Nearshore and Marine Protection and Restoration

(Draft, September 30, 2011)

B1. Use anticipated population and economic growth as a catalyst for recovery by building on existing efforts to establish protection and restoration priorities.

The Challenge

[Background: GMA and SMA direct local jurisdictions to plan for growth and development while ensuring no net loss of critical areas (wetlands, streams, slopes, etc.) as well as shoreline ecosystem functions and processes. Development regulations, borne out of those plans, are not always effective in achieving environmental objectives. An integrated approach to planning and permitting is needed that involves all levels of government and the private sector – because such coordinated work in planning and permitting has not typically been employed.]

Relationship to Recovery Targets

Protection and restoration of nearshore and marine systems is most related to achieving recovery targets for estuaries, and shoreline armoring. The target for estuaries is that all Chinook natal river deltas meet 10-year salmon recovery goals (or 10% of restoration need as a proxy for river deltas lacking quantitative acreage goals in salmon recovery plans) and 7,380 quality acres are restored basin-wide by 2020. For shoreline armoring the recovery target is that from 2011 to 2020 the total amount of armoring removed is greater than the total amount of new armoring, with an emphasis on removing/preventing new armoring at feeder bluffs and use of soft shore techniques for all new and replacement armoring unless it is demonstrably infeasible.

Nearshore and marine protection and restoration also will contribute to a range of additional recovery targets including those for: eelgrass recovery, floodplains, sounther resident killer whales, herring, shellfish beds, and wild Chinook salmon.

B1.1 Ensure complete, accurate and recent information directly assists shoreline planning and decision making at the site-specific and regional levels

While Washington's nearshore science community (through PSNERP) has outlined a comprehensive set of protection and restoration priorities to improve sediment supply and other critical ecosystem processes for the Sound (Cereghino 2011), those priorities have not yet been reconciled with potentially complementary analyses/efforts by the Salmon Recovery Council, local conservation inventories, and other natural resource-specific rankings. This strategy seeks to unite and apply the results across disciplines from the basin to local scale. Such consolidation will clarify what areas are have the greatest potential to aid recovery and which areas have least – and help planners, decision-makers and the public evaluate where to best apply protective measures and where to direct development.

Performance Objectives for Ongoing Programs

Main related ongoing programs: Local-state: Hydraulic Code, SMA, GMA, SEPA; at Federal level CWA, ESA, Rivers and Harbors, CZMA, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.

Near Term Actions

B1.1 NTA 1: **Document science-based priorities for protection, restoration, enhancement and managed growth that reconcile sediment supply priorities with high-value areas for salmon, shellfish, and other natural resources. The outcome of this effort will be agreed upon maps or other documents showing the science-based priorities for protection, restoration, enhancement, and managed growth are at a drift cell (or below) scale.**

Performance metrics: Puget Sound Partnership convenes task force to unite priorities. Is the map done or not; is the map agreed to or not by December 2013.

B1.1 NTA 2: **Convene an advisory team to develop workplan for implementing a network of marine reserves in Puget Sound.**

Performance metrics: Puget Sound Partnership's Hershman Fellow creates detailed workplan by September 30, 2012.

B1.2 Monitor projects to effectively evaluate results and implement adaptive management.

[Short background paragraph on what this sub-strategy is trying to accomplish]

Performance Objectives for Ongoing Programs

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

Near Term Actions

B1.2 NTA 1: **[PSP and WDFW] will institute a tracking system for nearshore projects by the end of 2012 to enable future evaluation of the effectiveness of actions taken.**

Performance metric:

B1.3 Use outreach and education to encourage actions to protect and restore nearshore and marine habitats.

[Short background paragraph on what this sub-strategy is trying to accomplish]

Performance Objectives for Ongoing Programs

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

Near Term Actions

B1.3 NTA 1: **[PSP, WHO and local governments] Establish pilot shoreline stewardship program to increase the frequency at which residential shoreline owners remove rather than replace aging armoring.**

Performance metric: Conduct formative research, determine diffusion strategy, launch program.

B1.3 NTA 2: **[PSP, WHO and local governments] Implement public involvement and stewardship actions to increase recognition of and compliance with marine reserves while improving rockfish protection.**

Performance metric: WDFW Rockfish Conservation Plan includes actions to "clearly mark Marine Reserves and RCAs" and "Develop a webpage and utilize other media to feature the Puget Sound Rockfish Conservation Plan and the Department's effort to protect and restore rockfish in Puget Sound"; LO and PSP support as module for "Puget Sound Starts Here" appear in alignment with such an effort.

B2. Protect and conserve relatively intact and relatively intact ecosystems to maintain the health of Puget Sound.

Conservation of existing, high function areas within Puget Sound is the most efficient and effective method to maintain ecosystem resilience and function. Conservation of intact areas complements existing efforts to restore processes and functions to areas degraded by anthropogenic stressors. Specific locations identified by analysis in B1 can be applied to target protection/conservation. This prioritization helps direct growth away from existing areas of high ecological value, and towards areas where resource conservation is not the primary objective.

B2.1 Take actions that protect priority nearshore physical and ecological processes consistent with the Soundwide priorities identified in B1.

[Short background paragraph on what this sub-strategy is trying to accomplish]

Performance Objectives for Ongoing Programs

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

Near Term Actions

B2.1 NTA 1: **Ensure all Partners have access to and are using the science-based priority maps identified in B1 to inform the locations of specific nearshore protection actions and projects.**

Performance metric: Percent of projects consistent with maps; goal is 100% consistent for state and federal funded projects; 80% (or 90?) consistency overall.

B2.1 NTA 2: **Use acquisition and regulatory protections to permanently protect at least 10% of bluff-backed beaches with high sediment supply potential facing shoreline development pressure.**

Performance metric: PSNERP Strategies document (and targeted analysis by Cereghino) points to added protection of 2 of 18 such beaches to satisfy benchmark; consistency with B1 maps (see NTA 1 above).

B2.1 NTA 3: **Conserve [number of or acres of] relatively intact large river deltas and coastal embayments.**

Performance metric: Number of deltas/embayments and/or acres conserved; consistency with B1 maps (see NTA 1 above).

Comment [TH1]: Reduce number of high potential embayments at med/high risk of development down from 6 (of 37) in Cereghino.

B2.2 Prevent new shoreline armoring except where it is required to protect existing infrastructure from imminent risk.

[Short background paragraph on what this sub-strategy is trying to accomplish]

Performance Objectives for Ongoing Programs

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

Near Term Actions

B2.2 NTA 1: **Use best available science to revise Hydraulic Code Rules (chapter 220-110 WAC) and clarify conditions under which hydraulic projects may be conducted to prevent or mitigate the impacts to fish life and habitat.**

B2.3 Where armoring is aging or non-protective, seek opportunities for permanent removal or the use of soft armoring replacement or landward setback techniques.

Shoreline property owners are inherently interested in maintaining the quality of their homes, beaches and nearby habitats. Given dynamic erosion process and the exposed nature of beachfronts, over time, shoreline property owners must occasionally consider development options to better protect their structures and other investments while limiting adverse impacts to nearshore habitat. Such decisions are not particularly rare. Every year, more than one mile of shoreline is newly armored, and an even greater amount of armoring is replaced. Often, the decision to newly armor one stretch of beach has a ripple effect on nearby properties. While some fraction of those hard armoring efforts may be required to safeguard property from imminent harm or risk, the remaining instances present an opportunity to employ better habitat-supporting alternatives, like soft-shore armoring, landward setback of structures at risk and other techniques that the public, contractors and others might be inclined to use, if they were made aware of them and convinced of their effectiveness.

Performance Objectives for Ongoing Programs

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

Near Term Actions

B2.3 NTA 1: **[Which state agency], in consultation with local permitting agencies, will identify potential permit and economic incentives for soft armoring and pilot incentives in at least [number] jurisdictions by 2013. The goal is to encourage alternative shoreline erosion control and other innovative options to become operational in state and local permitting programs, including but not limited to incentives for armoring removals, nearshore restoration and other techniques (disincentives); incentives should apply to new armoring projects (where armoring is required) and to armoring repair and replacement efforts.**

Performance metric: Done or not; number of jurisdictions that have piloted incentives; whether permits for soft armoring are easier to get than those for hard armoring.

B2.3 NTA 2: **WDFW, in consultation with other Agencies and experts, will publish design guidance on alternatives to hard armoring and the benefits and cost-effectiveness of soft armoring techniques by 2012.**

Performance metric: Done or not.

B2.3 NTA 3: **[Who] will provide training about application of soft armoring techniques for bulkhead contractors and local planners/permit writers for at least [number] people by 2013. The**

training will focus on advantages and proper application of soft armoring to both new armoring projects and to repair and replacement projects and will use the new design guidance identified in NTA 2.

Performance metric: Number of individuals who have been through the training.

B2.4 Take actions to protect migratory corridors and vegetation particularly in sensitive areas such as eelgrass beds.

[Short background paragraph on what this sub-strategy is trying to accomplish]

Performance Objectives for Ongoing Programs

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

Near Term Actions

B2.4 NTA 1: **Through the habitat stewardship measures of the Aquatic Lands Habitat Conservation Plan, DNR will condition aquatic use authorizations to ensure new or retrofitted over-water structures do not impact eelgrass beds. Through revision of WAC 220-110, limit construction of new overwater structures in ecologically sensitive areas and improve the design of new structures (for example, dock grating to allow light penetration).**

B2.4 NTA 2: **For state-owned aquatic lands, DNR, in consultation with [who else], will identify potential permit, economic, and social incentives for community use docks. The goal of this effort is to significantly increase community use docks as a viable alternative to individual docks and to thereby reduce the total number of overwater structures in Puget Sound.**

Performance metric: Done or not; number of community use docks (increase); number of private individual docks (decrease).

B2.4 NTA 3: **DNR, in consultation with [who else], will publish design guidance on construction, repair and rebuilding of overwater structures to increase light by 2012.**

Performance metric: Done or not.

B2.5 Take actions that protect intact marine environments and priority marine physical and ecological processes consistent with the Soundwide priorities identified in B1.

[Short background paragraph on what this sub-strategy is trying to accomplish]

Performance Objectives for Ongoing Programs

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

Near Term Actions

B2.5 NTA 1: **Ensure all Partners have access to and are using the science-based priority maps identified in B1 to inform the locations of specific marine protection actions and projects.**

Performance metric: Percent of projects consistent with maps; goal is 100% consistent for state and federal funded projects; 80% (or 90?) consistency overall.

B2.5 NTA 2: **Evaluate effectiveness of Puget Sound marine reserves to increase protections for rockfish, forage fish habitat and/or species in existing MPAs.**

Performance metric: Gap Analysis by TNC due by Spring 2012 and/or report WDFW by DATE; consistency with B1 maps (see NTA 1 above).

B2.6 Give permitting agencies and local governments the tools and resources they need to ensure protection of nearshore and marine environments.

[Short background paragraph on what this sub-strategy is trying to accomplish]

Performance Objectives for Ongoing Programs

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

Near Term Actions

B2.6 NTA 1: **[Who] will create a coordinated permit review and decision making process for shoreline significant development permits [other types of permits?] to provide additional efficiency and predictability for applicants and promote permitting agencies working together to ensure nearshore protection.**

Performance metric: Done or not; some measure of how coordinated instead of sequential permits are? How quickly permit decisions are made?

B2.6 NTA 2: **[something on increasing compliance and enforcement]**

Performance metric: Number of miles/acres conserved; consistency with B1 maps (see NTA 1 above).

Comment [TH2]: DNR: Add language to recognize the requirement to coordinate with DNR in cases involving state-owned aquatic land.

B2. 6 NTA 3: **[something on requiring information and documentation from permittees on the fact that permit conditions are met; and monitoring]**

B3. Implement and maintain priority nearshore and marine ecosystem restoration projects.

[Placeholder for short background paragraph emphasizing the challenge/problem these sub-strategies and NTAs are responding to.]

B3.1 Use a variety of mechanisms to advance priority restoration projects.

[Short background paragraph on what this sub-strategy is trying to accomplish]

Performance Objectives for Ongoing Programs

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

Near Term Actions

B3.1 NTA 1: **[Who] will ensure implementation of the priority restoration projects as identified in the Puget Sound Nearshore Ecosystem Restoration Project (PSNERP) Strategic Restoration Conceptual Engineering – Final Design Report for which 10% design exists by [date]. [Add increment of progress on this anticipated by 2013.]**

Performance metric: Number of projects funded; number implemented; amount of various nearshore habitats restored.

B3.1 NTA 2: **[Who] will ensure implementation of [how much/how many] nearshore restoration projects consistent with the [PSNERP strategies report] by [date]. [Add increment of progress on this anticipated by 2013.]**

Performance metric: Number of projects funded; number implemented; amount of various nearshore habitats restored.

B3.1 NTA 3: **[Who will] locate mitigation banks, in lieu fee program sites, and advance mitigation sites consistent with the protection and restoration priorities identified in B1.**

Performance metric:

B3.1 NTA 4: **DNR will increase the beneficial re-use of clean dredged material through the Dredged Material Management Program. Identify potential restoration sites that could qualify for placement of materials from routine maintenance dredge locations. Coordinate design and permitting of potential restoration sites to optimize the use of clean dredged material when it becomes available.**

Performance metric:

B3.2 Provide incentives to encourage removal of armoring and associated fill and use of soft armoring techniques when bulkheads fail, need repair, and during redevelopment.

[Short background paragraph on what this sub-strategy is trying to accomplish]

Performance Objectives for Ongoing Programs

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

Near-Term Actions

B3.2 NTA 1: **[Who] will capitalize a low interest loan program to help homeowners remove armoring and restore nearshore processes and to replace hard armoring with soft shore or similar techniques [by when].**

Performance metric: Number of loans? Miles of bulkhead replaced w/ soft armoring?

B3.2 NTA 2:

Performance metric:

B3.2 NTA 3: **[Who] will create a recognition program to highlight retrofits, redevelopments, bulkhead removals, and soft shoreline projects that demonstrate key techniques and restore nearshore processes by [when].**

Performance metric: Program in place or not; number of awards.

B3.3 Implement priority marine restoration actions consistent with the Soundwide priorities identified in B1.

[Short background paragraph on what this sub-strategy is trying to accomplish]

Performance Objectives for Ongoing Programs

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

Near Term Actions

B3.3 NTA 1: **DNR will meet annual GMAP performance expectations for derelict vessel removals by [date].**

Performance metric: Number or volume of removals.

B3.3 NTA 2: **DNR will apply USCG Large Derelict Vessel Task Force recommendations to Puget Sound by [date].**

Performance metric: Provide and apply results to maritime community.

B3.3 NTA 3: **DNR will complete derelict creosote piling inventory of Puget Sound and remove 15,000 pilings by [date].**

Performance metric: Done or not; number of pilings removed; amount of removal in priority areas per B1?

B3.3 NTA 4: **Northwest Straits Commission will remove remaining derelict nets near shore in Puget Sound by [date].**

Performance metric: Complete removal of about 500 known legacy nets.

B3.4 Accelerate restoration projects on public lands where government can lead by example.

[Short background paragraph on what this sub-strategy is trying to accomplish]

Performance Objectives for Ongoing Programs

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

Near-Term Actions

B3.4 NTA 1: **[State parks] will identify opportunities to remove hard armoring at Parks and will implement at least [number] of miles of armoring removal by [date].**

Performance metric: Done or not; miles removed

B3.4 NTA 2: **[USACE] will identify opportunities to remove hard armoring at federal facilities and work with responsible agencies to implement at least [number] of miles of armoring removal and/or softening by [date].**

Performance metric:

B3.4 NTA 3: **DNR, in collaboration with Ecology, DFW, Department of Veterans Affairs, and Parks, shall deploy Puget SoundCorps crews on protection and restoration projects on state-owned lands.**

Performance metric:

B3.5 Expand funding for restoration projects.

[Short background paragraph on what this sub-strategy is trying to accomplish]

Performance Objectives for Ongoing Programs

[Placeholder for a description of the main related ongoing programs, if any, their performance objectives. The goal is to clearly describe what ongoing programs are already in place and what they are already doing to help protect/recover Puget Sound to put the NTAs in context.]

Near-Term Actions

B3.5 NTA 1: **Complete PSNERP General Investigation and seek authorization for construction.**

Performance metric:

B3.5 NTA 2: **Investigate other funding sources, including existing US Army Corps of Engineers authorities.**

Performance metric:

B3.5 NTA 3: **Create a dedicated fund to (a) support Puget SoundCorps crews to provide cost-effective restoration services on state-owned aquatic lands and (b) provide incentives for removal of armoring along Puget Sound shorelines that is not necessary for property protection.**

Performance metric:

Emerging Issues Related to Marine and Nearshore Protection and Restoration

In addition to the specific ongoing program activities and near-term actions described above, there are a number of ideas for future work that might be undertaken to address pressures on the nearshore and marine ecosystems in Puget Sound. These ideas should be an ongoing part of the regional discussion about Puget Sound protection and recovery, and may inform future funding decisions, programmatic priorities and guidance, and/or may become near-term actions in future Action Agenda cycles. They include:

- Whether we have the right statutory and regulatory tools in place to meet the shoreline armoring target. In particular, some interests believe that a number of targeted statutory changes are needed to ensure we can adequately support nearshore protections to meet recovery targets. These could include: (1) revising RCW 77.55.141 to give WDFW the ability to protect sediment supply and other shoreline processes and (2) revising RCW 90.58.030 so that all bulkheads must go through the shoreline permitting process.
- Whether we have the right set of tools in place to ensure that permittees will meet permit conditions, particularly those associated with mitigation of shoreline impacts. As understanding of what is needed to protect nearshore physical and ecological processes continues to expand and planning and permit writing move to incorporate this information, a potential gap remains around permit implementation – checking back and monitoring to ensure that conditions are met and continue to perform over time. In addition to asking for information from permittees on their ongoing compliance with permit conditions, some have talked about the idea of requiring bond posting for shoreline permits as a way to ensure that permit conditions are met.
- There may be opportunities for state and local governments to carry out compliance monitoring related to nearshore and marine protection and restoration to identify shared priorities and pool resources – potentially increasing the efficiency of monitoring and allowing for additional monitoring investments.