </ul>
	<ul style="list-style-type: none"> <li>o Need to scientifically support with data all assertions about the state of Puget Sound's health; it's understandable that the Partnership wants to take actions immediately, but unless sound data are used to guide decisions about which problems to tackle first and to identify what the cause of each problem is, then actions may not be supportable, and could be challenged. Basically, need to document/provide supporting evidence, for all statements about Puget Sound's health.</li> </ul>
	<ul style="list-style-type: none"> <li>o It is not clear how the funding estimate in section D aligns with a prioritized biennial budget request for 2009-2011 to implement initial tasks in the Action Agenda.</li> </ul>
	<ul style="list-style-type: none"> <li>o Transboundary ecosystems require transboundary mechanisms to coordinate research, monitoring and protection approaches. Such coordination needs to be ensured within the Management Conference structure and Action Agenda development and implementation procedures. Invitation to the Provincial Ministry of Environment to participate on the ECB as an ex-officio member and perhaps something similar with the Science Panel could be very helpful in aligning ecosystem protection on both sides of the border. Encouraging and facilitating transboundary coordination in action areas neighboring the border would also be constructive. The EPA-EC Statement of Cooperation will also be supportive in ensuring federal level coordination.</li> </ul>





Western Washington Fish and Wildlife Office  
510 Desmond Dr. SE, Suite 102  
Lacey, Washington 98503



David Dicks, Executive Director  
Puget Sound Partnership  
P.O. Box 40900  
Olympia, Washington 98504

NOV 18 2008

Dear Mr. Dicks:

Congratulations on the completion of the draft Action Agenda. Continuing the collaborative efforts initiated by the Puget Sound Partnership and promoting communication between all entities is essential for achieving our common goal of recovering the Puget Sound ecosystem. The U.S. Fish and Wildlife Service (USFWS) is committed to helping implement the Action Agenda and supporting the protection, restoration, and clean-up of Puget Sound.

We have limited comments on the draft Action Agenda and the Biennial Science Plan due to the short comment period. We appreciate that you have referred to the Action Agenda as a "living and adaptable guide" to set the stage for cooperation and collaborative efforts. We look forward to working with the Partnership as actions are further defined.

We fully support the four priorities of the draft Action Agenda. Protecting ecologically functioning areas and preventing pollutants from entering Puget Sound ecosystems are critical. It is more effective to protect and conserve what we have than to try and fix problems after they occur. Restoration efforts are also essential because of the current state of Puget Sound ecosystems and dependant species. Continuing to do business as usual and implementing ongoing programs at current rates will not lead to the recovery of Puget Sound. It is necessary to be innovative and proactive, ensure that necessary regulations are in place and enforced, and to implement actions that address the source of our problems. Addressing the impacts of growth through effective land use planning is also essential.

Our specific comments on the Action Agenda are:

Question 1

- Page 3: Establishing a target of 10 percent less forest acreage below 1000 feet and up to 20 percent more impervious surface above the 2001 levels may lead to further species declines and not achieve the recovery of Puget Sound. Customized targets for impervious surface and forest cover established on a watershed basis through watershed analyses may be more effective and easier to justify. Ecosystem responses to land use changes are complex and vary both within watersheds and between watersheds.

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Draft Action Agenda Comments - Federal Agencies



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PUGET SOUND PARTNERSHIP

- Page 4: Ensuring that instream flows in all watersheds exceed minimum low flow levels in wet years may not be sufficient to protect natural systems. Having adequate instream flows in normal and dry years will be essential to sustain and recover salmonid populations and viable aquatic food webs.

#### Question 2

- Page 6, Under “What are the biggest problems that we need to begin to address?”: Puget Sound prairies and native grasslands should be added to the list of habitat types that have suffered significant losses. These unique habitats have the highest number of current Federal candidate species and protecting them now will be more cost-effective and less disruptive to economic development.

#### Question 3 – Priority A

- Page 7, A.1.3: Priorities for local protection and restoration work should include key upland habitats, including prairies, oak savannas, and some older forest habitats. Using watershed characteristics alone to set priorities may miss these important terrestrial habitats.
- Page 14, A.5 Near-term Actions: We believe that increasing capabilities for rapid response to new invasive species and educating people about invasives should be higher priorities than developing a Puget Sound baseline and database of invasive species. These should be included as near-term actions. Preventing invasives from being introduced and ensuring a quick response to new invasive species is essential. A recent incident with the discovery of a nonnative frog in a shipping container that was being transported from China to Washington, by way of Oregon, demonstrated the need for rapid response to be enhanced.

#### Question 3 – Priority B

- B.1 Near-term Actions: Removing derelict fishing gear should be included as a near-term action. The Northwest Straits Foundation has documented more than 30,000 animals entangled in removed derelict gear, including hundreds of marine birds. Catch rate data indicate that the estimated 2,000 nets currently derelict in the San Juan archipelago may be killing more than 20,000 birds and more than 25,000 fish every year. Removal of the derelict gear is an immediate restoration action will immediately stop a source of marine organism mortality.
- B.1.2 Near-term Actions: We fully support the inclusion of finishing the restoration of the Nisqually estuary as a priority for near-term actions. This is a key project for partners throughout South Sound.

#### Question 3 – Priority C

- Stormwater runoff is one of the fastest growing causes of water quality problems in Washington and it is one of the primary obstacles to salmon recovery and protection and restoration of aquatic food webs. We are concerned that the near-term actions identified

be integrated with low impact development and other approaches that reduce stormwater inputs to Puget Sound if voluntary measures are not successful.

- Stormwater/Basin planning and permitting is needed to address all stressors within a hydrologically-defined drainage basin, rather than addressing individual pollutant sources on a discharge-by-discharge basis. Basin planning will allow jurisdictions to conduct the appropriate planning, prioritization and implementation necessary to address on-going and new stormwater discharges which are causing the rapid decline of populations of listed species. Appropriate land cover limits (impervious surface and clearing) can not be identified and implemented without basin planning.
- Given the lack of effectiveness of conventional stormwater treatment in removing dissolved metals, we recommend that a near term action for the development and implementation of source control methodologies be included.

#### Question 3 – Priority D

- Page 32, Near-term Actions D.3.1: We believe that integrating the Service's Puget Sound Coastal Program activities with the work of the Puget Sound Nearshore Partnership and the Estuary and Salmon Restoration Program will improve efficiency and avoid overlap and duplication of Puget Sound Partnership restoration efforts. Integration of key restoration programs in Puget Sound has been requested by partners to increase efficiency and effectiveness.
- Page 33, Near-term Actions D.3: We recommend that the Federal Caucus develop a joint federal workplan to support Puget Sound priorities as a near-term action.

We believe the Biennial Science Work Plan 2009-2011 is too aquatic focused. Scientific investigations on the conservation needs of priority upland species are necessary to ensure effective conservation and restoration of their habitats.

Thank you for this opportunity to comment and for the hard work and dedication of you and your staff in developing this roadmap for the recovery of Puget Sound. We look forward to working with you on these efforts. If you have any questions, please contact me at (360) 753-4065 or Mary Mahaffy at (360) 753-7763.

Sincerely,



Ken S. Berg, Manager  
Western Washington Fish and Wildlife Office

**From:** Mary Mahaffy, US Fish and Wildlife Service

**Comment:** The following comments are from USFWS's invasive species coordinator. He recommended the following:

It is better to refer to "knotweed" versus "Japanese knotweed" throughout the Action Agenda because of hybridizations.

Action Area Profiles: Strait of Juan de Fuca - add *Spartina* to the list of invasive species. Other comments for Question 4 Table:

B.1.1 Implement restoration projects in the recovery of salmon. USFWS can be added as a partner because of restoration projects implemented through our Puget Sound Coastal Program or Partners for Fish and Wildlife Program.

D.3.1 "Integrate the work of the Puget Sound Nearshore.." If language is changed in Question 3, Priority D, D.3.1 (see USFWS letter) to broaden the language so it refers to integrating work of several programs to improve efficiency, coordination and to avoid overlap and duplication of efforts, the USFWS should be added as a partner because the Service's Puget Sound Coastal Program could be added to the list of programs mentioned.

D.3.6 "Support appropriations to federal agencies" Federal agencies should not be listed as the lead as we obligate our funds as directed in our budgets. Non-federal partners are the ones that would need to work with Congressional delegates on funding for federal agencies.



United States  
Department of  
Agriculture

Forest  
Service

Mt. Baker Snoqualmie National Forest  
Supervisor's Office  
2930 Wetmore Avenue, Suite 3A  
Everett, WA 98201  
(425) 783-6000

Olympic National Forest  
Supervisor's Office  
1835 Black Lake Blvd. SW  
Olympia, WA 98512  
(360) 956-2300

File Code: 1560

Date: November 20, 2008

Mr. William Ruckelshaus  
Chair, PSP Leadership Council  
Puget Sound Partnership  
P.O. Box 40900  
Olympia, WA 98504-0900

Dear Mr. Ruckelshaus:

We have reviewed the Draft Action Agenda and offer the following comments on behalf of the Forest Service. We believe that the strategies and goals of the Forest Service are well aligned with the Puget Sound Partnership's intent and goals.

The Forest Service contributes significantly to the quality of life and the ecosystem services of the Puget Sound through three areas: the National Forests, State and Private Forestry programs and the Pacific Northwest Research and Experiment Station.

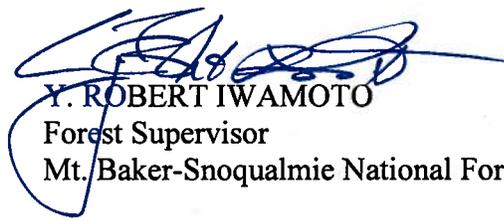
The National Forests are comprised by the Mt. Baker-Snoqualmie, Olympic and the northern portion of the Gifford Pinchot National Forests within the Puget Sound. We achieve land and resource stewardship goals through collaborative approaches to insure delivery of ecosystem services from these valued and varied landscapes. Our State and Private Forestry branch contribute to urban forestry and educational programs. We incorporate and utilize best available science through our scientists at the Pacific Northwest Research and Experiment Station.

We have attached a document that provides specific comments to the Draft Action Agenda. If there are questions or any clarification that we can provide to your staff, please feel free to contact Gary Ketcheson at our office in Everett (425) 783-6032.

We look forward to continuing our collaborative efforts to contribute to the goals of the Puget Sound Partnership and its Action Agenda. Thank you for the opportunity to provide input to the Draft Action Agenda.

Sincerely,

/s/ Dale Hom  
DALE HOM  
Forest Supervisor  
Olympic National Forest

  
Y. ROBERT IWAMOTO  
Forest Supervisor  
Mt. Baker-Snoqualmie National Forest

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NOV 21 2008



Draft 2020 Puget Sound Action Agenda Review  
USDA, Forest Service

**General Comments:**

With all the information and discussion of what is wrong with the Puget Sound Ecosystem, the greatest threats, current programs, and the proposal of actions to take; now it is time to step back and ask the question, "Is this Action Agenda prescribing enough change to actually restore the Puget Sound, or is this just a clarification of what is easily achievable? Even with reorganization and the addition of new programs, is the Action Agenda still really a "low hanging fruit" plan? After all, there have been numerous programs directed at protecting and restoring watersheds and the Puget Sound marine environment that resulted in continued degradation (as acknowledged at Question 3, Page 5). What is needed is real change, making very tough decisions on growth and development that reverses the trend in ecosystem functions, not just slows degradation down.

If the Action Agenda fully articulates how the Partnership views the role of the federal agencies, it would appear to be less than what the Federal Caucus could provide (D.3.5). There is clearly a role in restructuring or coordinating regulations, uniform enforcement of compliance, and managing forest roads, but other than that there doesn't appear to be much of an identified federal role; such as assisting the Partnership in developing strategies and policies.

The Forest Service is supportive of the establishment of a Federal Puget Sound Office. There is nothing in the Agenda that indicates what the expectation of the PSP is regarding interacting with the federal Puget Sound Office. The agencies within the Puget Sound Office would not be able to directly lobby the Congressional delegation for funding but could provide information relating to federal funding needs (D.3.5.6).

The Forest Service is working to improve management of the network of Forest Service roads (D.3.5.4) as a component of preventing pollution and controlling stormwater. Our efforts to decommission roads and fix fish passage barriers are hampered by staffing and funding.

The Forest Service has also played a large role in implementing the Salmon Recovery plans through habitat protection and restoration. Forest Service staff participated in the development of the Chinook Salmon Recovery Plan through involvement in watershed groups. We would hope to be a partner in the development of a Steelhead Recovery Plan.

The Forest Service and other federal agencies could play a greater role in the public awareness and environmental education programs. Action Item E.4.1 should include common messages that the public receives not only in the city, but when recreating on public lands. The Forest Service should be engaged, and can contribute resources and talents in this area. The educators programs and volunteers in E.4.2 should have common training and messages to convey such that the messages are consistent with and promote

least 90% of 2001 level. Does losing 5% forest acreage in an action area per decade predict recovery, or just slower decline? If all land cover below 1000 feet were lost in some action areas, what percent of the land base would that be? What is the goal for forest cover on lands below 1000 feet, eventually zero? The other benchmark for land cover is impervious area not increasing by more than 20 percent from 2001. Is this a stretch to meet or is this low hanging fruit; what's the goal for limiting impervious cover?

The eelgrass indicator benchmark is number of sites with increasing eelgrass area outnumbering sites with decreasing area. This does not seem to be an appropriate benchmark when the target is acreage of eelgrass. Many small sites with decreasing acreage could completely mask large increases in acreage at just a few sites. The benchmark would be met, but the battle may be lost.

For toxins in pelagic fish, is the Georgia Basin high quality enough to be the target to restore Puget Sound?

Agenda item A.1.1 (Question 3, Page 6) touches on the greatest challenge with regard to restoring Puget Sound; "...accommodating population and economic growth...". Protecting, and more importantly, restoring the Puget Sound ecosystem is going to run headlong into population growth and the economy. How much economic growth is appropriate while restoring the ecosystem? A think tank needs to be developing new ideas on how to retain a viable economy while limiting growth and development that imperils the Puget Sound ecosystem. Our best hope is that the economic growth we need, will come from the economies built around Puget Sound restoration, because there are economies around population growth that will be in direct conflict with ecosystem recovery.

Agenda Item A.1.2 calls for the preparation of a regional habitat protection decision-making framework. This then will guide watershed characterizations in A.1.3. It would seem that this framework is critical to getting other action under Priority A and that it should have a specific and early delivery date.

It is a must that stormwater retrofits are included in the agenda, as they are in A.1.3. Since so much of the lowland area is already developed and producing stormwater, only regulating new development would not contribute to recovery.

Watershed characterization studies (A.1.3.2) should build off already existing watershed analyses conducted by the Forest Service and under the State Forest Practices rules. This would minimize the duplication of efforts. The Forest Service has also developed restoration action plans for focus watersheds that could contribute to the strategies and targets to be developed in A.1.3.3, and under A.1 Near-term Actions #3.

Item A.2.2.4. FEMA and local governments need not only work to prevent further residential, commercial, and industrial development in floodplains, but work to move exiting development out of floodplains.

Is there an expected date for the Climate Change Study Groups recommendations? That should be included here to give a sense on when this item will be completed.

D.3.5; D.3.5.1. The Puget Sound Federal Caucus.

It is important that the PSFC not only develop a common federal workplan, but that the federal workplan be coordinated with State and local plans.

D.4.2.2; Establish and implement a watershed-based approach to mitigation.

There is a proposal to do just this within the Skagit watershed. The group needs some funding to get started.

E.1 Near-term Actions

Action 1. It is imperative that the task of identifying information needed to evaluate progress... Be accomplished very soon.

Action 2. Is the LC, ECB, Science Panel and Salmon Recovery Council engagement working well now, or are there changes that should be made?

E.2.3. "Existing regulatory frameworks do little to encourage market-driven conservation".

The Puget Sound area should take on a "no waste" approach such that what was once considered waste becomes a resource. Part of building a thriving economy should include innovative ways to use the by-products (waste) that other activities create.

Draft Financing Chapter

There is an inconsistency between the text on page 3 and the table on page 4. Forest road decommissioning is placed in Category 3 in the text but list under Category 2 in the table.

# United States Department of the Interior



**U.S. GEOLOGICAL SURVEY  
Northwest Area Office  
909 First Ave, Suite 800  
Seattle, WA 98104**

November 20, 2008

Mr. William Ruckelshaus  
Chair, Leadership Council  
Puget Sound Partnership  
P.O. Box 40900  
Olympia, WA 98504-0900

Dear Mr. Ruckelshaus and members of the Leadership Council,

I commend the Puget Sound Partnership for its efforts to develop a scientifically based action agenda to restore Puget Sound by 2020. USGS has been active in this effort; USGS scientists serve as members of the Science Panel, the Puget Sound Nearshore Partnership, the Puget Sound Coordinated Monitoring Program, and the Puget Sound Federal Caucus. Successful Puget Sound restoration will require such sustained, coordinated efforts between federal, tribal, state, and local agencies. We will need a robust research, monitoring, and data management program to learn from our restoration efforts and to be accountable to the public. We must manage development. However, we must commit to doing things differently in order to ensure that the Partnership does not simply document the decline of Puget Sound species and habitats. We need action and implementation to serve the needs of future generations.

One of the biggest challenges will be to develop and implement the needed adaptive management framework. I applaud the Partnership for recognizing that the agenda must be flexible and responsive. In order to fully implement such an approach, the Partnership, the state legislature, and agencies must recognize that all phases must be funded, at both the local and regional scale. Too often, only planning and actions are funded, while assessment and evaluation are not.

To adopt an adaptive management program, the Partnership must integrate the full range of capabilities at the federal, state, and local levels. As the research arm of the Department of the Interior, USGS has highly relevant expertise, skills, and extensive data sets in hydrology, biology, geology, and geography. Two of the Partnership's goals relate to water resources; the USGS Washington Water Science Center is the premier source of hydrological data and modeling in the Puget Sound basin. The action agenda focus on instream flows and surface water quality is probably too narrow. We believe that a Puget Sound water census will be needed to adequately evaluate current and future water availability. The agenda also overlooks the importance of ground water in both water quality and water quantity targets.

Recovering Puget Sound fisheries will require a diverse expertise. Western Fisheries Research Center is a recognized leader in fisheries disease ecology, habitat and food web relationships, and the effects of

aquatic invasive species; it operates one of the few facilities on Puget Sound dedicated to coastal research.

Extensive work by the Puget Sound Nearshore Partnership has demonstrated the critical role of geological processes in creating and maintaining viable nearshore habitat. USGS scientists with expertise in coastal geology, oceanography, marine habitat mapping, and geologic hazards are working with the restoration community to provide science to help inform decisions.

A further challenge for the partnership will be to balance approaches to protection, restoration, science, and monitoring. Given the fact that the agenda will serve as a common conservation framework, we ask that you seriously evaluate the Partnership's six goals and agree on broad definitions of success. This is particularly important, because the agenda proposes to realign or discontinue plans and programs that conflict with the action agenda.

Consider the suite of action agenda provisional indicators and the biennial science plan's targeted investigations. Many of the known impacts result from land use changes. Data from the USGS national land cover trends program show that the Puget Sound lowlands are changing more rapidly than anywhere else in the country. Changes in settlement patterns, in forest extent, density and clearing, and in agricultural patterns may all be affecting the quality of fresh and marine waters, as well as impacting the nearshore. Only one provisional indicator is terrestrial, while none of the target investigations are. In addition, the focal species are fish and eelgrass. As written, the benchmarks, targets, and science plan investigations appear to omit protection and restoration of high priority terrestrial species and habitats. Does success mean that only aquatic species and habitats are recovered by 2020?

We urge you to consider further refinement and expansion of provisional indicators, targets, and benchmarks as key components of the biennial science plan. Consider developing indicator indices to evaluate both short and long term progress. Evaluate whether they are effective in moving towards recovery of priority Puget Sound habitats and species. Ask whether Puget Sound region threats and trends are adequately developed in the agenda and science plan to meet overall conservation goals. Finally, recognize that uncertainty is an inherent part of ecosystem scale restoration and planning. Admit what is known and unknown, and be as upfront as possible about uncertainties, challenges, and barriers.

USGS is working internally and through the Puget Sound Federal Caucus to explore funding opportunities and collaborations to contribute to restoring Puget Sound. As the Partnership continues to develop the action agenda and science plan, we hope that our experience and knowledge of Puget Sound will be a valuable resource. We intend to actively develop the necessary science for the Partnership and the Puget Sound Federal Office, should Congress establish it. Please contact me at 206-220-4600 or [ldierauf@usgs.gov](mailto:ldierauf@usgs.gov) to discuss how USGS Puget Sound science can further support the action agenda.

Sincerely,

/s/ Leslie A. Dierauf

Leslie A. Dierauf  
USGS Northwest Area Regional Executive

enc: detailed USGS comments on action agenda and biennial science plan

## USGS detailed comments on the Action Agenda

1. During the course of the two week comment period, different versions of the action agenda appeared and disappeared, with no notice that anything had changed. A note appeared on 11/13, stating that only minor typographical and grammar changes had occurred. However, provisional indicators, targets, and benchmarks were changed during this time. Whole sections were added.
2. References are missing from the document. The document includes some strong statements about cause and effect and other items are stated as fact and should be referenced, especially because some of those items are not well known.
3. Introduction, Page 2, Description of basic question number 1—The statement that “...the Partnership has, for the first time in Puget Sound, identified measurable indicators that can be monitored over time to assess progress” is misleading. The State of the Sound reports from the Puget Sound Action Team used measurable indicators monitored over time.
4. Introduction, pages 6 and 7: This seems too simplistic and it also ignores industry and business.
5. Question 1, page 1: What happens if the conclusion is reached that there is a limit to how much growth the region can support?
6. Question 1, page 3: The Action Areas are mentioned but not described or shown in a figure.
7. Question 1, page 3: All of the provisional indicators except land cover are aquatic. At a minimum, develop some terrestrial indicators that are specific to high priority terrestrial species and habitats.
8. Question 1, page 3: consider dividing forest acreage into coniferous and deciduous forest. Low elevation deciduous forests mostly consist of red alder and big leaf maple, which are not as long lived and perform different roles in the ecosystem.
9. Question 1, page 3: forest acreage below 1000 feet is at least 95% of 2001 level. USGS land cover trends program data (<http://landcover.trends.usgs.gov/west/eco2Report.html>) show that major deforestation and conversion to developed land cover types had already occurred before 2001. Evaluate whether setting targets and benchmarks to already highly impacted levels is appropriate.
10. Question 1, page 3 and Question 2, page 2: What is the justification for a landcover target for 2020 of “forest acreage below 1,000 feet is at least 90% of 2001 level and impervious area is not more than 120% of 2001 level”? The document includes a statement that nearly four percent of the lowland forests were lost during the 10-year period from 1991 to 2001, yet the landcover target is to lose another 10 percent in the next 20 years? The statement also conflicts with the statement on page 5 of Question 3 “Protection of land cover is critical for making improvements in water quality.” It is difficult to imagine that reducing forest acreage and increasing impervious area will restore Puget Sound by 2020. Also, what happens after 2020 – will land conversions stop?

11. Question 1, page 4 and Question 2, page 3: The target for 2020 is to restore eelgrass beds to historic levels. Are historic levels known? Benchmark as written would be successful based on number of sites with increasing area, rather than maintaining or increasing beds with large areas.
12. Question 1, page 4 and Question 2, page 3: Should “wet years” be “dry years”? Also, define wet or dry years.
13. The “percent exceedance of instream flows” indicator represents only instream water use, and is thus not a relevant indicator of overall improvements in beneficial water use. One action that would cause this indicator to improve would be to simply ban all new ground- and surface-water withdrawals within the basin. However, such an action would not be perceived as a desirable target by most Puget Sound residents, because it would immediately stop all new development. The challenge we face is to optimize instream and out-of-stream freshwater use, so an appropriate indicator will need to capture both sides of the balance. And, despite the perceived complication, it will realistically need to be a set of indicators.
14. Question 1, page 4 – “PBDE levels...not higher than levels in herring from the Strait of Georgia” Explain why target is linked to Canadian levels.
15. Question 1, page 4 – toxics – why were pelagic fish selected? Why herring and not Chinook salmon?
16. Question 2, page 4 (bottom): The cause of fluctuations in herring populations is not well known and the text should make clear it speculates about the cause.
17. Question 2, page 5: The sentence “...decline in freshwater flow entering Puget Sound over the past 50 years, affecting water temperatures, marine water circulation, and oxygen conditions in water bodies” is a sweeping statement that should be supported with references.
18. Question 2, page 5 (bottom): Discussion of the effects of retreating glaciers is missing.
19. Question 2, page 7 (bottom paragraph): The wording of this paragraph is misleading. There have been numerous integrated ecosystem studies around the country (for example, in the Everglades, Chesapeake Bay, Mississippi Delta, and San Francisco Bay) that look at large scales to identify linkages between people and the environment. In Puget Sound, the USGS National Water Quality Assessment Program (NAWQA) has addressed some of these issues as well.
20. Question 3, page 7 (A.1.3.2): The statement “Begin with coarse-scale characterization maps that identify key areas for restoration, protection and development within the fastest growing watersheds” creates the impression that the most impacted watersheds will be analyzed first, while opportunities for protection and restoration may be greatest in watersheds that are least impacted.
21. Question 3, page 43, #12 and #13. Must include monitoring in these new efforts to demonstrate their effectiveness.
22. Question 3, page 47, #6. We agree that more work on indicators is needed. Proposed indicators need to be refined, new ones created, and multiple indicator indices developed.

23. Question 3, page 47: Suggest adding "USGS's National Water Quality Assessment Program for Puget Sound" to "7. Coordinate various integrated ecosystem assessment efforts for the Puget Sound ecosystem, including efforts by NOAA's Northwest Fisheries Science Center, Washington Biodiversity Council, and Puget Sound Nearshore Partnership."
24. Question 4, action table, priority B – all items in this restoration section are aquatic or nearshore habitats. Consider including upland terrestrial restoration priorities, especially for unique Puget Sound habitats such as low elevation forests, oak woodlands, and prairies.
25. Question 4, action table, priority D – no mention of a developing a robust Puget Sound research and monitoring program. Is this not a near term priority? If not, near term, when?

### **USGS detailed comments on Biennial Science Plan**

1. The work plan should explain that the Biennial Science Work Plan uses the Washington State fiscal period, which runs from July 1 of an odd-numbered year through June 30 of the next odd-numbered year.
2. Section 1.2.1 Table - In the row labeled "(2) What is the status of Puget Sound ...." and the column labeled "2.2 Conduct targeted investigations," in item 2.2.2 make sure the caption makes clear terrestrial and instream effects are included. The same comment applies to item 2.2.2 in the row labeled "(4) Where should we start?" and the column labeled "2.2 Conduct targeted investigations."
3. In the row labeled "(2) What is the status of Puget Sound ...." and the column labeled "2.2 Conduct targeted investigations," in item 2.2.3 add the word "drivers" so the caption reads "stressors and drivers affecting pelagic food web and forage fish." By using the term "pelagic food web" the implication is that only effects in the marine system of Puget Sound will be considered. This should be expanded to include the effects of stressors and drivers on the terrestrial/stream system of Puget Sound also. The same comment applies to item 2.2.3 in the row labeled "(4) Where should we start?" and the column labeled "2.2 Conduct targeted investigations."
4. The table is truncated at the bottom of page 3.
5. Section 1.2.2 –Adaptive management principles will be difficult to apply over the biennial planning and funding cycle. This is because the response of the Puget Sound ecosystem to changes in management actions will likely be slow and subtle relative to the immediate costs and impacts of new regulations or policy. Thus at the end of a two-year cycle, it is easy to imagine that indicators may not yet show any sign of recovery following management actions that will likely have an immediate effect on people's habits and expenses. In most cases, measureable ecosystem responses would be unlikely within two years.
6. Section 2.1.4 - Historical data should include qualitative/anecdotal information, such as information about historical extent of kelp beds that is known by older sports and commercial fishermen.
7. Section 2.2, "Partnership need" - It is unclear what the phrase "developing and demonstrating capabilities" means and why it is important without a brief explanation.

8. Section 2.2, "Partnership need" - The sentence "These studies should work across ecosystem issues of landscape ecology...." should be expanded to include "water availability," and "air quality."
9. Section 2.2.2 –When evaluating contaminant loads to Puget Sound, only surface water is considered, there is no mention of ground water. Ground water is important as both 1) direct discharge to the Sound, and 2) discharge to streams which then discharge to the Sound. Of course the volume of ground water is important, but ground water could be an important source of any dissolved, conservative contaminant, particularly some forms of nitrogen.
10. This section is too narrowly focused on stormwater and should include other sources of contaminants, such as point sources and contaminants in the air.
11. Section 2.2.2, 3<sup>rd</sup> paragraph – The scale of the watershed system to be analyzed should not be specified. It is possible that the best study designs address watersheds that are considerably larger or smaller.
12. Section 2.2.2, “possible studies within this topic ....” –
13. Add bullet “The effects of air pollution on receiving waters.”
14. Add bullet “The effects of population density and land conversion on water quality and aquatic habitat quantity and quality.”
15. Modify subbullet “reduce loading of toxics to surface waters...” to “reduce loading of toxics to surface and/or ground waters...”
16. Modify subbullet “reduce loading of nutrients and pathogens to surface waters...” to “reduce loading of nutrients and pathogens to surface and/or ground waters...”
17. Section 2.2.3 Topic 3 – Modify topic to “Stressors and drivers affecting....”
18. Section 2.2.3, 2<sup>nd</sup> paragraph – Language should be added so it is clear that the goal is to not only identify stressors, but also to quantify the link between drivers and stressors, so the impacts of changes in drivers can be modeled. For example, the most significant stressors in the marine system may have drivers in the terrestrial system.
19. Section 2.2.3, 2<sup>nd</sup> bullet under “Objectives of this project are to:”- remove the constraining clause “in the context of climate change.”
20. Section 2.3.1, 2<sup>nd</sup> paragraph – “Delivering peer-reviewed findings and synthesis products... by November 1, 2009” seems a near impossible task, if the Science Plan is implemented July 1, 2009. Even if the Plan were to be implemented January 1, 2009 it may be a difficult deadline to meet.
21. Section 3.1.1, “Partnership needs” – The sentence “(1) status and trends..., and factors...” should be modified to “(1) status and trends..., and cause and effect of factors...”

22. Section 3.1.1.1, preceding paragraph – It is not clear what is meant with “enhanced state of the environment.”
23. Section 3.1.2 - This section mentions capacity, specifically modeling capacity. When modeling watersheds and surface water, care should be taken to not rely solely on one model. There are several possible watershed/surface-water models that could be used, and typically they have different strengths and weaknesses. Though it may not seem cost effective, the capacity for multiple modeling efforts should be supported to take advantage of the strengths of the different models. This is a very common approach when modeling climate, for the same reason. Also, modeling capabilities should include ground-water modeling, and coupled ground-water/surface-water models that can be used to better understand the regional impacts of ground water on stream flows and surface-water loads.
24. Section 3.1.2, “Partnership needs”, bottom of 2<sup>nd</sup> paragraph – In the sentence “....food web and watershed models being developed by NOAA....” add “...., watershed and ground-water models and process-based water-quality models developed by USGS...”

Puget Sound Partnership  
our sound, our community, our chance