



THE 2016 ACTION AGENDA
FOR PUGET SOUND

COMPREHENSIVE PLAN



PUGET **SOUND**
PARTNERSHIP

JUNE 2016

ACTION AGENDA FOR PUGET SOUND

LETTER FROM LEADERSHIP COUNCIL

EXECUTIVE SUMMARY

COMPREHENSIVE PLAN

IMPLEMENTATION PLAN

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CHAPTER I | INTRODUCTION

WHY DO WE NEED THE ACTION AGENDA?

Puget Sound is a unique and vital part of our region. It nourishes our health, economy, environment, and quality of life. A healthy Puget Sound is essential to sustaining a vibrant economy, meeting our obligations to treaty rights, and supporting our need for connection to the natural world. But Puget Sound is in trouble.

Over the past 150 years, human use has damaged Puget Sound, causing the degradation of water quality, water quantity, and habitat. Many Puget Sound species are in decline, habitat is in jeopardy, and food webs are changing. Today, 4.5 million people live in the Puget Sound region. By 2040, a population of 7 million is projected, the equivalent of adding approximately four cities the size of Seattle to our watershed. Additionally, planned growth of fossil fuel shipping through the region will increase vessel traffic and the threat of spills. The rapid economic and population growth will lead to more land development, infrastructure, and pollution. Recovering Puget Sound will require increased focus on protecting habitat and managing land development to ensure that our restoration efforts outpace habitat loss, and begin to change the recovery trajectory of Puget Sound.

Our challenge is further complicated by uncertainty about how climate change and the stresses of ocean acidification will affect the Puget Sound ecosystem. Work we have done to clean up and restore areas—at great cost—is being undone as the chemicals we use in daily life make their way through stormwater runoff to contaminate Puget Sound waters.



PUGET SOUND

Puget Sound is the largest estuary by water volume in the United States and connects with the international waters to form the Salish Sea. Carved by glaciers and fed by more than 10,000 rivers and streams, Puget Sound is defined by the movement of water. Beginning as snow in the Cascades and Olympics, fresh water flows down from these mountain ranges through streams and fertile river valleys into Puget Sound, connecting to a complex network of salt marshes, wetlands, smaller estuaries, bluffs, beaches, and bays. Puget Sound is a vast and beautiful estuary—a semi-enclosed, glacial fjord—where salt water from the Pacific Ocean mixes with fresh water draining from the surrounding watersheds. From the Canadian border south to Olympia and west to the Pacific Ocean, About 2,800 square miles of inland marine waters and 2,500 miles of shoreline comprise Puget Sound. Nearly 85 percent of Puget Sound's annual surface water runoff comes from 10 major river systems: the Nooksack, Skagit, Snohomish, Stillaguamish, Cedar/Lake Washington, Green/Duwamish, Puyallup, Nisqually, Skokomish, and Elwha.

FIGURE I-1. PUGET SOUND REGION

Puget Sound orca whales are among the most toxin-contaminated mammals on earth ^a

Salmon populations are one-third as abundant as they were in 1908 and populations continue to decline. Chinook salmon populations are so low that recreational fishing days have been significantly reduced

The Puget Sound shoreline from Everett to Tacoma is closed to commercial shellfish harvest because of pollution ^b

Shellfish beds and swimming beaches are often closed because the water is too contaminated with fecal bacteria



BEAUTIFUL ON THE SURFACE, BUT HARD TRUTHS ARE DIFFICULT TO IGNORE

Over one-quarter of Puget Sound shorelines—almost 700 miles—has been hardened by bulkheads that reduce fish and wildlife habitat

Hundreds of tons of toxic organic chemicals and metals end up in Puget Sound each year from cars, roofs, wood treatments, wood burning, boat paint, household pesticide use, consumer products, pharmaceuticals, and air emissions

The rivers and streams that flow into Puget Sound are the lifeblood of our region's ecosystems, yet only 64 percent of the major rivers in Puget Sound meet water quality standards

During the past 150 years, Puget Sound lost at least two thirds of its remaining old-growth forest, more than 90 percent of its native prairies, and 80 percent of its marshes

^a Ross, P.S., G.M. Ellis, M.G. Ikononou, L.G. Barrett-Lennard, and R.F. Addison. 2000. High PCB Concentrations in Free-Ranging Pacific Killer Whales, Orcinus Orca: Effects of Age, Sex and Dietary Preference. Marine Pollution Bulletin 40:504-515. [Available here](#)

^b However, there are some subtidal geoduck tracts approved for commercial harvest in this area, and Dash Point State Park is open for recreational harvest.

CONTINUED FROM PAGE I

The pressures are relentless and continue to take their toll on the Puget Sound ecosystem and the well-being of residents around the region. However, not all news is bad. Water quality has been maintained in shellfish growing areas. Today, safe shellfish harvesting is allowed in more areas than in 2007. Recent studies have shown that low-impact development techniques are improving conditions for coho salmon¹.

The good news is that we can preserve the vitality Puget Sound brings to our region if we work together. This collective action will test the limits of our scientific knowledge and our will as a society. In response to growing awareness that Puget Sound was in serious trouble, in 2007, the Washington State Legislature passed legislation with large bipartisan majorities to create the Puget Sound Partnership. The legislation mandated a comprehensive recovery framework to replace what was seen as fragmented attempts at recovery. Specifically, the legislation mandated that the Partnership coordinate and lead the effort to protect and restore Puget Sound through a strategic, prioritized, science-based Action Agenda “that addresses all of the complex connections among the land, water, web of species, and human needs.”

Puget Sound will never be as it was 150 years ago, and the task of saving Puget Sound is large and complex. Success requires collaboration, clear direction, and effective action. Together with our partner agencies, organizations, and citizens, we can protect and restore Puget Sound by using science-informed, prioritized actions—this is what the Action Agenda is designed to do.

WHAT IS THE ACTION AGENDA?

The Action Agenda is our region’s shared roadmap for Puget Sound recovery. The Action Agenda outlines the regional strategies and specific actions needed to protect and restore Puget Sound. It is designed to improve the effectiveness and efficiency of Puget Sound recovery by providing a coordinated plan of action and creating ways to identify and apply lessons learned over time. The Action Agenda complements other local or subregional planning processes such as salmon recovery plans and watershed plans by identifying a consolidated set of priorities and opportunities for federal, state, local, tribal, and private entities to invest resources and coordinate actions. In particular, the Action Agenda has been developed with the following intentions:

For the purposes of the Action Agenda, recovery is an inclusive term that covers the protection and restoration of essential resources and functions.

- **It is a collective effort.** By gathering diverse partners from state and federal agencies, tribal governments, local governments, and business and environmental groups; agreeing on a roadmap with prioritized actions; and sharing a vision for the future of Puget Sound, the Action Agenda offers partners a roadmap for making investments that will maximize results.
- **It is informed by science.** The Action Agenda is based on decisions that are supported by science through input from regional science experts with a variety of public, private, tribal, and academic affiliations and different technical and geographic areas of focus.

¹ Additional information regarding successful efforts to restore Puget Sound, visit the Puget Sound Partnership web page for [Effectiveness Monitoring](#).

- **It guides effective investment in Puget Sound.** The Partnership adopted an adaptive management framework to ensure a scientifically rigorous and systematic approach to developing the Action Agenda. By constantly assessing the effectiveness of actions and outcomes, tracking progress, and reprioritizing needs, our roadmap is an evolving indication of the highest return on investment for recovery at any point in time.
- **It meets the National Estuary Program’s Comprehensive Conservation and Management Plan requirements.** The National Estuary Program is the primary method through which the U.S. Environmental Protection Agency provides funding for Puget Sound recovery.
- **It meets the Washington State Legislature mandates.** When the State of Washington created the Puget Sound Partnership, the State mandated creation of the Action Agenda to plan and coordinate the science-informed recovery of Puget Sound. It directs the Partnership to tailor programs and activities within the region to meet Puget Sound needs.

HOW IS THE ACTION AGENDA ORGANIZED?

Two components comprise the Action Agenda: the Comprehensive Plan and the Implementation Plan.

- This ***Comprehensive Plan*** provides the roadmap for long-term Puget Sound recovery by outlining overarching strategies for successful protection and restoration. It aims to identify the full scope of actions and funding necessary for recovery and introduces the approaches by which issues and activities are prioritized, progress is evaluated, and strategies and actions are adapted over time.
- The ***Implementation Plan*** identifies actions that have been prioritized for implementation within the plan’s 2-year timeframe that support the recovery goals and strategies identified in the Comprehensive Plan. It also lists the ongoing programs.

Readers can also access [supporting materials](#) that provide additional information, references, Local Integrating Organization long-term recovery plans, 2-year implementation plans, summaries of previous and ongoing planning efforts, and other related topics on the Action Agenda website. Hyperlinks to these materials are provided throughout this Action Agenda.



CHAPTER 2 | FRAMEWORK FOR RECOVERY

Puget Sound recovery—which encompasses protection and restoration—is carried out in an adaptive management framework. Adaptive management is a way of learning continuously from past actions in order to improve future actions. The Puget Sound Partnership adopted a specific adaptive management model in 2009, called the Open Standards for the Practice of Conservation (Open Standards). The Open Standards framework builds on explicitly structured interactions among decisionmakers, implementers, scientists, and partners to encourage innovation, sharing of successful practices, and adaptation. The framework relies on a strong scientific basis and coordinated monitoring and reporting. The Puget Sound Partnership will be working continually toward managing recovery within this framework. A simplified adaptive management framework is illustrated in Figure 2-1, and its key steps are described below.

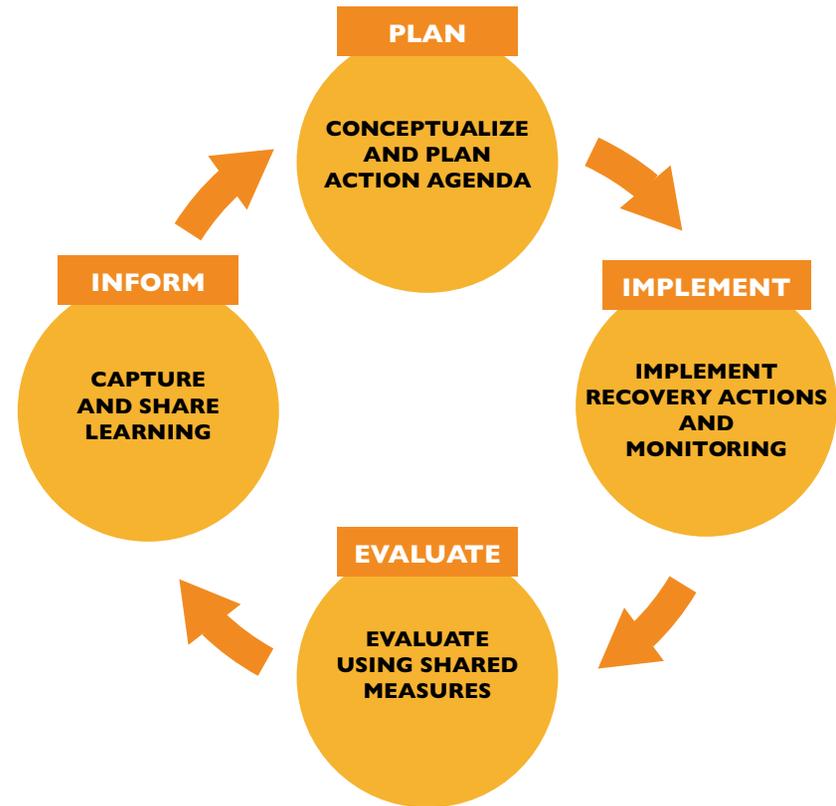
- **Plan.** The Action Agenda is the shared strategic roadmap to recovery. Conceptualizing and planning for the Action Agenda is the focus of this step. The process involves using the best available information and engaging regional experts to identify the problem, scope the overarching approach, define desired future conditions, analyze current conditions, identify and prioritize recovery actions for implementation based on anticipated effectiveness, and plan monitoring actions.
- **Implement.** Partners implement programs and projects identified in the Action Agenda to support Puget Sound recovery. The Puget Sound Partnership supports these efforts by mobilizing funding, removing barriers, catalyzing progress, and educating key decisionmakers and influencers so that partners have the resources they need to succeed.

- **Evaluate.** Partners track and report on implementation and conduct monitoring to evaluate action effectiveness and progress toward recovery based on shared measurements. Monitoring and reporting feed the adaptive management process with scientific findings.
- **Inform.** The Puget Sound Partnership captures and shares knowledge gained from evaluating effectiveness and ecosystem responses. The Partnership then adjusts priorities and adapts action-planning based on information gathered through the development, implementation, and evaluation of the previous planning cycle.

By developing this adaptive management framework, coordinating its implementation across the region, and monitoring and evaluating progress, the Partnership aligns and continually improves recovery efforts across partners’ missions, jurisdictions, and funding approaches.

The roles and responsibilities of the Partnership, its boards, and partners in this framework are described in [Chapter 3, Managing Recovery](#). The strategic planning that supports the identification and prioritization of actions presented in the [Implementation Plan](#) is described in [Chapter 4, Planning Recovery](#). This chapter describes the shared measurements that guide action-planning and measure its success, how actions are implemented and tracked, how progress toward recovery goals is evaluated and reported, and how science informs each step in the cycle. In all aspects of Puget Sound recovery, the Partnership is guided by the principles of ecosystem management adopted in 2008.

FIGURE 2-1. A SIMPLIFIED ADAPTIVE FRAMEWORK FOR PUGET SOUND ECOSYSTEM RECOVERY



See the [Action Agenda adaptive management](#) infographic to illustrate and contextualize the terminology and process described in the Comprehensive Plan.

GUIDING PRINCIPLES FOR ECOSYSTEM MANAGEMENT

The Guiding Principles for Ecosystem Management, adopted by the Leadership Council, Science Panel, and Ecosystem Coordination Board in 2008, guide the Puget Sound Partnership in its approach to ecosystem recovery.

- A. Address pressures 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 focusing 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 (the Puget Sound social-ecological system in other words).

WHAT ARE THE SHARED MEASURES OF PROGRESS?

RECOVERY GOALS

- **Healthy human population.** Healthy people are supported by a healthy Puget Sound.
- **Human quality of life.** Our quality of life is sustained by a healthy Puget Sound.
- **Species and food web.** Puget Sound species and the web of life thrive.
- **Protect and restore habitat.** Puget Sound habitat is protected and restored.
- **Water quantity.** Puget Sound rivers and streams flow at levels that support people, fish, and wildlife.
- **Water quality.** Puget Sound marine and fresh waters are clean.

The Washington State statute that created the Puget Sound Partnership defines six recovery goals (see text box).

FIGURE 2-2. PUGET SOUND VITAL SIGNS.



The outer ring shows each of the six recovery goals for Puget Sound, established by the Washington State Legislature. The inner wedges represent the 25 Vital Signs, each associated with its primary recovery goal.

VITAL SIGNS

To understand the health of the Puget Sound ecosystem and to describe desired future conditions, the Partnership needed clear, measurable targets for achieving the six recovery goals. The Partnership adopted the Vital Signs as these measures of health. The Vital Signs are directly aligned with the six recovery goals (Figure 2-2).

VITAL SIGN INDICATORS

Most Vital Signs are represented by one or more specific and measurable metrics—called indicators—that provide information about the condition of the Puget Sound ecosystem. The indicators are not intended to be comprehensive or representative of the full spectrum of issues that are related to a Vital Sign. The Vital Signs meet the following criteria:

- Scientifically and theoretically sound surrogates
- Relevant to management concerns
- Predictably responsive to ecosystem changes and management actions
- Linkable to a reference point or baseline condition
- Supported by available, high-quality data
- Understood by the public and policymakers

For example, the water quality goal is represented by four Vital Signs, including marine water quality. The marine water quality Vital Sign is represented by two indicators: marine water condition index and dissolved oxygen in marine waters. Figure 2-3 provides an example of a Vital Sign—orcas—for the species and food webs goal. In this case, the Vital Sign is represented by a single indicator, the number of southern resident killer whales (orcas).

RECOVERY TARGETS

The Puget Sound Partnership has adopted 2020 ecosystem recovery targets for many of the Vital Sign indicators. The recovery targets are science-informed statements of desired future conditions for each Vital Sign indicator. To lay the path for the 2020 ecosystem recovery targets, the Partnership has adopted interim milestones for 2014, 2016, and 2018. Together, the Vital Sign indicators and recovery targets can show how the ecosystem is improving or declining relative to baseline conditions and the desired future conditions across the six recovery goals.

The 2015 *State of the Sound* reported that the majority of Vital Sign indicators are, at best, only slowly changing. Few were on target—or even within reach of—their 2014 interim targets. Although progress has been made on some indicators and at local scales, little evidence suggests that the 2020 targets will be met.

FIGURE 2-3. RELATIONSHIP OF RECOVERY GOALS, VITAL SIGNS, INDICATORS, AND TARGETS



Table 2-1 identifies the specific Vital Signs, indicators, and 2020 targets. Partners monitor the Vital Sign indicators and report to the Partnership through the Puget Sound Ecosystem Monitoring Program. Reports on Vital Sign indicators, including evaluation of progress toward ecosystem recovery targets, are presented on the Partnership’s [website](#) and in the *State of the Sound*.

TABLE 2-1. VITAL SIGNS AND RECOVERY TARGETS.

	VITAL SIGN	INDICATORS	2020 TARGETS
HEALTHY HUMAN POPULATION	Onsite Sewage Systems	Onsite sewage inspection and repair	Inventory all onsite sewage systems in Marine Recovery Areas and other specially designated areas, be current with inspections at 95 percent, and fix all failures.
		Extent of Marine Recovery Areas program	Phase in an expansion of Marine Recovery Areas and other specially designated areas to cover 90 percent of Puget Sound’s unsewered marine shorelines.
	Shellfish Beds	Acres of harvestable shellfish beds	Achieve a net increase of 10,800 harvestable shellfish acres, including 7,000 acres where harvest had been prohibited, from 2007–2020.
	Outdoor Activity	Swimming beaches	Meet U.S. Environmental Protection Agencies approved water quality standards at all monitored beaches in Puget Sound for enterococcus, a type of fecal bacteria.
		Nature-based recreation	Target not set.
Nature-based work	Target not set.		

	VITAL SIGN	INDICATORS	2020 TARGETS
HEALTHY HUMAN POPULATION	Local Foods	Locally harvestable foods	Target not set.
		Recreational shellfish beds	Target not set.
	Air Quality	Air quality in Puget Sound counties	Target not set.
	Drinking Water	Drinking water indicator to be developed	Target not set.

TABLE 2-1. VITAL SIGNS AND RECOVERY TARGETS, CONTINUED

	VITAL SIGN	INDICATORS	2020 TARGETS
QUALITY OF LIFE	Sound Stewardship	Engagement stewardship activities	Target not set.
		Sound Behavior Index	Target not set.
	Economic Vitality	Natural resource industry output (gross domestic product, GDP)	Target not set.
		Percent GDP in natural resource industries relative to total GDP	Target not set.
		Employment in natural resource industries	Target not set.

	VITAL SIGN	INDICATORS	2020 TARGETS
QUALITY OF LIFE	Good Governance	Good Governance Index	Target not set.
	Sense of Place	Sense of place Index	Target not set.
		Psychological Wellbeing Index	Target not set.
		Overall life satisfaction	Target not set.
	Cultural Wellbeing	Participation in cultural practices	Target not set.

TABLE 2-1. VITAL SIGNS AND RECOVERY TARGETS, CONTINUED

	VITAL SIGN	INDICATORS	2020 TARGETS
SPECIES AND FOOD WEB	Chinook Salmon	Chinook salmon population abundance as measured by the number of natural origin adult fish returning to spawn	Stop the overall decline and start seeing improvements in wild Chinook abundance in two to four populations in each biogeographic region.
	Orcas	Number of southern resident killer whales	Achieve an end-of-year census of 95 individual southern resident killer whales, which would represent a 1 percent annual average growth rate from 2010–2020.
	Pacific Herring	Biomass of spawning Pacific herring	Increase spawning herring throughout Puget Sound to about 19,000 tons. Stock targets are Cherry Point, 5,000 tons; Squaxin Pass, 880 tons; all other stocks, 13,500 tons.
	Birds	Population abundance, breeding success, and diet	Target not set.

	VITAL SIGN	INDICATORS	2020 TARGETS
PROTECT AND RESTORE HABITAT	Shoreline Armoring	Amount of shoreline armoring	From 2011 to 2020, remove more miles of armoring than are added in Puget Sound.
		Armoring of feeder bluffs	Prioritize feeder bluffs for removal of armoring and avoidance of new armoring.
		Use of soft-shore techniques to protect shoreline infrastructure	Soft-shore techniques are used for all new and replacement armoring unless it is demonstrably infeasible.
Eelgrass	Eelgrass area	Increase eelgrass area in Puget Sound by 20 percent relative to the 2000–2008 baseline by 2020.	

TABLE 2-1. VITAL SIGNS AND RECOVERY TARGETS, CONTINUED

PROTECT AND RESTORE HABITAT		
VITAL SIGN	INDICATORS	2020 TARGETS
Land Development and Cover	Land cover change: forest to developed	Maintain average annual loss of forested land cover to developed land cover in nonfederal lands at fewer than 1,000 acres per year, as measured with Landsat-based change detection.
	Land cover change: riparian restoration	Restore 268 miles of riparian vegetation or have an equivalent extent of restoration projects underway.
	Land development pressure: conversion of ecologically important lands	Maintain basin-wide loss of vegetation cover on ecologically important lands under high pressure from development at less than 0.15 percent of the total 2011 baseline land area over a five-year period.
	Land development pressure: proportion of basin-wide population growth distribution within urban growth areas (UGAs)	Maintain the proportion of basin-wide growth in UGAs at a minimum of 86.5 percent (equivalent to all counties exceeding their population growth goals by 3 percent) with all counties showing an increase over their 2000–2010 percentage.

PROTECT AND RESTORE HABITAT		
VITAL SIGN	INDICATORS	2020 TARGETS
Floodplains	Floodplain function (specific indicator not yet adopted)	Target not set.
	Floodplain area restored.	Restore, or have projects underway to restore, 15 percent of degraded Puget Sound floodplain area and have no net loss of floodplain function in any watershed.
Estuaries	Number of salmon habitat recovery goals met	Achieve 10-year salmon recovery goals in all Chinook natal river deltas (or 10 percent of restoration need as proxy for river deltas lacking quantitative acreage goals in salmon recovery plans).
	Estuary acres restored	Restore 7,390 quality acres basin-wide, or 20 percent of total estimated restoration need.

WATER QUANTITY		
VITAL SIGN	INDICATORS	2020 TARGETS
Summer Stream Flows	Percent of rivers with stable, increasing, or decreasing flows	Increase, maintain, monitor, and/or restore summer flows in 12 key rivers, including those regulated by dams (Nisqually, Cedar, Skokomish, Skagit, and Green Rivers), and those that are not (Puyallup, Dungeness, Nooksack, Snohomish, Deschutes, North Fork Stillaguamish, and Issaquah Rivers).

TABLE 2-1. VITAL SIGNS AND RECOVERY TARGETS, CONTINUED

WATER QUALITY	VITAL SIGN	INDICATORS	2020 TARGETS
	Marine Water Quality	Dissolved oxygen in marine waters	Keep dissolved oxygen levels from declining more than 0.2 milligram per liter in any part of Puget Sound because of human input.
		Marine Water Condition Index	Target not set.
	Freshwater Quality	Water Quality Index	Maintain at least half of all monitored streams score 80 or above on the Water Quality Index.
Benthic Index of Biotic Integrity (B-IBI)		Protect small streams that are currently ranked excellent by B-IBI for biological condition. Improve and restore streams ranked fair so their average scores become good.	
Number of impaired waters		Reduce the number of impaired waters.	

WATER QUALITY	VITAL SIGN	INDICATORS	2020 TARGETS
	Marine Sediment Quality	Sediment chemistry index	All Puget Sound regions and bays achieve chemistry measures reflecting "minimum exposure" with Sediment Chemistry Index (SCI) scores greater than 93.3.
		Sediment Quality Triad Index	All Puget Sound regions and bays, as characterized by ambient monitoring, achieve the following: Sediment Quality Triad Index (SQTI) scores reflect unaffected conditions (SQTI values greater than 81 in other words). The threshold criteria for unaffected sediments have been revised from 83 (when the Leadership Council adopted the target in 2011) to 81, based on quality control checks indicating the original calculation was incorrect.
		Percent of chemical measurements exceeding SQS	Have no sediment chemistry measurements exceeding the Sediment Quality Standards (SQS) set for Washington State.
Toxics in Fish	Contaminant levels below thresholds (PCBs, PAHs, PBDEs)	Maintain contaminant levels in fish below health effects thresholds (levels considered harmful to fish health or harmful to the health of people who consume them).	
	Contaminant-related disease in fish	Reduce contaminant-related disease or impairments in fish to background levels.	

HOW DO WE IMPLEMENT AND MONITOR ACTIONS?

Project sponsors and partners implement the programs and projects identified in the Action Agenda and monitor the results. The Puget Sound Partnership supports implementation with the following actions:

- Stewarding the roadmap planning and update process.
- Maintaining the shared measurement and monitoring infrastructure in which all the data can be reported and effectiveness assessed.
- Supporting partners in implementation by mobilizing funding, removing barriers, and helping educate key decisionmakers and influencers.

Two tools are used to monitor the status of implementation activities. The [Action Agenda Report Card](#) and the [Puget Sound Recovery Atlas](#) track the status of Near Term Actions relative to project plans, provide information on projects completed or underway, and assess whether the expected outputs have been produced.

- **Action Agenda Report Card.** The Partnership's [Action Agenda Report Card](#) is updated with current Near Term Action status at least twice yearly based on periodic input from the Near Term Action owners. It allows the user to track Near Term Action performance and funding, corrective actions, and ownership. The report card aligns the Vital Signs, recovery targets, and Action Agenda strategies and sub-

strategies. Partnership staff members work with the Leadership Council's Subcommittee on Performance Management and Accountability to identify issues that would impede the implementation of Near Term Actions, such as funding gaps or policy conflicts.

- **Puget Sound Recovery Atlas.** The [Puget Sound Recovery Atlas](#) 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.

HOW DO WE EVALUATE THE EFFECTS OF PROGRAMS AND PROJECTS?

Although tracking actions is necessary, it is not sufficient; we must also understand the impact and effectiveness of these actions. We assess the effectiveness of recovery efforts by evaluating data to determine how well management actions and programs are working to achieve desired outcomes. The approach to effectiveness monitoring has two parts. First, we evaluate the effectiveness of actions that have already been implemented. Second, we communicate the results to decisionmakers as they plan the next round of recovery actions.

By monitoring and assessing effectiveness, the Puget Sound Partnership can describe the return on investment or benefit of recovery efforts. When the return or benefit meets or exceeds expectations, sharing results can encourage more implementation of successful approaches. When the return or benefit does not meet expectations, the recovery approaches can be modified. The knowledge gained is reflected in the biennial updates to the [Implementation Plan](#)—the strategies, regional priorities, and actions prioritized for the next cycle.

Several reporting mechanisms track and evaluate the effectiveness of the recovery efforts throughout Puget Sound. These tools track interim targets and report progress on achieving the recovery targets and goals.

- **Puget Sound Vital Signs.** Progress toward achieving the recovery targets is charted in the [Puget Sound Vital Signs](#) and reported biennially in the [State of the Sound](#). The data are compiled from a variety of monitoring programs and funding organizations in Puget Sound, including state and federal agencies, tribes, local jurisdictions, and nongovernmental

organizations. Technical and scientific experts from those organizations provide the data and oversee the interpretation of the results. Data quality assurance and documentation remain the primary responsibility of the individual contributors.

- **State of the Sound.** The [State of the Sound](#) reports on the data tracked in the [Puget Sound Vital Signs](#) and [Action Agenda Report Card](#). It helps partners and decisionmakers understand the state of the Puget Sound ecosystem, where progress is being made, where challenges remain, and where future action and focused investment are needed. The [State of the Sound](#), which is updated every 2 years, addresses the following questions:
 - How is the ecosystem doing?
 - Are we making progress in implementing identified recovery actions?
 - What have we learned and what are our next steps?

The [State of the Sound](#) is not intended to grade implementers on their work but reports implementation status and expenditures to the Governor and Washington State Legislature in response to the statutory requirements in [RCW 90.71.370\(3\)](#).

To increase our capacity to determine if the approaches and actions underway are the right path forward, the Puget Sound Ecosystem Monitoring Program staff and the Strategic Initiative Leads will monitor the effectiveness of protection and recovery efforts included in each of the three Strategic Initiatives. They will also develop communication materials to share lessons learned about the effectiveness of recovery efforts. These materials will provide us with essential information about the success and efficiency of various approaches and activities and help us decide how to prioritize actions in the future.

HOW DOES SCIENCE INFORM RECOVERY?

Science informs every step in the recovery framework. Scientific advice and review, scientific synthesis, and strategic investments in research, modeling, and monitoring all contribute to Puget Sound recovery. Adaptive decisionmaking depends on structured interactions between decisionmakers, implementers, scientists, and partners. These interactions occur across science-policy interfaces where scientific information is formulated to be accessible to policymakers and decisionmakers.

Scientific advice and engagement were instrumental in the Partnership’s development of shared measures, such as Vital Signs and ecosystem recovery targets. Scientific monitoring supports the reporting on progress toward recovery and assessment of effectiveness. One of the key scientific reports on ecosystem pressures in Puget Sound is the [Puget Sound Pressures Assessment](#).

- Puget Sound Pressures Assessment.** The [Puget Sound Pressures Assessment](#) informs our understanding of the pressures on Puget Sound’s freshwater, marine, nearshore, and terrestrial resources. The assessment provides the scientific input for prioritizing recovery actions assuming that the biggest stressors and most vulnerable ecosystem endpoints are important considerations for recovery planning. Figure 2-4, for example, shows that pressures from development on hydrology negatively affect a specific endpoint, Coho salmon.

The [Puget Sound Pressures Assessment](#) was updated in 2014 to provide a scalable, systematic, and robust understanding of pressures on the Puget Sound ecosystem so we can more confidently identify and focus on what is most important. The assessment identifies the critical ecosystem vulnerabilities that must be

HOW DOES THE 2014 PRESSURES ASSESSMENT INFORM PLANNING?

During the 2016 implementation planning cycle, the 2014 [Pressures Assessment](#) was used in multiple ways to inform the process:

- Identify priority sub-strategies that would focus the Strategic Initiatives over the next 2 years.
- Establish regional priorities for the sub-strategies aligned with each Strategic Initiative.
- Develop Implementation Strategies for shellfish and estuaries.

A more detailed description is provided in the [2016 Implementation Plan Development Process Summary](#).

Looking forward to 2018 and beyond, the [Puget Sound Pressures Assessment](#) will be used during development of the remaining Implementation Strategies.

FIGURE 2-4. PRESSURES ASSESSMENT



addressed to achieve sustainable, long-term recovery, update sub-strategies, and inform the development of the regional priorities. The following results guide and inform science and management priorities:

- The vulnerability of endpoints (habitats and species) to stressors, which stressors have the most potential to affect these endpoints, and which endpoints are the most vulnerable at local and regional scales.
- The current intensity of stressors and distribution of endpoints at local and regional scales.
- Relative certainty about stressor-endpoint relationships.

Decision analysis and structured decisionmaking are scientific approaches used to identify and select alternative actions or strategic approaches. Factors considered in decision analyses may include the potential ecological impact of actions, geographic scope and severity of pressures, feasibility of actions, irreversibility of stresses, and resilience of ecosystems. Ratings on each factor are then considered by decisionmakers to select items to include in a recovery plan or in a budget proposal. The Partnership approaches strategic science planning, adaptive management, and decision support by using several tools and guiding documents. In addition to the Puget Sound Pressures Assessment, these planning and assessment tools include the [Strategic Science Plan](#) and [Biennial Science Work Plan](#), as well as the Implementation Strategies, which are discussed in [Chapter 4, Planning Recovery](#).

- **Strategic Science Plan.** The [Strategic Science Plan](#) provides the framework for development and coordination of the science activities necessary to support Puget Sound recovery under the Action Agenda. The plan is a high-level, living document that is revised as needed.

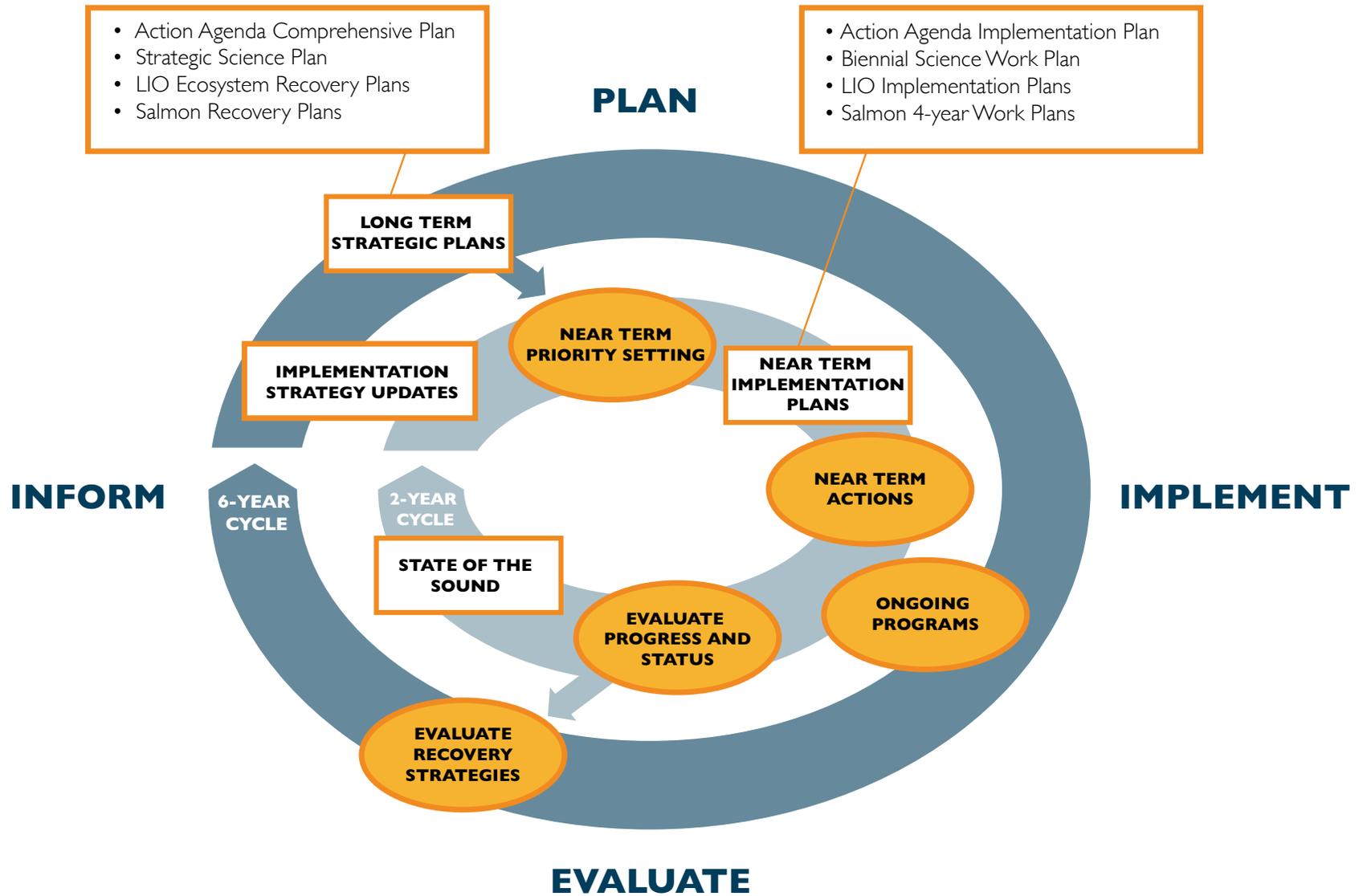
- **Biennial Science Work Plan.** The [Biennial Science Work Plan](#) identifies the scientific advancements needed to recover and protect Puget Sound. By identifying science work actions and recommending improvements to ongoing science in this plan, the Science Panel helps direct the allocation of limited resources to the issues where they are most needed for resolving uncertainties in knowledge and assisting with informed decisionmaking. The plan is a key companion to the Action Agenda.

HOW ARE THE RECOVERY PLANS INTEGRATED?

There are a number of different plans that support Puget Sound recovery. The Action Agenda provides the common framework for integrating recovery plans into a unified effort. Figure 2-5 depicts how long-term and near-term recovery plans will generally be integrated and adapted as we recover Puget Sound.

Consistent with the Action Agenda recovery framework, local and regional long-term strategic plans are science-based, increasingly informed by Implementation Strategies, and define our goals and overall strategies for recovery. From these broader plans, near term priorities are selected to guide the development of near term implementation plans that focus resources on the most important and timely work needed to further accelerate recovery. Progress is tracked, effectiveness of Near Term Actions and ongoing programs are evaluated, and the status of recovery indicators is monitored. An assessment of our progress and the status of Puget Sound are reported in the [State of the Sound](#). Accomplishments, lessons learned, and new science help us to inform and adapt Implementation Strategies, near term priorities, and action or program implementation. This process occurs in a 2-year cycle.

FIGURE 2-5. INTEGRATION AND ADAPTATION OF RECOVERY PLANS



Approximately every 6 years and as needed, we evaluate our long-term recovery strategies and update our long-term recovery plans based on lessons learned, the status of recovery indicators (and other resources), and new science.

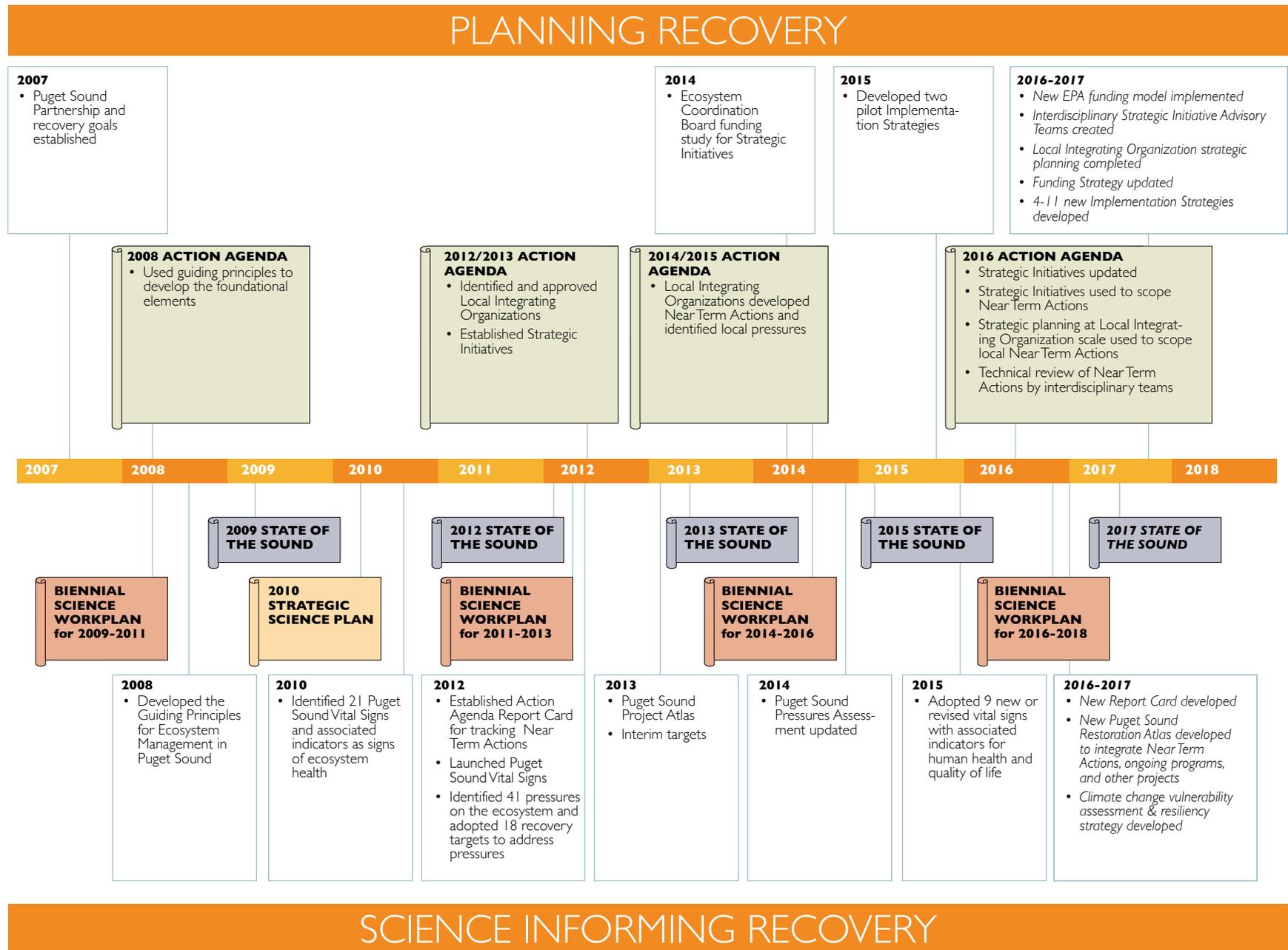
HOW HAS THE ACTION AGENDA CHANGED?

The Action Agenda is a living document with a 10-year history (Figure 2-6). As our knowledge of the ecosystem and of the effectiveness of recovery actions evolves, the Action Agenda needs to keep pace. This 2016 Action Agenda builds on past Action Agendas and reflects several new developments that focus and prioritize actions and investments. The changes reflect a shift in the role of the Puget Sound Partnership to focus more on coordination and supporting Near Term Action owners who have the knowledge, expertise, and on-the-ground networks to excel at implementing projects and actions that contribute to Puget Sound recovery. This includes emphasizing stewardship strategies in the Near Term Action solicitation and recognizing the important role that the Local Integrating Organizations and other partners play in education and outreach.

The 2016 Action Agenda has two components: the Comprehensive Plan and the [Implementation Plan](#), as described in [Chapter 1, Introduction](#). In alignment with funding cycles, longer-term content is in the Comprehensive Plan, and content that is updated biennially is in the [Implementation Plan](#). As a living document and within the adaptive management framework, revisions and refinements to both components of the Action Agenda are considered when supported by new information.

The Action Agenda is in a transition between being guided by Strategic Initiatives and Implementation Strategies ([Chapter 4, Planning Recovery](#)). The Strategic Initiatives are regional priorities that help direct spending and resources. The 2016 Action Agenda requires that all proposed Near Term Actions address one of the three Strategic Initiatives. Implementation Strategies, by contrast, are plans for achieving specific recovery targets. Implementation Strategies are introduced in the 2016 Action Agenda, and it is anticipated that their role will increase in subsequent updates to the Implementation Plan.

FIGURE 2-6. ACTION AGENDA TIMELINE: 2007 TO 2017





CHAPTER 3 | MANAGING RECOVERY

The Puget Sound region is home to more than 4 million residents, some of whom belong to tribes, communities, and organizations with diverse interests in Puget Sound recovery. The Puget Sound Partnership was created to steward the work of a broad set of partners toward recovery in a region with a growing, multicultural population.

This chapter describes the governing structure of the Partnership and the roles and responsibilities of the partners involved in Puget Sound recovery and specifically in the development of the Action Agenda.

The Partnership boards and organizations formally associated with the Partnership are depicted in Table 3-1. These groups and additional partners are described on page 24.

TABLE 3-1. STRUCTURE, RELATIONSHIPS, AND ROLES OF THE PARTNERSHIP AND PARTNERS

PUGET SOUND PARTNERSHIP	SUPPORTING ORGANIZATIONS AND WORK GROUPS
<ul style="list-style-type: none"> • Leadership Council* • Ecosystem* Coordination Board • Science Panel* • Puget Sound Salmon Recovery Council* • Puget Sound Partnership: Executive Director & Staff <p>* Puget Sound Partnership boards</p>	<ul style="list-style-type: none"> • Strategic Initiative Leads and Advisory Teams • Local Integrating Organizations • Puget Sound Ecosystem Monitoring Program • Salmon Recovery and Watershed groups • NW Straits Commission & Marine Resources Committees • Environmental Caucus • Academic Institutions • Federal Caucus

MANAGEMENT CONFERENCE

The Partnership, its boards, and the decision-making structure in Figure 3-2 represent the *Management Conference*, which is the governance structure for Puget Sound recovery under the [National Estuary Program](#).

WHAT ARE THE ROLES AND RESPONSIBILITIES?

PUGET SOUND PARTNERSHIP

The Puget Sound Partnership coordinates the region’s collective effort to protect and restore Puget Sound. The Partnership brings together hundreds of partners to mobilize action and investments around a common agenda. The Partnership is not a regulatory, grant, nor implementation agency. It facilitates collaboration to optimize Puget Sound recovery.

The Partnership provides leadership through the collective development of a shared roadmap, measurements, and funding strategy. The Executive Director is appointed by the Governor to focus the work of the Partnership on the most critical and effective projects and serve as the communication link between all levels of government, the private sector, tribes, nongovernmental organizations, and the Partnership boards.

PUGET SOUND PARTNERSHIP BOARDS

The Puget Sound Partnership’s four boards (Leadership Council, Ecosystem Coordination Board, Science Panel, and Puget Sound Salmon Recovery Council) direct and support the Partnership in its charge of mobilizing and accelerating the science-informed effort to protect and restore Puget Sound. These four boards are integral to the Partnership’s role.

LEADERSHIP COUNCIL

The Governor appoints the seven-member Leadership Council, which sets policy and strategic direction for Puget Sound recovery. The Leadership Council adopts, revises, and guides implementation of the Action Agenda. It recommends the allocation of funds and ensures accountability. In addition, the Leadership Council serves as the regional salmon recovery organization for Puget Sound salmon

species (except Hood Canal summer chum) and supports the Puget Sound Salmon Recovery Council to oversee implementation of the [Puget Sound Salmon Recovery Plan](#). Advice and recommendations from boards, partners, and the public inform decisions.

ECOSYSTEM COORDINATION BOARD

The diverse 27-member Ecosystem Coordination Board focuses on problem solving and the practical aspects of Action Agenda implementation. Designed to be a representative group of implementers, the board includes one representative from each geographic action area; two representatives from the business community; two representatives from environmental interests; three representatives from tribal governments; one representative each from counties, cities, and port districts; and three representatives each from state and federal agencies with environmental management responsibilities in Puget Sound.

The board advises the Leadership Council and the Executive Director on major strategic and implementation decisions. The board is responsible for seeking funding and other resources, assisting with public education activities, and encouraging communication and collaboration among all the partners involved in Puget Sound recovery. The Finance Subcommittee leads work on the funding strategy for Puget Sound recovery.

SCIENCE PANEL

The 16-member Science Panel provides independent scientific advice to the Leadership Council and guidance for preparing the Action Agenda and its biennial report card, the [State of the Sound](#). The Science Panel has assisted in developing an ecosystem-level strategic science program, establishing indicators of ecosystem health, setting policy-based recovery targets, and advising on the

development of Implementation Strategies. The Science Panel is specifically responsible for developing a regional monitoring program, identifying critical research needs, and preparing the [Strategic Science Plan](#), [Biennial Science Work Plan](#), and [Puget Sound Science Update](#). Additionally, the Social Science Advisory Committee is a standing subcommittee that advises the Science Panel and staff on the application of the social sciences to advance Puget Sound recovery.

PUGET SOUND SALMON RECOVERY COUNCIL

The 32-member Puget Sound Salmon Recovery Council predates the Puget Sound Partnership and remains in place to assist the Leadership Council in carrying out its salmon recovery responsibilities ([RCW 77.85.090](#)) by advising on decisions related to salmon recovery. The council also supports the regional implementation of the [Puget Sound Salmon Recovery Plan](#). The council includes representatives of each of the 14 watershed areas covered by the plan, state and federal agencies engaged in salmon recovery in Puget Sound, tribes, businesses, local governments, the agricultural community, and environmental interests.

The Salmon Science Advisory Group of the Science Panel provides scientific support to the Puget Sound Salmon Recovery Council to assist with implementing and updating the [Puget Sound Salmon Recovery Plan](#), Action Agenda, and [Biennial Science Work Plan](#). The [Puget Sound Salmon Recovery Plan](#) and the forthcoming Steelhead Recovery Plan serve as an important foundation for the Habitat Strategic Initiative. The Salmon Recovery Council's recovery planning priorities, which can be found on the Partnership's [website](#), provide more information about these plans and current update and development efforts.

SUPPORTING ORGANIZATIONS AND WORK GROUPS

Multiple boards, work groups, advisory bodies, and implementing networks affiliated with the Puget Sound Partnership provide scientific, advisory, and implementation support for Puget Sound recovery. These groups provide strategic advice on the Action Agenda update process, the setting of recovery targets, and the [Biennial Science Work Plan](#). They also provide specific guidance on the strategies for protecting and restoring watersheds; protecting and restoring nearshore and marine habitat; and preventing, reducing, and controlling nutrient, toxic, and pathogen loadings to Puget Sound. Many of these groups exist for reasons other than Puget Sound Recovery and give generously of their time for our collective effort.

Since April 2012, the Partnership has been supported by many standing subcommittees and advisory groups. Members are drawn from state and federal agencies and leadership bodies, as well as from key partners with subject expertise and interest in Puget Sound recovery. The contributors that have an explicit role are described below.

STRATEGIC INITIATIVE LEADS AND ADVISORY TEAMS

Strategic Initiatives emphasize the priority topics and issues critical to Puget Sound recovery. Three Strategic Initiatives are emphasized in this Action Agenda: the Stormwater Strategic Initiative, the Habitat Strategic Initiative, and the Shellfish Strategic Initiative (all discussed in the [Implementation Plan](#)). Strategic Initiative Leads and Strategic Initiative Advisory Teams have been established for each Strategic Initiative to develop the biennial [Implementation Plan](#).

- **Strategic Initiative Leads** lead and provide technical leadership to the Strategic Initiative Advisory Team. They coordinate with each other and with the Puget Sound Partnership, make and manage subawards, and implement Strategic Initiative work approved in the [Implementation Plan](#). Strategic Initiative Leads were selected by the U.S. Environmental Protection Agency through a competitive process in 2016.
- **Strategic Initiative Advisory Teams²** are an opportunity for partners representing diverse organizations and perspectives to provide technical and policy input to the Strategic Initiative Leads on priorities and funding. Team members are technical and policy experts recruited from across the Puget Sound region. They represent a range of local, regional, and tribal experience and perspectives. The teams are jointly coordinated by the Strategic Initiative Leads and the Puget Sound Partnership, with the Strategic Initiative Leads providing technical and policy leadership and the Partnership providing process support.

² In developing the Implementation Plan, Strategic Initiative Transition Teams were convened and were later replaced by the more long-term Strategic Initiative Advisory Teams..

Together, the Strategic Initiative Leads and Strategic Initiative Advisory Teams are key to the development and implementation of the Action Agenda and have the following responsibilities:

- Identify regional recovery and protection priorities.
- Coordinate responses to issues that affect all three Strategic Initiatives (cross-cutting issues).
- Establish the appropriate sequences of actions to lead from present conditions to long-term goals.
- Solicit, identify, review, and prioritize local and regional Near Term Actions.
- Develop and apply evaluation criteria for the review of Near Term Actions.
- Recommend allocation of National Estuary Program and other funding sources for the Implementation Strategies.

LOCAL INTEGRATING ORGANIZATIONS

Local Integrating Organizations are the local governments, tribes, nonprofit organizations, watershed groups, marine resource groups, salmon recovery groups, interest groups, businesses, educational organizations, and citizens that enable communities to guide the implementation of Action Agenda priorities at a local scale and that prioritize local actions for investment. As of June 2016, the Leadership Council has recognized Local Integrating Organizations in nine geographic areas, and each organization receives capacity funding to support planning and coordination efforts (Figure 3-1). The lack of a Local Integrating Organization in the Samish/Skagit watershed has been identified as an important gap in the planning process.

FIGURE 3-1. LOCAL INTEGRATING ORGANIZATIONS MAP



The Local Integrating Organizations are responsible for developing local, long-term ecosystem recovery plans and identifying priority actions through associated 2-year implementation plans. These plans accomplish the following actions:

- Provide a strategy for local efforts that aligns with the roadmap and Vital Sign priorities, and focuses recovery planning and actions on the highest-priority recovery needs.
 - Build on and work in conjunction with related recovery efforts, including salmon recovery, local growth management, Total Maximum Daily Loads (TMDL) to improve water quality, shellfish Pollution Identification and Correction (PIC) programs, and similar efforts.
 - Incorporate stewardship and behavior change through collaboration with the Partnership.
 - Ensure consistency (in terminology, structure, approach, and content) of local plans with the Action Agenda so that local priorities help inform decisionmaking and the sequencing of recovery actions.
 - Use a rigorous, defensible process that will identify the highest-priority recovery strategies and actions in each Local Integrating Organization area and thereby help direct limited funding to where it will be most effective.
 - Serve as a longer term, more durable strategic framework from which local Near Term Actions can be developed.
 - Account for existing ongoing programs in the Local Integrating Organization area and identify gaps where additional work is needed.
- As more Implementation Strategies are developed for the Vital Signs, the Local Integrating Organizations will be able to use the Implementation Strategies to inform future 2-year work plans.

The Local Integrating Organizations provide several significant contributions to the development of the Action Agenda:

- Identify near-term ecosystem recovery priorities.
- Review and approve Near Term Actions from local entities for consistency with local priorities.
- Review Near Term Actions from regional entities to identify potential conflicts with local priorities.
- Build local, long-term strategies that contribute to identifying how timing and focusing regional strategies and high-priority actions within specific geographies can accelerate recovery. These plans based on the Action Agenda framework will be essential building blocks for the future Implementation Plans.

The Local Integrating Organizations contribute a great deal of time and resources to develop products, such as ecosystem recovery plans, and they are among the partners who play a key role in providing on-the-ground engagement with the public through outreach and education. Their work provides an essential link to integrating salmon recovery plans into the Action Agenda framework through the ecosystem recovery plans. They also connect regional efforts to the unique and diverse communities of Puget Sound. Detailed information about the organizations is available on the [Local Integrating Organizations web page](#).

SALMON RECOVERY AND WATERSHED GROUPS

State, federal, and local agencies, tribes, community groups, businesses, and nonprofit organizations work together to implement the [Puget Sound Salmon Recovery Plan](#) at both the watershed and regional scales. The plan outlines strategies and actions for achieving recovery of threatened salmon stocks in Puget Sound. The Puget Sound Salmon Recovery Council develops policies that affect salmon recovery and provides overarching guidance to those organizations and agencies participating in watershed restoration activities targeted at salmon recovery.

At the local scale, Lead Entities are the watershed-based organizations that oversee implementation of watershed chapters of the [Puget Sound Salmon Recovery Plan](#). Salmon recovery Lead Entities and watershed groups participate in Local Integrating Organizations, ensuring that the Local Integrating Organizations' long-term strategies and Near Term Actions incorporate salmon recovery priorities.

Primary among Lead Entities' responsibilities is management of an annual process to identify and prioritize habitat protection and restoration projects that will make the largest contribution to salmon recovery within their watersheds. These projects undergo significant technical and policy review at the local scale before being forwarded to the statewide Salmon Recovery Funding Board for further technical review and approval. Those projects that have received Salmon Recovery Funding Board approval are incorporated in to the Action Agenda by reference and inform the Near Term Actions in the [Implementation Plan](#).

PUGET SOUND ECOSYSTEM MONITORING PROGRAM

The Puget Sound Ecosystem Monitoring Program assesses progress toward Puget Sound recovery. The program consists of independent committees and work groups. It is guided by a steering committee and staffed by the Puget Sound Partnership. People and organizations from throughout the Puget Sound region actively participate in the many work groups of the program.

NORTHWEST STRAITS COMMISSION AND MARINE RESOURCES COMMITTEES

The Northwest Straits Commission is a regional coordinating body of community volunteers and scientists. The commission provides funding, training, and support to seven county-based Marine Resources Committees. The Northwest Straits Commission facilitates regional coordination and connects the committees' work to regional planning processes such as the Action Agenda and Puget Sound Nearshore Estuary Restoration Program.

ENVIRONMENTAL CAUCUS

The Environmental Caucus is represented on both the Ecosystem Coordination Board and the Puget Sound Salmon Recovery Council. The Environmental Caucus—which includes but is not limited to nongovernmental environmental organizations—brings an important perspective to the Ecosystem Coordination Board in its advisory role to the Leadership Council on funding and implementation of the Action Agenda and to the Salmon Recovery Council as it oversees funding and implementation of the [Puget Sound Salmon Recovery Plan](#).

ACADEMIC INSTITUTIONS

Several programs from regional academic institutions contribute to Puget Sound recovery. The Puget Sound Institute was established by the University of Washington, the U.S. Environmental Protection Agency, and the Puget Sound Partnership. It is a collaborative organization and serves as the bridge between the scientific community and the groups tasked with protecting and restoring Puget Sound.

GOVERNMENTAL ENTITIES

Federal, state, and local agencies as well as tribes collaborate with the Puget Sound Partnership and are important agents of leadership, funding, and regulatory support.

TRIBES

The Partnership Tribal Co-Management Council provides an official forum for the early and frequent involvement of tribes in Puget Sound Partnership activities, including policy and project development and prioritization. The council does not preclude establishing direct government-to-government relationships with each Puget Sound tribe. Most of the Puget Sound tribes hold treaty-reserved rights to resources throughout the Puget Sound region.

Tribes play an important role in ensuring that recovery efforts are consistent with tribal treaty rights and in raising tribal interests in planning and implementing the Action Agenda. The Partnership is committed to supporting the principles of the [Centennial Accord \(1989\)](#), which recognizes the sovereign status of federally recognized tribes and their unique government-to-government relationship with all federal agencies. The Governor has appointed a tribal leader to the Leadership Council, and the tribes have representatives on the Ecosystem Coordination Board, Science Panel, and Salmon Recovery Council.

TRIBAL MANAGEMENT CONFERENCE

The following language was provided by the Northwest Indian Fisheries Commission on behalf of the Tribal Management Conference:

“The Tribal Management Conference is a forum created by the U.S. Environmental Protection Agency’s new funding and decision model for the National Estuary Program for Puget Sound, and has been furthered formed and initiated by the Tribes. The Tribal Management Conference is a forum where Tribes coordinate their participation in the Action Agenda update, and will set priorities for Puget Sound recovery in the Action Agenda and provide direct input into the National Estuary Program decisional framework.

The Tribal Management Conference forum is intended to complement the government-to-government relationship between the State of Washington and Treaty Tribes identified in the [Centennial Accord](#)³ without relieving state and federal agencies of their obligations to consult directly on a government-to-government basis with individual Tribes.

As a guiding framework, the Tribal Management Conference will work from the Tribal Treaty Rights at Risk initiative and Tribal Habitat Priorities. The Tribal Management Conference is a forum that will focus tribal participation in the protection and restoration of the Puget Sound ecosystem to protect all tribal treaty reserved rights, and with further emphasis on creating opportunities to actually protect and recover Puget Sound through the implementation of the actions necessary to produce sustainable and harvestable salmon and shellfish populations, and to provide clean water”

³ See Centennial Accord between the Federally Recognized Indian Tribes in Washington State and the State of Washington. August 4, 1989

FEDERAL

Federal agencies contribute to Puget Sound recovery by promoting information sharing, developing joint work priorities, and collaborating across agencies. Thirteen federal agencies have signed a [Memorandum of Understanding](#) to form a federal caucus committed to these working principles, and all federal agencies with Puget Sound interests are welcome to participate. Partner agencies include those with environment and natural resource responsibilities such as the National Oceanic and Atmospheric Administration, Environmental Protection Agency, U.S. Fish and Wildlife Service, U.S. Geological Survey, Natural Resources Conservation Service, and U.S. Army Corps of Engineers, as well as those with local defense and security responsibilities such as the U.S. Coast Guard, Army, and Navy. The federal caucus has a work plan to guide their engagement with Puget Sound recovery. The work plan supports implementation of priority recovery strategies and actions, including science and reporting.

STATE

Several state agencies have responsibilities for managing natural resources and human health. These include, but are not limited to, the departments of Ecology, Natural Resources, Fish and Wildlife, Commerce, Transportation, Health, Agriculture, State Conservation Commission, Recreation and Conservation Office, the Governor's Office, and the Office of Financial Management.

CITIES, COUNTIES, AND SPECIAL-PURPOSE DISTRICTS

Much of the effort to protect and restore Puget Sound continues to occur locally. Cities and counties are at the front line for addressing impacts—they develop and implement growth management plans and development regulations, manage surface water runoff, treat wastewater, and provide numerous benefits to citizens. Most counties and many cities participate in Local Integrating Organizations and Lead Entities. Working cooperatively with cities and counties is essential for federal and state agencies, tribes, and nongovernmental interests. In addition to participating as individual jurisdictions, counties work together through the Washington State Association of Counties and County Coastal Caucus, and cities work together through the Association of Washington Cities.

TRANSBOUNDARY

As part of the greater Salish Sea ecosystem, Puget Sound is influenced and affected by events and activities in the United States and Canada. To facilitate coordinated and complementary action for long-term protection and restoration, regional mechanisms promote cooperation on transboundary issues on local and Sound-wide scales.

Key transboundary issues include:

- Vessel safety and risk management
- Oil spill prevention, preparedness, and response
- Marine survival of salmonid species
- Marine and freshwater quality
- Stream flows
- Flooding
- Marine species at risk (such as Chinook salmon, orcas)

- Toxics in the food web
- Shellfish beds

Transboundary coordination mechanisms include:

- Participation of Canadian representatives on the Partnership's boards
- Biennial Salish Sea Ecosystem Conference
- The U.S. Environmental Protection Agency and Environment and Climate Change Canada Statement of Cooperation
- The Washington State/British Columbia Environmental Cooperation Council
- Regional Joint Response Teams co-chaired by Canadian and U.S. federal agencies. The teams implement joint Canada-U.S. inland and marine pollution contingency plans that provide for an international coordination mechanism to ensure an appropriate and effective cooperative response between Canada and the United States in the event of an oil release or hazardous substances emergency along the shared inland boundaries and in marine waters, including in the Puget Sound/Georgia Basin region.
- The [International Airshed Strategy](#)

WHAT IS THE DECISIONMAKING PROCESS?

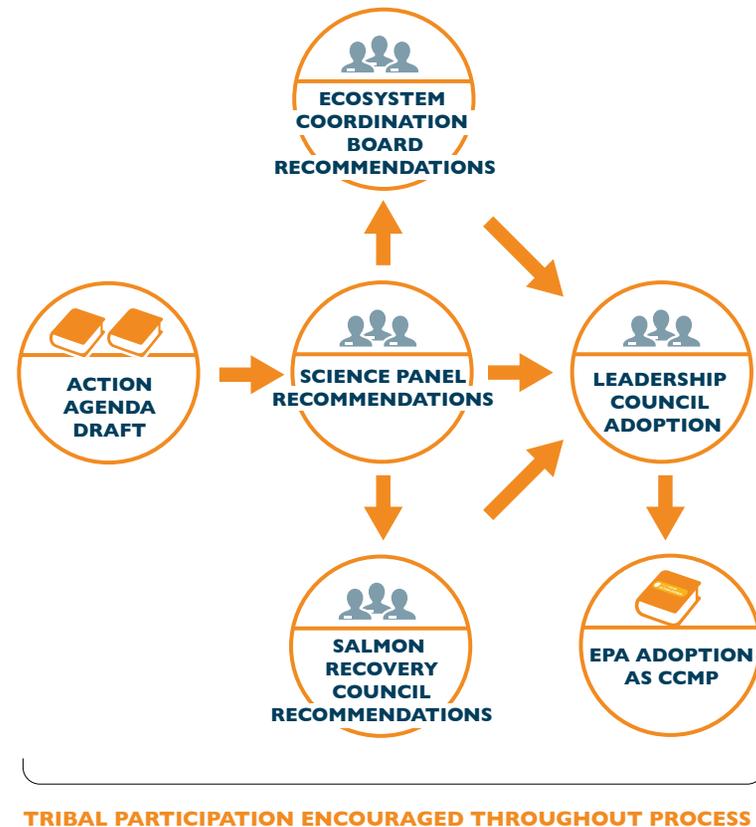
The Leadership Council sets the strategic direction for the Puget Sound Partnership regarding Puget Sound recovery and statutory obligations. Prior to setting direction or making decisions, the Leadership Council is typically presented with a broad proposal or concept by the Executive Director and staff. As appropriate, the Leadership Council may request specific input, ask questions, or seek advice from the Ecosystem Coordination Board, Science Panel, Puget Sound Salmon Recovery Council, or lead implementing agencies, as well as from organizations involved in Puget Sound recovery and interested members of the public. Depending on the issues and timing, the Leadership Council may hold special meetings or work sessions to seek input from relevant experts and partners. As much as possible, the meetings of the Ecosystem Coordination Board, Science Panel, and Salmon Recovery Council are staggered and structured to provide timely input to the Leadership Council.

The Open Standards for the Practice of Conservation, described in [Chapter 2, Framework for Recovery](#), support decisionmaking. The decisionmaking process receives inputs from science, performance management, and policy. Each of the partners may play one or more of these roles depending on the decision under consideration. The framework may be expanded to include additional tools and processes to inform decisionmaking (such as monitoring data, public outreach, integration of existing regional and national data).

Figure 3-2 shows how decisions related to implementation and action planning flow through the boards and onward to the Leadership Council. The Leadership Council may use this approach for major decisions on annual and biennial work plans for Partnership activities, state agency budget requests and legislation, and adaptive management decisions that result in new or changed actions, particularly when resulting in a strategic directional shift or revision to the Action Agenda. In a final step, the Leadership Council adopts the Action Agenda as the State’s recovery plan for Puget Sound. Upon adoption, the Action Agenda is submitted to the U.S. Environmental Protection Agency for approval as the Comprehensive Conservation and Management Plan under the National Estuary Program.

Tribal representatives are encouraged to participate in every step of Action Agenda planning and decisionmaking. Tribal leaders or tribal staff members sit on each of the boards, including the Leadership Council, Ecosystem Coordination Board, Science Panel, and Puget Sound Salmon Recovery Council. Tribal staff members are also encouraged to be members of the Strategic Initiative Advisory Teams, as well as the multi-agency group that coordinates the work of the teams. Throughout the development and adoption of the Action Agenda, the Partnership works with the Northwest Indian Fisheries Commission to conduct meetings to share information about the Action Agenda with tribal representatives and listen to tribal perspectives. Tribes are also encouraged to provide comments during formal comment periods. In addition, tribes and the U.S. Environmental Protection Agency can conduct government-to-government consultations regarding National Estuary Program decisions.

FIGURE 3-2. DECISIONMAKING PROCESS





CHAPTER 4 | PLANNING RECOVERY

With limited resources, accomplishing Puget Sound recovery requires that we be focused and strategic. The framework for setting the Action Agenda is outlined below and illustrated in Figure 4-1. The elements of this framework are described in the following sections:

- Strategies and sub-strategies describe the overall, long-term directions and approaches needed to achieve the recovery targets.
- Strategic Initiatives focus recovery efforts on the highest-priority strategies and sub-strategies as we transition to using Implementation Strategies.
- The [Implementation Plan](#) describes the process for identifying and prioritizing recovery actions. The elements of that process (regional priorities and Implementation Strategies) and the two categories of recovery actions (Near Term Actions and ongoing programs) are defined there.

The Action Agenda provides the common framework for recovery planning in Puget Sound. At the local level, salmon recovery plans are integrated into the Local Integrating Organization recovery plans. The local plans inform and are guided by regional priorities and Implementation Strategies developed regionally. Cross-cutting issues that affect and are affected by all aspects of Puget Sound recovery form the setting for the Action Agenda. These issues inform each step of the process outlined above. These issues are briefly described in this chapter.

WHAT ARE STRATEGIES AND SUBSTRATEGIES?

Strategies are the high-level approaches to address pressures on the Puget Sound ecosystem. Sub-strategies describe more focused approaches that contribute to achieving the broader strategies.

The strategies and sub-strategies have been developed to define the full range of approaches required to meet the six recovery goals. Ecosystem strategies are designed to relieve pressures to Puget Sound through projects, programs, and policy changes. Institutional strategies are designed to enhance the overall capacity of partners to improve recovery efforts through information sharing, education, and funding.

The Action Agenda includes 29 strategies and 106 sub-strategies. From these sub-strategies, a subset is selected to define the scope of the Strategic Initiatives and the focus of the actions and programs in the [Implementation Plan](#).

The order and numbering of the strategies and sub-strategies in Table 4-1 are for reference purposes only and do not represent priority or rank. The strategies and sub-strategies are consistent with the 2014 Action Agenda, but the numbering has been updated to reflect a change in organization. A list that crosswalks the two numbering systems is available in [Appendix A, Strategies and Sub-Strategies](#).

FIGURE 4-1. CONCEPTUAL FRAMEWORK FOR SETTING THE ACTION AGENDA

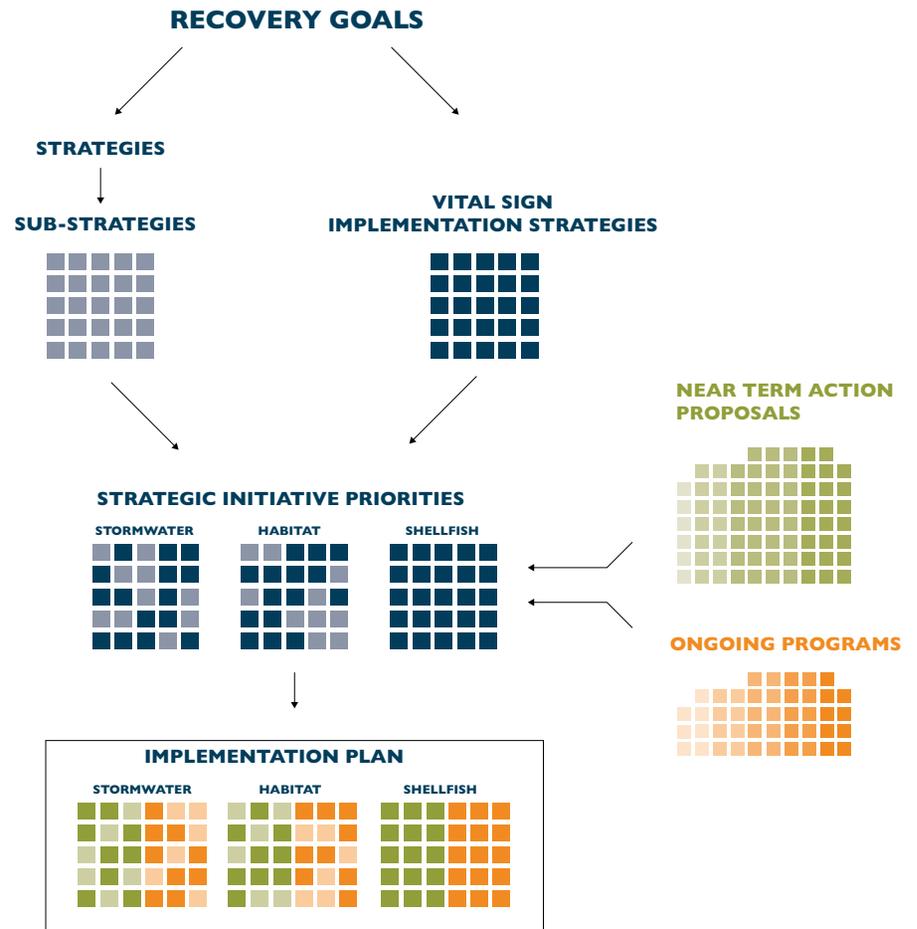


Figure 4-1 depicts the conceptual framework for setting the Action Agenda. Over the coming years, we are transitioning our emphasis between two complementary frameworks for defining the scope of the Strategic Initiatives and the focus of their actions and programs in the Implementation Plan. The left branch shows the more general approach of using strategies and sub-strategies while the right branch shows the more targeted approach of using Implementation Strategies.

TABLE 4-1. STRATEGIES AND SUB-STRATEGIES

ECOSYSTEM STRATEGIES	
1 ^a	Focus land development away from ecologically important and sensitive areas
1.1	Identify and prioritize areas for protection, restoration, and best suitable for (low-impact) development
1.2	Support local governments to adopt and implement plans, regulations, and policies consistent with protection and recovery targets, and incorporate climate change forecasts
1.3	Improve, strengthen, and streamline implementation and enforcement of laws, plans, regulations, and permits consistent with protection and recovery targets
1.4	Ensure full, effective compensatory mitigation for impacts that cannot be avoided
2	Protect and restore upland, freshwater, and riparian ecosystems
2.1	Protect and conserve ecologically important lands at risk of conversion
2.2	Implement and maintain priority freshwater and terrestrial restoration projects
2.3	Implement restoration projects in urban and developed areas while accommodating growth, density, and infill development
3	Protect and steward ecologically sensitive rural and resource lands
3.1	Use integrated market-based programs, incentives, and ecosystem markets to steward and conserve private forest and agricultural lands
3.2	Retain economically viable working forests and farms
4	Encourage compact regional growth patterns and create dense, attractive, mixed-use, and transit-oriented communities
4.1	Integrate growth, infrastructure, transportation, and conservation planning at subregional levels and across jurisdictions
4.2	Provide infrastructure and incentives to accommodate new and re-development in urban growth areas
4.3	Enhance and expand the benefits of living in compact communities

TABLE 4-1. STRATEGIES AND SUB-STRATEGIES , CONTINUED

ECOSYSTEM STRATEGIES	
5	Protect and restore floodplain function
5.1	Improve data and information to accelerate floodplain protection, restoration, and flood hazard management
5.2	Align policies, regulations, planning, and agency coordination to support multi-benefit floodplain management, incorporating climate change forecasts
5.3	Protect and maintain intact and functional floodplains
5.4	Implement and maintain priority floodplain restoration projects
6	Protect and recover salmon
6.1	Implement high-priority projects identified in each salmon recovery watershed's 4-year work plan
6.2	Implement high-priority salmon recovery actions identified in other parts of the Action Agenda and the Biennial Science Work Plan
6.3	Implement harvest, hatchery, and adaptive management elements of salmon recovery
6.4	Protect and recover steelhead and other imperiled salmonid species
6.5	Maintain and enhance the community infrastructure that supports salmon recovery
7	Protect and conserve freshwater resources to increase and sustain water availability for instream flows
7.1	Update Puget Sound instream flow rules to encourage conservation
7.2	Decrease the amount of water withdrawn or diverted and per capita water use
7.3	Implement effective management programs for groundwater
8	Focus development away from ecologically important and sensitive nearshore areas and estuaries
8.1	Use complete, accurate, and recent information in shoreline planning and decisionmaking at the site-specific and regional levels
8.2	Support local governments to adopt and implement plans, regulations, and policies that protect the marine nearshore and estuaries, and incorporate climate change forecasts
8.3	Improve, strengthen, and streamline implementation and enforcement of laws, regulations, and permits that protect the marine and nearshore ecosystems and estuaries

TABLE 4-1. STRATEGIES AND SUB-STRATEGIES , CONTINUED

ECOSYSTEM STRATEGIES	
9	Prevent, reduce, and control the sources of contaminants entering Puget Sound
9.1	Implement and strengthen authorities and programs to prevent toxic chemicals from entering the Puget Sound ecosystem
9.2	Promote the development and use of safer alternatives to toxic chemicals
9.3	Adopt and implement plans and control strategies to reduce pollutant releases into Puget Sound from air emissions
9.4	Provide education and technical assistance to prevent and reduce releases of pollution
9.5	Control wastewater and other sources of pollution such as oil and toxics from boats and vessels
9.6	Increase compliance with and enforcement of environmental laws, regulations, and permits
10	Use a comprehensive approach to manage urban stormwater runoff at the site and landscape scales
10.1	Manage urban runoff at the basin and watershed scale
10.2	Prevent problems from new development at the site and subdivision scale
10.3	Fix problems caused by existing development
10.4	Control sources of pollutants
10.5	Provide focused stormwater-related education, training, and assistance
11	Prevent, reduce, and control agricultural runoff
11.1	Target voluntary and incentive-based programs that help working farms contribute to Puget Sound recovery
11.2	Ensure compliance with regulatory programs designed to reduce, control, or eliminate pollution from working farms

TABLE 4-1. STRATEGIES AND SUB-STRATEGIES , CONTINUED

ECOSYSTEM STRATEGIES	
12	Prevent, reduce, and control surface runoff from forest lands
12.1	Achieve water quality standards on state and privately owned working forests through implementation of the Forest and Fish Report
12.2	Maintain forest roads and implement road abandonment plans for working forest lands subject to the forest practices rules on schedule, and ensure federal forest managers meet or exceed state standards for road maintenance and abandonment on federal lands
13	Prevent, reduce, and/or eliminate pollution from decentralized wastewater treatment systems
13.1	Effectively manage and control pollution from small onsite sewage systems
13.2	Effectively manage and control pollution from large onsite sewage systems
13.3	Improve and expand funding for onsite sewage systems and local onsite sewage system programs
14	Prevent, reduce, and/or eliminate pollution from centralized wastewater systems
14.1	Reduce the concentrations of contaminant sources of pollution conveyed to wastewater treatment plants through education and appropriate regulations, including improving pretreatment requirements
14.2	Reduce pollution loading by preventing and reducing combined sewer overflows
14.3	Implement priority upgrades of municipal and industrial wastewater facilities in urban and urbanizing areas and address outfalls
14.4	Ensure all centralized wastewater treatment plants meet discharge permit limits through compliance monitoring, technical assistance, and enforcement, where needed
14.5	Promote appropriate reclaimed water projects to reduce pollutant loading to Puget Sound
15	Protect and restore the native diversity and abundance of Puget Sound species, and prevent and respond to the introduction of terrestrial and aquatic invasive species
15.1	Implement species recovery plans in a coordinated way
15.2	Create a more integrated planning approach to protect and enhance biodiversity in the Puget Sound ecosystem
15.3	Prevent and rapidly respond to the introduction and spread of terrestrial and aquatic invasive species
15.4	Answer key invasive species research questions and fill information gaps

TABLE 4-1. STRATEGIES AND SUB-STRATEGIES , CONTINUED

ECOSYSTEM STRATEGIES	
16	Protect and restore nearshore and estuary ecosystems
16.1	Permanently protect priority nearshore physical and ecological processes and habitat, including shorelines, migratory corridors, and vegetation, particularly in sensitive areas such as eelgrass beds and bluff-backed beaches
16.2	Implement prioritized nearshore and estuary restoration projects and accelerate projects on public lands
16.3	Remove armoring, and use soft armoring replacement or landward setbacks when armoring fails, needs repair, or is non-protective, and during redevelopment
16.4	Implement a coordinated strategy to achieve the 2020 eelgrass recovery target
17	Protect and restore marine ecosystems
17.1	Protect intact marine ecosystems particularly in sensitive areas and for sensitive species
17.2	Implement and maintain priority marine restoration projects
18	Protect and steward working waterfronts and improve public access to Puget Sound
18.1	Use, coordinate, expand, and promote financial incentives and programs for best practices at ports and in the marine industry that are protective of ecosystem health
18.2	Increase access to and knowledge of publicly owned Puget Sound shorelines and the marine ecosystem
19	Ensure abundant, healthy shellfish for ecosystem health and for commercial, subsistence, and recreational harvest consistent with ecosystem protection
19.1	Improve water quality to prevent downgrade and achieve upgrades of important current tribal, commercial, and recreational shellfish harvesting areas
19.2	Restore and enhance native shellfish populations
19.3	Ensure environmentally responsible shellfish aquaculture based on sound science
19.4	Enhance the public’s connection to shellfish and increase recreational harvest opportunities
19.5	Answer key shellfish safety research questions and fill information gaps

TABLE 4-1. STRATEGIES AND SUB-STRATEGIES , CONTINUED

ECOSYSTEM STRATEGIES	
20	Effectively prevent, plan for, and respond to oil spills
20.1	Prevent and reduce the risk of oil spills
20.2	Strengthen and integrate spill response readiness of the state, tribes and local governments
20.3	Respond to spills and seek restoration using the best available science and technology
21	Address and clean up cumulative water pollution impacts in Puget Sound
21.1	Complete total maximum daily load studies and other necessary water cleanup plans for Puget Sound to set pollution discharge limits and determine responses to water quality impairments
21.2	Clean up contaminated sites within and near Puget Sound
21.3	Protect and restore water quality at swimming beaches and recreational areas
21.4	Develop and implement local and tribal pollution identification and correction programs

INSTITUTIONAL STRATEGIES	
22	Provide the leadership framework to guide the Puget Sound recovery effort and set action and funding priorities
22.1	Provide backbone support for the recovery effort and Management Conference
22.2	Maintain and update the Action Agenda as the shared recovery plan
23	Support and build strategic, collaborative partnerships
23.1	Advance the coordination of local recovery actions through Local Integrating Organizations
23.2	Build and maintain collaborative partnerships with tribes to identify and advance recovery actions

TABLE 4-1. STRATEGIES AND SUB-STRATEGIES , CONTINUED

INSTITUTIONAL STRATEGIES	
24	Implement performance management
24.1	Work collaboratively to track and report on implementation performance
24.2	Work collaboratively to report on recovery progress
25	Coordinate and advance science and monitoring
25.1	Oversee strategic planning for Puget Sound recovery science
25.2	Implement a coordinated, integrated ecosystem monitoring program
26	Cultivate broad-scale stewardship practices and behaviors among Puget Sound residents that benefit Puget Sound
26.1	Prioritize targeted stewardship issues, actions, and audiences based on problem severity, problem frequency, availability of and confidence in science (natural and social) behind the problem, and ability to influence change
26.2	Develop and promote science-based targeted communications and behavior change strategies across the region
26.3	Enable and encourage residents to take informed stewardship actions addressing infiltration, pollution reduction, habitat improvement, forest cover, soil development, critical areas, reductions in shoreline armoring, and specific actions identified in other sub-strategies
26.4	Improve effectiveness of local and regional awareness building and behavior-change programs through vetted messages, proven strategies, and outcome-based evaluation. Guide partners in use of formative research and diffusion of priority best management practices
26.5	Enhance resources to sustain and expand effective behavior change and volunteer programs that support Action Agenda priorities and that have demonstrated, measurable outcomes
26.6	Create a repository of market, social, and audience research to support stewardship work. Include research and data from local, state, and federal governments, nonprofit, and private sector sources. Synthesize and disseminate to partners
26.7	Review practices and issues that require solutions beyond the Puget Sound region such as automotive, manufacturing and distribution of toxins, and pharmaceutical waste management. Develop strategies and partnerships outside the Puget Sound region to address issues

TABLE 4-1. STRATEGIES AND SUB-STRATEGIES , CONTINUED

INSTITUTIONAL STRATEGIES	
27	Build issue awareness and understanding to increase public support and engagement in recovery actions
27.1	Implement a long-term, highly visible, coordinated public-awareness effort using the Puget Sound Starts Here brand to increase public understanding of Puget Sound’s health, status, and threats. Conduct regionally scaled communications to provide a foundation for local communications efforts. Conduct locally scaled communications to engage residents in local issues and recovery efforts
27.2	Incorporate and expand Puget Sound-related content in diverse delivery settings (such as recreation, education institutions, local government, neighborhood and community groups, nonprofit organizations, businesses). Connect residents with public engagement and volunteer programs
27.3	Incorporate Puget Sound place-based content into K-12 curricula throughout the Puget Sound region. Connect schools with technical assistance, inquiry-based learning opportunities, and community resources. Implement student service projects connected to ecosystem recovery. Link schools to organizations with structured volunteer opportunities
27.4	Foster a long-term sense of place among Puget Sound residents. Encourage direct experiences with Puget Sound’s aquatic and terrestrial resources through recreation, informal learning, and public access sites
27.5	Build awareness of stewardship-building efforts among elected officials, executive staff, funders, resource managers, and others with resource allocation ability. Emphasize program roles, needs, and relationship with other Action Agenda strategies and program outcomes
28	Build social and institutional infrastructure that supports stewardship behaviors and removes barriers
28.1	Apply appropriate social science to Puget Sound recovery to increase clarity and effectiveness of targeted actions, audiences, opportunities, strategies, and evaluation metrics
28.2	Build capacity among partner organizations to advance priority stewardship actions. Provide technical support and training to advance program effectiveness, evaluation, and support of Action Agenda priorities
28.3	Maintain centralized capacity to sustain and enhance the regional Puget Sound Starts Here campaign
28.4	Provide public information conduits connecting individuals to local activities, resources, and decisionmaking processes—including cost-share programs, technical assistance, volunteer experiences, and ways to engage in civic structures and processes

TABLE 4-I. STRATEGIES AND SUB-STRATEGIES , CONTINUED

INSTITUTIONAL STRATEGIES	
28.5	Enhance strategic networks and tools that support stewardship partners and outcomes including ECONet, STORM, the Northwest Straits Initiative and Marine Resource Committees, tribes, municipalities not covered by stormwater permits, public agencies, funders, universities, nongovernmental organizations, and others
28.6	Work regionally and locally to remove implementation barriers (such as physical, economic, regulatory, enforcement, policy), and enable and incentivize adoption of stewardship actions
29	Funding strategy
29.1	Maintain and enhance federal funding for implementation of Action Agenda priorities
29.2	Focus federal agency budgets and national programs on Action Agenda priorities
29.3	Maintain, enhance, and focus state funding for implementation of Action Agenda priorities
29.4	Maintain and enhance local funding for implementation of Action Agenda priorities
29.5	Develop opportunities for private sector and philanthropic funding for implementation of Action Agenda priorities
29.6	Develop and implement market-based mechanisms for implementation of priorities in the Action Agenda
Notes: ^a The order and numbering of the strategies and sub-strategies in Table 4-I are for organizational purposes and do not represent priority or rank	

WHAT ARE STRATEGIC INITIATIVES?

Strategic Initiatives prioritize near-term recovery efforts and funding to focus on the most meaningful improvements for Puget Sound. In 2012, the Puget Sound Partnership and two of its boards, the Ecosystem Coordination Board and the Science Panel, established three Strategic Initiatives:

- Stormwater Strategic Initiative: Prevent pollution from urban stormwater runoff.
- Habitat Strategic Initiative: Protect and restore habitat.
- Shellfish Strategic Initiative: Protect and recover shellfish beds.



To develop the Strategic Initiatives, the Partnership evaluated and ranked the relative ecological impact of each sub-strategy. The Partnership then grouped sub-strategies with the greatest potential to address the most critical threats to a healthy Puget Sound and their associated Near Term Actions and ongoing programs into Strategic Initiatives. The Partnership revisited which sub-strategies were

STORMWATER STRATEGIC INITIATIVE: THE CHALLENGE

Nonpoint sources of pollution, such as stormwater and changes in the hydrology of runoff patterns, are the biggest threats to Puget Sound water quality. Polluted stormwater carries toxins, nutrients, sediment, and bacteria to Puget Sound, where these pollutants affect aquatic life and public health. Land development can increase stormwater runoff from impervious surfaces. Climate change and its effects on precipitation and runoff are significant variables in managing stormwater.

HABITAT STRATEGIC INITIATIVE: THE CHALLENGE

Puget Sound habitat supports a multitude of fish, seabird, invertebrate, and plant species as well as a burgeoning human population. Human impacts on habitat have translated to declines—sometimes over a brief period of time—in many marine species. Habitat loss and decline is closely tied to tribal treaty rights that are at risk. The primary challenges to Puget Sound habitat are as follows:

- Hardened shorelines
- Filled estuaries
- Channelized rivers, altered floodplains, and loss of riparian corridors
- Competition for fresh water
- Oil and chemical spills
- Loss of habitat for protected species
- Vulnerability to climate change

SHELLFISH STRATEGIC INITIATIVE: THE CHALLENGE

Shellfish make an essential contribution to the culture, recreation, and economy of the Puget Sound region. Northwest tribes have harvested shellfish for about 12,000 years. Commercial shellfish harvests generate about \$180 million annually in economic benefits to the state. The filtering and recycling capacities of shellfish are also essential to marine waters. Shellfish beds require excellent water quality, a requirement that is threatened by direct discharges of pollutants as well as stormwater and surface runoff. The rapid pace of ocean acidification exceeds the ocean's capacity to restore pH and chemical balance, causing shellfish to corrode more rapidly. While intensive shellfish aquaculture can supply shellfish to a demanding market, it can stress the Puget Sound ecosystem.

included in the Strategic Initiatives during the 2016 Action Agenda planning cycle to incorporate scientific research, policy advances, and knowledge from the adaptive management process. Some of these sub-strategies, known as cross-cutting sub-strategies, support more than one Strategic Initiative ([Appendix B, Cross-Cutting Sub-Strategies](#)). Specific information about the Strategic Initiatives is presented in the [Implementation Plan](#).

As described in [Chapter 3, Managing Recovery](#), the Strategic Initiative Leads, Strategic Initiative Advisory Teams⁴, Science Panel, Ecosystem Coordination Board, and Salmon Recovery Council are key partners in updating the Strategic Initiatives, which are ultimately adopted by the Leadership Council.

The Strategic Initiatives serve a crucial role in Puget Sound recovery by directing efforts and funding toward priorities that address the most critical threats and opportunities. Strategic Initiatives will increasingly be informed by Implementation Strategies.

WHAT ARE IMPLEMENTATION STRATEGIES?

Implementation Strategies are our new framework for prioritization. They are discrete, sequenced strategic plans for accelerating progress in achieving the Puget Sound 2020 ecosystem recovery targets. The Implementation Strategies articulate the long-term recovery pathways and approaches most likely to improve conditions of a specific Vital Sign. They are expected to be revised and to improve with each cycle of the adaptive management process. The Implementation Strategies inform the Action Agenda,

the [Biennial Science Work Plan](#), effectiveness and trend monitoring, and salmon recovery planning.

Each Implementation Strategy is being designed to accomplish the following goals:

- Identify priority approaches for improving the conditions of a specific Vital Sign.
- Assess and combine elements of local and regional recovery efforts, ongoing programs, Near Term Actions from the Action Agenda, and results from the [Puget Sound Pressures Assessment](#).
- Identify priority pressures affecting the Vital Sign and key barriers to achieving the recovery target.
- Identify monitoring activities and needs, research priorities, and adaptive management elements and processes.
- Identify key geographic areas associated with the recovery target.
- Estimate costs of achieving the recovery target.

The vision for Implementation Strategies is that they will serve the entire community engaged in recovery related to a particular Vital Sign. This community includes legislators and policy makers, local implementers, funding agencies, recovery practitioners, and professionals. Our intent is that Implementation Strategies will ultimately increase the confidence and consensus of this entire community in the collective approach to success, drive adaptive

⁴ For the 2016 Action Agenda Update, temporary groups called the Strategic Initiative Transition Teams were involved in the implementation planning pending selection and formation of the Strategic Initiative Leads and the Strategic Initiative Advisory Teams.

management, inform the funding strategy and decisionmaking, and accelerate progress toward meeting the target.

As of 2016, two pilot Implementation Strategies had been partially developed: one for estuaries and one for shellfish beds. These have been used as a model for developing additional Implementation Strategies and informing development of the [Implementation Plan](#). As more Implementation Strategies are developed, they will increasingly become the decisionmaking framework for biennial work planning, monitoring, and adaptive management.

The following Vital Signs have been prioritized for Implementation Strategy Development (completion targets):

- Estuaries (2015)
- Shellfish beds (2015)
- Floodplains (2016)
- Land development and land cover (2016)
- Shoreline armoring (2016)
- Chinook (2016)
- Freshwater quality (2017)
- Marine water quality (2017)
- Summer stream flows (2017)

WHAT ARE NEAR TERM ACTIONS?

Near Term Actions are discrete, measurable activities and initiatives that contribute to achieving recovery targets and that can reasonably begin or achieve specific milestones within the next 2 years. Near Term Actions are included in the [Implementation Plan](#) and are tracked on the [Action Agenda Report Card](#) and reported in the [State of the Sound](#). Near Term Actions may be proposed by governmental organizations, academic institutions, nonprofit organizations, businesses, and individuals. They are required to be consistent with the Strategic Initiatives included in the [Implementation Plan](#) and local recovery plans developed by the Local Integrating Organizations. City and county governments, tribes, and state agencies are the primary implementers of the Near Term Actions.

WHAT ARE ONGOING PROGRAMS?

Ongoing programs are recognized as a critical foundation for Puget Sound recovery. They are continuing efforts that provide regulatory oversight, technical support, implementation resources, or guidance that may have preceded the Action Agenda. Examples include programs related to implementation of the Growth Management Act at both the state and local level, salmon recovery programs, and Washington State Department of Ecology Clean Water Programs. They are not considered Near Term Actions because they are not discrete recovery actions—they are *ongoing*. However, the Near Term Action solicitation did request actions that were designed to improve, expand, or otherwise change an ongoing program—providing an opportunity for actions related to ongoing programs to be included in the ranking of Near Term Actions. Many ongoing programs are associated with state, federal, tribal, and local land use and environmental regulatory programs and have independent, long-term funding.

[Appendix C, Ongoing Programs](#), provides a list of key ongoing programs that contribute directly to achieving Puget Sound recovery goals. A list of ongoing programs that contribute to Puget Sound recovery will be maintained in the [Puget Sound Recovery Atlas](#). Ongoing programs that support the Strategic Initiatives are identified in the [Implementation Plan](#).

WHAT ARE CROSS-CUTTING ISSUES?

Cross-cutting issues affect multiple aspects of Puget Sound recovery and have regional implications. They provide a focus for developing new Near Term Actions and influence progress toward the recovery targets. Since 2008, the Puget Sound Partnership has worked with boards, partners, and advisory groups to identify and refine key cross-cutting issues and to determine how these issues need to be addressed in the Action Agenda. The four cross-cutting issues addressed in the 2016 Action Agenda are tribal treaty rights and resources, climate change, ocean acidification, and recovery of endangered salmonids. Cross-cutting issues are integrated into the strategic initiatives, strategies, and actions in the [Implementation Plan](#). Tribal treaty rights are foundational to all three Strategic Initiatives, and the Habitat Strategic Initiative corresponds directly with recovery of endangered salmonids and all fish and aquatic species. Climate change and ocean acidification are integrated during the action planning process, as described further in the [Implementation Plan](#).

TRIBAL TREATY RIGHTS

Puget Sound has been home to populations of native tribal communities 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 Puget Sound recovery. A healthy Puget Sound ecosystem is central to tribal culture, spiritual practices, well-being, and economic health. The treaty tribes of western Washington have

Our considerable investment in habitat restoration has not been able to turn the powerful tide of loss and degradation...If salmon are to survive, we must begin to achieve real gains in habitat protection and restoration. The path we are on leads to the extinction of the salmon resource and our treaty-reserved rights.

—Treaty Rights At Risk—A Report from the Treaty Indian Tribes in Western Washington, July 2011

expressed strong concern over declining habitat and the need for federal agencies in the Puget Sound region to coordinate efforts and prioritize Puget Sound recovery.

In 2011, the Treaty Tribes of Puget Sound and the Coast released a paper entitled [Treaty Rights at Risk—Ongoing Habitat Loss, the Decline of the Salmon Resource, and Recommendations for Change](#), in which the tribes point out that the right to fish reserved for them in the treaties is meaningless if there are no fish left to catch. They cite numerous examples from across Puget Sound of continued loss of habitat due to shoreline armoring, loss of forest, increase in paved lands, and filling and diking of estuarine wetlands. The paper is a call to action, intended to galvanize and energize response by federal, state, local, and tribal governments and policy makers to reverse the downward slide of salmon and their habitat.

Puget Sound tribes have engaged in an intensive coordination process to identify priority actions to address the continued loss of salmon habitat. Although there is close agreement between the [Tribal Habitat Priorities](#) and the Strategic Initiatives, more work is needed to ensure progress. The Partnership continues to work with tribes through the Partnership Tribal Co-management Council to address additional items in the [Tribal Habitat Priorities](#) throughout Puget Sound.

CLIMATE CHANGE

Climate change has—and will continue to have—important impacts on natural resources and ecosystems throughout the Puget Sound region. Ocean acidification,⁵ reduced snowpack, lower summer stream flows, warmer temperatures, increased landslide risk, erosion, and more frequent and intense flooding will affect the delicate

biological balance of habitats and species. Human ecosystems will also change as agricultural systems, infrastructure, and even health and safety are affected by higher temperatures, reduced snowpack, and precipitous weather events.

The Puget Sound Partnership is working closely with institutions such as the University of Washington Climate Impacts Group

CLIMATE CHANGE RESPONSE STRATEGIES (PREPARING FOR A CHANGING CLIMATE: WASHINGTON STATE'S INTEGRATED CLIMATE RESPONSE STRATEGY, WASHINGTON STATE DEPARTMENT OF ECOLOGY 2012)

This report sets seven high-priority and comprehensive response strategies for climate change:

- **People.** Protect people and communities from climate change impacts by enhancement of core public health and emergency response capacity.
- **Assets.** Reduce risk of damage to buildings, transportation systems, and other infrastructure through restoration of ecosystem services, relocation of critical assets, and consideration of future climate while siting new development.
- **Productive lands.** Reduce forest and agriculture vulnerability to climate change impacts through land use preservation, mitigation of wildfire risk, and invasive pest and disease control.
- **Water.** Improve water management to address climate-related supply reductions through integrated water management, enhanced water conservation and efficiency, water allocations in salmon-bearing streams, and integration of future climate into agency decisionmaking.
- **Wildlife.** Safeguard fish and wildlife and protect critical ecosystem services that support human and natural systems through habitat restoration, species protection, and reduction of stresses on species and the ecosystems.
- **Coastal communities.** Reduce the vulnerability of coastal communities, habitat, and species through degradation prevention, upland habitat creation, and reduction of sources of land-based carbon and polluted runoff that contribute to ocean acidification.
- **Strengthen local capacity.** Support the efforts of local communities and strengthen capacity to respond to and engage with the public through identification of new funding mechanisms, improved coordination and support for an integrated approach, enhanced information-gathering, and engaging the public.

⁵ Because multiple factors influence ocean acidification, this topic is addressed as one of the four cross-cutting issues and not discussed in detail under this climate change section.

and the Department of Ecology to ensure that recovery efforts are informed by changing conditions and advances in our shared understanding of risks posed by climate change. Climate change was first systematically integrated into the process of soliciting, identifying, and refining Near Term Actions in the 2016 Action Agenda. Experts from the University of Washington Climate Impacts Group guided the Near Term Action owners on how to improve the longevity of projects by understanding the likely future climatic conditions in the region.

The Washington State Department of Ecology's climate change response strategies were originally integrated into the 2012 Action Agenda and aligned with strategies, sub-strategies, and Near Term Actions. These strategies continue to influence ongoing planning and implementation efforts.

The continuing efforts of ongoing programs and the design and implementation of Near Term Actions are key to incorporating the climate response strategies in planning and implementation efforts. It is important that we continue to support ongoing programs and Near Term Actions that directly address climate change because these actions can help the region adapt to climate change by protecting and improving the condition and resiliency of our natural systems. It may also be valuable to understand how a Near Term Action, once implemented, is likely to perform under future climate conditions. For example, are we spending a lot of money restoring and protecting habitat that could be under water in 20 years while also developing the upland area that may be the future shoreline?

CLIMATE CHANGE DRIVERS IN PUGET SOUND (STATE OF KNOWLEDGE: CLIMATE CHANGE IN PUGET SOUND, UNIVERSITY OF WASHINGTON CLIMATE IMPACTS GROUP 2015)

The following trends in climate are projected for the Puget Sound region. Natural variability on the seasonal, annual, or decadal scale may temporarily amplify or obscure long-term climate change.

- **Temperature.** Additional warming for the 21st century will be two to ten times as large as the warming experienced in the 20th century.
- **Precipitation.** Precipitation patterns will show larger variation between years and decades—a less consistent environment in terms of rainfall.
- **Heavy rainfall.** Heavy rainfall events will be more frequent and more intense.
- **Sea level rise.** Varied level of increase around Puget Sound will affect coastal flooding risks.
- **Ocean acidification.** Projected pH levels in Puget Sound will continue to decrease; acidification will continue to increase and affect marine species.

The Puget Sound Partnership has been working with the University of Washington Climate Impacts Group to align Near Term Actions with the latest climate change science so that the link between each Near Term Action and climate change is clear. The [Implementation Plan](#) identifies regional priorities specifically designed to solicit actions that assess climate change impacts on communities and that develop adaptation plans where impacts are demonstrated.

The [Implementation Plan](#) will be revised as part of the biennial update. Each iteration of the plan will be informed by the best available science. This knowledge will improve our ability to integrate adaptation and resiliency into future planning and the development of Implementation Strategies. Additionally, some federal programs, such as the National Estuary Program, require participants, such as Puget Sound, to provide a risk-based assessment of climate change impacts and resiliency planning. Work is currently underway to consider how the Action Agenda will meet these new climate-ready estuary requirements by 2020. Key milestones and projected timelines for integrating climate change vulnerability assessments and resiliency planning into the Action Agenda are as follows:

- Complete climate change vulnerability analysis for Puget Sound (2017).
- Consider climate resiliency in Ecosystem Recovery Plans and Near Term Actions (ongoing).
- Include climate change adaptation strategies in the Implementation Strategies (ongoing).
- Strategic Initiative Leads and Strategic Initiative Advisory Teams identify ways for Near Term Action owners to consider climate change impacts (2017).
- Meet Climate-Ready Estuary requirements with the 2020 Action Agenda (2020).

OCEAN ACIDIFICATION

The increasing acidity of oceans is a global phenomenon that is fundamentally altering our marine ecosystems. Washington's marine waters are vulnerable to ocean acidification because of regional factors such as upwelling, stormwater runoff with nutrients and organic carbon, and local emissions, which exacerbate the acidifying effects of global carbon dioxide emissions. Ocean acidification can affect a wide range of organisms, from seagrasses to fish and shellfish. If conditions persist or worsen, ocean acidification could impose some of the most significant and direct climate change impacts on the Puget Sound ecosystem and the aquaculture industry. In 2012, the [Washington State Blue Ribbon Panel on Ocean Acidification](#) published its findings and recommendations to chart a course for addressing the causes and consequences of acidification.⁶

- 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 our ability to monitor and investigate the causes and effects of ocean acidification.
- Inform, educate, and engage partners, the public, and decisionmakers in responding to ocean acidification.
- Maintain a sustainable and coordinated focus on ocean acidification at all levels of government.

⁶ Adelman, H. and L. Whitley Binder (eds). Ocean Acidification: From Knowledge to Action, Washington State's Strategic Response. Washington State Department of Ecology, Olympia, Washington. Publication 12-01-015. [Available here](#)

The Marine Resources Advisory Committee is leading efforts to plan actions based on the Blue Ribbon Panel recommendations and provide input on development of Near Term Actions in the [Implementation Plan](#) and the [Biennial Science Work Plan](#).

RECOVERY OF ENDANGERED SALMON

The Leadership Council is the regional salmon recovery organization for Puget Sound. The Leadership Council works closely with the Salmon Recovery Council to oversee funding and implementation of the [Puget Sound Salmon Recovery Plan](#).

The Partnership works with its boards to integrate salmon recovery and overall ecosystem recovery efforts. Although the [Puget Sound Salmon Recovery Plan](#) was written to meet federal requirements under the [Endangered Species Act](#), most—if not all—of its strategies and actions contribute to overall ecosystem recovery. Likewise, many of the strategies in the Action Agenda are essential for salmon recovery. Connecting these two efforts seamlessly and efficiently is necessary to achieve our twin goals of salmon recovery and ecosystem recovery.

Similarly, on the scientific front, the Science Panel has incorporated the Puget Sound Salmon Recovery Council’s recovery planning priorities into the development of the [Biennial Science Work Plan](#). Moving into the future, the Science Panel’s Salmon Science Advisory Group will provide the Puget Sound Salmon Recovery Council with scientific advice to reduce uncertainty, develop and focus priorities, and integrate habitat protection, habitat restoration, harvest management, and hatchery management strategies and actions.

Recovering threatened salmon species in Puget Sound remains an urgent priority of the Leadership Council, the Puget Sound Salmon Recovery Council, and the Puget Sound Partnership. Bold and sustained action to protect and restore habitat—complementing

ongoing efforts to improve harvest and hatchery management practices—will be required to reverse the declining trends in threatened salmon populations in Puget Sound. Working together, we must ensure the Puget Sound ecosystem is resilient enough to support salmon in the face of climate change, population growth, ocean acidification, and other pressures.

HOW DO WE PRIORITIZE ACTIONS?

The [Implementation Plan](#) describes the planning process and regional priorities that inform the selection of Near Term Actions. It also identifies ongoing programs related to each sub-strategy and the gaps and barriers that may be addressed as part of future Strategic Initiatives. The Puget Sound Partnership is required to prioritize actions in the [Implementation Plan](#) to inform the allocation of limited federal, state, and local resources.⁷ Setting priorities often requires addressing the delicate balance across the spectrum of ecological and human needs.

The Partnership continues to create a more systematic and replicable approach to prioritization. This includes creating a transparent, durable framework for the prioritization process and reaching out to technical and policy experts, restoration practitioners, partners, and decisionmakers to gather information on the impacts of each proposed Near Term Action. The priority-setting process is collaborative, information-based, transparent, and replicable and illuminates where gaps in knowledge or uncertainty are particularly relevant to our understanding of what various actions might achieve. The [Implementation Plan](#) provides details on the most recent planning process.

⁷ RCW 90.71 requires the Partnership to prioritize actions necessary to recover Puget Sound.



CHAPTER 5 | FUNDING RECOVERY

Puget Sound recovery requires a sufficient and reliable source of funding—the lack of funding is the leading barrier to implementing recovery actions. We can increase our achievements by dedicating additional funding sources, increasing the efficiency and effectiveness of existing sources, and developing innovative, market-based programs. The Puget Sound Partnership works closely with partners to develop a dependable and diverse funding strategy that will support Puget Sound recovery today and into the coming decades. This chapter outlines current funding goals, current and anticipated changes to funding sources, and the funding strategy that will support Puget Sound recovery into the future.

WHAT ARE OUR FUNDING GOALS?

The Action Agenda funding strategy aims to align and expand upon existing funding sources. The comprehensive funding strategy must meet the following goals:

- Sufficient funding to avoid annual funding shortfalls that compromise prioritized ongoing programs and Near Term Actions.
- Flexibility to coordinate investments in multiple environmental solutions, a more efficient approach than funding one resource or issue at a time.
- A comprehensive approach that treats recovery as a collective effort and not as unrelated programs.
- A strategic approach that links financial support to scientifically supported, regionally identified priorities.
- Stable and reliable sources of funding.

The funding strategy for Puget Sound recovery is ambitious and comprehensive. It depends on the engagement and support of many partners across all levels of government and nongovernmental organizations and will continue to evolve with the Action Agenda.

WHAT ARE THE EXISTING FUNDING SOURCES FOR PUGET SOUND RECOVERY?

Federal, state, local, and tribal governments currently provide much of the funding for Puget Sound recovery actions. Other significant sources of funding are nongovernmental agencies, private foundations, businesses, and individuals. Market-based mechanisms include the transfer of development rights programs, redevelopment,⁸ ecosystem services markets, and *in lieu fee* compensatory mitigation programs. State and federal funds allocated to the Puget Sound Partnership itself also fund partner organizations.

The major sources of federal, state, and local funding are described in the next sections.

FEDERAL PROGRAMS

The federal government provides a significant source of funding for prioritized actions in the Action Agenda. Some federal agencies are funded to engage in protection and restoration activities and others award grants to support and match the work of nonfederal partners. For example, the U. S. Environmental Protection Agency provides funding to Washington State agencies to implement the Action Agenda. In turn, these agencies manage programs addressing the three Strategic Initiatives. The U. S. Environmental Protection Agency also awards grants to the Northwest Indian Fisheries Commission to advance tribal treaty rights and Puget Sound protection and restoration. Healthy tribal lands and waters are essential to the continued protection and security of tribal treaty rights and the economic and cultural well-being of tribes are directly linked to the health of their homelands and the natural

⁸ Redevelopment often provides an opportunity to contribute to recovery by upgrading stormwater systems, increasing densities, removing structures that degrade or limit habitat, and implementing other improved development practices.

systems supporting their resource base. Grants such as these support Puget Sound federally recognized tribes in continuing to protect and restore the natural resources that are of utmost subsistence, cultural, commercial, and spiritual value.

Federal agencies can direct existing funds for national programs in this region. The following federal programs make important contributions to Puget Sound recovery programs. A full list of programs is provided in the [supporting materials](#).

- U. S. Environmental Protection Agency’s National Estuary Program and Geographic Programs for Puget Sound.
- National Oceanic and Atmospheric Administration’s Restoration Center.
- National Oceanic and Atmospheric Administration’s Pacific Coastal Salmon Recovery Fund grant programs.
- Various programs administered by the U.S. Fish and Wildlife Service, U.S. Geological Survey, National Park Service, U.S. Coast Guard, U.S. Department of Defense, U.S. Army Corps of Engineers, U.S. Forest Service, National Resources Conservation Service, Federal Emergency Management Administration, Federal Housing Administration, Federal Transit Administration, and other federal agencies that lead work related to Puget Sound recovery.

STATE PROGRAMS

Washington State makes significant investments in capital projects that contribute to Puget Sound recovery, such as wastewater treatment plants, stormwater retrofits, and nearshore habitat protection and restoration. The Puget Sound Partnership is required by statute to review the budget requests of Washington State natural resource agencies and prioritize these requests relative to their alignment with and support of priorities in the Action Agenda. This prioritization is then provided to the Governor and the State Legislature to support their budgetary decisions.

The following state programs make important contributions to Puget Sound recovery programs. A full list of programs is provided in the [supporting materials](#):

- Puget Sound Acquisition and Restoration Fund
- Estuary and Salmon Restoration Program
- Floodplains by Design
- Stormwater Financial Assistance Program
- Salmon Recovery Funding Board grant programs
- Washington State Department of Ecology’s water quality grants and loan programs

LOCAL GOVERNMENT

Cities, counties, and special-purpose districts⁹ account for a significant portion of funding for actions that contribute to Puget Sound recovery. Local entities invest in wastewater treatment, septic tank management, stormwater management, infrastructure, shellfish and habitat protection, and restoration. Local funds can be generated through a variety of mechanisms authorized by Washington State, including utility fees and assessments on local properties such as conservation futures programs.

The Puget Sound Partnership supports Local Integrating Organizations consisting of local jurisdictions, area tribes, special-purpose districts, salmon recovery Lead Entities, and community organizations that provide biennial updates on local recovery priorities, long-term plans, and Near Term Actions. Each organization's members secure funding for projects such as salmon habitat restoration, floodplain restoration, and stormwater retrofits. The Local Integrating Organizations also provide input on state legislative proposals and funding authorities, and help to identify funding gaps in the [Implementation Plan](#).

NONPROFIT AND PRIVATE ORGANIZATIONS

The private sector, including individuals, businesses, and philanthropic organizations, recognizes the benefit of a healthy Puget Sound to a healthy economy. Businesses and private landowners are also obligated to contribute to certain recovery priorities (for example, controlling polluted runoff from private property). The private sector can invest in Puget Sound recovery by forming public/private partnerships that address priority issues. For example, the National Fish and Wildlife Foundation's Community Salmon Fund provides funding for two of the Strategic Initiatives: habitat and shellfish. Similarly, cost-sharing opportunities are available from both the state and federal programs.

HOW WILL FUNDING FOR PUGET SOUND RECOVERY CHANGE?

Puget Sound recovery programs benefit from federal, state, and local funding. Over time, these sources have evolved to provide new funding mechanisms and collaborative requirements. Two examples are described below.

NATIONAL ESTUARY PROGRAM: NEW FUNDING MODEL

The U.S. Environmental Protection Agency's National Estuary Program funds Near Term Actions in the Action Agenda. In March 2015, the U.S. Environmental Protection Agency proposed changes to focus the funding process on the Action Agenda priorities, reduce administrative burdens on applicants, provide increased transparency and predictability in both ranking and funding decisions, and encourage broader collaboration during the decisionmaking process.

The new funding model ensures that funding is driven by priorities established in the Action Agenda. In this highly structured process, partners such as the Local Integrating Organizations, Puget Sound tribes, Puget Sound Salmon Recovery Council, Ecosystem Coordination Board, Science Panel, and Leadership Council have the opportunity to collaborate on recommendations for Near Term Actions and ongoing programs critical to the Strategic Initiatives. Through this process, the Puget Sound Partnership acts as a neutral, nonregulatory body with a significant role in planning, synchronizing, managing, and monitoring the recovery funding system to ensure the most efficient and effective path to Puget Sound recovery. The Strategic Initiative Leads work with their respective Strategic Initiative Advisory Teams ([Chapter 3, Managing Recovery](#)) to review and rank Near Term Actions according to priorities established in the Action Agenda and to formulate funding recommendations for National Estuary Program funds.

⁹ Special-purpose districts exist separately from local governments and provide services such as water, electricity, and drainage.

COORDINATED FUNDING AND INVESTMENT

State and federal agency partners are working to improve the implementation of Puget Sound recovery actions through coordinated funding and investment. Two efforts are underway, one at the state level and one involving all levels of government, tribes, and local communities. These programs aim to align financial resources and regulatory authorities to speed conservation and resiliency programs.

- **Washington State Natural Resources Grant Program.** This initiative coordinates cross-agency grant programs that benefit water quality and salmon recovery. The intention is to maximize the benefits of public investment and minimize administrative burdens on local grant recipients. This coordinated funding model focuses limited resources on the investments most likely to contribute to Puget Sound recovery. This effort is led by the Washington State Department of Ecology and the Recreation and Conservation Office; it is also supported by the Washington Department of Fish and Wildlife, Puget Sound Partnership, Washington State Conservation Commission, the Governor’s Results Washington, and the National Oceanic and Atmospheric Administration. This effort assists in the statutory requirements for state agencies to review and align their budgets, if necessary, with priorities in the Action Agenda.
- **Resilient Lands and Waters Initiative.** This program identifies concrete steps by which state and federal agencies can synergize with local governments and organizations to accelerate ecosystem recovery. In a typical watershed, a dozen state, federal, and local government agencies are responsible for improving ecosystem services, but their mandates are typically narrowly focused on only selected resources, not the whole ecosystem. Communities living in watersheds, floodplains, and estuaries struggle with big problems and complicated situations that require us to mobilize a mix of financial, legislative,

scientific, and social resources to work collectively at the scale necessary to protect and restore ecosystems.

A pilot project in the Lowland Snohomish watersheds offers the opportunity to test this collaborative funding model. The Coordinated Investment Pilot is guided by an ad hoc steering committee led by the National Oceanic and Atmospheric Administration and the Puget Sound Partnership, with representatives from the Washington State Departments of Ecology, Fish & Wildlife, Natural Resources, and Agriculture; and representatives from the U.S. Fish and Wildlife Service, Natural Resource Conservation Service, U.S. Environmental Protection Agency, Federal Emergency Management Agency, and the U.S. Army Corps of Engineers. Key local partners include Snohomish County, Snohomish Conservation District, and the Tulalip Tribes of Washington. The committee is developing the following actionable steps to coordinate investments in large-scale watershed restoration:

- Positioning state and federal engineers and scientists to support local project teams.
- Developing and sharing transparent strategies and data describing ecosystem conditions.
- Making regulatory processes understandable, efficient, and goal-driven.
- Streamlining public funding mechanisms.
- Creating financial feedbacks that support stewardship.
- Developing more flexible ways of protecting open space that integrate farming, salmon recovery, and flood management.

Lessons from this pilot will inform future efforts and contribute to developing stable mechanisms to replicate successes in other watersheds in Puget Sound and beyond.

WHAT IS THE FUNDING STRATEGY FOR PUGET SOUND RECOVERY?

The Partnership funding strategy aims to develop and secure stable and diverse funding to implement Action Agenda priorities. The funding currently available from various sources is insufficient to fund the full costs of recovery efforts included in the Action Agenda. Given this reality, the funding strategy for Puget Sound recovery includes three key components:

- **Get the most from available funding.** Make the most of the available funding by narrowing the focus of implementation efforts on the Near Term Actions that will have the highest potential benefit to recovery efforts.
- **Define the funding gap and ways to bridge it.** Gain a clearer picture of the size and nature of the funding gap to develop immediate priorities and inform longer-term efforts to close and address the gap.
- **Refine and implement solutions to bridge the funding gap.** Clearly define and prioritize solutions to fill the funding gap, the steps needed for implementation, and roles and responsibilities.

The [Implementation Plan](#) reflects the narrowed focus, aimed at achieving results to translate the first item into practice. The remaining two items are described below.

DEFINE THE FUNDING GAP AND WAYS TO BRIDGE IT

In 2014, the Ecosystem Coordination Board commissioned a study to identify a strategy for long-term funding of the Strategic Initiatives. The plan developed by the board’s Finance Subcommittee and economic consulting firms describes the funding needs, priorities, status, and gaps for each Strategic Initiative ([Funding Strategy for the Strategic Initiatives from the 2012–2013 Puget Sound Action Agenda](#)). The Finance Subcommittee recognized that it is not sufficient to simply evaluate the costs of the Near Term Actions and any associated funding gaps. Instead, it is crucial to include the costs of key ongoing programs and any existing gaps in funding those ongoing programs. In looking at both Near Term Action and ongoing program costs, the Finance Committee identified a funding gap of between \$206 and \$355 million per year for the Habitat Strategic Initiative, \$62 to \$265 per year for the Stormwater Strategic Initiative, and \$27 to \$42 million for the Shellfish Strategic Initiative, as shown in Table 5-1.

TABLE 5-1. 2012– 2013 STRATEGIC INITIATIVE FUNDING GAPS

STRATEGIC INITIATIVE	ANNUAL COST	CURRENT FUNDING	CURRENT ANNUAL FUNDING GAP
Stormwater	\$540–\$690 million	\$425–\$575 million	\$62–\$265 million
Habitat	\$325–\$441 million	\$86–\$119 million	\$206–\$355 million
Shellfish	\$41–\$53 million	\$12–\$14 million	\$27–\$41 million

The Finance Subcommittee also made the following eight overarching recommendations that continue to inform our funding strategy:

- **Water infrastructure.** Support new funding for an appropriate integrated water infrastructure; model watershed approach after the salmon recovery efforts.
- **Septic management.** Support new funding for the Washington State Department of Health’s septic loan and septic management programs to address all funding needs in the Shellfish Strategic Initiative.
- **Stormwater management.** Seek increased state funding for stormwater projects and street sweeping, sediment removal, and selective highway retrofits as immediate priorities while supporting a long-term strategy for stormwater investments in the Puget Sound basin.
- **Funding across jurisdictions.** Consider options for collecting and distributing funds across jurisdictional boundaries at a watershed, multiwatershed, or Puget Sound-wide scale to address differences in funding capacity. Consider the concept of a regional funding district.
- **Habitat Strategic Initiative.** Support ongoing funding for the three Strategic Initiatives, with emphasis on the Habitat Strategic Initiative, where the funding gap is larger relative to the Shellfish Strategic Initiative and Stormwater Strategic Initiative.
- **State highway system.** Seek increased funding for stormwater and other environmental improvements in a state transportation package; align environmental spending for highways with watershed and regional priorities for cleanup and restoration.
- **Strategic prioritization.** Advocate for strategic prioritization of federal and state infrastructure funding based on economies of scale, science advancement, equity and social justice, agriculture and resource land protection, and workforce development.
- **Biennial review.** Review and revise the funding strategy during the biennial updates of the Action Agenda.

REFINE AND IMPLEMENT SOLUTIONS TO BRIDGE THE FUNDING GAP

In addition to maintaining, enhancing, and focusing government funding, securing and stabilizing more funding will be a continuous need. As efforts proceed to implement the recommendations described above, the Ecosystem Coordination Board Finance Subcommittee is working to develop longer-term solutions to bridge the funding gaps and satisfy evolving priorities, including completing an actionable work plan in the fall of 2016. The following actions will support stable and sustainable funding for Puget Sound recovery:

- **Expanding private and philanthropic partnerships.** To date, Action Agenda implementation has relied heavily on public funds. Through multi-benefit efforts like Floodplains by Design, we are looking to better engage private and philanthropic partners by ensuring that actions reflect and provide for their interests and ecosystem benefits. Recent investments from Boeing and a number of philanthropic organizations suggest that this approach resonates. Part of the strategy is to more explicitly expand multi-benefit, coordinated investments beyond floodplains.

- **Allocating resources across local watersheds.** Funding available for local jurisdictions is not typically distributed evenly throughout a watershed. Urban areas with a large tax base typically have more funding, while more rural areas tend to have a lower tax base. This disparity can be challenging for recovery efforts, as there is often more opportunity for better ecosystem protection and restoration in less dense areas. Our funding strategy includes identifying funding methods that can work across city and county jurisdictional boundaries to employ a watershed approach to investment, thereby using limited funding where it will have the greatest ecosystem benefits regardless of jurisdiction.
- **Prioritizing state and federal grants for projects that encourage compact growth patterns, density and redevelopment, and rural lands protection.** Redevelopment and increased density in existing developed areas yield multiple benefits and help to distribute the costs of recovery. When currently developed areas are redeveloped through private investment, stormwater systems are retrofitted to meet current standards. Also, redevelopment and increased density help to protect and preserve existing habitat outside and within urban areas. Part of the strategy is to encourage and incentivize redevelopment to leverage private contributions for Puget Sound recovery.
- **Establishing a center to organize and stimulate conservation markets for resource lands.** Conservation markets have the potential to use market forces to achieve ecological objectives. Mechanisms can include transferring development rights, mitigation banking, and trading schemes that leverage cost differentials associated with different entities and pollutant sources to realize the same reduction in a given pollutant. Developing, implementing, and advocating for the widespread use and acceptance of these market mechanisms requires a centralized advocate for a long-term view and cross-regional coordination.
- **Maximizing funding for protection efforts supplemented by restoration projects.** It is much more cost effective to protect functioning areas of the ecosystem than it is to restore degraded areas. Many grant and other programs currently favor restoration work over protection. As a means of reducing, or at least managing, increases in the overall cost of Puget Sound recovery, we need to maximize protection today to reduce more costly restoration in future years.
- **Prioritizing state and federal grants to encourage compact urban development and rural lands protection.** Reducing the conversion and development of rural lands is essential to protecting Puget Sound. The anticipated rapid population growth in the region will result in development. Encouraging cities to absorb the majority of this growth will reduce the ecosystem impacts that negatively affect Puget Sound. Prioritizing public expenditures and incentivizing private investments to expand the abilities of cities to grow up and not out will protect essential ecosystem services.
- **Addressing match requirements and local government or nongovernmental organization funding constraints.** Some entities cannot meet the match requirements of many grant programs; some areas are better positioned to use grant funds than these less advantaged areas. As a result, the most valuable protection and restoration work from an ecosystem perspective is not always funded and completed. The funding strategy looks at ways to modify match requirements to better consider the ability of an entity to provide the match so that we are not excluding valuable protection and restoration projects. Ultimately, this makes protection and restoration work more cost effective.



CHAPTER 6 | GLOSSARY

Some terms defined in this glossary are unique to the Action Agenda. Others are generally related to recovery planning.

TERM	DEFINITION
<i>Action Agenda Report Card</i>	Provides online status of Near Term Actions.
<i>Action Agenda</i>	Provides long-term strategies and Near Term Actions for Puget Sound recovery.
adaptive management	Process of applying knowledge gained from ongoing plans and actions to future plans and actions.
<i>Biennial Science Work Plan</i>	Sets priorities for scientific work required for Puget Sound recovery.
<i>Comprehensive Plan</i>	One of two components of the Action Agenda; outlines the strategies, actions, and funding necessary for Puget Sound recovery.
cross-cutting issue	An issue that affects many aspects of Puget Sound recovery spatially or temporally. Key cross-cutting issues are tribal resources, climate change, ocean acidification, salmon recovery.

TERM	DEFINITION
cross-cutting sub-strategy	A sub-strategy that supports more than one Strategic Initiative.
Ecosystem Coordination Board	One of the Puget Sound Partnership’s four boards, provides strategic and implementation oversight for the Action Agenda.
ecosystem recovery plan	Action-based recovery plan developed by a Local Integrating Organization.
effectiveness monitoring	Review of data to determine whether recovery actions had the intended or expected results.
Guiding Principles for Ecosystem Management	Rules or frameworks for decisions in ecosystem management that set the priorities for ecosystem recovery.
human well-being	Human well-being refers to everything that allows humans to thrive. It includes familiar topics such as physical and psychological health, as well as governance, social, cultural, and economic well-being. For the purposes of Puget Sound recovery, the focus is on human well-being as it relates to human engagement with the natural environment of Puget Sound.
Implementation Plan	One of two components of the Action Agenda; identifies actions to be implemented in the 2-year timeframe.

TERM	DEFINITION
Implementation Strategy	Recovery plans for accelerating progress toward achieving the 2020 ecosystem recovery targets for the Vital Signs.
Lead Entity	Watershed-based organization that oversees implementation of watershed chapters of the Puget Sound Salmon Recovery Plan .
Leadership Council	One of the Puget Sound Partnership’s four boards, appointed by the Governor to set policy and strategy for the Partnership.
Local Integrating Organization	A consortia of local and tribal organizations that guides the planning and implementation of actions at the ecosystem scale and prioritizes local actions for investment in one of nine geographical areas around Puget Sound.
Management Conference	Directs governance for each estuary program in the National Estuary Program. The governing structure of the Puget Sound Partnership serves as the Management Conference.
Near Term Action	Trackable and measurable activity to reduce pressures and contribute to achieving the recovery targets. Identified in the Implementation Plan . Developed at the regional and local scale and begin implementation within 2 years.

TERM	DEFINITION
ongoing programs	Continuing efforts—regulatory, oversight, technical support, guidance—that provide the foundation for Puget Sound ecosystem protection and recovery and align with the Action Agenda priorities.
Open Standards	The Open Standards for the Practice of Conservation link science, policy, and performance management, and are the foundation of the adaptive management framework for the recovery efforts coordinated by the Puget Sound Partnership.
Partnership Tribal Co-Management Council	Provides opportunities for early and frequent involvement of the tribes in Puget Sound Partnership activities.
performance management	An evaluation and reporting on program effectiveness. Implementation of the Action Agenda is tracked in the Puget Sound Vital Signs , Puget Sound Recovery Atlas , Action Agenda Report Card , State of the Sound , and Open Standards for the Practice of Conservation .
pressures	Human activities that stress the ecosystem but may benefit humans. As reported in the Puget Sound Pressures Assessment , there are 41 critical ecosystem pressures (species and habitats).

TERM	DEFINITION
Puget Sound Ecosystem Monitoring Program	Program to evaluate progress toward Puget Sound recovery.
Puget Sound Partnership	State agency that coordinates actions for Puget Sound recovery.
Puget Sound Pressures Assessment	Summarizes pressures on specific endpoints in Puget Sound ecosystems and identifies ecosystem vulnerabilities.
Puget Sound Recovery Atlas	Provides online updates on project implementation and ongoing programs.
Puget Sound Salmon Recovery Council	One of the Puget Sound Partnership’s four boards, advises the Leadership Council on decisions related to salmon recovery.
Puget Sound Salmon Recovery Plan	Adopted by the National Marine Fisheries Service in 2007 to guide recovery of salmon species in Puget Sound.
Puget Sound Vital Signs	Online tool that tracks health of the 25 Vital Signs.
recovery	Encompasses the protection and restoration of essential resources and functions.
recovery goals	Six statutory goals that guide the work of the Puget Sound Partnership.
recovery targets, 2020	Quantitative targets for recovering a specific Vital Sign by 2020. Established for 16 Vital Signs.

TERM	DEFINITION
science-informed decisionmaking	Structured approach to deciding on actions and strategies for Puget Sound recovery.
Science Panel	One of the Puget Sound Partnership’s four boards; provides independent scientific advice to the Leadership Council.
State of the Sound	Summarizes recovery progress, challenges, and investment every 2 years.
Strategic Initiative	A significant problem identified to prioritize implementation and funding of Near Term Actions. The three Strategic Initiatives address stormwater, habitat, and shellfish.
Strategic Initiative Lead	Organization with technical expertise that supports development of Near Term Actions and long-term strategies in support of a Strategic Initiative. Acts as the Strategic Initiative lead agency.
Strategic Initiative Advisory Team	Committee of technical experts who advise the Strategic Initiative Lead.
Strategic Science Plan	Framework for coordinating the science required for Puget Sound recovery as outlined in the Action Agenda.
strategy	A high-level approach to address pressures on the Puget Sound ecosystem and achieve recovery targets. There are 29 strategies.

TERM	DEFINITION
sub-strategy	A specific approach to address pressures on the Puget Sound ecosystem and achieve recovery targets. There are 106 sub-strategies.
supporting organizations	Key agencies, organizations, and advisory bodies that support the work of the Puget Sound Partnership.
Vital Signs	Twenty-five signs that gauge the health and recovery of Puget Sound.
Vital Sign indicators	One or more specific and measurable metrics for each Vital Sign.