

APPENDIX 2

Department of Ecology: Specific Comments on draft 12/09/11 Puget Sound Action Agenda

A1: Focus Development Away from Sensitive Areas

For Section A generally, sub-strategies 2.1, 5.1, 5.3, 5.5, 6.2, 6.3, 7.2 and 7.3 – There are a number of sub-strategies for which the NEP Watershed Grant has identified pilot projects to fund. It might be useful to include NTAs for these strategies to the effect: “Ecology and Commerce will fund and provide technical support for pilot projects at the local level that accomplish this strategy.”

Page 34, “Ongoing Programs”, suggested technical changes: “The Puget Sound Basin Watershed Characterization’s (PSBWC, or the Characterization) assessment of Water Flow, Water Quality and Biodiversity importance of Puget Sound Basin lands and waters is an important primary tool used to identify ecologically sensitive areas. This assessment is a key step for identifying which areas are appropriate targets for low impact development, and those which should be protected from development when used in conjunction with other watershed information and data can help identify which areas should be protected from new development and those areas appropriate for low impact development.”

Page 34, “Ongoing Programs”, second paragraph, third sentence; suggested technical change: “The assessments cover the entire contributing drainage area of Puget Sound and represent the physical, chemical, hydrologic, wildlife, freshwater and nearshore habitat and human attributes of this landscape that support and interact with the structure and function of ecosystems in Puget Sound.”

Page 34, “Ongoing Programs”, generally: *Note: It may help to look at the Executive Summary for the latest Guidance Document for the Characterization when editing this section. Here are some excerpts: The Puget Sound Characterization is a set of water and habitat assessments that compare areas within a watershed for restoration and protection value. It is a coarse-scale decision-support tool that provides information for regional, county, and watershed-based planning. The information it provides will allow local and regional governments, as well as NGOs, to base their decisions regarding land use on a systematic analytic framework that prioritizes specific geographic areas on the landscape as focus areas for protection, restoration, and conservation of our region’s natural resources, and that also identifies areas that are likely suitable for more development. Application of this method should result in future land-use patterns that protect the health of Puget Sound’s terrestrial and aquatic resources while also helping to direct limited financial resources to the highest priority areas for restoration and protection. The assessments cover water resources (both water flow and water quality) and fish and wildlife habitats (in terrestrial, freshwater, and marine nearshore areas) over the entire drainage area of Puget Sound. The assessments provide a watershed-scale perspective on the relative importance of small watersheds (~ 1–10 square miles) for the protection and restoration of water resources and habitats that is not generally provided by other available tools. Final results can also be analyzed to identify the basis for a small watershed’s relative importance, and to guide potential management strategies for that watershed. The intended audience is city, county and tribal government planners, watershed managers and decision-makers, the Puget Sound Partnership, other state agencies, and resource managers including non-governmental organizations.*

A1.1 NTA 1: With regard to the performance measure: “Status of standard development and status of decision making framework.” *Note: PSP should note that the WC characterization is developing a decision making framework that guides locals in the interpretation and application of abiotic and biotic assessment results as well as the incorporation of other data. The results are linked to decision templates which are essentially BMP’s. It is our intent to have this information available on a website that would be developed in conjunction with the Puget Sound Institute. So this framework should be integrated into the decision making framework being proposed here.*

A1.2 NTAs 2 and 3: These NTAs are related and can be combined. The focus should be on identifying best practices that could be used broadly rather than on identifying an arbitrary number of barriers. This NTA will be more manageable if it is focused on using best practices to minimize environmental conflicts.

Page 37: “Science Needs”: Please note that the PS Characterization will integrate the PSNERP information into the overall characterization framework in Volume 3: “Marine Shoreline Habitat.” We also suggest including “validation” of assessment results through finer scale analysis that quantify environmental response relative to ecosystem degradation. This should also include establishment of comprehensive monitoring programs that establish baselines for processes such as water flow and water quality and provide the ability to measure future changes relative watershed development.

A2: Permanent Protection

One of the primary strategies for the Action Agenda is protection of ecologically sensitive or vulnerable lands in the Puget Sound region. This series of sub-strategies is aimed at different facets of ecological protection. Protection in this context means identifying pieces of land that are of high ecological value and protecting them from development or further development. *Note: Suggest that you add some language about using the PS Charac and PSNERP information (abiotic and biotic – volumes 1 through 3) and other watershed information as well as enlisting the help of the PS Watershed Technical Assistance Team, to assist in meeting this goals of this Action item. Otherwise, it sounds like this Action Agenda item may be suggesting re-inventing the wheel and coming up with a new method and framework to identify these areas that function well. Would be best to consolidate and coordinate efforts.*

A3: Protect Important Lands

A3.1 or A3.3: Include an NTA that prioritizes funding landowner incentives. We recommend including under sections A3.1 or A3.3 the following: “Ecology and Commerce will provide technical support and fund local projects to identify and implement landowner incentives, including TDRs and ecosystem services markets.”

A4: Encourage Compact Growth

A4.1 NTA 1: Change “launch” to “scope” a regional program similar to federal sustainable communities program.

A11: Invasive Species

A.11.1 NTAs 1-4: Consider combining these actions into one coordinated action with a lead or co-leads identified (ISC and/or DFW). Consider obtaining coverage under Ecology’s Aquatic Invasive Species Management General Permit so there is no delay responding to an early detection of an invasion due to paperwork.

B4: Protect Working Waterfronts

Technical correction on page 142; paragraph 1, 3rd sentence. Suggested changes: “Marine sediment quality targets state that by 2020 all Puget Sound regions and bays shall achieve ~~specific chemistry measures set in the~~ marine chemical criteria in the Washington State sediment management standards for benthic toxicity.”

Note: The distinction for benthic chemical criteria needs to be made because the WA SMS criteria also apply to bioaccumulative standards for human and ecological health – which are different.

Suggested edit to “Ongoing programs”, page 143; Key ongoing program activities/bullets 1, 2, 3:

Performance metric: ~~Performance metrics~~ Cleanup milestones for the Bellingham Bay Demonstration Pilot Project vary by individual project components. For example, ~~Progress on milestones for the cleanup of contaminated sites in~~ Bellingham Bay are viewable at Ecology’s website:

Ecology’s Toxics Cleanup Program worked with PSP in August 2011 to update Near Term Actions for this section. Those updated NTA actions are:

- Former B.2.N2, updated NTA: Focused efforts on three significant cleanup and habitat restoration projects in Bellingham Bay: Cornwall Ave, Whatcom Waterway, and G-P Mill.
- Former B.2.N3, updated NTA: Continue to control pollutant sources and remediate toxics in the Lower Duwamish.

C1: Reduce Toxics

General comments:

- We appreciate that many of Ecology suggestions that were incorporated into the draft, particularly those that relate to Ecology's Hazardous Waste and Toxics Reduction Program work. Overall, we are pleased with the added emphasis of toxics in the draft and support the overall direction to implement and strengthen authorities and programs to prevent toxic chemicals from entering Puget Sound.
- With regard to air emissions, Ecology is generally supportive of the language expressed in the draft.
- The Puget Sound Toxics Loading study is rightfully mentioned (i.e., "the findings from this assessment are summarized in chapter of the Action Agenda addressing Question 2, what is the status of Puget Sound?"). Yet, a summary is not in the Action Agenda. Suggest providing highlights from the study.
- Ecology should look broadly at chemicals of concern (COCs). The 17 COCs in the Toxic Loading Studies are neither the only COCs in Puget Sound nor necessarily the most important. Ecology should look at what we learned from the Toxics Loading Studies and other research to target more COCs that are important. This would include both emerging as well as the better understood COCs.
- Ecology should do more to reduce PBTs, especially since the Toxics Loading Study highlighted the priority of the PBTs among the 17 COCs. Ecology's current strategy of preparing and implementing CAPs for one PBT at a time may not be sufficient for Puget Sound. Ecology could specifically work on multiple PBTs in Puget Sound using the existing PBT list or an expanded PBT list. The region could seek more authority to reduce PBTs in Puget Sound.
- Green Chemistry and alternatives assessment are important for reducing the use of chemicals. In addition to voluntary actions, the region should seek authority to require alternative assessments for the highest priority chemicals in Puget Sound.

"The Challenge": page 165, second paragraph, fourth line; suggested edits: Of the 17 chemicals, only five have been ~~banned~~ restricted nation-wide under the federal Toxics Substances Control Act (TSCA)."

The Challenge": page 165; suggested new language: "PBTs raise special challenges because they remain in the environment for a long time and accumulate in people and in the food chain. They also can travel long distances and generally move easily between air, land and water. Prevention is especially important for PBTs, since they can remain in the environment and continue to harm wildlife. One example is PCBs, which were banned more than 30 years ago, but remain in the environment and continue to harm wildlife and people. Because of the special challenges of PBTs, Washington created a unique program to specifically address PBTs through the PBT Rule." *Note: The importance of PBTs is not adequately conveyed. For example, other lists of chemicals are mentioned, but the existence of the PBT List (in the PBT Rule) is not. Washington is unique in having a PBT Rule to address PBTs. The PBT List is more directly relevant to Puget Sound than the Children's Safe Products Act List, since CSPA is focused on chemicals that are harmful to children and that are found in children's products. PBTs are particularly important to Puget Sound, since the chemicals persist in the environment and accumulate in biota. Several of the individual chemicals mentioned are PBTs, such as PCBs, PBDEs, PAHs, and PFOS. Other work on PBTs should be mentioned as ongoing. Ecology will review the PBT list and prioritize the next PBTs for CAPs with a multi-year schedule. Ecology published a multi-year schedule in 2006, but there is no planned CAP after the completion of the PFOS CAP in 2013. Ecology also has not reviewed or revised the PBT list since it was adopted in 2006. Rulemaking is required if revisions are needed.*

The Challenge": page 165, third paragraph; suggested edit: "In 2007, Washington became the first state in the country to ban a ~~class of fire retardants called~~ specific polybrominated diphenyl ethers (PBDEs) because of human health and

environmental concerns. *Note: Washington did not ban a class of fire retardants. We were the first to ban decaBDE in certain applications. We also banned penta-and octaBDE, but they had already been phased out.*

C1.1: Page 167, narrative on TSCA reform; suggest deleting first two paragraphs in their entirety. *Note: Washington State has found TSCA inadequate, which is why there have been initiatives at the state level and testimony to Congress on the need for TSCA reform. TSCA has not been used to ban five chemicals. The five are more regulated, but still allowed in some uses. We often use the fact the EPA was not able to use TSCA to ban asbestos as an illustration of why TSCA reform is needed. Very few existing or new chemicals have actually been tested for safety.*

C1.1: Page 167, narrative on TSCA reform, third paragraph; suggest adding final two sentences: “Ultimately, keeping toxic substances out of our waters will require more effective federal legislation. Until TSCA and other federal statutes are updated, states need to continue to address COCs.”

C1.1: Page 167, fourth paragraph: Puget Sound Toxics Loading study is no longer “draft.”

C1.1: Page 168, “Ongoing Programs,” suggested changes to initial sentences: “Over the next few years, Ecology’s Reducing Toxics Threats Initiative plans to support congressional reform of TSCA, develop rules by December 1, 2012 to implement the state law relating to brake friction material, complete and implement the CAP for PAHs, ~~implement recommendations on lead-based paint,~~ establish a mercury lamp product stewardship program, and complete a CAP for PFOS (perfluorooctane sulfonate, a PBT chemical). Key performance metrics in evaluating the success of toxics efforts include the number and volume of chemicals of high concern to children replaced with safer alternatives, ~~reductions in childhood blood lead levels,~~ and reduced environmental levels of toxics.

Key Ongoing Program Activities: Page 168; suggest adding third bullet: “After the completion of the PFOS CAP in 2013, Ecology will review the PBT list and prioritize the next PBTs for CAPs with a multi-year schedule. Ecology will also determine if it is necessary to revise the PBT Rule to update the list of PBTs. Rulemaking would be required if revisions are needed.”

C1.1 NTA 1: Suggested changes: “Ecology, working with its partners, will complete a PAH CAP by 2012 and a CAP for PFOS or all ~~PFCs~~ perfluorinated compounds (PFCs) by 2013, and begin to implement the recommendations from the Plans. (Wood smoke actions in the PAH CAP will build from the control strategies outlined in the Tacoma SIP for fine particulates. The PAH CAP may also include recommendations to reduce PAHs from incomplete combustion and/or other sources. The PAH CAP may also include recommendations such as diesel fleet retrofit activities and/or electrical shore power for ships at Port facilities. The PFOS/ PFC CAP will include an evaluation of safer alternatives and recommendations for reducing use of PFOS and/or PFCs.)

C1.1 NTA 2: Suggest change to performance measure: “Performance measures: Program established or not; pounds/year of mercury ~~reduced~~ collected”

C1.1 NTA 3 should be edited to read as follows: “Water Quality and Sediment Standards Updates: ~~The Northwest Indian Fisheries Commission, and several Tribes~~ Puget Sound region, stakeholders, and the public are reviewing ~~examining~~ Ecology’s Fish Consumption Report on existing information on fish consumption rates and in 2012 will provide ~~comments~~ recommendations to Ecology. These comments will be used for to support the revisions to the Sediment Management Standards rule. In 2012, Ecology ~~plans to revise~~ will continue the revision process of the state's Sediment Management Standards to reflect up to date information about rates of fish and shellfish consumption rates in Washington.”

Suggest combining C1.1 NTA 4 and C1.1 NTA 5 into one near-term action.

C1.1 NTA 6: Update name of monitoring body to Puget Sound Ecosystem Monitoring Program.

C1.2 NTA 1: We want to emphasize that the completion of assessments for five chemicals is dependent on funding availability. At this time, Ecology has received limited funds to conduct these assessments.

Suggested add to narrative (pg 173): “Local Source Control Partnership – Preventing pollution at the source is key to the protection and restoration of Puget Sound. The Local Source Control Program is a partnership among Ecology and 25 local government jurisdictions that focus business technical assistance to prevent toxic stormwater pollution and improved hazardous waste management practices. Local source control specialists help small businesses stop pollution from impacting Puget Sound.”

Suggest adding a new C 1.6: “Conduct local source control business assistance site visits. By 2013, Ecology will work in partnership with local governments to conduct at least 5,000 local source control site visits to assist small businesses reduce stormwater pollution and improved hazardous waste management.”

NTA Type: Soundwide

Owner: Ecology

Secondary Owner: local governments

Performance Measures: Number of local source control site visits completed per year.

C2: Stormwater

C2.1 NTA 3: It might be possible given sufficient staff and funding to have this in place in time for the 2018 permits, but integrated mapping is not currently envisioned for re-issuance of the muni permits. Locals are mapping their systems but there isn't an “overall geo-referenced database” for the locals to populate and one will not be ready before the permits are issued in July 2012. Ecology currently has guidelines for creating and accessing GIS Data under Ecology Grant programs available on-line: <http://www.ecy.wa.gov/services/gis/data/standards/standards.htm> In an effort to better assure compatibility and encourage sharing of geospatial data among a variety of users, both public and private, Ecology encourages grant recipients to embrace these standards.

C2.2 NTA 1: Add issuance of the municipal stormwater permits (6/2012) to strengthen and refine stormwater management efforts currently underway under the NPDES permits. This may allow you to combine the first NTAs in this section.

C2.2 NTA 2: This is being done. Ecology's Water Quality Assessment Program assesses whether treatment standards beyond basic are required and lists the water quality status for a particular location in one of 5 [categories](#) recommended by EPA. The assessment represents the Integrated Report for Sections 303(d) and 305(b) of the Clean Water Act. Water Quality Improvement Projects, or TMDLs (Total Maximum Daily Loads) determine the amounts of pollutant loading that a given water body (river, marine water, wetland, stream, or lake) can receive and still meet water quality standards. Where water bodies do not meet water quality standards for a particular pollutant, TMDLs are implemented through Waste Load Allocations, inserted as pollutant limits in permits to point source dischargers, and through Load Allocations and non-regulatory programs for nonpoint sources, to bring water quality up to standards.

C2.3 NTA 1: Whichever entity or consultant works on this should include a review of the prioritization work done by WSDOT (Table 6-1 of the SWMP, Appendix 7 of the WSDOT stormwater NPDES permit) and the WQP (watershed approach work). Also, they should include coordination with a review committee of Puget Sound NPDES permittees, which would bring in PSRC.

C2.3. NTA 2 & 3: Combine and coordinate if possible (if it is developed to manage the municipal monitoring program) with the Stormwater Monitoring Workgroup work.

C2.5. NTA 1: Given the agency's legal responsibilities, Ecology should be the owner and select and certify the conveyer of education and outreach programs.

C2.4 LNTA 3: This is a good idea, and the county should work with Ecology's Water Quality program to be sure that the BMPs they use will achieve compliance with state water quality standards.

C2.6 LNTA 1: Suggest that this LNTA be explicit about coordination with the Stormwater Monitoring Workgroup.

C3: Agricultural Runoff

C3.1 NTA 1; suggested change: "The State Conservation Commission and the departments of Agriculture, Ecology and Health should ~~identify priority areas and resource impacts to target areas where implementation of fund~~ voluntary incentive programs for rural unincorporated landowners, small-acreage landowners, working farms and nurseries ~~can to~~ complement regulatory efforts ~~and in priority areas that where they~~ can best contribute to Puget Sound protection and recovery." *Note: suggested change is to emphasize doing actions rather than identifying them.*

C3.1 NTAs 2 and 3: Suggest deleting as specificity on this work has not yet been clarified by the implementing agencies. The two remaining NTAs (above and below) are significant and will greatly help advance this work.

C3.2 NTA 1 Suggest replacing current NTA (CAFO permit) with a near-term action on Whatcom County inspections. Possible language: "Ecology, in collaboration with the Departments of Health and Agriculture, will increase inspections in Drayton Harbor and Portage Bay / Nooksack River Watersheds. The inspections will focus on livestock operations affecting shellfish resources and areas with high nutrients." *Performance measure: number of inspections.*

C4: Forestry Runoff

Please see attached comments that offer some edits in track/edit format for technical clarity. Also in the attached are two new suggested NTAs for this section.



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C6: Wastewater Pollution

C6.1 NTA 1: We recommend deleting this NTA. For pollutants to be properly controlled through permits, it requires both knowledge of what level of that pollutant represents a threat to what we are trying to protect (criteria) and what level exists (monitoring results). We have neither Washington State (chapter 173-201A WAC) nor "EPA recommended" aquatic life criteria for any phthalates. And while EPA's recommended human health criteria apply to five of the six phthalates listed below, of the five standards, no POTW has ever been even close to these criteria for anything but Bis-2-ethylhexyl phthalate. All pretreatment POTWs (and all other POTWs over 1.0 MGD) are already required to submit at least four samples of effluent sampling results for these six phthalates and all other priority pollutants in their next NPDES permit application. Targeting pretreatment for more phthalate monitoring would imply that phthalates are commonly discharged by industrial activities which such POTWs might control. However, all evidence to date points to the largest source of phthalates being from consumer products, and thus no basis exists for targeting pretreatment POTWs for such monitoring.

- National Recommended Water Quality Criteria:
<http://water.epa.gov/scitech/swguidance/standards/current/index.cfm>.
- Aquatic life criteria – None for any phthalates
- Human health for the consumption of water and organisms, organisms only
 - bis 2-ethylhexyl phthalate, 1.2 ug/l, 2.2 ug/l
 - butyl benzyl phthalate, 1500 ug/l, 1900 ug/l
 - di-n-butyl phthalate, 2000 ug/l, 4500 ug/l
 - di-n-octyl phthalate,

- diethyl phthalate, 17000 ug/l, 44000 ug/l
- dimethyl phthalate. 270000 ug/l, 1100000 ug/l (.11%)

C7.1 NTAs 1 and 2 are less important and less feasible than other NTAs; likely more appropriate for future Action Agenda updates when more deliberation has occurred. If PSP is looking to reduce the number of NTAs, these could be deleted. If NTA 2 is kept, it should be reworded to evaluate whether it is appropriate (or is likely appropriate).

To recognize the important work that will result from updating Fish Consumption Rates, we suggest adding the following action as an NTA (e.g., as C6.7) or identified in the “Emerging Issues and Future Opportunities” section): “Ecology will proceed with rule-making to amend the Water Quality Standards to update and develop predictable regulatory compliance tools that address short and long-term source control programs. The changes will allow water quality permittees to maintain compliance with their permits while they effectively work toward meeting permit limits that better prevent and control sources of toxic pollutants.”

C8: Boating Pollution

Combine C8.1 NTAs 1 and 2. We suggest the following slight modification: “By Fall of 2013 Ecology and DOH, in coordination with the Department of Natural Resources, will conduct an evaluation and draft a petition to EPA to establish a NDZ for commercial and recreational vessels to eliminate bacteria, nutrients, and pathogens from being discharged to all or parts of Puget Sound. The evaluation will include researching petition requirements; gathering background information, vessel type and usage information and pump-out station data for the petition; identifying, reaching out to, and getting input of stakeholders; identifying and prioritizing which areas of the Puget Sound are feasible for petition; and evaluating how to implement the designation. Ecology and DOH, with National Estuary Program grant funding, will coordinate with Washington State Parks’ Clean Vessel Program to assist in construction, repair and monitoring of pump-out stations to meet requirements of the NDZ petition.”

C9: Protecting Shellfish

C9.3 NTA 1: Suggest editing as follows: “DNR will work with Department of Ecology and stakeholders to create pilot projects testing the use of mussel culture or other suspended or beach culture to ~~mitigate~~ help address nitrogen pollution in sensitive areas, such as the project in Quartermaster Harbor. This aquaculture application may serve to encourage public-private opportunities to reduce nitrogen impacts that are both efficient and cost effective ~~and provide an alternative to advanced wastewater treatment technology.”~~

Note: This NTA should specifically mention that DNR will work with Ecology given the implications for pollutant trading. The suggested edit to change “mitigate” to “help address” is subtle but important given the implications for the federal Clean Water Act. The federal act provides for pollutant trading, but not for “mitigation” as currently exercised through wetland management (i.e., wetlands can be filled and recreated – i.e., “mitigated” – elsewhere). The CWA does not permit the violation of water quality standards anywhere, so “help address” accurately reflects application of the law. The last part of the last sentence “...and provide an alternative to advanced wastewater treatment technology” should be deleted. This is far beyond where we are at right now.”

C10: Oil Spills

C10.1 NTA 1: “Assess trends in ship traffic, vessel incidents and incident notifications for use in targeting ship inspections and setting standards evaluating spill risk reduction measures.

C10.1 NTA 2: Suggest modifying language: “~~Evaluate marine traffic risk assessment models that could be used to develop appropriate oil spill risk reduction measures~~ Evaluate existing Puget Sound marine transportation oil spill risk assessments, identify any gaps in marine safety and work with experts to develop appropriate risk reduction measures.”

Note: This revised language would strengthen and clarify this NTA however, additional funding is required.

C10.2 LNTA 1: The Strait Ecosystem Recovery Network (ERN) proposed changes to C10.2 LNTA 1 should be adopted and included in the Agenda. Specifically, we appreciate the Strait Ecosystem Recovery Network (ERN) making oil spill prevention and response their third highest priority. Ecology agrees with and supports the group's 1/25/2012 document transmitted by John Cambalik. We also greatly appreciate the Makah Tribe's key participation in the Strait ERN and other processes shaping regional and national policy on spill related issues. If so desired, Ecology would be happy to assist in translating these excellent recommendations into measurable NTAs.

The Action Agenda in the San Juan Islands: Ecology supports the NTAs in this section of the Action Agenda and appreciates the county's interest in and attention to this important issue.

Add as a "Key Ongoing Program": "Continue the Cross-Partnership Oil Spill Work Group as an effective forum to discuss strategic issues, address local government interests and forge broad community consensus on potential system improvements."

C11: Pollution Cleanup

Pg 256: Paragraph 1, bullet 2; technical correction in "The Challenge": "Ecology has been working to clean up ~~1,419,580~~ toxic-contaminated sites located within a half-mile of Puget Sound, including 150 contaminated sediment sites. As of December 2011, 664 of these sites have been cleaned up or reported cleaned up by Through August 2010, Ecology, potentially responsible parties, and other entities. ~~have cleaned up acres, or 34 percent, of the contaminated sediments sites have been cleaned up. tracked in Ecology's contaminated sites data system."~~ *Note: Discussing two different types of sites here is confusing. The suggested revisions are meant to clarify and inform.*

Pg 256: Paragraph 1, bullet 3; technical correction in "The Challenge": Should add to the end of this bullet "The SCI score for Bellingham Bay does not reflect sediment cleanup efforts that commenced after this sampling was conducted." *Note: This SCI sampling was conducted before substantial cleanup has occurred. As written, the reader is led to believe that cleanup has not been effective.*

Pg 256: Paragraph 2, first sentence; technical suggestions in "The Challenge": "This strategy is focused on efforts to correct water quality and sediment quality problems related to toxic chemicals, nutrients, and pathogens by diagnostic studies and targeted cleanup activities. Implementing corrective actions to clean up impaired marine and fresh waters is essential for reducing the harm from pollution in the Puget Sound ecosystem. Sub-strategies in this section include completing total maximum daily load (TMDL) studies that serve as water column cleanup plans for water bodies, completing Cleanup Action Plans to restore ~~restoring~~ and cleaning up contaminated upland and sediment sites within and near Puget Sound...." *Note: A clear differentiation that TMDLs are cleanup plans for the water column and Cleanup Action Plans are for upland and sediment cleanups needs to be made throughout this document. Otherwise the reader may be led to think that a TMDL addresses water, sediment, and upland cleanup.*

C11.1: Suggest edits to text as follows (page 259): "Other Studies:

- South Puget Sound Dissolved Oxygen Study (The results from the study will determine if a TMDL, or other action, is needed) ~~It has not been decided whether this study will result in a TMDL or if nutrient reductions will be made directly through the NPDES permit process.)~~
- Quartermaster Harbor Dissolved Oxygen Study (~~Ecology has determined that a TMDL is not needed, but other appropriate, but less resource intensive actions will be taken. Ecology is evaluating available data and modeling to determine whether a TMDL is needed to address the dissolved oxygen impairment)~~ Ecology is evaluating available data and modeling to determine whether a TMDL is needed to address the dissolved oxygen impairment)

C11.2: Page 259, paragraph 1, first sentence; suggested technical change: "This sub-strategy helps reduce the ~~harm caused-risk to humans and by toxic chemicals~~ in the Puget Sound ecosystem from toxic chemicals by cleaning up contaminated sites, focusing on aquatic sites with contaminated sediment in the nearshore and contaminated upland sites near marine and freshwater ~~in the Puget Sound basin."~~

C11.2: Page 259, paragraph 1, last sentence; suggested technical change: “Ecology is the primary regulatory agency that oversees sediment and upland cleanup efforts. Washington DNR, as the land manager, works cooperatively with Ecology on cleanup of activities on state-owned aquatic lands. ~~, while Ecology is the primary regulatory authority for other sediment and upland cleanup efforts~~” *Note: Ecology and the EPA are the regulatory authorities for cleanup. DNR is the land manager of state owned lands.*

Suggested NTAs for C11.2: Ecology worked with PSP in August 2011 to update Near Term Actions for this section. The updated NTA action is: Former C.5.N1, updated NTA: Continue to implement ongoing, high-priority state-funded remediation and cleanup projects. *Note: the Performance Measure for this NTA is: 90% of public funded (Remedial Action Grants) contaminated cleanup sites are on schedule.*

C11.2: Page 260, paragraph two, first sentence; suggested technical change: “Since 1988, a total of 767 664 contaminated sites (both upland and sediment sites) have been cleaned up within a half mile of Puget Sound, including nearly over 100 since the Puget Sound Initiative began in 2006. A specific emphasis has been placed on contaminated sediment sites in Puget Sound. Forty-four percent of the known contaminated sediment sites in Puget Sound have been cleaned up or reported cleaned up and 41% of contaminated sediment sites are in the process of being cleaned up. One hundred percent of publicly funded toxic site cleanups are currently on schedule, exceeding the 90 percent target. The number of cleanups that are completed each year has been declining over time, however. One contributor to this decline may be the reduced availability of private-sector funding to voluntarily cleanup sites; another factor may be that sites have become more complex ~~many sites that had cleanup activities initiated in the late 1990s and 2000s have now entered extended and often contentious public and agency review periods.~~” *Note: Included in Ecology’s reporting for our Puget Sound GMAP was a note that the overall number of cleanups completed each year is declining. One reason we included as a contributor to this decline could be the reduced availability of private-sector funding to voluntarily cleanup sites. Our data shows small declines in multiple methods to cleanup sites. It does not support the Partnership’s speculation that “many sites that had cleanup activities initiated in the late 1990s and 2000s have now entered extended and often contentious public and agency review periods.” Please remove the speculative language.*

C11.2: Page 260, paragraph three; suggested change: “One of the ways that contaminated soils and sediment can be managed for cleanup and maintenance dredging ~~accumulate in certain areas of Puget Sound~~ is through the appropriate disposal of dredged material.” *Note: This sentence makes the reader think that dredged material disposal is contaminating Puget Sound. Only clean material is allowed to be disposed of in water.*

C11.2: Page 261, “Key Ongoing Program Activities”, first bullet, last sentence: “Ecology will continue to implement ongoing, high-priority, state-funded remediation and cleanup projects, keeping at least 90 percent of Remedial Action Grant, ~~Puget Sound Initiative, and Clean Sites Initiative~~ projects on schedule.” *Note: we were asked to remove the “Puget Sound Initiative” and “Clean Sites Initiative” type projects because together they were fewer than the Remedial Action Grant projects and it was confusing.*

C11.2: Page 261, “Key Ongoing Program Activities”, third bullet, last sentence: “Ecology will also ensure that these and other cleanup sites within the Puget Sound area have post-construction monitoring plans in place that provide data on the effectiveness of the cleanup remedy ~~cleanup actions over time.~~” *Note: Ecology is unable to require a liable party to participate in a sampling effort to study cleanup effectiveness on a scale larger than their site. Ecology can only require the liable party to monitor for the effectiveness of the required remedy for the site.*

C11.2: Page 261-2, “Key Ongoing Program Activities”, fourth bullet; suggested deletion: ~~Ecology with state and local partners will work to maintain adequate funding to assure continued, timely cleanup and remediation of toxic sites. Assure that Ecology is able to provide an appropriate level of state match to approved Remedial Action Grant projects and that the LTCA is protected for its intended statutory purposes.~~ *Note: It’s a little unclear in this statement if Ecology or the Partnership has responsibility for ensuring funding levels and protection of LTCA. From the Toxic Cleanup Program’s perspective, this would be a Partnership action. Ecology is not able to ensure adequate funding, this is under the authority of the legislature.*

C11.2: Page 262, "Local Actions"; suggested change: "~~The South Central area identified the~~ The South Central Local Integration Organization identified the restoration and protection of the State and Local Toxics Control Account under the Model Toxics Control Act (MTCA) to continue cleanup and remediation of toxic sites ~~has been identified~~ as a priority action. This includes a component on education ~~and~~ legislators about the importance of assuring adequate state funding is available to move remedial actions forward in a timely manner."

C11: Page 265 "Dredged Materials Management"; suggested technical change: "~~DNR, in coordination with other agencies involved in the~~ The Dredged Materials Management Program (DNR, Ecology, EPA Region 10, and U.S. Army Corps of Engineers Seattle District), will continue to update standards, sampling and analysis protocols, and risk assessment procedures based on best available science through the Sediment Management Annual Review Meetings. ~~determine whether any changes are needed to the evaluation standards for dredged material disposal (including sediment sampling and chemical/biological testing requirements) to reduce toxic chemicals entering Puget Sound, based on the findings of the Puget Sound Toxic Loadings Study. The Dredged Materials Management Program agencies will then adopt these standards.~~" *Note: The DMMP does not have any authority or function regarding contaminant loading to Puget Sound. In addition, dredged material disposal in water is only allowed if the material has been deemed clean. The Toxics Loading Study did not assess impacts from dredge material disposal nor was any agreement made to develop new standards based on findings from this study.*

C11: Page 265, "Additional Puget Sound Initiative Sites"; suggested change: "Ecology ~~will~~ continually evaluates reported contaminated sites and their priority ~~whether additional contaminated sites should be added to the list of priority sites for cleanup and restoration for~~ around the Puget Sound Initiative. This ~~could~~ includes an Initial Investigation and an assessment to determine the contaminated site's hazard ranking ~~examining contaminated sites along the Strait of Juan de Fuca that may threaten aquatic life and public health.~~ As appropriate, Ecology will initiate cleanup planning, implementation, and monitoring activities for those contaminated areas as funding and resources are available." *Note: Ecology has limited funding to identify and conduct cleanup outside of the originally identified Puget Sound Initiative priority bays. Ecology cannot commit to further evaluation and Ecology led cleanup unless further funding is provided by the legislature.*

C11: Page 265, "Interagency Coordination;" suggested change: "Ecology, DNR, DFW, and other agencies will seek to remove barriers and conflicts between programs with similar goals—including the MTCA and NRDA cleanup programs and the SMA and WRIA restoration efforts—to facilitate improved integration of habitat restoration and cleanup activities in and near Puget Sound. This will include examining whether NRDA credits can be more easily obtained for work completed under other restoration ~~and cleanup~~ programs." *Note: MTCA mandates that cleanup and NRDA "credits" be kept separate.*

Target View: Marine Sediment Quality, page 269-70: *Note: It is important to note some limitations to the SCI /SQTI calculations and sampling efforts. The SCI /SQTI are measurements of the health of the benthic community. These measurements do not reflect sediment quality related to bioaccumulative chemical impacts to either human health or ecological risk and do not reflect sediment quality in the nearshore environment where the majority of cleanup sites are located. The SMS and MTCA require analysis of benthic community impact as well as human health and ecological risk from bioaccumulative chemicals. As this section is written, the public will not understand why the SCI /SQTI shows most regions as minimally impacted, and some as not impacted, while the Toxics Cleanup Program has identified these regions as impacted and requiring cleanup under the SMS and MTCA. For example, the South Sound has a score of "unimpacted" because it is above the SQTI target of 83. However, Budd Inlet has a number of cleanup sites that impact both the benthic community and human health. In addition, dioxin is a chemical of concern throughout Budd Inlet and is above risk based concentrations for human health – but the SCI/SQTI does not include dioxin in the suite of chemicals. A statement needs to be made to clearly distinguish these issues so it does not appear as a contradiction.*

Target View: Marine Sediment Quality, page 269-70; suggested edits:

- Have combined measures of sediment chemistry, toxicity, and the health of bottom-dwelling marine life (i.e., the benthos) reflecting "unimpacted" conditions, as defined by having a Sediment Quality Triad Index (SQTI) score of >83.

- Have no chemistry measurements exceeding the Sediment Quality Standard (SQS) values set in Washington State

All eight regions of Puget Sound monitored from 1997-2009 demonstrated minimum exposure to toxic chemicals in sediment. Four of eight regions demonstrated unimpacted benthic invertebrate communities. The other four regions demonstrated likely impacted communities. Two of four Puget Sound urban bays monitored from 1998-2010 demonstrated minimum exposure to toxic chemicals in sediment. The other two urban bays that have been monitored showed improving chemistry index scores but low levels of exposure. Benthic community results are available for only three urban bays: One appears unimpacted, one has likely impacted communities and the third is on the border of unimpacted-likely impacted.

The current data SCI and SQTI scores for eight Puget Sound regions and six Urban Bays are on marine sediment chemistry is shown in the graph Figures A through D, below.

SCI values (Figures A and B) indicate that all eight regions and two urban bays (Bainbridge Basin and Bellingham Bay), monitored from 1997-2009, fall below the 93.3 target value, demonstrating minimum exposure to toxic chemicals in sediment. However, only the Hood Canal and Strait of Georgia regions also currently meet the criteria that no chemicals exceed SQS. Elliott and Commencement Bay sediments collected in 2007 and 2008, while improved from previous surveys, do not meet the target value and have a high percentage of chemicals exceeding SQS.

SQTI values (Figures C and D) indicate that four regions and one of three urban bays, sampled between 1997 and 2010, have SQTI scores above the target value of 83, reflecting “unimpacted” conditions. The Hood Canal, Whidbey Basin, San Juan Islands, and Eastern Strait of Juan de Fuca regions have SQTI values below target, primarily due to poor condition of the benthos. The Whidbey Basin region, and Commencement and Elliott Bay also have SQTI values below target due to poor sediment chemistry, toxicity, and/or benthos conditions.

Implementation of strategies and sub-strategies to reduce and eliminate release of chemical contaminants, and to clean up contaminated sites, should aid in achieving the SCI recovery target values, and improve the sediment chemistry measure of the SQTI.”

Swimming Beaches: C11.3

We suggest creating two subsections in the swimming beaches write up: One for freshwater swimming beaches, and one for marine swimming beaches. Suggest new text for freshwater beaches follows:

Freshwater Swimming Beaches

Additional funding is needed to create and implement a freshwater swimming beach monitoring and notification program in the Puget Sound region. Today, only 6 of 39 counties throughout the state monitor bacteria at freshwater swimming beaches. These locally funded programs provide information to the public regarding health at public swimming beaches. Over the past few years, cities and counties have discontinued these programs due to lack of funding.

C11.3 NTA 1: Suggest modifying NTA as follows: By 2014, the Departments of Ecology and Health will develop a proposal for a coordinated monitoring and notification freshwater swimming beach program for the Puget Sound region.

Performance measures: Develop a proposal for a freshwater beach assessment and monitoring program

C11.3 NTA 2: Please delete. The BEACH Program is currently structured to address all recreational users of Puget Sound including surfers, paddle boarders, etc.

New C11.3 NTA 2: Suggest a new NTA as follows: Ecology and DOH will develop a plan to conduct pollution source surveys and correct pollution problems at marine beaches used for swimming, surfing, diving and other recreational uses. Ecology and DOH will coordinate with local, state and tribal programs that address point source and nonpoint source pollution to assure that activities are not duplicative. Performance measures: Development and adoption of a plan for source corrective actions at marine swimming beaches by 2013

References and Additional Resources

Page 313: Please add: Puget Sound Initiative Cleanup of Toxics in Port Gamble

http://www.ecy.wa.gov/programs/tcp/sites_brochure/psi/portGamble/psi_portGamble.html

Page 313: Please add: Puget Sound Initiative Cleanup of Toxics in Port Gardner Bay

http://www.ecy.wa.gov/programs/tcp/sites_brochure/psi/everett/psi_everett.html

Appendix F Acronyms and Abbreviations

- PBDE is incorrectly shown as PDBE

- The PBT definition should include “toxics” instead of “toxins.” We are aware that it is incorrect in the title of the PBT Rule, but that would require rulemaking to correct.