

## Outline of Anticipated Strategies and Sub-strategies

August 16, 2011

### A. Protect and Restore Terrestrial and Freshwater Ecosystems

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*Smart Growth, Development, Land Use and Land Protection.*

#### **A1. Focus land development away from ecologically important and sensitive areas**

- A1.1 Define and prioritize areas that should be protected and restored and those that are best suited for (low impact) development .
- A1.2 Prepare and consistently use regional ecosystem protection standards with a decision-making framework to guide protection and restoration decisions.
- A1.3 Ensure local plans, regulations, and policies focus land development away from ecologically sensitive areas.
- A1.4 Ensure that local plans, policies and regulations are implemented and enforced
- A1.5 Strengthen existing state and federal permitting programs.
- A1.6 Update and implement regulatory programs related to growth and shoreline protection to increase levels of protection.
- A1.7 Develop a suite of tools and mechanisms for use by citizens and government aimed at improving ecological systems in urban and built environments.

#### **A2. Protect and steward ecologically sensitive rural lands**

- A2.1 Acquire full or partial property interests for lands at risk of conversion or impacts from other human activities.
- A2.2 Provide long-term protection and stewardship of working farms and forests.
- A2.3 Create a comprehensive conservation and ecosystem services market for the Puget Sound region.

#### **A3. Encourage compact regional growth patterns and create dense and attractive communities.**

- A3.1 Create a sub-regional network of multi-county scenario visions and plans.
- A3.2 Create local plans, regulations and policies that plan for and encourage compact growth patterns, density and redevelopment.
- A3.3 Implement and enforce local plans, regulations and policies that plan for and encourage compact growth patterns, density and redevelopment.
- A3.4 Create and communicate the benefits of living in compact communities.
- A3.5 Ensure state laws and policies encourage and allow compact development patterns.
- A3.6 Examine more effective and efficient rural growth planning and models.

#### **A4. Protect and restore floodplain function [placeholder for floodplain strategies]**

*Restore Key Terrestrial and Freshwater Habitats.*

#### **A5. Implement and maintain freshwater and upland restoration projects**

- A5.1 Implement and maintain stream (river and creek) restoration projects.
- A5.2 Implement and maintain wetland restoration and creation projects.
- A5.3 Implement and maintain lake restoration projects.
- A5.4 Create a stable funding source and local capacity to implement large-scale and complex freshwater and upland restoration projects.

*Sustain Freshwater Availability for Instream and Human Uses.*

**A6. Instream flow protection and enhancement**

- A6.1 Regulation, monitoring, and enforcement
- A6.2 Water demand and water use conservation
- A6.3 Water supply – reuse and reclamation

**A7. Groundwater protection and management**

- A7.1 Implement effective management programs for groundwater

*Protect and Recover Salmon.*

**A8. Protect and Recover Salmon**

- A8.1 Implement regional salmon recovery plan
- A8.2 Implement the Hood Canal Summer Chum plan
- A8.3 Strategies around other salmonid species

*Protect and Recover other Native Terrestrial and Freshwater Species.*

**A9. Implementation of other plans in a coordinated way and maintenance and enhancement of biodiversity**

- A9.1 Biodiversity Strategy
- A9.2 Implement Terrestrial Species Recovery Plans
- A9.3 Implement Freshwater Species Recovery Plans

**A10. Invasive species prevention and response**

- A10.1 Prevent and rapidly respond to the introduction and spread of invasive species
- A10.2 Answer key invasive species research questions and fill information gaps

*Fill Key Science and Information Gaps for Terrestrial and Freshwater.*

**A11. Strategies and actions to flow from the Biennial Science Work Plan effort**

**B. Protect and Restore Marine and Marine Nearshore Ecosystems**

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*Nearshore Growth, Working Waterfronts, and Marine Protection.*

**B1. Protection of marine and nearshore ecosystems that still function well**

- B1.1 Soundwide Vision on Nearshore Protection and Growth
- B1.2 Planning Tools
- B1.3 Regulatory Strategy
- B1.4 Compliance and Enforcement Strategy
- B1.5 Protection Tools (Acquisition, Marine Protection Areas)

**B2. Support economic viability of working waterfronts to help maintain ecosystem function and sustain quality of life**

B2.1 Ports/Marine Industry

**B3. Promote public access and use of waterfronts and marine systems**

B3.1 Urban Waterfront

B3.2 Public Use/Access to Public Water and Beaches

**B4. Improve shellfish health and harvest**

B4.1 Shellfish bed protection

B4.2 Shellfish bed restoration

B4.3 Implement best management practices for shellfish culture

B4.4 Resolve conflicts between aquaculture and upland uses, particularly for geoduck aquaculture

B4.5 Implement NOAA's Sustainable Aquaculture Policy and the proposed National Shellfish Initiative Policy

*Restore Marine and Marine Nearshore Areas.*

**B5. Implement and maintain priority ecosystem restoration projects marine and marine nearshore ecosystems.**

B5.1 Estuary restoration

B5.2 Marine nearshore restoration

B5.3 Reduce hazards posed by derelict fishing nets and gear

B5.4 Remove derelict vessels and reduce abandonment

*Protect and Recover Native Marine Species.*

**B6. Protect and recover marine and nearshore species**

B6.1 Biodiversity Strategy

B6.2 Implement Marine and Nearshore Species Recovery Plans

**B7. Invasive species prevention and response**

B7.1 Prevent and rapidly respond to the introduction and spread of invasive species

B7.2 Answer key invasive species research questions and fill information gaps

*Fill Key Science and Information Gaps for Marine and Nearshore.*

**B8 Strategies and actions to flow from the BSWP effort**

**C. Reduce and Control the Sources of Pollution to Puget Sound**

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*Prevent and Reduce Toxic Loadings into Puget Sound.*

**C1. Implement toxic chemical and pollution policy and programs to reduce release of chemicals**

C1.1 Develop safer alternatives to toxic chemicals in commercial use

C1.2 Advance programs to prevent chemicals from entering the Puget Sound environment

C1.3 Provide education and technical assistance

C1.4 Strengthen authorities and policies to deal with toxic chemicals

C1.5 Develop information and decision-support tools (perhaps in C11 and/or D8?)

C1.6 Increase compliance with and enforcement of environmental laws and standards

**C2. Implement clean-up activities to reduce pollution**

- C2.1 Implement water clean-up activities to restore dissolved oxygen levels in marine waters
- C2.2 Implement water quality clean-up activities to restore water quality at swimming beaches
- C2.3 Clean up contaminated sites
- C2.4 Develop and implement local pollution identification and control (PIC) programs
- C2.5 Develop and implement clean up plans to address other impairments

*Control and Manage Stormwater.*

**C3. Use a comprehensive approach to manage urban stormwater runoff at the site and landscape scales**

- C3.1 Manage urban runoff at the basin and watershed scale
- C3.2 Prevent problems from new development at the site and subdivision scale
- C3.3 Fix problems caused by existing development
- C3.4 Control sources of pollutants
- C3.5 Provide focused stormwater-related education and training
- C3.6 Assess effectiveness of actions and effects on the environment

*Prevent Pathogen and Nutrient Loadings into Puget Sound.*

**C4. Control and manage pollution from decentralized wastewater treatment including large and small on-site systems**

- C4.1 Effectively manage and control pollution from on-site systems.
- C4.2 Effectively manage and control pollution from large on-site systems.
- C4.3 Improve and expand funding for wastewater management
- C4.4 Target resources and tools to solve chronic sewage problems in small communities and shoreline areas that have been developed to 'urban densities' prior to passage of the Growth Management Act.

**C5. Control and manage pollution from centralized wastewater management**

- C5.1 Reduce sources of pollution to wastewater treatment plants.
- C5.2 Improve the reliability of the wastewater collection system.
- C5.3 Accelerate advanced treatment in sensitive areas.
- C5.4 Improve interagency coordination to mitigate impacts from wastewater treatment outfalls.
- C5.5 Promote reclaimed water projects.

**C6. Comprehensive approaches to Rethink Wastewater Control and Management**

- C6.1 Include assessment of cumulative impacts in planning and permitting for centralized and decentralized wastewater systems in comprehensive plans.
- C6.2 [Placeholder for any follow up needed for the gray water strategies/actions in the 2008 Action Agenda.]

**C7. Control and manage pollution from discharges of wastewater from boats and vessels**

- C7.1 [Placeholder for strategies and actions on no discharge zones; pump out stations; etc.]

**C8. Agricultural and Forest Runoff**

- C8.1 Incentives, technical assistance
- C8.2 Integrated pest management approaches

- C8.3 Farm plans
- C8.4 Forest practices

**C9. Shellfish bed restoration**

- C9.1 Implement and maintain shellfish bed restoration projected identified within existing species recovery plans, watershed characterizations, regional protection and restoration strategies, and growth management plans.
- C9.2 Protect and prevent downgrade of important current commercial areas

**C10 Effectively prevent, plan for and respond to oil spills**

- C10.1 Emphasize risk-based analyses to improve marine safety
- C10.2 Restore State's participation in and evaluation of drills while promoting better integration of tribes and locals
- C10.3 best achievable technology (BAT) to promote safe and continuous oil spill recovery

*Fill Key Science and Information Gaps*

**C.11 Strategies and actions to flow from the BSWP effort**

**D. Sustain, Coordinate, and Adapt Puget Sound Recovery Efforts**

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*Capacity Building and Coordination.*

**D1. Building and sustaining cooperative partnerships**

- D1.1 Local Integrating Organizations
- D1.2 Local Governments
- D1.3 Tribal Governments
- D1.4 State Agencies
- D1.5 Federal Government
- D1.6 NGOs
- D1.7 Private Sector/Businesses
- D1.8 Canada/West Coast
- D1.9 Science Coordination

**D2. Funding strategies**

**D3. Social and Institutional Infrastructure**

- D3.1 Integrate appropriate social science relative to Puget Sound recovery
- D3.2 Build the capacity of partner organizations to foster beneficial practices and behaviors and to build issue awareness and understanding.
- D3.3 Develop and maintain communications infrastructure (e.g., MyPugetSound.net) for effective communications, coordination, and information sharing
- D3.4 Develop and maintain capacity and infrastructure for efficient, effective communications and coordination among partner groups
- D3.5 Provide easy-to-access public information conduits to connect individuals to local activities and resources related to education, volunteerism, and stewardship
- D3.6 Enhance and sustain networks to increase collaboration, build long-term sustainability, align efforts, improve strategic messaging, and share results of ongoing work
- D3.7 Increase resources to support stewardship actions among residents, communities and targeted groups
- D3.8 Foster the development of a distributed network of partners

- D3.9 Encourage the development and enhancement of the social capital necessary for the diffusion of beneficial practices and long-term place-based cultural development
- D3.10 Enable partner organizations to provide opportunities for facilitated action on the part of residents and communities
- D3.11 Identify and develop sustainable funding mechanisms for public communication and behavior change programs

**D4. Issue awareness and understanding**

- D.6.1 Implement a regional communications effort to increase public understanding of Puget Sound for local communications efforts
- D.6.2 Implement a locally-based communications effort to increase public understanding of Puget Sound for local recovery efforts.
- D.6.3 Foster the incorporation of Puget Sound related messages and actions into existing social frameworks
- D.6.4 Incorporate Puget Sound oriented place-based learning into K-12 curricula throughout the Puget Sound region.
- D.6.5 Promote the implementation of locally-based student service projects that are connected to broader local and regional recovery ecosystem recovery efforts
- D.6.6 Foster the development of long-term place-based cultural development
- D.6.7 Develop and enhance coordinated regional efforts to build strong connections between residents and public engagement and stewardship programs

**D5. Changing practices and behaviors**

- D7.1 Provide a science-based foundation for targeted communications and behavior change approaches
- D7.2 Cultivate change in detrimental actions through social marketing, diffusion, and other proven behavior change approaches
- D7.3 Develop and implement comprehensive behavior change strategies (e.g., social marketing) targeted to priority actions and audiences
- D7.4 Focus resources to enable and encourage residents to take informed stewardship actions beneficial to Puget Sound related to infiltration, pollution reduction, habitat improvement, forest cover, soil development, critical areas, bank armoring, and related issues
- D7.5 Stimulate broad-scale individual stewardship behaviors by integrating messages and technical assistance into existing PIC programs, youth education, adult education, volunteer opportunities, and other programs.
- D7.6 Sustain and expand proven and effective local volunteer and stewardship programs that target Action Agenda priorities
- D7.7 Prioritize investments to address detrimental practices and behaviors based on 1) problem severity, 2) problem frequency, 3) availability of and confidence in science (natural and social) behind the problem, and 4) ability to influence change
- D7.8 Provide uniform guidance to partner agencies and organizations for the development of Best Management Practice Diffusion Strategies to guide the intentional dissemination of priority practices and behaviors
- D7.9 Develop tools and methods to compile a unified body of market, social, and audience research for priority practices
- D7.10 Assess practices and issues that require solutions beyond the Puget Sound region

**D6. Fill key science and information gaps**

- D6.1 Ecosystem and cross-cutting scientific gaps

**PSP. Sustain, Manage, and Adapt Puget Sound Protection and Restoration Efforts**

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**PSP1. Continue Management Conference that directs and informs regional recovery**

- PSP1.1 Executive leadership
- PSP1.2 Administer statutorily mandated boards which form Management Conference

**PSP2. Strategic regional coordination on key policy issues**

PSP2.1 LIO coordination

PSP2.2 Salish Sea, Pacific Northwest, and West Coast coordination

**PSP3. Communications**

PSP3.1 Provide external and intra-agency communications

**PSP4. Provide stable funding for Action Agenda implementation**

PSP4.1 Focus funding on priorities

PSP4.2 Secure funding

PSP4.3 Funding innovation

**PSP5. Build social and institutional infrastructure**

**PSP6. Increase public awareness and understanding of issues facing Puget Sound**

**PSP7. Cultivate beneficial broad-scale practices and behaviors among Puget Sound residents**

**PSP8. Build and use performance management system**

PSP8.1 Establish measures and benchmarks

PSP8.2 Action accountability system

PSP8.3 Information management system

**PSP9. Strategies related to science and ecosystem monitoring**

PSP9.1 Strategic planning

PSP9.2 Build accessible database

PSP9.3 Implement coordinated regional ecosystem monitoring program

PSP9.4 Synthesize scientific findings into policy-relevant implications for decision makers

PSP9.5 Maintain and expand network of scientific expertise

PSP9.6 Provide and facilitate scientific review

**PSP10. Strategies related to adaptation and learning cycle**

PSP10.1 Adaptive management of Action Agenda and BSWP