

PugetSoundPartnership

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SUMMARY OF COMMENTS AND RESPONSES HABITAT AND LAND USE

July 11, 2008

Habitat and Land Use
Comment Summary

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Introduction

Following is a summary of comments received on the Habitat and Land Use Topic. These comments were received at the Topic Forum Workshop, held on April 28 in Bremerton. More than 160 people attended the forum, providing comments on all aspects of the discussion draft. In addition, comments were obtained through email and through an online discussion tool on the Partnership’s web page. More than 300 pages of comments were received on the Habitat and Land Use discussion paper. These comments have been sorted and summarized by theme; and general responses provided. Many comments were made numerous times, and some request information at a level of detail that is beyond the scope of the topic forum paper or outside the Partnership’s objectives. The responses provided below indicate how the comment was considered; individual responses to each comment are not provided, but all comments were reviewed and considered. All comments received can be viewed on the Partnership’s web page.

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Key Themes

The following themes were repeated often in the comments received:

Management efforts should focus on the protection of intact and functioning ecosystem processes and habitats where the most pressure from development is being exerted.

Conversion of vegetated lands to impervious surfaces needs to be better managed.

Land use management, water quality, and water quality management need to be better integrated and managed.

Incentive-based tools need to be more comprehensively developed.

A centralized management approach that evaluates and studies habitat conditions on an ecosystem wide basis is preferred. This approach needs to be flexible to address local considerations.

There is a need to comprehensively address the full range of different habitat types (e.g. marine, freshwater, terrestrial, and transitional).

Evaluate and address institutional barriers to implementation of actions to improve the condition of the Sound.

Develop an integrated regulatory approach that incorporates regulations at all scales of governance.

Need to incorporate costs of actions and programs into the assessment of management strategies for more effective prioritization.

Topics Missing/Underemphasized

General Topics

Linkages between Scale and Process

Comment	Response
Expand on documented knowledge about threats to ecosystem processes and resulting habitat loss through land use practices.	This comment has been generally addressed throughout the paper.
Natural hazards such as seismic activities, volcanoes, earthquakes, flooding, drought, fires, landslides and tsunamis are natural phenomena that disturb ecosystems, impacting structures and functions as well as benefits to people, fish and wildlife.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1.
Make sure scope covers mountain tops to ocean. Uplands influence not adequately discussed.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1.
Regionally rare habitats such as prairie and oak woodlands should at least be mentioned in the report.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1 at Appendix S1-2, South Puget Sound Action Area.

Urban Threats / Management Strategies.

Comment	Response
Need to more thoroughly assess urban threats and management strategies.	Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that, given the scope of the assignment, the item(s) is adequately addressed within the discussion paper at Section P2. The Partnership could address these issues in the future.
Need to evaluate the impact of the Locks on the ecosystem: freshwater (estuary, freshwater [lakes]) and process impacts	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1 at Table S1-1.
Discuss marine hydropower issues.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1 at Table S1-1.
Need to describe the types of land use impacts wastewater systems have on habitat: <ul style="list-style-type: none"> • Driving growth by providing wastewater treatment/conveyance services – not an impact • Direct effects on habitat by placing facilities or conveying wastewater in that habitat. 	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1 at Table S1-1.
Airborne contaminants need to be discussed <ul style="list-style-type: none"> • The tables in Appendix S1-1 note Nitrogen, Toxins and Phosphorus components of major processes but fail to include the phenomenon and impacts of airborne contaminants such as mercury and the insecticide dieldrin on the ecosystems. 	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1 at Table S1-1.

Comment	Response
<p>These are of increasing concerns and the subject of significant studies and should be included in one of the topic forum papers. Given that the National Parks Service has completed a study of airborne contaminants and ecological impacts on aquatic ecosystems, there may be material to include in applicable Action Area overviews in Appendix S1-2.</p>	

Climate Change

Comment	Response
<p>Need to describe near term consequences of climate change.</p>	<p>Climate change is discussed in the paper in broad terms. See S1 “Gaps in Our Understanding...”</p>
<p>Risk analysis: identify specific habitats and locations that are likely to be most vulnerable (fish habitat) from climate change.</p>	<p>This comment has been addressed in the topic forum paper in broad terms. See S1 “Gaps in Our Understanding...”</p>
<p>Draw from existing predictions of regional changes to anticipate where climate change will influence vital ecological processes and the human drivers of change (e.g., economics, consumptive water use, etc).</p>	<p>This comment is generally addressed within the discussion paper. See S1 “Gaps in Our Understanding...” But we agree that as new information is known, the Partnership will need to consider the effects of climate change in crafting strategies to protect and restore Puget Sound.</p>

Agricultural/aquaculture threats (Marine / Terrestrial)

Comment	Response
Shellfish operators (commercial) are not adequately addressed. Especially geoduck operations.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1 at Table S1-1.
Address concerns regarding aquaculture (geoduck farms) <ul style="list-style-type: none"> • Fecal matter in Puget Sound • Food chain/competition for resources • Noise impacts to local residents • Rural shorelines converted to working geoduck farms • Liquifaction of bluffs resulting for pipe removal 	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1 at Table S1-1.

Critical Habitat Identification

Comment	Response
Need to discuss most critical habitat areas (for prioritization of addressing threats)	The Topic Forum core team agrees with this comment. However, this area of knowledge is currently incomplete. Scientific studies are underway to address this issue. Specifically, see: <ul style="list-style-type: none"> ▪ Puget Sound Change Analysis being conducted by the Nearshore Science Team of the Puget Sound Nearshore Partnership (PSNERP). ▪ Risk Analysis for the Puget Sound Ecosystem being conducted by NOAA Fisheries. See also, Section P2 Recommendation for a Rapid Assessment.

Keystone and Indicator Species

Comment	Response
Keystone species and their effects on habitat are not adequately discussed.	This comment is addressed in the Biodiversity Topic Forum discussion paper.
Indicators – need to examine how they are used.	Indicators will be discussed in greater detail as part of ongoing parallel work being conducted by the Partnership.

Habitat

Terrestrial Habitat

Comment	Response
Prairie habitat needs to be discussed. There has been a general reduction of Southern Puget Sound prairies to 10% of historic abundance. Major threat: exotic pest plants/ e.g. noxious weeds –knapweed, leafy spurge, tansey ragwort, scotch broom	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Appendix S1-2, South Puget Sound Action Area.
Invasive species need to be discussed.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Table S1-1. See also, the Biodiversity Topic Forum Team’s discussion paper for further discussion and analysis.

Freshwater Habitat

Comment	Response
Management of water levels is not adequately addressed as it relates to freshwater habitat (lakes typically, for recreational and related purposes).	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1 at Table S1-1.
Invasive species in estuarine and freshwater habitats need to be discussed.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1 at Table S1-1.
Consider impacts of gravel mining on freshwater habitat and water quality.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1 at Table S1-1.

Marine Habitat

Comment	Response
Impacts of aquatic dredged material disposal sites/management need to be discussed.-- Issue relates to physical structure, food web and species assemblages(e.g. may change benthic organisms)	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1 at Table S1-1.

Transition Habitats

Comment	Response
<p>Invasive species in transition habitats need to be discussed.</p>	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1 at Table S1-1. However, invasive species are noted, but not specifically in transition habitat. For further discussion please refer to the Biodiversity Topic Forum discussion paper.</p>
<p>When considering nearshore environments it is important to refer explicitly to business (e.g. residential and commercial construction, water dependent industries, paper mills) and special district (especially ports) when discussing voluntary incentives and tools, particularly because they more often address environmental impacts as part of development/mitigation rather than as a general operating norm.</p>	<p>Businesses and special districts are included in the consideration of incentives and other voluntary tools in Section P1 of the discussion paper.</p>

Management Approaches

Comment	Response
Alternative future solutions (similar to watershed modeling) need to be considered. Increase emphasis on future scenarios	There is the Puget Sound Future Scenarios project conducted by the University of Washington Urban Ecology Research Lab, in conjunction with PSNP. The project identified six possible futures for the Puget Sound region in 2050 (UW Urban Ecology Research Lab 2008). Future steps of this project will use the scenarios and modeling to assess nearshore functions and evaluate alternative restoration strategies.
Proposed management actions/threats should be prioritized by action area	The Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda
Focus on how to make recommended changes in addition to what should be done	The Topic Forum team was tasked with developing recommendations to address threats to habitat and land use for consideration as part of the Action Agenda. Implementation of the Action Agenda is being considered in detail by the Partnership.

Government Roles / Actions

Comment	Response
Actions of federal agencies (i.e. USACE). Federal actions are discussed, but more emphasis was placed on local and state actions. Needs more discussion of federal actions and how they can sometimes conflict with local actions.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P1 and P2.

Comment	Response
Acknowledge government. agencies have multiple goals	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P1.
State should regain ownership of shorelines	The comment was not incorporated into the discussion paper because it relates to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership.
Special purpose districts such as port, water, and sewer districts need to be mentioned as other governments with planning and decision-making powers that can affect habitat.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P1.

Effective Management Strategies

Regulatory

Comment	Response
SEPA is effective for certain agencies.	Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the item(s) is adequately addressed within the discussion paper.
Preserve the Forest Soil Complex <ul style="list-style-type: none"> • The Forest-Soil Complex (FSC) provides crucial watershed benefits effectively, cheaply, and passively. If this FSC is preserved to the greatest extent possible during the development process, it can provide a significant percentage of the valuable benefits listed above and reduce the need for complex LID structures and techniques to minimize surface water runoff impacts. 	The Topic Forum core team is interested in further understanding this comment. However at this time, the comment presents an opinion that does not include reference to scientific literature for support.

Management Strategies (Needs)

Comment	Response
Propose a strategy for evaluating process recovery.	This comment is generally addressed within the discussion paper. See Section P2, Rapid Assessment recommendation.

Comment	Response
<p>Expand from physical to biophysical:</p> <ul style="list-style-type: none"> • Expand the treatment of basic terrestrial and aquatic ecology (primary production, trophic structure, species, population and community dynamics) to build on robust description of the physical perspective of the system. • Explicitly recognize floodplains and riparian areas and their distance from freshwater and terrestrial ecosystems. • Expand the landscape perspective: i.e. place more emphasis on the relationships between structure and function in time and space, the hierarchical organization of things, patterns of species use over time and space, and propose a Sound-wide landscape level analysis or classification. 	<p>As to the first comment, specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the item(s) is adequately addressed within the discussion paper.</p> <p>As to the second comment, the comment does not provide enough detail for evaluation and/or incorporation into the Topic Forum discussion paper.</p> <p>As to the third comment, the comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1 and P2.</p>
<p>Further develop the insight that optimum ecological restoration is not the same as homogeneous protection at all geographic scales.</p> <ul style="list-style-type: none"> • The approach used for offsite mitigation in the Cross-Base Highway Corridor Program might offer a kind of template. The documented strategy included identification of redundant candidate project areas offsite (each with unknown availability), and for each investigates public and private long-term management options, etc. 	<p>The comment was not incorporated into the discussion paper because it relates to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. The Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>
<p>Recognize that the call for protection as a first priority does not take into consideration that the remaining areas may have relatively little functional value due to their context and position.</p> <ul style="list-style-type: none"> • Do not assume that undeveloped lots exist in key areas 	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the item(s) is adequately addressed within the discussion paper.</p>

Comment	Response
<p>Place greater emphasis on improved management of private land as critical complement to acquisition and restoration.</p> <ul style="list-style-type: none"> • Fragmentation of land - Consider acreage of private ownership and role in restoration of Puget Sound. 	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that, given the assignment, the comment (s) is adequately addressed within the discussion paper.</p>
<p>Focus on how BMPs for 5-10 acre lot patterns, could be used in agriculture and forestry to achieve desired outcomes, rather than just characterizing them as threats/stressors.</p>	<p>The comment was not incorporated into the discussion paper because it addresses a level of detail that is beyond the scope that the Topic Forum was asked to address by the Puget Sound Partnership. But, the Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda</p>
<p>Consider that different jurisdictions buy lands for different reasons; keep all the tools available – easements, ownership, etc.</p>	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core believes that the comment is adequately addressed within the discussion paper.</p>
<p>Acquisition – large restoration is expensive; tax mitigation projects (not restoration projects), and/or direct “fee in lieu” to fund large restoration.</p> <ul style="list-style-type: none"> • Acknowledge that acquisition is not an incentive. • Acquisitions must be followed by restoration to improve the condition of the land. • Address feasibility of large scale acquisition program; taxes, maintenance costs in developed areas 	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper.</p>

Comment	Response
<p>All strategies should place importance on and include incentive-based and land use-specific actions that create a willingness for private landholders to act in ways that protect and enhance the ecosystem. (Planning policies should focus more on “carrots and sticks” to incentivize land management.</p>	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper. See Section P2.</p>
<p>Explore existing shoreline quality rating systems, and apply to determine management approaches.</p>	<p>The comment was not incorporated into the discussion paper because it relates to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. The Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>

Comment	Response
<p>It will be difficult to remove all introduced species. Better to manage the current ones at acceptable levels and guard against new species being introduced.</p> <ul style="list-style-type: none"> • Without muddling the more linear and legitimate Partnership approach, develop flexible technical capabilities, i.e., provide a standardized GIS capacity, a shared ecosystem map overlay system displaying (a) the Puget Sound Basin, (b) the Water Resource Inventory Areas (WRIA) boundaries and plans, and where available (c) 1960, 2000 and 2040 data sets (e.g., now available Puget Sound Regional Council maps), etc. • For each sub-basin; the Geographic Information System (GIS) capability must be transparent to GIS for Water Resource Inventory Areas (WRIAS), to local land use GIS as well as habitat GIS (which is already proposed in the Habitat paper, P.20), and to stormwater (Water Quality, p. 30). • Priorities and an action agenda must be decisively developed in two distinct categories: overall, and sub-basin with some shared elements. 	<p>The comment was not incorporated into the discussion paper because it relates to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. However, the Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>

Principles/Criteria that should be reflected in the strategies to address threats

General

Comment	Response
Prioritization, holistic approach needed. Start to act quickly with known effective tactics	This comment is generally addressed within the discussion paper.
Need clear link between science and policy. Science should inform policy, not other way around	This comment is generally addressed within the discussion paper.
Solutions need to be embraced by open market / economy (incentive-based approaches)	The Topic Forum paper addresses this comment; refer to Section P2.
Recommendations are too regulatory in nature, varied tools are needed (i.e. incentives)	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2.
Need a more community-based approach, with less regulatory emphasis	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2.
Need more emphasis on local decision making. Allow action areas to establish priorities – builds ownership and geo-relevance	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2.
There are many actions that can be taken now, without further study. Look for both short term and long term approaches.	Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper.

Comment	Response
Compliance and effectiveness monitoring needs to be high priority	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections P1 and P2.
The Precautionary Principle should be applied	Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper.
Needs a standard set of expectations	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2.
Emphasize avoidance rather than mitigation Frame the issues in a positive manner for the general public	Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper.
Avoid excessive dependence on process – leaner process is needed	Specific changes were not made to the draft as a result of this comment, because the Topic Forum believes that the comment is adequately addressed within the discussion paper. Refer to Section P2.

Adaptive Management

Comment	Response
<p>Develop a Sound-wide monitoring/adaptive management strategy that uses physical, chemical, and biological indicators, including triggers for reopening watershed plans.</p> <ul style="list-style-type: none"> • Consider monitoring components of HCPs and how the information gained is/can be woven into the broader array of efforts and initiatives. • Expand to note value of having a portfolio of corrective actions to choose from, and the recognition that as we learn more, commitments to past actions can be replaced – not dog-piled onto. • Focus on items with high and moderate risk. Adaptive Management may not be the appropriate approach for everything. 	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper. With regard to how this work is carried out, the comment was not incorporated into the discussion paper because it relates to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. The Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>
<p>Work with organizations of all type (specific reference to local conservation groups) to develop adaptive management protocols that can be applied on the site-specific scale, but have impacts to the larger watershed or ecosystem scale.</p> <ul style="list-style-type: none"> • Timber, Fish and Wildlife is an excellent example that should be included; participants should be invited to provide insights in a focus group (recommend contacting Steve Ralph and Northwest Indian Fisheries Commission). 	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper. With regard to how this work is carried out, the comment was not incorporated into the discussion paper because it relates to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. The Partnership will address implementation., The Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>
<p>The Forum overlooks the existence of the Forest Practices Adaptive Management Program (AMP)</p>	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P1, Appendix 1.</p>

Ecosystem Approach

Comment	Response
<p>Although managing at the scale of the ecosystem is appropriate and needed, the information provided thus far presents this management approach as a ‘black box.’</p> <ul style="list-style-type: none"> • The complexity of developing an approach that ranges from mountain tops to oceans, from state governed regulations to weekend planting parties, and all the minutia in between needs to be addressed. 	<p>The Topic Forum paper was intended to provide an overview, and this comment addresses a level of detailed analysis that is beyond the scope of the topic forum evaluation.</p>
<p>Need to develop an approach for addressing the multi-jurisdictional control in watersheds.</p>	<p>The Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>

Baselines/ Framework

Comment	Response
<p>Set preliminary outcomes that are attainable, in order to test our ability to effect a change</p>	<p>The Topic Forum paper has included strategies with outcomes that the core group believes are attainable.</p>
<p>Define acceptable and unacceptable outcomes. The acceptability of the findings must be judged for the data to become meaningful in the decision-making process.</p> <ul style="list-style-type: none"> • Need to establish what is the “desired condition” for habitats and species • What is the target for “pristine ecosystem?” • What is the point in determining carrying capacity? 	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections S1 and S2.</p>

Comment	Response
Need an ecosystem-wide framework. There is an incongruity with habitat approaches that could be addressed by an ecosystem wide framework	The paper includes a recommendation for an ecosystem wide framework.
Use/incorporate Puget Sound Action Team work in developing a baseline	Work developed by the Puget Sound Action Team is one of many sources of information used in developing the baseline for the Topic Forum Paper and Action Agenda.
Scientific framework – need an explicit definition of the minimum baseline of land use/habitat conditions	Specific changes were not made to the draft as a result of this comment, because the Topic Forum core group believes that the comment has been addressed within the discussion paper. The Topic Forum paper includes recommendations for a scientific framework. See Section P2.
Science and social perspective needed. Define acceptable outcomes for social and biological perspectives <ul style="list-style-type: none"> • Improve cohesiveness and organization of responses to science questions: i.e. begin with robust conceptual model that balances detail and simplicity 	The Topic Forum core group believes that this comment is adequately addressed within the discussion paper. The Partnership is working on defining broad outcomes.
Need a larger scale science program with data provided to implementers that would also serve as the baseline	Section P2 recommendations address the need for a larger scale science program.
Future quality of life needs starting framework	This comment is addressed in the Human Well Being Topic Forum discussion paper.

Comment	Response
Expand the conceptual model to take into account human ecology. <ul style="list-style-type: none"> • Include humans more explicitly in all conceptual diagrams and tables, where they are not currently accounted for. 	This comment will be addressed as part of ongoing work conducted by the Partnership, particularly by incorporating quality of life considerations in Action Agenda priorities. See also, the Human Well Being Topic Forum discussion paper.

Mitigation

Comment	Response
Look at National Marine Sanctuary regulations as a framework for looking at mitigation	The Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda
Do not treat mitigation simplistically (on-site vs. off-site)	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2.
Need to better define “Watershed-based” mitigation strategy <ul style="list-style-type: none"> • What is it? • How does it affect property ownership issues? • Fragmented land ownership is large obstacle in landscape scale restoration 	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2.
Strong mitigation or prevention of near-stream development should be implemented. <ul style="list-style-type: none"> • Protection of the creeks and remaining forested areas should be the foremost concern. 	This comment is generally addressed in the discussion paper. See Section P2.

Actions that should be continued, added, changed, stopped

Institutional Barriers

Comment	Response
A thorough analysis of institutional barriers (laws, standards, regulations) is needed from identification of the problem to implementation of solutions. Are the regulations consistent and well applied? Where has there been success? Where is more work needed?	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections P1 and P2.
Minimize redundancy (regulations) as part of removing institutional barriers.	This recommendation is included in the Topic Forum paper. See Section P2.
Remove existing regulatory barriers to "doing the right thing"	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2. The Partnership is also looking into implementation barriers related to regulation.
Fragmentation of agencies is a problem <ul style="list-style-type: none"> • Help existing, overlapping entities harmonize and avoid working at cross purposes. • Build on working WRIA plans • Uniformity vs. idiosyncrasy – in some cases it is advantageous for everyone to do the same thing. Ex. BAS. • Give examples of how overarching agency would be helpful. 	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections P1 and P2.

Regulations

Comment	Response
<p>One size fits all set of regulations is not a good or workable solution.</p> <ul style="list-style-type: none"> • Do not scrap existing regulations as only option. Make existing regulations more effective (e.g., GMA). • The Forum's Preliminary Policy Recommendations call for "at state-level a single, integrated, set of regulations that apply in [sic] to the lands, streams and marine areas within Puget Sound to replace our present fragmented system of regulations." This recommendation may be inconsistent with RCW 90.71.360 	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections P1 and P2.</p>
<p>Evaluate current status of Open Space, Timber, and Agricultural programs' effectiveness.</p>	<p>The Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda</p>
<p>The Department of Ecology needs to re-write Phase I and II stormwater permits on a Puget Sound-basis, as the current permits will not support recovery.</p>	<p>This issue is discussed in the Water Quality Topic Forum paper. This comment was not specifically incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper because it presents an opinion and lacks citation to supporting scientific data or literature.</p>

Comment	Response
<p>No Vested Rights Doctrine:</p> <ul style="list-style-type: none"> • would drive up housing costs and hurt state economy • Land use applications vest to current regulations only when they are substantially complete and a significant amount of money goes into this long process • Current vesting laws do not apply to valid health, safety, and welfare regulations or the SEPA • Legislature considered and rejected this concept. • What would the new date be? • How scientifically could a later vesting date significantly improve ecological functions 	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2.</p>
<p>The paper’s proposed regulatory paradigm is not viable</p> <ul style="list-style-type: none"> • requires legislative changes at local, state, and perhaps federal levels • involves massive restructuring • would require immense political will, funds and stakeholder buy-in 	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections P1 and P2.</p>

Comment	Response
<p>LID – Should not be mandatory</p> <ul style="list-style-type: none"> • Encourage where appropriate • Is already in use under Built Green • Recognize LID limitations – <ol style="list-style-type: none"> 1. infiltrative LID techniques do not work well over till soils or where water may be delivered to steep slopes subject to landslides, and 2. infiltrating roof runoff is expensive for dense urban infrastructure. 3. LID feature to lessen impervious surfaces not compatible with fire districts which are not receptive to narrower roadways 4. requiring rain barrels/rain gardens is not realistic on homeowners who are not likely to use them • Unclear that LID in urban areas would benefit Puget Sound • Promote LID by removing regulatory barriers to it • Create incentives for commercial and residential builders to use it • Educate the public about LID features they could employ 	<p>LID is addressed primarily in the Water Quality Topic Forum discussion paper. However, some changes were incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2.</p>

Comment	Response
<p>Sensible Growth Practices – Should be mandatory</p> <ul style="list-style-type: none"> • Identify sensible growth levels in rural areas – i.e. large lots in rural areas may cause more harm than good given population projections. • Large lot zoning is difficult to change in the future as population grows • Urban growth areas must remain flexible – it was never the intent of the GMA to rigidly maintain current urban growth boundaries • Local jurisdictions should re-examine height restrictions to allow for greater density in urban areas. • Concurrency should not a state mandate because all this policy serves to do is to promote single-occupant vehicle use. 	<p>The Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>
<p>Better regulate the commercial shellfish industry. Aquaculture industry is not adequately regulated, causing many impacts</p>	<p>This comment is addressed in both the Water Quality and Human Health Topic Forum discussion papers. However, some changes were incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2.</p>
<p>Strengthen DNR Forest Practices regulations, especially near critical areas and forest conversions near shorelines</p>	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper.</p>

Comment	Response
<p>Paper is overly critical of regional planning.</p> <ul style="list-style-type: none"> • Paper is correct in pointing out that the existing regulatory framework is fragmented, but needs to acknowledge that the current framework has not been adequately funded, implemented, or enforced. 	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections P1, Appendix P1-1 and P2.</p>
<p>Consider watershed zoning which provides protections that ensure sustainable hydrology, ecosystems, wetlands, riparian areas, watershed connectivity and cover, wildlife corridors, and all the sensitive areas that comprise a watershed</p>	<p>The comment was not specifically incorporated into the discussion paper because it requests a level of detailed analysis beyond the scope that the Topic Forum was asked to address by the Puget Sound Partnership. The comment is generally discussed in Sections P1 and P2. The Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>

Specific Regulatory Actions

Comment	Response
<p>Clean up failing septic systems and require new systems to remove nutrients</p> <ul style="list-style-type: none"> • Disallow septic tanks within 20 feet of the groundwater table or within 500 feet from the shoreline. 	<p>This comment is discussed in the Human Health Topic Forum paper and the Water Quality Topic Forum paper. The Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>
<p>Stop unnecessary residential clearing and grading</p>	<p>The comment is generally addressed in the Topic Forum paper as part of discussion of techniques to preserve and protect habitat.</p>

Comment	Response
<p>Establish an Abatement Fund to collect fees from civil infractions and use this money to pay for remedial actions and public education to reduce infractions.</p>	<p>The comment was not incorporated into the discussion paper because it requests a level of detailed analysis that is beyond the level that the Topic Forum was asked to address by the Puget Sound Partnership. But, the Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>
<p>Establish a code section to permit the recording of liens on property for the cost of restoration conducted by the County Executive.</p>	<p>The comment was not incorporated into the discussion paper because it requests a level of detailed analysis that is beyond the level that the Topic Forum was asked to address by the Puget Sound Partnership. But, the Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>
<p>Through regulation and strict enforcement, prohibit cruise ships from dumping sewage into Puget Sound</p>	<p>This issue is addressed in the Human Health and Water Quality Topic Forum papers..</p>
<p>Require tug boats for shippers of hazardous materials in state waters.</p>	<p>. This issue is addressed in the Water Quality Topic Forum paper.</p>
<p>Include ‘Environmental Program’ in requirements for Record of Decision (makes actions obligatory)</p>	<p>The comment was not incorporated into the discussion paper because it relates to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. But, the Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda..</p>

Comment	Response
<p>Set more stringent regulatory rules for the protection of remaining wetlands</p> <ul style="list-style-type: none"> • Some wetlands are being defined out of existence. • Easy to get permit for damage after the fact. Close the loop hole 	<p>The topic forum paper recommendations include more stringent protections for sensitive areas, including wetlands. See Section P2.</p>
<p>Reduce ‘Threshold’ numbers for logging</p>	<p>The comment was not specifically incorporated into the discussion paper because requests a level of detailed analysis beyond the scope that the Topic Forum was asked to address by the Puget Sound Partnership. But, the Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>
<p>•Require new “soft” shoreline armoring instead of concrete bulkheads.</p>	<p>The comment was not incorporated into the discussion paper because it requests a level of detail beyond the scope that the Topic Forum was asked to address by the Puget Sound Partnership. But, the Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda..</p>
<p>•Ban “mixing zones” for toxic chemicals.</p>	<p>This comment is addressed in the Water Quality Topic Forum Paper.</p>
<p>•Set instream water flow rules to protect fish and wildlife</p>	<p>This comment is addressed in the Water Quantity Topic Forum Paper.</p>
<p>“Preliminary Governance Recommendation” - instead of an agency with regulatory authority, set up a group of scientists, planners, and legal staff as a long-term “Puget Sound Wisdom Council” which reports to the Governor and is a permanent part of the Governor’s advisory cabinet. This group could even be a part of the UW and be headquartered there.</p>	<p>This comment is not specifically addressed in the revised discussion paper, however, it is generally addressed in Section P2. . The Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>

Comment	Response
<p>There were several property rights advocates in discussions group at the topic forum who were absolutely enraged at the idea of a “son of PSP” agency with regulatory authority. A “Puget Sound Wisdom Council” without regulatory authority, would inherently have more credibility and a chance of success.</p>	
<p>Mandate minimum BAS for CAOs and Shoreline Master Programs, such as "65/10/100" (65% native vegetation left, 10% effective impervious surface, 100% infiltration of post-development runoff compared to predevelopment), so that a minimum of science-based protection is the core of every local jurisdiction's protection framework.</p>	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections P1 and P2.</p>

Enforcement

Comment	Response
<p>Recognize limits of relying on code enforcement and mitigation to accomplish restoration goals.</p> <ul style="list-style-type: none"> • Need to more stringently enforce regulatory measures • Must fund enforcement of existing regulations • Need better training for implementation 	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections S2, P1 and P2.</p>
<p>The state has the authority to implement a number of identified tools and strategies now. Discuss why those tools and strategies are not already being used, particularly at the state agency level (e.g., is it a resource issue? Priority issue?)</p>	<p>Institutional barriers to implementation are being addressed by the Partnership through a separate, ongoing process. The Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>

Comment	Response
<p>Improve programs at (County & Municipal) Departments of Planning and Development</p> <ul style="list-style-type: none"> • Establish a dedicated staff to investigate complaints about wetlands, fish and wildlife, and forest practices. The enforcement staff should confirm violations and follow each case to the point that the landowner makes applications to the Resource Management Section. They would issue citations and refer cases to the Prosecuting Attorney. • Consolidate enforcement work in the Code Enforcement Section. • Inspect complaints promptly to stop further damage and inform the landowner about the problems. Establish a performance measure to perform inspections. • Assign a priority to confirmed violations after a physical inspection of the site. Base the priority on the severity and potential impact of the violation. Use this priority to direct enforcement efforts. • Create a report that shows the status of all complaints, enforcement actions and the final resolution. Use only one system to track the status of complaints and use that system or data base to prepare reports and to respond to inquiries about complaints. Data could eventually be available to the public, similar to permit data. • Issue civil citations to violators. Collect the money into an abatement fund. Inform County Councilmember of citations issued in their districts. List violators on the County’s public website. • Assure that land owners remove fill illegally placed in regulated wetlands or streams. Hire contractors to remove illegal fill when landowners are uncooperative. Place a lien on the property for the costs and enforce the lien within 3 years. • Initiate a public education program targeted at landowners and the building community. The goal is to cause them to want to protect drinking water, reduce flooding and shelter wildlife by protecting wetlands, streams and buffers during development. • Publicize positive and effective actions taken by enlightened builders and landowners to protect critical natural resources. 	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections S1, P1 and P2. However, some of the comments were not incorporated into the discussion paper because they relate to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. But, the Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>

Comment	Response
<p>Enforcement of violations that really do stop the destructive activity, that monitor repeat offenders with "3 strikes rule" and revokes permit license, or requires restoration and fines that are appropriate to the violation. Small fines do not stop large developer's who log, cut, clear and fill without permit and "apologize" later - or not at all and then proceed a few months later with on-site development.</p>	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections S1, P1 and P2. However, some of the comments were not incorporated into the discussion paper because they relate to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. But, the Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>

Existing Programs

Comment	Response
<p>See what other places are doing – look to:</p> <ul style="list-style-type: none"> • Chesapeake Bay, • Malmö, • Sweden; • Michigan, • Hawaii 	<p>Lessons learned from other areas are included in all of the Topic Forum papers, including the Habitat and Land Use paper. See also the Species Biodiversity Topic Forum paper for a discussion of species protection programs in other areas.</p>
<p>Floodplain development and FEMA - do we want to continue to subsidize development in the floodplain?</p>	<p>Floodplain development is discussed in the Topic Forum paper; see Section P1.</p>
<p>Acknowledge that key state environmental laws (SEPA, SMA, Forest Practices) were not designed to protect at the ecosystem level</p>	<p>This comment is discussed in the Topic Forum paper. See Section P1.</p>
<p>GMA is a tool for concentrating growth, not for slowing region's growth. As an environmental tool, it has shortcomings.</p>	<p>This comment is discussed in the Topic Forum paper. See Section P1.</p>

Comment	Response
<ul style="list-style-type: none"> • GMA – try to engage audience and avoid unnecessary divisiveness by presenting a more evenhanded, in-depth evaluation of the GMA including growth management and UGA boundaries. Include national, and more neutral references. • <u>The Growth Management Act</u>: Lack of political will is not mentioned; but, it is critical in terms of effectiveness. Some of the limitations in applying the GMA broader precepts and principles lie in the lack of broad citizen/resident and business acceptance, economic development drivers, political will of elected officials and other attributes that reflect short term and more self-interested human behavior. This is a reason to revisit the public outreach and education element of social change and to determine how to include businesses and special districts in a positive way. 	<p>.</p>
<ul style="list-style-type: none"> • Explain more clearly why the GMA should be thrown out (?) • Not all GMA initiatives are being funded but should be. 	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections P1 and P2.</p>
<p>Look at what local watershed groups are doing – tap into their knowledge</p>	<p>This comment is discussed in the Topic Forum paper. See Section P1.</p>
<p>Look at DNR Aquatic Reserve Program, Adaptive Management, small landowner communities, and zoning authority</p>	<p>This comment is discussed in the Topic Forum paper. See Section P1.</p>
<p>Look at water cleanup in Sinclair Inlet for examples of what should be done</p>	<p>The comment was not specifically incorporated into the discussion paper because it relates to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. But, the</p>

Comment	Response
	Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.
More effectively utilize Wild and Scenic and Tier III designations. <ul style="list-style-type: none"> • Incorporate into the discussion draft 	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P1.
Include LID/green infrastructure programs in management approaches <ul style="list-style-type: none"> • More emphasis on LID • Prioritize porous pavement. • Within UGA – promote building up and not out. • reduce loss of forest cover and the increase of impervious surface - good example of a measure that can be started now without waiting for an assessment. 	LID is discussed in the Topic Forum paper. See Sections P1 and P2. Refer to the Water Quality Topic Forum paper for additional discussion of this issue..
Utilize programs such as TDR and conservation easements	This comment is discussed in the Topic Forum paper in Sections P1 and P2.
Expand upon Department of Ecology Solid Waste and Contaminated Sites – grants, financial assistance, monitoring, and other related programs	This comment is discussed in the Topic Forum paper. See Sections P1 and P2.
Conservation Districts offer an array of voluntary small farm management programs and educational programs and activities concerning noxious weeds, livestock fencing, etc.	Conservation Districts and their programs are discussed in the Topic Forum paper in Section P1.
A regulatory tool for the protection of the aquatic environment, the multi-agency Dredged Material Management Program (ACOE, EPA, DOE,	The tool referenced is designed to manage and mitigate the impacts of a specific activity, underwater dredging

Comment	Response
<p>DNR) manages 8 unconfined open water dredged material sites around Puget Sound/Strait of Juan de Fuca.</p>	<p>operations in Puget Sound. The program was not included in the list of protective regulatory programs in the discussion paper because the core team felt that the primary purpose of the program is to mitigate impacts, rather than protect. The underwater dredging program is discussed in the Species Biodiversity topic forum paper.</p>
<p>The Department of Ecology Toxics Cleanup Program addresses sediment source control activities, dredged material management, clean up activities and related efforts for the protection of the aquatic environment.</p>	<p>This comment is addressed in the Water Quality Topic Forum discussion paper.</p>
<p>Fully contained communities – legislation at state and local governmental levels provide for fully contained communities as a tool to guide/manage growth. Despite the controversies, e.g. as in Snohomish Co., it should be included.</p>	<p>The comment was not incorporated into revisions of the discussion draft at this time. The Topic Forum disagrees that FCCs are effective tools for protecting ecosystems outside of UGAs. No references to scientific studies or data were presented that support the contention that they should be encouraged our used.</p>
<p>Habitat Conservation Plan: An HCP is a major planning and conservation tool that is intended to accommodate development while providing for conservation of single or multiple species and because its application has implications for understanding and addressing impacts using the ecosystem approach. As is the case with NEPA, the area covered by an HPP may be a component of or fall within a larger ecosystem; but, the monitoring and adaptive management may not take into consideration impacts beyond the boundaries of the approved HCP. Though not without controversy, but they are integral to a Puget-Sound-wide dialogue concerning land use management relative to habitat protection and enhancement.</p>	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core believes that the comment is adequately addressed within the discussion paper. See Section P1, Appendix 1.</p>

Comment	Response
<p>NEPA – There are a number of federal and tribal trust lands within the state of Washington to which the NEPA process applies. The action agenda needs to include NEPA as a tool because the action agenda quite correctly advocates the use of the ecosystem approach</p> <p>Disallow government ‘exemptions’ from environmental compliance.</p> <ul style="list-style-type: none"> • Bring Agencies (e.g. WSDOT, DNR, COE) into compliance and disallow “exemptions”. 	<p>The first comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P1, Appendix 1.</p> <p>As to the second comment, the comment expresses an opinion that is not supported by studies or documented research .</p>

New Programs

Comment	Response
<p>Technical Expertise teams should be formed to provide regional / basin-wide oversight for the restoration of different habitat types (i.e. freshwater, nearshore, marine, and terrestrial)</p>	<p>This suggestion may be considered by the Ecosystem Coordination Board as they consider implementation strategies.</p>
<p>Rapid Assessments are needed - Identify trade-offs explicitly inherent to rapid assessments (what do you give up by doing it rapidly)</p>	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections S1 and P2.</p>
<p>The Partnership should include habitat restoration incentive programs for urban watersheds.</p>	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper.</p>
<p>Engage individual landowners. Provide education and incentives for people to "do the right thing." Need a list of "good" practices for property owners - shoreline and upland</p>	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2.</p>

Comment	Response
<p>Make Action Agendas at the WRIA scale</p> <ul style="list-style-type: none"> • Action Package restoration – creates concise goals 	<p>The comment was not incorporated into the discussion paper because it relates to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. The Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>
<p>Incentivize development and redevelopment that restores degraded habitat –</p> <ul style="list-style-type: none"> • Smaller buffers • Expedited permits 	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper. See Section P2.</p>
<p>Create separate ‘Stewardship Programs’ section.</p> <ul style="list-style-type: none"> • Include restoration such as day-to-day control of invasive species and small steps to improve overall habitat. 	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper. See Sections P1 and P2. See also the Species Biodiversity Topic Forum paper.</p>
<p>Adopt the Natural Step framework to sustainability</p>	<p>The comment does not provide enough detail for evaluation and/or incorporation into the Topic Forum discussion paper.</p>
<p>Implement a Citizen Trust to help citizens keep Puget Sound in the spotlight, and whose ongoing findings/rumblings would feed into a permanent caucus of accountable agencies as is already being assembled, and with both of these linked by a credible and transparent risk assessment and risk management component which would be co-opted by neither the mission specific agencies nor "the public".</p>	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum believes that the item(s) is adequately addressed within the discussion paper. See Section P2, Governance Recommendations.</p>

Research / Data

Comment	Response
How effective and certain are we that restoration projects address threats to habitat?	Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper. See Section S2.
Some of the proposals would have the potential to affect large areas of Puget Sound, such as in Admiralty Inlet (1,400 turbines) and the Tacoma Narrows (60 turbines). Some folks have identified a concern that the removal of energy will change the strength of the currents in the southern most parts of Puget Sound. Recognize that many local citizens who know their local resources ARE the experts.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section S1, Table S1-1.
Research impacts and dangers of fluoridated water.	This comment is discussed briefly in the Human Health Topic Forum paper, but is considered beyond the scope of issues evaluated by the Partnership.
Need coordinated databases	The comment was not specifically incorporated into the discussion paper because it relates to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. The recommendation for coordinated databases is being considered by the Partnership as part of Performance Management (accountability, adaptive management and ecological monitoring).

Comment	Response
Need effectiveness monitoring and compliance monitoring	Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper. The Partnership is evaluating the issue of monitoring as part of a Performance Management system.
<ul style="list-style-type: none"> • Initiate research of Forest-Soil Complex (FSC) role and function. 	The comment was not specifically incorporated into the discussion paper because it relates to matters beyond the scope that the Topic Forum was asked to address by the Puget Sound Partnership. The Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.
Need assessment of success of BMPs	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2.
Need study on effectiveness of Transfer of Development Rights	Specific changes were not made to the draft as a result of this comment, because the Topic Forum core believes that the comment is adequately addressed within the discussion paper. See Sections P1 and P2.
Evaluate fiscal consequences of land use decisions on local fiscal health of county governments	The Partnership is currently evaluating the costs and financial impacts of proposed recommendations as part of its ongoing funding evaluation. In addition, the Human Well Being Discussion Paper includes a discussion of fiscal consequences of regulations.

Comment	Response
<p>Status and Trends monitoring/effectiveness monitoring – Salmon Recovery Funding Board should work with Salmon Recovery Program to collect and evaluate the manner and extent to which monitoring data is/has been collected and used by salmon recovery funding groups. They should also address how to weave results into the overall Monitoring and Adaptive Management Approach developed by individual watershed recovery groups and the Salmon Recovery Program.</p>	<p>Ecological monitoring, including integration with the salmon recovery program, is being considered as part of the ongoing work to develop the Strategic Science Plan and Performance Management System.</p>
<p>In particular we need more information about how human activities affect freshwater and nearshore processes, structures, and functions.</p>	<p>This topic is generally addressed in Sections S2, P1 and P2, and in the Human Well Being Discussion Paper.</p>
<p>Research the effects of losing so many large conifers. Any impact on Puget Sound?</p>	<p>The comment was not specifically incorporated into the discussion paper because it requests a level of detail beyond the scope that the Topic Forum was asked to address by the Puget Sound Partnership. The Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>

Communication (Education and Outreach)

Comment	Response
<p>What are the other processes, and under what timeline will education/outreach actions and funding strategies be defined, discussed with the broad public, and synthesized in work across the topics?</p>	<p>The Partnership is developing and implementing a comprehensive public outreach and education program as part of a separate process. Similarly, funding strategies are currently being developed by the Partnership. Results of these ongoing efforts will be incorporated into the Action Agenda. in future phases of the Action Agenda.</p>

Comment	Response
<p>This ignores political will, individual “property rights” and business resistance, and the lack of broad community support for applying tools that will help protect and restore the ecosystem components. There is no way around acknowledging the importance of social change through public education and involvement as a major factor in achieving the long term solution to the degrading habitats in Puget Sound.</p>	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Sections P1 and P2.</p>
<p>What assistance and techniques will be made available to local governments, NGOs and planning groups to help with these critical tasks?</p>	<p>The issue of implementation will be considered in detail by the Partnership, and will be discussed as the draft strategies are developed..</p>
<p>Given the importance of these elements, we suggest that the PSP web site include information on how they are currently or will, in the future, be addressed and included in the action agenda.</p>	<p>Implementation plans and strategies will be made publicly available as they are refined and ready for public review.</p>
<p>Implement an EnviroCrimes Hotline</p>	<p>The comment requests a level of detail that is beyond the scope the Topic Forum was asked to address by the Puget Sound Partnership. The Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>
<p>Increase sophistication of outreach efforts: programs that educate and encourage property owners are providing to be increasingly effective as they become increasingly sophisticated.</p> <ul style="list-style-type: none"> • Consider alternatives that spread new ideas by reaching a critical mass of easily influenced people, and not by “opinion leaders” 	<p>The Partnership is developing and implementing a comprehensive public outreach and education program as part of a separate ongoing process.</p>

Economics

Comment	Response
Use Environmental Economics when analyzing the cost of development, in contrast to the way we value property based on what can be developed.	This issue is discussed in the Human Well Being Topic Forum Discussion Paper.
Consider how the values, politics, priorities, and resources of individual landowners vary within and among watersheds.	This issue is discussed in the Human Well Being Topic Forum Discussion Paper.
Proposed actions need to be linked with economic consequences	This issue is discussed in Human Well Being Topic Forum Paper

Partnerships

Comment	Response
Private-public partnerships need to be fostered as a key component of land use/habitat management	Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper.

Funding

Comment	Response
Fund enforcement of existing regulations	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P1 and P2.
Existing funding priorities need to be reviewed for their effectiveness, to determine if funds are being spent wisely.	Funding strategies are being considered by the Partnership as part of a separate ongoing effort.
The Partnership should use removal of funding as a "big stick" for compliance	This comment addresses broad issues being considered by the Partnership, and go beyond the scope of the Topic Forums.

Comment	Response
The Partnership should make strategic investments to counties/jurisdictions that need help - reward those that are already doing monitoring and other appropriate programs	This comment addresses broad issues being considered by the Partnership, and go beyond the scope of the Topic Forum.
Fund new scientific research.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2. Through a separate process, the Partnership and Science Panel are working to prioritize research needs.

Recommended Actions

Comment	Response
Prohibit building in high-risk areas, which causes critical-area disturbances and subsequent need for costly protection efforts.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2.
Maintain effective buffers of all critical watershed elements.	This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper. See Section P2.
•Ban concrete bulkheads.	The comment was not specifically incorporated into the discussion paper because it requests a level of detailed discussion beyond the scope of the Topic Forum. The Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.
•Truly protect salmon-bearing streams.	The comment is addressed within the discussion paper. See Section P2.
•Encourage/require low-impact building.	The comment is addressed within the discussion paper. See Section P2.

Comment	Response
<ul style="list-style-type: none"> •Limit impervious surfaces everywhere. •Regulate/ban shoreline development in shellfish areas. 	These issues are discussed within the Topic Paper. Refer to Section P2 for the Topic Forum recommendations.
<ul style="list-style-type: none"> •Increase state efforts to remove invasive plants, such as spartina. 	This comment is addressed in the Species Biodiversity Topic Forum Paper.
<ul style="list-style-type: none"> •Require periodic examinations of septic systems. 	This comment is addressed in the Human Health Topic Forum Paper.
<ul style="list-style-type: none"> •Get stiffer legislation on the use of pesticides, herbicides, etc. 	This comment is addressed in the Water Quality Topic Forum Paper.
<ul style="list-style-type: none"> •Ban clear-cutting anywhere, but especially along streams (the DNR routinely allows such clear-cutting). 	Discussion of forestry practices is included in the Habitat and Land Use as well as the Species and Biodiversity Topic Forum papers.
<ul style="list-style-type: none"> •Ban the use of certain plastics along the shoreline. 	The comment was not specifically incorporated into the discussion paper because it relates to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. The Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.
<ul style="list-style-type: none"> •Protect more forests, beaches, wildlife habitat areas before they ALL fall to development. 	Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper.
<ul style="list-style-type: none"> •Give some muscle to the State Environmental Policy Act. SEPA still has no enforcement capability. 	Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper.

Comment	Response
<ul style="list-style-type: none"> •Consider more seriously the effects of noise and light pollution on habitat. 	<p>The comment was not incorporated into the discussion paper because it relates to matters beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. The issue is discussed in the Species Biodiversity Topic Forum paper.</p>
<ul style="list-style-type: none"> •Educate! 	<p>The Topic Forum Paper includes recommendations for education. In addition, the Partnership is undertaking a comprehensive public education and outreach program as part of a separate, ongoing effort.</p>
<p>The shoreline management act and GMA need to be revisited to see how they are doing with respect to both status and threats (current) of Puget Sound and also a changing scenario under climate change.</p>	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper.</p>
<p>Target key species and habitats such as eelgrass, herring, sand lance spawning as base of food chain. Target key WSD processes such as shoreline hardening reducing feeder bluffs, LWD role in stream habitat, bank and channel stability. Multiple species benefit rather than single SMP management.</p>	<p>This comment is addressed in the Species Biodiversity Topic Forum discussion paper.</p>
<ul style="list-style-type: none"> • Reduce development “footprint” 	<p>The Topic Forum Paper includes recommendation to reduce the impacts of development. See Section P2.</p>
<ul style="list-style-type: none"> • Change landscape practices (e.g. reduce lawns and develop alternatives to conventional residential landscape design). 	<p>Specific changes were not made to the draft as a result of this comment, because the Topic Forum core team believes that the comment is adequately addressed within the discussion paper.</p>

Comment	Response
<ul style="list-style-type: none"> • Develop, design and test less problematic shoreline protection solutions. 	The comment was not incorporated into the discussion paper because it requests a level of evaluation beyond the scope that the Topic Forum was asked to address by the Puget Sound Partnership. But, the Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.
<ul style="list-style-type: none"> • Incorporate vegetation restoration components into engineering designs as integral elements to the greatest extent possible. 	The comment was not incorporated into the discussion paper because it requests a level of evaluation beyond the scope of the items that the Topic Forum was asked to address by the Puget Sound Partnership. But, the Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.
<ul style="list-style-type: none"> • Increase public education efforts (especially of those responsible for creating the problems such as loggers, equipment operators, builders, and engineers) 	The Partnership is undertaking a comprehensive public education and outreach program, which will include a broad range of stakeholders.

Recommendations for the Partnership

Comment	Response
Think backwards from implementation options to the way we frame the Puget Sound problem statement at the start. How might we begin early to cross-connect problem formulations to real implementation options? How can we think right-brained about the total package?	As the Partnership considers implementation strategies for the Action Agenda, connecting to the problem statement will be important.

Document Content / Organization

Comment	Response
Provide glossary. <ul style="list-style-type: none"> Needs more definitions (e.g. “attribute status, region”) 	Definitions have been provided within the document.
Needs more editing	The Topic Forum Paper was initially developed within a very short time frame. The revised paper has been edited.
Needs better citing of references	The Topic Forum included as many references as possible. . If additional references are known and it is believed they were omitted, the Topic Forum core team requests that they be sent to the Puget Sound Partnership.
Suggest breaking out habitat from land use	The Topic Paper was structured according to overarching Partnership objectives, which link habitat with land use. As such, the paper was not reorganized to break out the two issues.
Paper underestimates projected population in Puget Sound	The Topic Forum Paper relied upon regionally available population estimates. .
Use words like “all” and “require” in a deliberate and thoughtful manner, cognizant of unintended consequences and hardships.	Every attempt was made to thoughtfully prepare the Topic Forum paper in a balanced, objective manner.
Take home message about threats for habitat and land use is not obvious enough.	Refer to the executive summary where the take home message is emphasized.
Is the goal of PSP to ‘save’ or ‘manage’ Puget Sound? How are these goals defined and met? <ul style="list-style-type: none"> Define end points 	The goals of the Puget Sound Partnership are to return Puget Sound to a healthy condition. The specific objectives and benchmarks are currently being defined.

Comment	Response
	Refer to the Partnership web page for a broader discussion of Partnership goals.
Need to evaluate fiscal consequences of land use decisions – impacts on local fiscal health	This issue is being considered as part of the Human Well Being Topic Forum.
Big Picture is good – but more detail is needed <ul style="list-style-type: none"> • S1 especially 	The Topic Forum Paper was intended to provide a broad overview, resulting in summarized information presented in the paper.
Expand the definition of habitat and its conceptual foundations: i.e. create maps that visually depict the “habitat” of the people that live in the Puget Sound, compared to the orcas and the salmon.	The comment was not incorporated into the discussion paper because it requests a level of detailed evaluation beyond the scope that the Topic Forum was asked to address by the Puget Sound Partnership. But, the Topic Forum recommends that this comment be considered by the Partnership in future phases of the Action Agenda.
‘on the ground’ truth is not acknowledged or considered.	The Topic Forum paper included information that has been documented in readily available, published information. Many of these reports included anecdotal information.
You are not addressing your main audience as described in on your web page. The draft is well written for those well versed in the science and the jargon. However, I am concerned that much of the draft will be incomprehensible to the general public.	The topic forum paper was written with an intended audience of professionals, familiar with many of the basic comments discussed. The document is intended to be accessible to a broad range of interested individuals, and every attempt has been made to make it readable.

Data Representation

Comment	Response
<p>An excellent display would be a view of future land uses, showing those small sub-basins where future growth will violate the general thresholds of more than 12 percent impervious surface, or less than 65 percent forest cover (p. 8).</p>	<p>This comment requests a level of detailed evaluation that is beyond the scope of the Topic Forum Paper. The Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>
<p>Mapping: Systemize the maps</p> <ul style="list-style-type: none"> • Develop a marine map that shows tidal behavior and sediment issues. • Superimpose the Conservation Trust Map (Habitat paper) onto a mosaic of WRIA maps and onto a jurisdictional map. This will give a better look at natural systems and at local government implementation aspects. 	<p>This comment requests a level of detailed evaluation that is beyond the scope of the Topic Forum Paper. The Topic Forum core team recommends that this comment be considered by the Partnership in future phases of the Action Agenda.</p>

Topic Synthesis

Comment	Response
<p>Provide a table or reference that explains the big picture and sets context by indicating what other topic areas are being addressed</p> <ul style="list-style-type: none"> • Paper needs greater synthesis with water quality and water quantity 	<p>The information presented in the various Topic Forum Papers is being synthesized and used to develop system-wide priorities for Puget Sound. That information will be available in a separate document.</p>
<p>Water quality and hydrology (flow) need to be cross-referenced in relation to habitat components more frequently.</p>	<p>This comment has been incorporated into the revised Land Use/Habitat Protection and Restoration Topic Forum discussion paper and some additional references have been made throughout the discussion paper. See</p>

Comment	Response
	also the Water Quality Topic Forum and Water Quantity Topic Forum discussion papers.
Overlapping issues - Make sure water quality aspects of land use will be dealt with in the water quality forum	This comment is addressed in the Water Quality Topic Forum discussion paper.

Additional Documentation / Sources

Comment	Response
Crisis on the Rural/Urban Interface <http://www.greenbeltconsulting.com/articles/crisisonrural.html>	This document was reviewed, but not added to the reference list because this is not an article that has been published in a scientific or professional publication. .
Preserving Native Vegetation to Reduce Stormwater Impacts <http://www.greenbeltconsulting.com/articles/preservingnative.html>	This document was reviewed, but not added to the reference list because this is not an article that has been published in a scientific or professional publication.
Low Impact Development Techniques for Wooded Shoreline Homesites <http://www.greenbeltconsulting.com/articles/lowimpactdevelopment.html	This document was reviewed, but not added to the reference list because this is not an article that has been published in a scientific or professional publication. T .

Document Specific Comments

The following are comments specific to the document, with referenced pages or sections. Many of these comments have been reflected in the comment summary above; others are specific edits, corrections, clarifications or additions to the text. These comments were considered in revising the paper, however, specific response to these comments are not included in this summary.

Examples (effects p. 32): Find opportunities to tie pollutants to large scale or widespread chosen practices, when this is more instructive than a less direct tie to demographics.

Other factors: p. 60 –

The text includes treaty rights enjoyed by Tribes as among the factors that “naturally limit the effectiveness of new regulatory tools designed to protect the ecosystem...” Treaty rights do not belong in this category; nor do they deserve this characterization. Please separate treaty rights from this list and reconsider whether they in themselves need to be singled out and whether they belong in this topic paper. Fishing rights, which the Tribes retained when entering treaties with the U.S., are the basis for co-management agreements, authorities and responsibilities for harvest management; so if harvest management is seen as a limitation, that should be the category, addressed here, or reviewed within the context of the biodiversity topic forum. If PSP wants to characterize harvest management as a limitation, it is important to be fair and examine the evidence before making a conclusion.

What are the “gaps” in adaptive management tools in the Puget Sound (p.41); identify in paper, or explain how they will be identified.

Under the preliminary policy recommendation #1, first bullet on page 66, it states that “establish clear standards that state when impacts are to be avoided at all costs,” there could be situations where this could conflict with needs of essential public facilities and the costs/risks of “avoiding all costs” would cause even greater impacts.

Example- Policy number 9, “require low impact development technique to be used in all Puget Sound jurisdictions to reduce the loss of forest cover and increase in impervious surfaces” the City of Seattle explore this and found that it would be very difficult to achieve this with single family homes.

Federal level - p. 67-68 – In addition to urging adoption of the Pew Oceans Commission recommendations, it is important to remember that they are part of the fragmentation problem. We need to engage the federal agencies such as the Corps of Engineers and the Services as partners in the clean-up of Puget Sound and hold them accountable in terms of their programs and actions affecting ecosystems and their components. It is also critical that special purpose districts such as ports are included in discussions and approaches identified to ensure local implementation with accountability requirements.

Page 6 – boat wakes/prop wash = may affect aquatic vegetation community such as eelgrass.

Page 7-

Culverts – clarify that they “impede sediment transport,” reduce benthic production (sterile concrete or metal vs. natural stream bed), primary production, upstream flow of marine derived nutrients, increase fragmentation, and isolation of populations.

Armoring – alters nearshore and inter-tidal vegetation communities, altering primary productivity, shade, nutrient inputs.

River Levees – alters riparian vegetation community, alters nutrient inputs, reduces shade.

Page 8 – native vegetation removal reduces allochthonous nutrient inputs. Marine boat launches can act as groins w/ similar impacts. Timber harvest. Need to include effects of associated roads.

P18.

Breakage/decomposition – I can't cite sources, but I thought work was being done that examined

the impacts on fungus and invertebrates from the measured levels of fungicides and pesticides

found in urban streams

Recommendations are too conceptual / high level. Not clear how to translate to on the ground/real world. Need to be more specific. Rank the recommendations.

P26. (and Table in Appendix S1-2)

South Central Puget Sound Action Area, Dominant Marine and Estuarine Habitats, add the following:

Armoring by the railroad has several decreased the feeder bluff function to the sandy beaches and piped some creeks that used to flow into Puget Sound.

WRIAs 8 and 9 were replumbed to alter river flows and estuaries.

The Cedar River no longer drains into the Black River, which severely decreased the Black River's contribution to the Green River. The Cedar River now flows into Lake Washington through a straight channel in Renton.

The level of Lake Washington is controlled by the Corps of Engineers.

The Ship Canal and the Hiram M. Chittenden (Ballard) Locks were built to connect Lake Washington and Puget Sound. There is no natural estuary here, so saltwater intrusion is a challenge.

The Duwamish River was dredged and straightened into the Duwamish Waterway, removing some natural estuarine characteristics.

Sockeye salmon were planted in the replumbed Lake Washington system.

P35.

It was the Cuyahoga River in Cleveland, not the Ohio River, that caught on fire.

P39: (“Influencing Human Activities: Incentives, Education, Stewardship and Restoration Programs” section):

Remove the mention of land acquisition from “Landowner Incentives Program” section. The paper defines incentive programs in the introductory paragraph preceding this section: “With regard to incentive programs, these are activities that provide landowners with benefits that in turn, induce them to protect or restore the ecosystem processes, structures and functions on their land.” When land is acquired by government or land trust, we simply are taking the private landowner out of the equation. We are not providing landowners with a benefit that in turn induces them to protect or restore their land. Acquisition is a valuable tool for land conservation; it simply should not be called an incentive program but should be represented as a separate tool.

Change “Stewardship Programs” heading to “Acquisition Programs.” Stewardship is usually considered to be a body of ongoing actions which maintain, conserve, and restore property; it does not typically refer to an action to just acquire land or easements. For example see: <http://www.usccls.org/Stewardship/StewardNatural.html>. This section describes acquisition rather than stewardship and should be retitled as such.

Retitle overall section to “Influencing Human Activities: Incentives, Education, Acquisition and Stewardship Programs.” See couple of preceding comments about what “acquisition” and “stewardship” mean. Habitat restoration can be lumped under stewardship heading.

P40. - Other Voluntary Efforts, under Watershed Planning Efforts, need to add Ch. 77.85 RCW State Salmon Recovery Act to list of authorized planning resulting from ESA listings of salmon species.

P41- Types of monitoring -- the paper should differentiate between project effectiveness monitoring and cumulative effectiveness monitoring

P55 (and Table in Appendix P1-2 of Incentive Programs)

Add King County's Rural Stewardship Program, lead agency is King County, Incentive Type is landowner assistance, Geographic Scope is rural lands in King County, Sector (Land Use) is rural lands, Species Focus is multiple, Website is <http://dnr.metrokc.gov/wlr/cao/ruralstewardship-plan.htm>

P46 (Appendix P1-2):

Add a note stating this is not a comprehensive list. There are opportunities not listed here, but the list lacks a disclaimer stating it's not comprehensive.

P48 (Appendix P1-2):

Change the SRFB listing to a more general RCO listing. This would reflect the many conservation-related RCO programs beyond just SRFB

P60.

In the ESA Listings section, the paper discusses Habitat Conservation Plans. Note that WTD attempted to develop a Habitat Conservation Plan (HCP) under the federal Endangered Species Act but, for various reasons, was unable to reach agreement on one with the federal services. The effort spanned several years and was costly. At present WTD complies with ESA through Section 7 reviews by federal agencies.

P62.

Where it states in bold “In order to achieve the goal of a health Puget Sound by 2020....region needs a fundamental change...” Might be helpful to have some text that defines that those changes are, as well as discuss what has worked well and should continue to be implemented.

Policy Recommendation pg 67 - #4

Suggest reviewing current federal, state and local environmental regulations, including SEPA, Shoreline Master Programs and Environmental Critical Areas ordinances and determine what is working and what isn't working and then recommend changes to these regulations.

P67. Table S1-2

Might be helpful to show how the threats and impacts to ecosystems could change in the context of climate change scenarios (Table S1-2).

Policy Recommendation pg 67 - #4

Suggest reviewing current federal, state and local environmental regulations, including SEPA, Shoreline Master Programs and Environmental Critical Areas ordinances and determine what is working and what isn't working and then recommend changes to these regulations.

Recommend compliance monitoring regarding existing regulations to find out if conditions of permits are being followed.

Based on science provide regulation standards regarding shoreline setbacks and other types of environmental protection.

Based on demonstrated passed impacts of certain activities that have not been able to be mitigated determine where these impacts can occur and where they should be prohibited.

P54.

Stewardship Planning Programs – “Sector” in King County includes private forest land, rural residential development and agricultural lands.

P62.

The Corps in conjunction with the EPA has recently published national rules governing the formation of “fee-in-lieu” programs that can focus required mitigation on the optimal site on the landscape to achieve the greatest habitat improvement with the highest likelihood of success.

King County’s Mitigation Reserves Program is a pilot attempt to implement this tool – State agencies including WSDOT and Ecology and some WRIAs have been evaluating the potential of regional programs based on these principles.

P63.

Any proposed governance structure must have a funding stream at its disposal to ensure implementation of the programs it requires. Local governments should not be asked to individually expend political capital, over and over, to implement a program of such high priority at both the State and federal levels.

Appendix S1-1, p 15.

The link between increasing impervious surfaces and decreasing forest cover on the reduction of summer base flow in streams is implied in the Table (“reduces recharge”) but perhaps this should be called out more explicitly

Terrestrial and Freshwater Aquatic Systems:

p. 60 – second paragraph - correct the reference re: ESA-listed salmon from “Chum” to read “Eastern Strait and Hood Canal summer chum”.

The discussion of Habitat Protection Efforts effectiveness (page 28) erroneously states that: "...single family residences are exempt from the SMA even though 30% of shoreline armoring within Puget Sound is associated with single family residences."

There is an inconsistent use of terminology, and especially the specific wording of the Action Agenda Questions. Because of this, it is hard to keep track of the organization of the Action Agenda.

The Action Agenda needs an outline so that people can keep track of where things are.

The document needs a list of definitions somewhere, e.g. what does the phrase “attribute status” mean?

There should have been handouts at the forum of the Powerpoint presentation(s) made. It was hard to follow what each speaker was addressing within the Action Agenda or topic, or for that matter the day’s Agenda at times.

Air pollution should be mentioned and analyzed in some detail.

A major threat seems to be developing from wastewater in the form of pharmaceuticals and hormone analogs. Thus, wastewater should be listed in the table on major threats (Table S1-1).

The review of literature should also mention the guidance on land use planning that has been developed by the Ecological Society of America.

We strongly recommend that the final Habitat/Land Use paper include detailed analyses on the institutional barriers to action, asking and answering the truly hard questions of why the many plans to save the Sound since 1986 have not been fully implemented.

We appreciate the acknowledgement that assessment of ecosystem process integrity is critical for understanding current conditions and assessing what protection and restoration is necessary for a healthy Sound. But we cannot allow "gaps" (p. 10) to stand in the way of action that we can take now to protect and restore habitat. Both are urgently needed.

It is not clearly pointed out that our current framework has not been adequately funded, implemented, or enforced.

Table S1-1, pages 6-9: For the "In-water" section, it would be helpful to add Process Impacts such as "Aquatic species habitat fragmentation and loss."

Page 10, first bullet: I suggest adding the words "and habitats" to the end of the sentence so that it reads ".implications of human activities on nearshore ecosystem process and habitats."

Appendix S1-1, pages 15-20: I suggest amending the title of the table to read "Major FRESHWATER process tables for water, sediments, large woody debris." This table is not applicable to the marine environment and this should be made clear.

Page 27, second bullet: May want to consider adding SMA.

Page 29, first bullet: I suggest adding the words "In addition to habitat structure," so that it reads "In addition to habitat structure, restoration efforts must focus on." I think it is important to make it clear that habitat structure is still an important component.

Page 29, fourth bullet: suggest rewording of second sentence to include shorelines such as "For example, if a disturbed site sits within an intact landscape or shoreline, restoring the site will probably be successful."

Page 30: Two of the references cited on this page (Shreffler and Thom 1993; Thom et al. 2007) are not listed in the references for this section. I just noticed these by chance -- I have not done a comprehensive crosscheck of references and suggest that the folks who are producing this paper do so before publishing the next version.

Page 30, second bullet: suggest inserting the words "or shoreline" in the first sentence so that it reads "Mitigation should be sited and designed within a watershed or shoreline context."

Page 63, item 1, third bullet: It is important that this model accurately reflects the important components of marine, freshwater, and terrestrial systems. Details are important and this should involve an interdisciplinary team.

Page 64, item 3: It is difficult to know what is really being recommended without seeing the case study described in the Note.

Page 65, item 6: Prioritizing restoration is important. However, there are significant details to work out and this section seems to be written with freshwater systems in mind. I would strongly recommend that an interdisciplinary team involving marine, freshwater, and terrestrial specialists work together on this.

The scientific approach, compiling data from studies and reports, does not give us a clear picture of what is wrong. Please look at photos from NASA, such as photos of South Central Puget Sound, and calculate the percentage of impervious surfaces in each watershed. <http://eol.jsc.nasa.gov/>.

Develop more accurate maps

Please quantify the number of miles of streams banks which are developed, or with less than minimum required (yet inadequate) buffers.

Map the miles of intact streams, including the little riverlets and streams which some jurisdictions using inaccurate "best available science" say "do not exist".

Map the miles of dikes, revetments, armored shorelines and non-natural or non-native vegetation along all waterways.

Map the width and quality of buffers, because narrow buffers are not functionally beneficial, and do not protect the streams nor their fish.

Map large woody debris in our rivers.

Map the infestations of non-native species, both marine and terrestrial.

Map our remaining amphibians and reptiles. Map our threatened species, not just the bald eagles and Cascade frogs, or one or endangered two butterflies or plants.

Map population densities. Map on-site septic systems. Map land conversion, map DNR forest harvest permits and violations. Map the undeveloped land on each parcel, map \"vacant land\" in the GMA. Map farmland conversions to housing or commercial. Map applications for variances to shoreline development restrictions, map pending subdivisions and new sewage plants. Map new stormwater conveyances, in just in the last 10 years.

Overlay these maps and compare and contrast to present land use.

Bio-manipulation might merit a line in the Water Quality paper 28. (Edmondson is cited on p. 11).

Discuss marine hydropower issues. In particular, with over 2,000 turbines proposed in the greater Puget Sound area, with some of the turbines being 60 feet in diameter, with peak tip speeds of 25+ mph, it appears to me that this may be an issue that the Partnership should consider.

Show replanted areas on maps.

Pp 4, footnote 2: you should stick to one term, either threats or stressors. While stressors can be caused by human interaction, they often are used for natural disturbance.

Table S1-1, pp5: Hydrology is used incorrectly. Hydraulics or hydraulic characteristics is more appropriate when talking about wave energy, velocity, etc.

Pp 10, Current Status: Shorebird colonies generally aren't considered ecosystem functions unless you are talking about nutrient enrichment from their excrement. Perhaps riparian shade or something like that would provide a better example of ecosystem function.

Pp 11: "Integrity" is sprinkled throughout the document such as in section on "How do current conditions....?". A definition of what you mean by integrity would be helpful.

Pp 11, last paragraph: This section talks about the need for ecosystem assessments and then suggests that the King County SMP watershed characterization and Ecology's landscape characterization could be tools for determining ecosystem integrity. The King County SMP concentrates on the first 200 feet from the OHWM (shorelines) and the purpose of the landscape assessment is more for scoping and gaining a general picture of critical areas. However, it's rating system and methods are qualitative. Neither can answer the question of ecosystem or process integrity in more than very general terms because the methods are too general in scope.

Appendix S1-1, title insert freshwater because the discussion is about freshwater and not marine.

Appendix S1-1, pp 17, Return to surface, ecosystem response column: This implies that hyporheic zones are the only important area that adds to stream productivity. Instead of using just hyporheic add, "reduces recharge and subsequent discharge to water bodies and their associated groundwater systems which may include the hyporheic zone."

Appendix S1-1 continued: Sediment Processes, delivery and large wood delivery: mass wasting—only includes shallow rapid landslides. However, deep seated and other slope movement processes also are important.

Appendix S1-1 continued: Nitrogen Process, Loss and Phosphorous process, delivery—hydrologic regime is listed as a major natural control. Be more specific, what part(s) of hydrologic regime, e.g. the subsurface hydrologic regime, the surface, magnitude, duration and frequency components?

pp 29: Scientific principals heading. 1st bullet: While this is the logical start of evaluating restoration strategies, constraints, opportunities, objectives etc., efforts must also look at

how the local or reach scale responds to landscape-scale in order to determine the appropriateness of actions and likelihood of success.

Pp34—2nd paragraph under Introduction, 1st sentence: add hydrology “geomorphology and hydrology of an area” because you don’t have fluvial (as in reference for this statement) without hydrologic processes contributing to stream runoff. Or clarify the statement.

Pp 44: Add floodplain management and flood hazard reduction as possible tools because often protecting channel migration zones (migration being an important process that creates the diverse floodplain habitats) falls under this category.

Table S1-1 Major threats to habitats in freshwater, estuary, marine and terrestrial ecosystems and their resulting impacts on ecosystem processes:

In-water – Add/consider

- Management of water levels --- ecosystem: freshwater (lakes typically, for recreational and related purposes) and process impacts

Locks -- ecosystem: freshwater (estuary, freshwater [lakes]) and process impacts

Aquatic dredged material disposal sites/management -- ecosystem: marine and estuaries, primarily. Process impacts depend. Issue relates to physical structure, food web and species assemblages (e.g. may change benthic organisms) Invasive species – ecosystem: estuarine, freshwater

Airborne contaminants – ecosystem – ecological effects.

The tables in Appendix S1-1 note Nitrogen, Toxins and Phosphorus components of major processes but fail to include the phenomenon and impacts of airborne contaminants such as mercury and the insecticide dieldrin on the ecosystems. Yet, these are of increasing concerns and the subject of significant studies and should be included in one of the topic forum papers.

Given that the National Parks Service has completed a study of airborne contaminants and ecological impacts on aquatic ecosystems, there may be material to include in applicable Action Area overviews in Appendix S1-2.

Table S1-2 Status of select habitat structures and threats

Add/consider

Habitat - Structure: prairie habitat – general reduction of Southern Puget Sound prairies to 10% of historic abundance. Major threat: exotic pest plants/ e.g. noxious weeds – knapweed, leafy spurge, tansey ragwort, scotch broom.

Whidbey basin – Action Area – p, 25

Specific Major Threats – Add/consider

- When preparing the synthesis, it will be important to include the conversion of agricultural lands to non-agricultural uses as a specific major threat, just as forest loss is reflected in the table as a specific threat.
- Blockage of salmon access: The language might mislead readers to think that the dams associated with the Skagit Hydroelectric Project block salmon from proceeding upstream. That is not the case. The Gorge reach of the project is generally regarded as marking the

historical limit of anadromous salmon migration in the upper river. The confined bedrock and boulder section represents a certain barrier to upstream fish passage under baseflow and low flow conditions, and the presence of velocity barriers at high flows is also a factor.

- Noxious weeds/invasives (including spartina sp.)

South Puget Sound p. 26

Specific Major Threats: Add/consider

- Invasive noxious weeds (particularly relevant to prairies and recovery of rare species)
- Airborne contaminants – Mercury levels in snow in Mount Rainier

National Park were relatively high when compared with other western parks; mercury compounds in fish were high, and all fish exceeded health thresholds for one or more species of fish—eating wildlife, with some exceeding health thresholds for humans. Mercury was also found in vegetation samples.

Add discussion of prairie and oak woodland habitats.

Protecting Estuarine and Marine ecosystems: federal/state efforts (pp. 37-38)

Add/consider

- A regulatory tool for the protection of the aquatic environment, the multiagency Dredged Material Management Program (ACOE, EPA, DOE, DNR) manages 8 unconfined open water dredged material sites around Puget Sound/Strait of Juan de Fuca.
- The Department of Ecology Toxics Cleanup Program addresses sediment source control activities, dredged material management, clean up activities and related efforts for the protection of the aquatic environment.

Influencing Human Activities: Incentives, Education, Stewardship and Restoration Programs

(p 30) Add/consider:

- Department of Ecology Solid Waste and Contaminated Sites – grants, financial assistance, monitoring, and other related programs
- Conservation Districts offer an array of voluntary small farm management programs and educational programs and activities concerning noxious weeds, livestock fencing, etc.

Monitoring and Adaptive Management to Ensure Ecosystem Health (p 40)

- Timber, Fish and Wildlife is an excellent example that should be included; participants should be invited to provide insights in a focus group (recommend contacting Steve Ralph and Northwest Indian Fisheries Commission).
- Consider monitoring components of HCPs and how the information gained is/can be woven into the broader array of efforts and initiatives.

Appendix P1-2 Incentive Programs (p. 46)

Comment: It is very difficult to identify and list all active programs. PSP could consider providing links for environmental ed/involvement and stewardship opportunities to appropriate NGOs, governmental entities and recovery planning groups.

Gaps/Limitations of Specific Regulatory Tools p. 58

- As mentioned in previous comments, HCPs, NEPA, Dredged Material Management Program, New Fully Contained Communities, and Clean Air regulations should be included in a discussion of regulatory tools.

Marine Areas (including estuarine, nearshore): It is important to refer explicitly to business (e.g. residential and commercial construction, water dependent industries, paper mills) and special district (especially ports) when discussing voluntary incentives and tools, particularly because they more often address environmental impacts as part of development/mitigation rather than as a general operating norm.

Terrestrial and Freshwater Aquatic Systems:

p. 60 – second paragraph - correct the reference re: ESA-listed salmon from “Chum” to read “Eastern Strait and Hood Canal summer chum”.

Page 16, Table P1-1: Please add to this table the following program: “The state Department of Natural Resources in coordination with the Department of Ecology is developing a program to expand opportunities to reopen recreational and commercial shellfish beds near municipal outfalls throughout Puget Sound. This program works to identify, eliminate and/or mitigate toxic and pathogenic impacts to shellfish beds from these point sources.

The draft report uses the term mitigation to refer to compensation of damage done as a result of human impacts. Mitigation is a sequential process that starts with avoidance of impacts and moves to minimization, with compensation not only being the last step but the most expensive and least effective part of the sequence.

While the document adequately addresses regulations associated with aquatic systems, more consideration is needed of non-regulatory tools.

The S1 section of the draft report does not adequately describe the state of knowledge of the status of habitats. It would be extremely difficult to adequately cover this topic within a short report, so it may be more reasonable to adjust the scope rather than address this limitation. Major topics that need to be added to meet the current scope include:

Deep water habitats and oceanographic processes;

The role of water characteristics (often called water quality) as an essential component of habitat condition;

Toxics and contaminants;

Estimates of areal losses in different habitat types, degradation of remaining habitats.

Terrestrial habitats are covered only peripherally, primarily through the activities which affect water such as agriculture and timber harvest;

The aquatic microlayer is an important habitat. It is severely impacted by aerial deposition and contaminants in the freshwater surface lens after storm events. One contact on this topic is Jack Hardy at Western Washington University.

Pg. 1: The process-based framework that is adopted for considering habitat is appropriate. In fact, it is essential to achieve protection and restoration.

- Pg. 5: In order to prioritize actions, the relative magnitude of threats needs to be identified. The threats should be broadly prioritized.
- Pg. 6, Table S-1: As the table addresses both fresh and marine systems, the use of the term “seafloor” is inappropriate.
- Pg. 11, Table S1-2: Correction: Puget Sound contains “20,000 hectares (50,000 acres)” of eelgrass (not 20,000-50,000 acres as reported).
- Pg. 22, Appendix S1-2: Proposed changes to table:
 - o Additions to all areas: invasive species, runoff, stormwater, sediment contamination, consideration of historical vs current threats.
 - o Hood Canal: eelgrass is a common habitat; common threats include: anthropogenic nutrients, sensitivity to water quality degradation due to reduced flushing and stratification;
 - o South Puget Sound Action Area: private ownership of tidelands is not an activity; it is not specific to the South Sound; and it does not necessarily result in impervious surface.

Pg. 27, P1 and Pg. 34, S2: The discussion of management effectiveness needs to consider the predecessors to the PS Partnership: the Puget Sound Water Quality Authority and the Puget Sound Action Team. If the Partnership does not learn from this history, it is likely to repeat it. One key finding by the Puget Sound Assessment and Monitoring Program (PSAMP) in its recent ‘lessons learned’ White Paper to the Partnership is that integration of policy and science is critical to successfully identifying linkages between management and environmental health. The previous agencies never succeeded in integrating policy and science analysis, this should be a top priority for the Partnership.

- Pg. 27, S2: The draft report describes the historical development of the different tools that we have for managing land and shoreline use activities. Additional assessment of the impacts of local decisions in a regional context is needed.
- Pg. 28, first paragraph: It would be accurate to include the Puget Sound Ambient Monitoring Program (PSAMP) in the list of monitoring groups.
- Pg. 28. Correction: Approximately one-third of the saltwater shorelines have been modified by bulkheads or other shoreline modification, and 50% of the modifications are associated with single family residence (not “30% of shoreline armoring... is associated with single family residences” as reported). Citation: 2002 Puget Sound Update, page 26.

Pg 34, P1 and Pg. 57, P2: The draft report needs to address the potential impacts of local permit decisions on a regional level. One of the main goals of the Shoreline Management Act (SMA) is to conduct a “planned, rational, and concerted effort, jointly performed by federal, state and local governments, to prevent the inherent harm in an uncoordinated and piecemeal development of the state’s shorelines.” It is important to consider the

effectiveness of the environmental planning in avoiding jurisdictional fragmentation in the permitting process.

- Pg. 34, Policy question 1:

- o Pg. 34: Controlling Impacts, protecting terrestrial and freshwater ecosystems, state and local laws - This section should include the regulatory protections afforded to forest lands through DNR's State Forest Lands HCP and the Forest Practices HCP.

Pg. 39: This section should include reference to potential benefits to freshwater and marine systems through DNR's Aquatic Reserves Program.

- Pg. 42, Appendix P-1: This section should include references to laws associated with the management of state-owned aquatic lands (RCW 79.105.010 to 79.109.060; WAC 332-30-100 to 332-30-107).

- Pg. 57, P2: Within the recommendations, compliance, effectiveness and implementation monitoring need to be prioritized much more highly. These types of monitoring are critical to the Partnership's ability to meet its accountability mandate. The dearth of information available on these topics is underscored by the report's broad conclusion that little is known about the effectiveness of policies.

- Pg. 63 and pg. 64: The draft report recommends performing a natural history survey and a rapid assessment of each Action Area. We recommend compiling existing data before planning data collection efforts.

- Pg. 67, #4: The Topic Forum recommends considering adoption of a single set of regulations to protect the ecosystem of Puget Sound. This recommendation is not realistic, given the legal and management mandates associated with existing systems. Additionally, the report does not adequately identify how the proposed integrated system would successfully address existing gaps and limitations.

A bibliography is needed.

A review of past practices -- and errors -- as well as current practices is needed

Another question needs to be asked and answered honestly, namely, Why haven't past measures worked?

Table S1-1. Need to talk about more than just depressional wetland fills. Fills have and could occur in riparian or high and low salt marsh wetlands at the water's edge, in slope wetlands, in flow-through wetlands, etc.

In Appendix P1-1, Need to talk about Section 10 of the Rivers and Harbors Act of 1899.

Also in Appendix P1-1 in the CWA discussion, The Corps of Engineers regulates the "discharge of dredged or fill material" and a discharge can including filling, grading,

excavation, and mechanized land clearing. Therefore, you cannot make a black and white statement that we don't regulate "dredging, draining, or clearing of wetlands."

SC1: First paragraph should include the following additional habitats: Urban developed lands, suburban developed lands, industrial lands. Conditions on these lands are amenable to restoration or enhancement also and they may already contain species or species assemblages of interest.

Disturbance processes discussed here seem to only include natural processes rather than development related impacts. Suggest adding impacts from urban/suburban development since most of the Puget Sound lowlands is in this state.

Should include invasive species as an example of controlling factors.

Last sentence of first paragraph of SC1 should read as follows for accuracy: "Native plant, wildlife, and fish species are robust enough to and can ultimately benefit from the frequency and magnitude of disturbances in their habitat". Ecosystems are not static and large natural disturbances can negatively impact native and non-native species. This should be reflected for accuracy.

Table S1-1: Should include bridges and roads as threats in both in-water and water's edge.

While non-point source contaminant effects may be considered in the water quality topic forum it should also be considered here as part of the impact of upland development.

Table S1-2: Add the following to the table- large deltaic habitats and prairies systems. Both of these have been largely lost to development. All aspects of urban, suburban, and industrial development should be considered a threat, not just impervious surfaces from that development. The development itself should be considered as a forced change to the ecosystem.

Page 8 - Table S1-1 - Native vegetation removal: Please add a category for ecosystems that include the various terrestrial ecosystems.

Page 8 - Table S1-1 - Timber Harvest: You may want to consider a row of cells addressing : "near water" effects as you already have created a row of cells for "away from the water" effects.

Page 10 – Please add a bullet that addresses terrestrial habitats

Page 11 - Table S1-2 - include some of the more recent estimates of recent trends with respect to old-growth forests

Page 11 "Healthy" Puget Sound: Please include a description of the historic conditions for Puget Trough Prairies, oak woodlands, low-elevation forests, expansive riparian areas

with numerous beaver ponds and associated meadows, loss of natural disturbance regimes that maintained many terrestrial habitats (e.g., fires and flooding) that have been suppressed and reduced by management.

Page 12 - Moving Ahead: Please consider increasing focus on loss of terrestrial habitats from conversion and other threats.

Page 18. Table S1-1: Under mass-wasting row and stressor column please edit to remove the statement “remove forest vegetation on high masswasting hazard areas”. This activity is not legal under State rules.

Page 22. Appendix S1-2. The description of watershed and terrestrial habitats are often not accurate.

Page 27. Please add a bullet to specifically address the need for regulatory and incentive mechanisms to protect currently unprotected prairie and woodland habitats, and to attempt to restore prairies and woodlands where they have been lost due to other land-uses and forest encroachment.

Page 30. Somewhere under adaptive management, it should be stressed that adaptive management needs to focus on the most-imperiled portions of our system, places of substantial risk, and for those components where we can institute change to make a difference. All components of a plan do not require adaptive management.

Page 44. Under Forest Practices Act: 2nd line delete the word “current”.

28. Line 6, delete “forested” – non-forested wetlands actually receive a higher level of protection under the State rules.

29. Page 45, 1st line. Updated were added in 1987, 1997, 1999, and 2000. I would start a new sentence at the end of the 1st line – “As a result of the...” And then add to the end of the sentence that “ a set of protective regulations were instituted to address aquatic listed species and water quality”.

Page 58: 1st paragraph. 4th line: Change “Pacific Northwest Forest plan” to “Northwest Forest Plan” at the end of the line, after “implementation of” add “HCPs and other programs under”.

Pg 12 – RE: ‘Moving Ahead on Understanding Ecosystem Processes and Habitat Conditions – Our increase in understanding about ecosystem processes needs to be within the context of the long-term population growth coming to the region and the fact that significant growth is occurring in suburban, rural, and resource land areas.

Pg 46 – RE: Appendix P1-2: Incentive Programs – This appendix does not include description of any urban programs that encourage sustainable growth in center cities as an alternative to the low density sprawl that is harmful to watersheds and Puget Sound.

Examples of such programs include

The Cascade Agenda Cities Program – this program works with cities to foster compact, complete, and connected new developments

Shoreline’s Ridgcrest neighborhood sub-area plan – the plan gives height incentives for integrating LID (rain gardens, permeable pavement, vegetated roof, rainwater harvesting)

Issaquah LEED program – this gives permitting preference to LEED or BuiltGreen commercial and residential residences

Kirkland cottage housing ordinance – the ordinance establishes regulations and incentives to encourage innovative housing types in single-family zones.

The ordinance specifically addresses standards for developing cottages, carriage units, and multiplexes in a manner compatible with the surrounding neighborhood.

- Page 3, 2nd paragraph: “Native...species are adapted to and ultimately benefit from the natural frequency and magnitude...”

- Generally, the section underrepresents the body of knowledge relating land use to ecosystem processes and habitat conditions. Much of that is presented for the watershed scale in the Puget Sound Salmon Recovery Plan. I do agree there needs to be a consistent, quantitative assessment across the broader Puget Sound ecosystem and better quantification of linkages.

- Page 4, Figure: Good summary figure, but not perhaps so meaningful as paper doesn’t elaborate further on structure and function. Consider adding (example) structure and function columns to Table S1-1.

- Table S1-1

General: “Toxics” should be in its own category. See also comment above regarding adding information on structure and function.

Culverts: Culvert failure is also associated with debris flows. What about passage impairment and resulting habitat fragmentation and isolation?

Fill/dikes: under “sediment dynamics”, indicate that fine sediment delivery is increased because of reduction in storage of overbank flows (and thus sediment)

- Page 11, Table S1-2: Consider including road network densities, riparian conditions to the extent available.

- Appendix S1-1: Under Large Woody Debris process, include role of wood in channel stability (moderating scour, channel shifting), floodplain island formation in unconfined, low-gradient channels

- Appendix S1-1: Include sections for light, pathogens.

- Appendix S1-2, Whatcom portion: Add hydromodifications/flood control, sedimentation from forestry, and degraded riparian conditions as threats.

- Page 29, last bullet; after protection, habitat reconnection (e.g. through fish passage improvements) is considered to be the next most cost-effective and certain to benefit

- Page 29-30: recognize that, to the extent that recovery of specific species drives recovery efforts, the status of the population has some impact on the strategy employed.

For example, in WRIA 1, with early Chinook populations at critically low abundance and productivity levels, our strategy is to implement conservation hatchery programs to prevent extinction while prioritizing habitat actions with greatest magnitude and immediacy of benefit (i.e. wood placement). In other watersheds where salmon population status is less dire, protection and restoration of process is more appropriate.

Question P1

- Great summary, but more specifics would be useful.
- Page 44, Forest Practices Act: include reference to Forest and Fish Report and Revised Permanent Rules in 2000/2001
- Appendix P1-2: a short statement of purpose for each program would be helpful

Expanded discussion of low impact development.

Page 26. Washington State Water Law. This section does not discuss or address Rainwater Harvesting and it's related surface water rights issues.

Clarification - Preliminary Policy #3 – “growth throughout the Puget Sound region should be focused in a way that is consistent with the Puget Sound Regional Council’s Vision 2040 plan – does that include the jurisdictions within the straight of Juan de Fuca or SanJuan/Whatcom action areas or is it just for Snohomish, King, Pierce, Kitsap counties?

Pg 28 – RE: ‘general consensus that the Washington State Growth Management Act is slowing sprawl’ – There is also information that shows sprawl is occurring and even accelerating in particular areas. Snohomish County, for example, has seen an increasing share of growth occur in rural areas outside the Urban Growth Area. 75% of the growth in the Puget Sound Regional Council region within the UGA between 2000 and 2007 has occurred in the outlying, unincorporated and suburban areas compared with 25% within the region’s five core cities of Seattle, Tacoma, Bellevue, Everett, and Bremerton. Language to this effect should be added in this section. Source: Puget Sound Regional Council, Puget Sound Trends, April 2008

<http://www.psrc.org/publications/pubs/trends/d5apr08.pdf>

Acknowledge past scientific research. Do not simply say ‘Little is known’

The documents reference the standard, universally popular and ecologically sound, buzzwords: "ecosystem scale", "ecosystem approach", "multi-stakeholder management" but, don't adequately acknowledge that, ultimately, most things boil down to local permitting and that specific quantitative standards are needed.