



SECTION 1

RECOVERY CONTEXT

This section describes the recovery planning process for the Action Agenda. It provides a broad overview of the legislative mandate, science in the Action Agenda, the relationship among the goals, indicators, pressures, and recovery targets. It summarizes the strategies, actions, and local planning efforts, introduces the Strategic Initiatives and cross-cutting issues, and, finally, directs the reader to performance management tools found on the Partnership’s website.

Recovery Planning

Understanding the recovery planning context requires an understanding of the following terms and concepts used throughout the Action Agenda. The relationship of these terms to each other and to work products and milestones is displayed in the figure at the end of this section.

Goals. The Action Agenda is driven by six goals mandated by the Washington State Legislature (Legislature) to restore the health of Puget Sound by 2020.

Open Standards for the Practice of Conservation. The Open Standards (The Conservation Measures Partnership 2013) are a science-based performance management tool used to develop the adaptive management framework, planning tools, and specific actions. The work products (e.g., results chains) related to the terms defined in this section were developed using the Open Standards.

Vital signs and indicators. Detailed indicators for 21 vital signs of ecosystem health and desired outcomes provide for more precise tracking of the goals.

Recovery targets. Recovery targets articulate the conditions expected to be achieved by 2020 with respect to each of the indicators.

Interim targets. Interim targets provide shorter time frames for measuring progress towards achieving the recovery targets. The interim targets are aligned with the goals, indicators, and recovery targets and inform adaptive management of the overall Action Agenda. Interim targets focus on both output and outcome. *Output interim targets* identify specific actions or program implementation milestones that must be completed to help reach recovery targets. *Outcome interim targets* articulate conditions that would need to be achieved within a specified period in order to achieve the recovery targets.

Pressures. Forty-one pressures identify human activities that may affect the physical, structural, and ecological processes and functions in the ecosystem. The pressures inform the recovery targets, strategies, sub-strategies, near-term actions, and ongoing programs required to achieve the goals.

Guiding Principles for Ecosystem Management in Puget Sound. The Guiding Principles were used to develop the strategic priorities and actions that were formalized as the strategies, sub-strategies, near-term actions, and ongoing programs.

Strategies. Twenty-nine strategies describe the overall, long-term directions and approaches that are needed to achieve the recovery targets.

Sub-strategies. One hundred and six sub-strategies provide a narrower focus for the strategies and the development of near-term actions.

Near-term actions. Near-terms actions are trackable and measurable activities and initiatives intended to reduce pressures and contribute to achieving the recovery targets. Near-terms actions are developed at the Soundwide and local scale and are designed for implementation within a 2-year window. Implementation of near-terms actions is tracked via the *Puget Sound Action Agenda Report Card*.

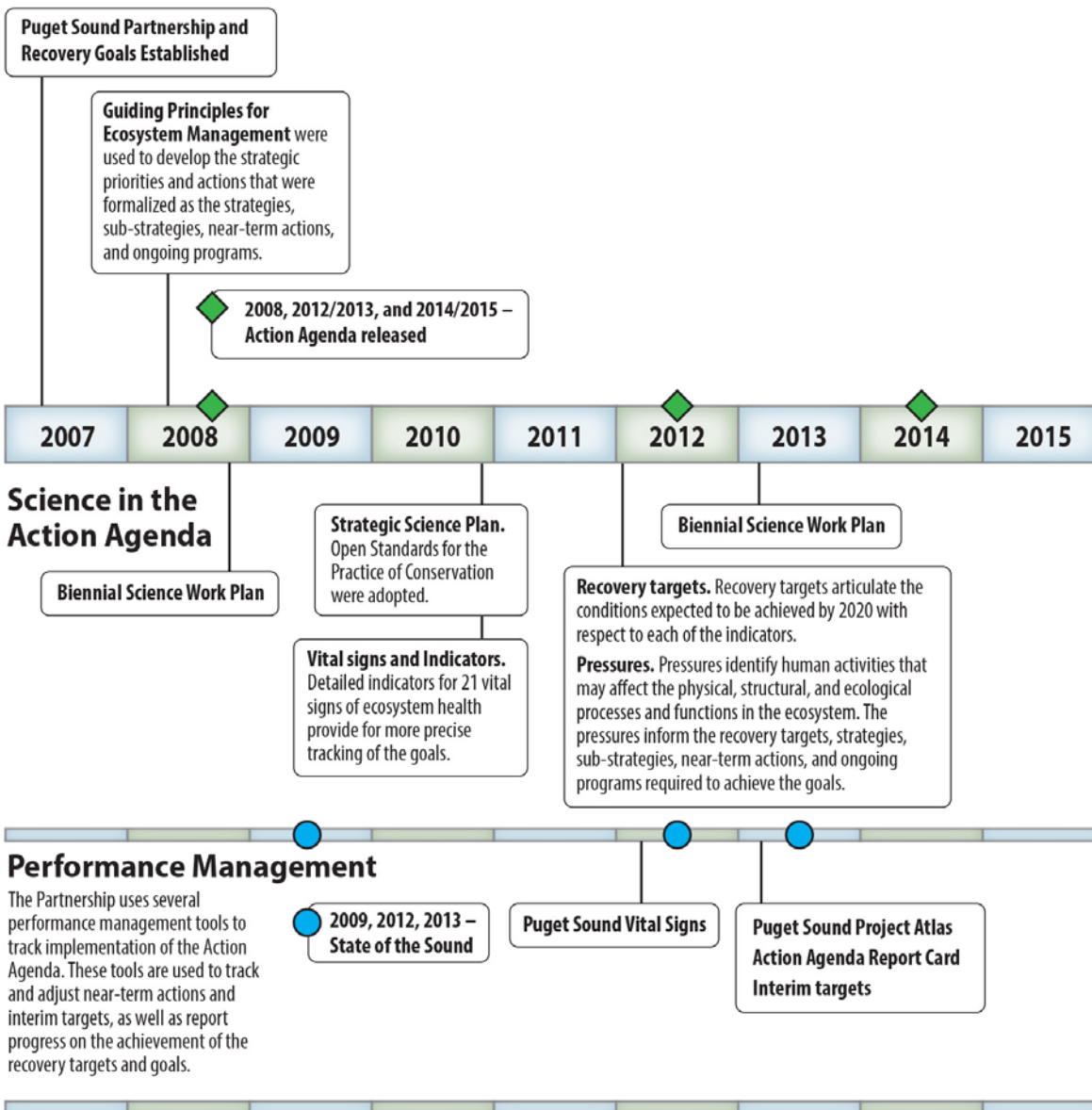
Ongoing programs. Ongoing programs are existing soundwide recovery efforts that have a longer time scale than the near-term actions. Most of the ongoing programs considered in the Action Agenda are state agency programs; they are examples and are not intended to be a complete inventory.

Strategic Initiatives. Three Strategic Initiatives prioritize implementation and funding of near-term actions. The Strategic Initiatives are prevention of pollution from urban stormwater runoff; protection and restoration of habitat; and recovery of shellfish beds.

Cross-cutting issues. The Action Agenda provides closer analysis of issues that affect multiple aspects of Puget Sound recovery and have implications across the Action Agenda that emerge over time. These cross-cutting issues have been integrated into the strategies and actions and their significance called out in text boxes where applicable. They also provide a focus for development of new near-term actions in the context of the recovery targets, strategies, sub-strategies, and the Strategic Initiatives

Performance management. The Partnership uses several performance management tools to track implementation of the Action Agenda. These include the *Puget Sound Vital Signs*, *Puget Sound Project Atlas*, *Action Agenda Report Card*, *State of the Sound*, and *Open Standards for the Practice of Conservation*. These tools are used to track and adjust near-term actions and interim targets, as well as report progress on the achievement of the recovery targets and goals.

Puget Sound Partnership and the Action Agenda *



* The Action Agenda contains the following elements:

Strategies. Describe the overall, long-term directions and approaches needed to achieve the recovery targets.

Sub-strategies. Provide a narrower focus for the strategies and the development of near-term actions.

Near-term actions. Trackable and measurable activities and initiatives intended to reduce pressures and contribute to achieving the recovery targets.

Ongoing programs. Existing soundwide recovery efforts that have a longer time scale than the near-term actions.

Cross-cutting issues. The Action Agenda is a living document, as such, cross-cutting issues emerge over time that may require closer analysis and the development of new near-term actions. These cross-cutting issues are used as a target focus for development of new near-term actions in the context of the recovery targets, strategies, sub-strategies, and strategic initiatives.

Strategic Initiatives. Three strategic initiatives—prevention of pollution from urban stormwater runoff, protection and restoration of habitat, and recovery of shellfish beds—prioritize implementation and funding of near-term actions.

GUIDING PRINCIPLES FOR ECOSYSTEM MANAGEMENT IN PUGET SOUND

Input from the topic forums and action area meetings in 2008 led to the development of the following principles for ecosystem management. The principles, refined by the Leadership Council, Science Panel, and Ecosystem Coordination Board (ECB), were used to develop the strategic priorities and actions. They were reviewed by the Science Panel in 2011 and reflect only modest additions related to human communities.

- A. Address threats and choose opportunities with the highest potential magnitude of impact.
 - B. Address threats with the highest level of urgency. (How imminent is the threat? Will it result in an irreversible loss? How resilient are the resources that are affected?)
 - C. Use strategies that have a reasonable certainty of effectiveness and reflect a balanced precautionary and adaptive approach.
 - Actions should have a realistic expectation that they will be effective in addressing the identified threat.
 - Actions and decisions about the use of resources should err on the side of caution to avoid irreversible ecological consequences.
 - Actions should be designed so they can be measured, monitored, and adapted.
 - D. Use scientific input—about the importance, urgency, and reversibility of threats; opportunities for management impact; effectiveness of actions; and monitoring and adaptation—in designing, implementing, and evaluating strategies.
 - E. Use strategies that are cost effective in making efficient use of funding, personnel, and resources with realistic expectations of achieving results.
 - F. Address the processes that form and sustain ecosystems and increase ecosystem resiliency rather than focus narrowly on fixing individual sites. Consider the Salish Sea ecosystem perspective.
 - G. Attempt to address threats at their origin instead of reacting after the damage has been done. Anticipate and prevent problems before they occur, and plan for extreme events. (With more people coming to the region and a changing climate, a proactive strategy is increasingly important.)
 - H. Consider the linkages and interactions among strategies.
 - Address multiple threats and their interactions with strategies that work together. We cannot afford to look at problems or develop solutions in isolation.
 - Watch out for unintended consequences. Evaluate strategies so actions to address one problem do not cause harm to other ecosystem processes, functions, and structure, as well as social and economic considerations.
 - Integrate salmon recovery actions with ecosystem management actions.
 - I. Account for the variations in ecosystem conditions and processes in different geographic areas of Puget Sound. Some parts of Puget Sound are fairly intact while others are severely degraded, and rebuilding strategies need flexibility to encompass regional differences. Ensure that no region or economic sector bears the entire brunt of the responsibility for implementing solutions.
 - J. Account for human communities and values as fundamental, central elements of the Puget Sound ecosystem (i.e., the Puget Sound social-ecological system).
-

Legislative Mandate

In 2007, Democrats and Republicans created the Puget Sound Partnership to coordinate the regional effort to clean up Puget Sound. The Partnership connects citizens, governments, tribes, scientists, and businesses to set priorities, implement the *Puget Sound Salmon Recovery Plan* (National Oceanic and Atmospheric Administration 2007), and ensure accountability for results. The Partnership consists of a Leadership Council, Executive Director, ECB, and Science Panel (Appendix A, *Puget Sound National Estuary Program Management Conference Overview*). The work of the Partnership is guided by six goals set by the Legislature.

- Healthy people are supported by a healthy Puget Sound.
- Our quality of life is sustained by a healthy Puget Sound.
- Puget Sound species and the web of life thrive.
- Puget Sound habitat is protected and restored.
- Puget Sound rivers and streams flow at levels that support people, fish and wildlife.
- Puget Sound marine and fresh waters are clean.

Science in the Action Agenda

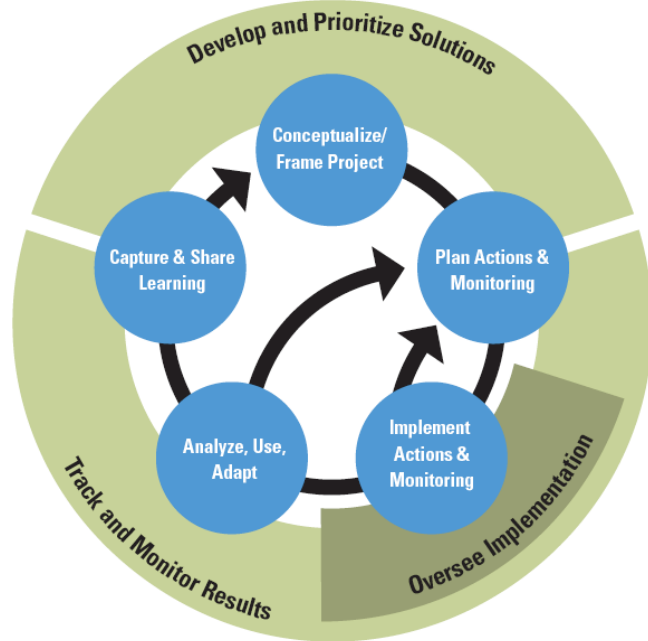
Scientific frameworks and information were used to develop the first Action Agenda in 2008 and continue to be used as the Action Agenda is updated (Appendix B, *Science Basis for the 2012/2013 Action Agenda*). After completion of the 2008 Action Agenda, the Partnership, including the Science Panel, embarked on identifying and building a more rigorous and systematic approach to future iterations of the Action Agenda. The Partnership adopted the *Open Standards for the Practice of Conservation* in 2009 as the adaptive management framework to use moving forward (The Conservation Measures Partnership 2007, Puget Sound Partnership 2010a).

The Open Standards process provides a common means of understanding and supporting the critical role of science through five steps that consider scientific, performance, and policy inputs (see text box below). These five steps help define recommendations for structured science and policy collaboration and clarify implementation roles made by the Partnership Leadership Council and ECB. The choices of what actions to take and their priority and sequencing are ultimately policy choices. These choices are grounded in scientific information so that decision-makers can make the most informed decisions possible, and understand the certainties and uncertainties associated with their choices. The Open Standards process was used by the Partnership to set recovery targets, revise strategies and actions, and develop results chains.

The results chains (Appendix C, *Results Chains*) are logic models that illustrate how the strategies and actions reduce pressures on the ecosystem and contribute to achieving recovery targets. Strategies and actions are identified that contribute to achieving the recovery target. Interim results, reduced pressures, and the ecological results expected to occur are identified as the outcomes required to obtain the recovery target. The basic elements of a results chain and a simplified example are displayed below.

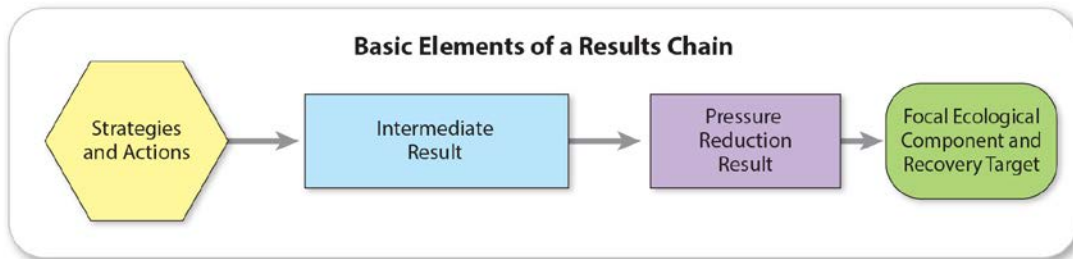
PUGET SOUND PARTNERSHIP’S USE OF THE OPEN STANDARDS TO ADAPT THE ACTION AGENDA

The Partnership coordinates a collective, long-term effort to restore the Puget Sound ecosystem, and the Partnership’s boards and executive director share three key responsibilities shown in the outer ring: develop and prioritize recovery solutions, oversee implementation of recovery actions, and track and monitor results relative to recovery goals and objectives. These responsibilities connect in an adaptive cycle as depicted in the inner loops. The adaptive cycle proceeds through a sequence of steps, proceeding clockwise from the top of the diagram, that build from one another to continuously adapt and improve recovery efforts. Updates to the Action Agenda occur in the first two steps:



conceptualize/frame project (scoping the extent of the update, content revisions, and processes) and plan actions and monitoring (process to develop the strategies and actions). Multiple other scientific inputs to the Action Agenda content and process are summarized in Appendix B, *Science Basis for the 2012/2013 Action Agenda*.

RESULTS CHAINS



Building on the Goals

Indicators, Pressures, and Recovery Targets

The Leadership Council adopted 21 vital sign indicators to more precisely track the goals and set 18 ecosystem recovery targets that articulate desired conditions for 2020. Vital sign indicators and recovery targets address both the condition of the Puget Sound ecosystem and pressures on the system. Human activities that may affect the physical, structural, and ecological processes and functions in the ecosystem are identified as pressures. Many human activities also provide direct and indirect benefits to the ecosystem or may be relatively neutral to the ecosystem but provide benefits for human quality of life. The goal is not to eliminate human pressures on Puget Sound, but to understand and manage them toward ecosystem protection and recovery.

The Action Agenda currently addresses 41 pressures (see text box). Progress toward achieving the recovery targets is charted via the *Puget Sound Vital Signs*, shown below.



The *Puget Sound Vital Signs* is the tool that tracks and communicates ecosystem conditions and progress toward achieving the recovery targets. The tool allows users to dig down into the vital sign indicators. By selecting a vital sign, the user can view the detailed indicator(s) for the vital sign, associated ecosystem recovery targets, and progress relative to baseline references and toward meeting these targets, as well as related data and maps. The tool also offers ways for the public to get involved, explains what Puget Sound Partnership partners are doing, and provides links to additional information.¹

¹ www.psp.wa.gov/vitalsigns/index.php

PRESSURES ADDRESSED IN THE ACTION AGENDA THROUGH THE OPEN STANDARDS PROCESS

These 41 Puget Sound Pressure Sources, grouped into eight source categories, have been developed as part of the Puget Sound Pressures Assessment project. They represent a modest revision to the Partnership’s 2012 Pressure Taxonomy and have been revised to better capture sources of stress in Puget Sound and for better alignment with the International Union for Conservation of Nature (IUCN) threat taxonomy. Sources are the cause of stressors that, in turn, are the causes of stressed conditions in the ecosystem.

1. Residential and Commercial Development

- 1.1 Housing and Urban Areas
- 1.2 Commercial and Industrial Areas (including ports)
- 1.3 Tourism and Recreation Areas

2. Agriculture and Aquaculture

- 2.1 Annual and Perennial Non-Timber Crops
- 2.2 Wood and Pulp Plantations
- 2.3 Livestock Farming and Ranching
- 2.4 Marine and Freshwater Finfish Aquaculture
- 2.5 Marine shellfish aquaculture

3. Energy Production and Mining

- 3.1 Oil and Gas Drilling
- 3.2 Mining and Quarrying
- 3.3 Renewable Energy

4. Transportation and Service Corridors

- 4.1 Roads and Railroads (including culverts)
- 4.2 Utility and Service Lines
- 4.3 Shipping Lanes and Dredged Waterways
- 4.4 Flight Paths

5. Biological Resource Use

- 5.1 Hunting and Collecting Terrestrial Animals
- 5.2 Gathering Terrestrial Plants
- 5.3 Logging and Wood Harvesting
- 5.4 Fishing and Harvesting Aquatic Resources

6. Human Intrusions and Disturbance

- 6.1 Recreational Activities
- 6.2 War, Civil Unrest, and Military Exercises
- 6.3 Work and Other Activities

7. Natural System Modifications

- 7.1 Fire and Fire Suppression
 - 7.2.1 Abstraction of Surface Water
 - 7.2.2 Abstraction of Ground Water
 - 7.2.3 Dams
 - 7.2.4 Freshwater Levees, Floodgates, Tidegates
 - 7.2.5 Marine Levees, Floodgates, Tidegates
- 7.3 Freshwater Shoreline Infrastructure
- 7.4 Marine Shoreline Infrastructure

9. Pollution

- 9.1.1.1 Domestic and Municipal Wastewater to Sewer
- 9.1.1.2 Domestic and Commercial Wastewater to Onsite Sewage Systems (OSS)
- 9.1.2 Runoff from Residential and Commercial Lands
 - 9.2.1 Oil Spills
 - 9.2.2 Seepage from Mining
 - 9.2.3 Industrial Wastewater
 - 9.2.4 Industrial Runoff
- 9.3 Agricultural and Forestry Effluents
- 9.4 Garbage and Solid Waste
- 9.5 Air-Borne Pollutants
- 9.6 Release of Excess Energy (light, heat, sound)

Strategies and Actions

The strategies and sub-strategies from the 2012/2013 Action Agenda are carried forward into the 2014/2015 Action Agenda. The work that interdisciplinary teams did to refine strategies and actions related to achieving the recovery targets for the following categories of pressures: land development, loss of floodplain function, shoreline alteration, urban stormwater runoff, and wastewater. The work of these interdisciplinary teams is retained and reflected in Section 3, *Strategies and Actions*.

This iterative process continued into 2014 as regional actions were considered and as the local integrating organizations (LIOs) developed actions to respond to the pressures significant to their local ecosystems. The results of the iterative process are summarized in Section 3, *Strategies and Actions*, and Section 4, *Local Recovery Actions*. All of the near-term actions are aligned with sub-strategies and identify owners (i.e., entities responsible for implementation) and performance measures (Appendix D, *Near-Term Actions*). As an outcome, the 2014/2015 Action Agenda reflects the following elements.

- 29 strategies to achieve the recovery targets.
- 106 sub-strategies to provide a narrower focus for the strategies and to develop near-term actions.
- 152 regional and 157 local total near-term actions (follow-up, revised, or continued).
- 42 completed regional and 4 local near-term actions.
- 5 regional and 19 local deleted near-term actions.
- 21 near-term actions that address ocean acidification, as recommended by the 2012 Blue Ribbon Panel on Ocean Acidification.

Local Planning

City and county governments are the primary implementers of many of the near-term actions described in the Action Agenda (Section 3, *Strategies and Actions*). Since adoption of the 2008 Action Agenda, the Partnership has supported the establishment of LIOs, which consist of local governments and other local stakeholders, to contribute to development of the Action Agenda. LIOs are established and recognized by the Leadership Council in nine of the 10 local areas that comprise Puget Sound².

Throughout 2013, Partnership staff worked closely with each LIO to develop an approach for identifying and prioritizing local near-term actions that help to restore Puget Sound to health. Local near-term actions are presented with Soundwide actions in Section 3, *Strategies and Actions*, by most relevant sub-strategy. Section 4, *Local Recovery Actions*, presents local area profiles, which summarize LIO structure, planning process, locally significant pressures, and near-term actions.

Setting Priorities

The Partnership is required to prioritize near-term actions to direct allocation of increasingly scarce federal, state, and local resources.³ Setting priorities involves balancing ecological and human well-being factors to make the greatest progress toward recovery for the time and resources spent. In 2012, the Partnership, working with the ECB and the Science Panel, undertook an unprecedented effort to create a science-based assessment of the expected ecological impact of each sub-strategy in the Action Agenda, and to gather associated information on implementation issues, including potential contributions to human well-being and economic vitality. The result of this initial effort is a preliminary

² It is important to note that work is ongoing in all local areas. Each area is at a unique point in the process of identifying its priorities and contributing to the Action Agenda. Most areas have prioritized strategies and actions with performance measures. Although the Skagit-Samish watersheds are not able to identify near-term actions at this time, it does not mean that actions and strategies are not important in that area; instead it reflects the differences between the local area processes. The Skagit-Samish watersheds continue to work toward establishing an LIO.

³ RCW 90.71 requires the Partnership to prioritize actions necessary to recover Puget Sound.

ranked list of sub-strategies based on expected ecological impacts (Appendix E, *Action Agenda Sub-Strategy Rankings*).

This sub-strategy ranking informed the development of the Strategic Initiatives in 2012 (Section 2, *The Strategic Initiatives*).

- **Prevent pollution from urban stormwater runoff.** This is an immense challenge, and, although we have many of the tools and technologies for stormwater, we need to make much fuller use of them if we are to stop contamination from flowing into Puget Sound.
- **Protect and restore habitat.** We must stop destroying habitat, protect what remains, and substantially restore the critical habitats that we have lost.
- **Recover shellfish beds.** Shellfish harvesting is both a treaty right for tribes and a vital industry in our region. It is also a treasured tradition for countless northwest families. Shellfish health begins on land, through reduction of pollution from rural and agricultural lands and maintenance and repair of failing septic tanks.

The Strategic Initiatives are described in detail in Section 2, *The Strategic Initiatives*. The near-term actions within each strategic initiative will be identified through a collaborative process involving members of the ECB once the 2014/2015 Action Agenda has been adopted by the Leadership Council. The Partnership will be convening and facilitating a series of meetings during the summer of 2014 to achieve this objective. The final list will be presented to the ECB and the Leadership Council for review and approval.

The Partnership continues to create a more systematic and replicable approach to prioritization. This includes creating a transparent, durable framework for the prioritization process—something that can be refined and used year after year if desired—and reaching out to technical experts to gather specific information on each near-term action to inform priority setting. The priority setting process will be information-based, transparent, and replicable, and will help illustrate where gaps in knowledge or uncertainty are particularly relevant to our understanding of what various actions might achieve.

PUBLIC REVIEW OF THE 2014/2015 ACTION AGENDA

2013

- LIOs held multiple public meetings as they developed their local actions within the local community. These processes are described in detail in each of the local profiles in Section 4, *Local Recovery Actions*.

2014

- April: 2014/2015 Action Agenda webpage was created and draft near-term actions and local profiles were released for public review and comments (April 8). An online public comment survey of the update was also provided on the website. Two public open houses were conducted in Tacoma and Edmonds. Upon the close of the public comment period on April 30, 6 comments via email and 12 survey responses were received. High-level concerns raised by commenters included:

Regional Comments:

- Specific comments from regional owners of near-term actions regarding their near-term actions: Prioritization of State Highways with Floodplain Impacts (A5.4.1); Steelhead Recovery – Salish Sea Marine Survival Project (A6.4.2); and No Discharge Zones (C1.5.1). The nature of these comments was primarily

updating and refinement. The No Discharge Zone action is still in progress, and additional milestones were added at the request of the owner—Washington State Department of Ecology (Ecology).

- There was also a more general comment from Ecology that noted halting decline and achieving positive trends on many/most of the vital sign indicators is an ambitious goal, and meeting the targets will be challenging.

Response: Comments related to specific near-term actions were incorporated into the document.

Local Comments:

- Comments received regarding the local area actions have been for the majority supportive of the overall integration of the LIO profiles and actions. Several specific comments have focused around the South Puget Sound Action Area proposed near-term action of restoring Deschutes Estuary (B2.2 SS9).
- Several other comments supported stronger actions to prevent oil spills by funding measures that address vessel traffic risks; increasing the Partnership’s advocacy for reducing risks of major oil spills from the existing and proposed fossil fuel transports/exports; and actions that achieve uniform regulation and enforcement that promotes spill prevention across U.S. and Canadian marine waters.
- Agency partner comments expressed a need for more consistent descriptors of local near-term actions to help compare, contrast, and prioritize actions across Action Areas and to help inform funding decisions. Suggesting less focus on tracking progress on specific local actions and more focus on programmatic measurement.

Response: Partnership staff has coordinated with the San Juan LIO on responses to the comments about shoreline and critical areas regulations – there is agreement that shoreline buffers and critical area buffers are important for protecting fragile resources. Site-specific permit conditions and monitoring the effectiveness of the regulations will provide a level of protection that should address the concerns raised. Regarding stronger actions to prevent oil spills and the need for funding, the Partnership is working with our partners in Canada on refining possible traffic risk mitigation measures. The Partnership made revisions to actions to incorporate the new understanding of potential vessel risks.

Ocean Acidification Near-Term Actions

- The Partnership received several comments about ocean acidification near-term actions from citizens and regional partners requesting expansion of near term actions addressing wastewater treatment and questioning advocacy of a comprehensive strategy to reduce carbon dioxide emissions on one hand without actively opposing all new and expanding fossil fuel export terminals.
- Agency partners recommended further developing the near term actions described in the draft.

Response: Comments related to near-term actions under sub-strategy C6.3 were incorporated into the document. The second comment about apparent policy inconsistencies between the Blue Ribbon Panel recommendations on ocean acidification and the construction of fossil fuel export terminals is acknowledged, but appears to be beyond the scope of this Action Agenda update. Provisional approval of the ocean acidification near-term actions will be sought from the ECB and Leadership Council pending the Marine Resources Advisory Council’s more detailed consideration.

- April and May: Public briefings held before the Science Panel, ECB, and Leadership Council.
- May 30: The ECB and Leadership Council unanimously approved the staff recommendation and adopted the 2014/2015 Action Agenda.

Integrating Cross-Cutting Issues

The 2014/2015 Action Agenda integrates several cross-cutting issues, issues that affect multiple aspects of Puget Sound recovery and have implications across the Action Agenda that emerge over time. These issues provide a focus for development of new near-term actions in the context of the recovery targets, strategies, sub-strategies, and the Strategic Initiatives. The cross-cutting issues were identified through

the various public review processes since 2008. The Partnership then partnered with an outside entity or established an internal sub-committee to identify how these issues could be addressed in the Action Agenda. An overview of the outcomes is provided in the following subsections. Section 3, *Strategies and Actions*, calls out cross-cutting issues in text boxes to identify strategy, sub-strategy, and action alignment with these issues as applicable.

Climate Change

The Partnership has considered climate change in the Action Agenda since 2008. To develop and align near-term actions related to climate change into the Action Agenda, the Partnership worked with the University of Washington Climate Impacts Group and Ecology.

Ecology (2012a) released *Preparing for a Changing Climate: Washington State's Integrated Climate Response Strategy*. This report identified seven overarching, high-priority climate change response strategies.

- **Protect people and communities from climate change impacts.** This includes enhancing core public health capacity and enhancing emergency response capacity to address increasingly extreme floods and fires.
- **Reduce risk of damage to buildings, transportation systems, and other infrastructure.** This includes reducing flood damage by restoring floodplains and capturing more water, supporting local efforts to prepare for coastal flooding and storm surges, considering climate change impacts when siting new development and infrastructure, and planning for relocation if structures are damaged by floods or other events.
- **Reduce forest and agriculture vulnerability to climate change impacts.** This includes enhancing surveillance and eradication of pests and disease, promoting identification of and transition to plant species that are resilient to new climate conditions, conserving productive and adaptive farmland and forests, and reducing forest and wildland fire risk in highly vulnerable areas.
- **Improve water management to address climate-related supply reductions.** This includes promoting integrated water management in vulnerable basins, implementing enhanced water conservation and efficiency programs, ensuring sufficient cold water in salmon-bearing streams during critical seasons, and incorporating climate change realities into agency decision-making.
- **Safeguard fish and wildlife and protect critical ecosystem services that support human and natural systems.** This includes protecting and restoring habitat and improving the ability of species to migrate to more suitable habitat as the climate shifts, protecting sensitive and vulnerable species and their habitats, and reducing existing stresses on fish, wildlife, plants, and ecosystems.
- **Reduce the vulnerability of coastal communities, habitat, and species.** This includes preventing coastal habitat degradation and destruction and seeking opportunities for upland habitat creation as sea levels rise, and reducing shellfish vulnerability to ocean acidification by reducing land-based contributions of carbon and polluted runoff to the marine environment.
- **Support the efforts of local communities and strengthen capacity to respond to and engage with the public.** This includes identifying existing and new funding mechanisms to support adaptation work at the local level, developing an institutional structure to improve coordination and support an integrated approach, supporting information gathering on climate impacts and ensuring scientific

information is easily accessible, and engaging the public in determining appropriate responses to climate change.

These climate change response strategies were integrated into the 2012/2013 Action Agenda through alignment with strategies, sub-strategies, and near-term actions (Section 3, *Strategies and Actions*). The relationship between strategies/sub-strategies and the climate change impacts and related state strategies they address is described in text boxes throughout Section 3, *Strategies and Actions*. The next steps for addressing climate change are included under the *Emerging Issues and Future Opportunities* headings (Section 3, *Strategies and Actions*). In addition, the performance measures for near-term actions include a climate change step, as applicable.

Ocean Acidification

Washington's marine waters are particularly vulnerable to ocean acidification because of regional factors that exacerbate the acidifying effects of global carbon dioxide emissions. One of the most important regional factors is coastal upwelling, which brings offshore water that is rich in carbon dioxide and low in pH up from the deep ocean and onto the continental shelf. Other regional factors affecting ocean acidification in Washington include runoff of nutrients and organic carbon (such as plants and freshwater algae) from land, and local emissions of carbon dioxide, nitrogen oxides, and sulfur oxides, which are absorbed by seawater from the atmosphere. Ocean acidification has the potential to affect a wide range of organisms, from seagrasses to fish and shellfish. If conditions persist or worsen, it is evident that ocean acidification could have significant impacts on the Puget Sound ecosystem and aquaculture industry.

Recognizing the risks of ocean acidification to Washington, Governor Christine Gregoire created the Washington State Blue Ribbon Panel on Ocean Acidification to chart a course for addressing the causes and consequences of acidification. The panel developed 42 recommendations in the following areas.

- Reduce emissions of carbon dioxide.
- Reduce local land-based contributions to ocean acidification.
- Increase our ability to adapt to and remediate the impacts of ocean acidification.
- Invest in Washington's ability to monitor and investigate the causes and effects of ocean acidification.
- Inform, educate, and engage stakeholders, the public, and decision makers in responding to ocean acidification.
- Maintain a sustainable and coordinated focus on ocean acidification at all levels of government.

Ocean acidification is a new cross-cutting issue in the 2014/2015 Action Agenda. The Partnership was directed by Executive Order to "work with its partners to advance the implementation of the Panel's recommendations by incorporating the scientific findings, and strategies and actions into the Puget Sound Action Agenda, the Biennial Science Work Plan, and ecosystem monitoring programs, by December 1, 2014." The Partnership integrated the Blue Ribbon Panel recommendations into near-term actions for the 2014/2015 Action Agenda and the Biennial Science Work Plan. Text boxes in Section 3 describe the relationship of the state strategy to the Action Agenda strategies.

Salmon Recovery

The Partnership is charged with integrating the Puget Sound Salmon Recovery Plan (Recovery Plan) into the overall ecosystem recovery effort and the Action Agenda.⁴ In addition, Salmon recovery scientific needs are reflected in the Biennial Science Work Plan. The Leadership Council adopted a recovery target for Chinook salmon based on the Recovery Plan's long-term goal to achieve harvestable, self-sustaining levels of Puget Sound Chinook. For Chinook salmon recovery target, the Recovery Plan seeks to stop the overall decline and start seeing improvements in wild Chinook abundance in two to four populations in each biogeographic region.

Many strategies in the salmon recovery plan have other ecosystem benefits. Likewise, many of the strategies in the Action Agenda are essential for salmon recovery. Integration of the salmon recovery plan priorities is highlighted in text boxes throughout Section 3, *Strategies and Actions*. Each text box summarizes a salmon recovery priority and describes how it is integrated into the Action Agenda.

Tribal Treaty Rights

Puget Sound has been home to populations of the Coast Salish people for thousands of years. U.S. federal courts have established tribes as co-managers of fish and shellfish resources in Washington waters. As co-managers, tribal governments are on the front lines of implementation of protection and restoration activities. A healthy Puget Sound ecosystem is central to tribal culture and spiritual practices, and to tribal economic health.

Federal agencies in the Puget Sound region are undertaking a coordinated effort to contribute to Puget Sound habitat protection and restoration. This work is being driven by the federal response to Western Washington treaty tribes' concerns over declining habitat. Appendix F, *Federal Response—Habitat Matrix*, contains a description of that effort and a matrix of actions federal agencies are taking related to habitat. Section 2, *The Strategic Initiatives*, provides a summary of the coordination process and outcomes in the text box titled *Tribal Habitat Priorities*.

Performance Management

The Partnership uses several performance management tools to track its progress in reaching the recovery targets by 2020. All of these resources are found on the Partnership website.⁵ These tools are used to track and adjust near-term actions and interim targets, and to report progress on the achievement of the recovery targets and goals.

State of the Sound. This performance report, which is updated every 2 years, reviews the ecological health of Puget Sound, the funding for the Sound, and the status of the Action Agenda implementation. Near-term actions are tracked for implementation progress and funding to help identify where additional regional support and resources are needed. This report is not intended to grade implementers on their work.

⁴ On January 1, 2008, The Puget Sound Partnership Act, Section 49(3), Revised Code of Washington (RCW) 77.85.090(3) designated the Partnership to serve as the regional salmon recovery organization for Puget Sound salmon species, except Hood Canal Summer Chum.

⁵ <http://psp.wa.gov/>

Puget Sound Vital Signs. The status of progress toward achieving the recovery targets is charted on the *Puget Sound Vital Signs* online tool and updates are incorporated in the *State of the Sound* report.

Action Agenda Report Card. This online tool provides an up-to-the-minute status on near-term actions. It allows the user to track near-term action performance and funding status, corrective actions, and ownership. Alignment with vital signs, recovery strategies, and Action Agenda strategies and sub-strategies is provided.

Puget Sound Project Atlas. This online tool provides updates on project implementation. It identifies the project location on an interactive map and allows the users to filter projects by vital sign, fiscal year, and status.

Open Standards. *Open Standards for the Practice of Conservation* (The Conservation Measures Partnership 2013) is a science-based performance management tool used to develop the adaptive management framework, planning tools, and actions. The recovery planning work products are developed using the Open Standards.