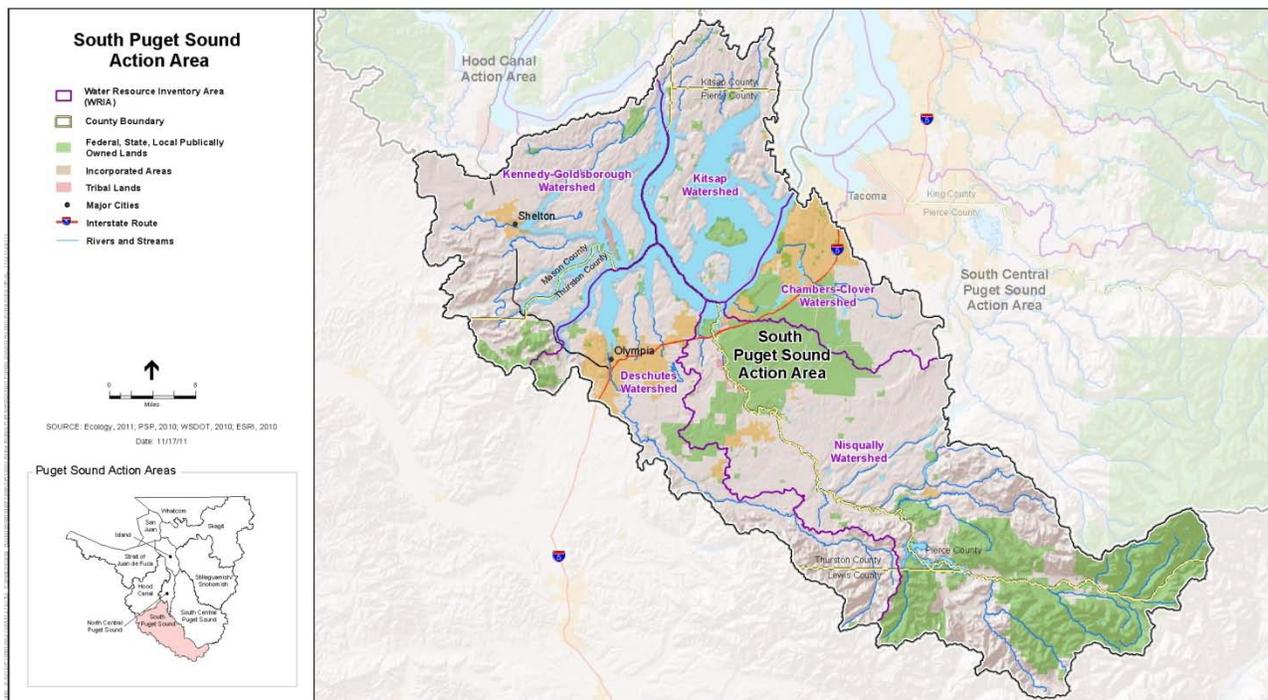


The Action Agenda in South Puget Sound

Profile³⁰

The South Sound is one of the fastest growing areas in Washington State, exceeding the State's growth rate consistently since the 1960s. By 2005 the population has doubled to about 300,000. It is estimated that the South Sound population will grow by another 150,000 people within the next 25 years. The growth rate is high because of the stable economy, high quality of life, and lower cost of living compared to the Central Puget Sound region. Approximately 75 percent of the population growth is from people moving to the South Sound – only a quarter of the growth is from births.

Much of the population is centered near the towns and cities of Shelton, Olympia, Lacey, Tumwater, Steilacoom, University Place, Lakewood, Tacoma, DuPont, the community of Allyn, and along shorelines. Land use varies from urban populations to rural and mixed use. Commercial forestry and tribal and non-tribal commercial shellfisheries dominate the natural resources industries. The capital of Washington State, Olympia, is located in the South Sound.



³⁰ Puget Sound Partnership will double check facts and figures listed in profiles during the public review period.

Unique ecosystem characteristics and assets

South Puget Sound is unique. It has nine finger inlets, each with its own headwater estuary, four large islands and over 450 miles of shoreline. Its terrain is characterized by rolling hills and ridges. There are steep bluffs bordering Puget Sound which are intersected by small, steep ravines that drain the upland areas. The terrain and soils of the area have been heavily influenced by past glacial activity.

Hydrology in the area is characterized by a number of short streams with headwaters in upland lake or wetland areas that drain into Puget Sound. The downstream reaches of these streams are usually confined within steeply sloping ravines with sidewall seeps. There are a number of estuarine bays and lagoons located along the shorelines where these streams intersect with Puget Sound. Larger river systems include the Nisqually River and the Deschutes River. Tidal ranges in South Sound are extensive, with maximum ranges of upwards of 20 feet. Yet, much of the South Sound has slow circulation and sensitivity to nutrients, causing a trend to low dissolved oxygen.

The waters of South Puget Sound provide some of the finest shellfish habitat in the world and present an array of recreational, commercial and tribal harvest opportunities. Commercial production of oysters, clams and mussels from these waters and tidelands contribute significantly to Washington's position as the nation's leading producer of farmed bivalve shellfish, generating nearly \$97 million in 2005. The South Puget Sound shellfish industry is the largest fish industry in all of Puget Sound. It also has the highest rate of economic return to ports of landing within South Sound. The commercial shellfish industry is thriving, demand is expanding in markets worldwide, and clean water is the essential catalyst for continued success. Recreational use of the shorelines for clam digging, swimming, boating, fishing, and beach combing on state, county, city and private beaches is popular.

Use of marine waters and nearshore areas by salmon and trout rates high in South Puget Sound, not only for salmonids coming from freshwater systems in the area, but also during winter and spring

Notable Accomplishments

The Lead Entities for salmon recovery in South Puget Sound and county, NGO, and private partners worked together to secure the acquisition of the Devils Head parcel on Anderson Island, resulting in permanent protection of 94 acres of shoreline, forested upland, and other important habitat.

DNR, the South Puget Sound Salmon Enhancement Group, and the Squaxin Island Tribe partnered to remove 3,150 square feet of overwater docking made of 48 creosote treated wood pilings and 84.6 tons of creosote treated wood on Squaxin Island. A 400-foot rock bulkhead along the Squaxin Island shoreline was also removed, completely restoring the shoreline to a natural condition.

The Pierce County Shellfish Partners worked to achieve a recent upgrade of more than 100 acres of historic shellfish beds in Vaughn Bay, closed to harvest due to poor water quality for more than twenty years. Thurston County and partners also worked to achieve an upgrade of 240 acres of historic shellfish beds in Henderson Inlet.

The Nisqually Tribe and a host of partners recently completed a massive restoration project that restored tidal hydrology to over 900 acres of the Nisqually River delta. This project has immediate benefits to salmon from the Nisqually watershed and many other river basins in Puget Sound.

periods where salmon from elsewhere in Puget Sound, and even British Columbia, are known to feed in the rich South Sound.

Local Action Agenda Process

The local integrating organization (LIO) in South Puget Sound is known as the Alliance for a Healthy South Sound, and has been meeting regularly for over a year. The Alliance has developed an in-depth process through which it will refine a list of key threats to ecosystem health, articulate strategies and actions supporting ecosystem recovery, and quantify the Action Area's contribution to achieving specific Sound-wide pressure reduction/ecosystem recovery targets by 2020. It is also in the process of developing both an organizational and science-based work plan, in addition to identifying major threats to ecosystem health and prioritized strategies for ecosystem recovery.

Key Threats/Pressures

The South Sound LIO is working through a process to identify which of Puget Sound Partnership's pressure reduction/ecosystem recovery targets are most applicable in the South Sound Action Area. Through this process, the LIO will objectively assess and articulate key threats to ecosystem health and recovery in South Puget Sound. The list below represents previous work by LIO members and others to capture some of the threats of potential consequence in the Action Area, but may be significantly refined based on the LIO's ongoing process to assess the relevance of Sound-wide pressure reduction targets.

- Habitat conversion from historic conditions, including loss of forest cover; reduced large woody debris and carbon inputs to stream systems; loss of storage in wetlands; reduction in habitat resilience; and degradation and loss of topsoil/duff layer.
- Land use practices and regulations in conflict with environmental goals, including lack of enforcement of regulations.
- Disruption of natural hydrologic regimes and loss of natural floodplain and wetland functions, due to land conversion to impervious surfaces; asphalted and realigned stream channels; and native vegetation removal.
- Technical and financial difficulty with retrofitting many South Puget Sound cities for stormwater water quality treatment.
- High sensitivity for pollution due to low flushing rates and long residency times in South Puget Sound marine waters.
- A combination of natural and anthropogenic characteristics affecting dissolved oxygen conditions that may lead to stress and mortality of fish and other aquatic organisms in South Puget Sound marine waters.
- Use of onsite septic systems at contemporary urban densities degrades fresh and marine water quality.
- Increase in biotoxins, pathogens, and viruses result in loss of private, recreational, commercial, and tribal shellfish harvest.
- Above average growth rates shown over the last several decades expected in South Sound counties, which will present fundamental challenges in controlling nutrient inputs to South Puget Sound.

- Aquatic and terrestrial habitat alterations significantly reducing salmon population abundance, productivity, and resilience.
- Difficulty maintaining and increasing public access to shorelines due to future population growth and development pressure.
- Amplification of many current stressors to ecosystems, infrastructure, and human communities in South Sound from the impacts of climate change.

Opportunities, Priorities and Near Term Actions

As described above, the South Sound LIO is working through a process to identify which regional pressure reduction/ecosystem recovery targets are most applicable in the South Sound Action Area. Through this process, the LIO will refine its list of key threats and develop its own local and complimentary strategies and actions. It will also articulate South Sound's contribution to achieving soundwide targets.

Prior to the formal creation of the Alliance for a Healthy South Sound, local entities developed and led a process to identify key science needs, threats to ecosystem health, and both existing and desired actions/programs needed to advance ecosystem recovery in the South Sound Action Area. The result of this work was an extensive report and inlet-by-inlet list of actions, programs, and strategies that contribute to the recovery of Puget Sound, which is included in the Reference section of this profile. Along with the process detailed above, the Alliance will likely draw heavily on this list when articulating opportunities and priorities for ecosystem recovery.

Link to Recovery Targets

As described in the "Notable Accomplishments" section above, entities within South Puget Sound are already making contributions toward achieving regional recovery targets in shellfish bed restoration, removal of shoreline armoring, stormwater and wastewater treatment, and other areas. In order to objectively assess which of the soundwide targets are most applicable in South Sound, and to quantify what its future contributions toward achieving those targets will be, the Alliance has convened a technical sub-committee and developed a process by which it will articulate these goals. The Alliance anticipates that this work will be ongoing through 2012.

Local Implementation Structure

The structure of the LIO is described in greater detail within the Implementation Coordination text box. The Executive Committee, which provides policy direction for the organization, has held five meetings since 2010. The Work Group, consisting primarily of staff from entities represented on the Executive Committee, provides topical expertise and support to the Executive Committee and has met nine times since 2010. The Council of South Puget Sound stakeholders – currently under development – will consist of a number of sub-committees that provide technical guidance to the Executive Committee. To date, participants in the Alliance have included:

- **Tribes** – Nisqually, Squaxin Island, Puyallup
- **Counties** – Kitsap, Mason, Pierce, Thurston
- **Cities** – Olympia
- **Government Entities / Agencies** – Mason Conservation District, Puget Sound Partnership, Thurston Conservation District, Washington Department of Ecology, Washington Department of Fish & Wildlife, Washington Department of Natural Resources
- **Watershed Management and Salmon Recovery Organizations** – Chambers/Clover Watershed Council, Lead Entities for WRIA 10, 11, 12, 13, 14, and 15
- **Non-Governmental Organizations** – Deschutes Estuary Restoration Team, People for Puget Sound
- **Educational Institutions** – Washington State University Cooperative Extension for Thurston County, Washington Sea Grant
- **Industry** – Taylor Shellfish Company

IMPLEMENTATION COORDINATION IN THE SOUTH SOUND

The South Sound LIO – Alliance for a Healthy South Sound – covers the South Sound Action Area. An Executive Committee guides the LIO, and is composed of elected officials from four counties (Thurston, Mason, Pierce, Kitsap) and three tribes (Nisqually, Squaxin Island, Puyallup). The organizational structure also includes a Work Group of staff from South Puget Sound Tribes, counties, cities, NGOs, and other entities in addition to a broadly representative Council that will assist the Work Group and Executive Committee with the implementation of local Action Agenda strategies and actions. The four South Puget Sound counties and three tribes have been working collaboratively since Spring 2010 to establish this local forum, identify members, and clarify objectives. Puget Sound Partnership’s Leadership Council formally recognized the LIO in September of 2011.

References and Additional Resources

Henderson Inlet Community Shellfish Farm:

<http://www.restorationfund.org/projects/csf/hendersoninlet>

Nisqually Tribe Natural Resources Department: <http://www.nisqually-nsn.gov/content/natural-resources>

Pierce County Shellfish Partners Program:

<http://www.co.pierce.wa.us/pc/services/home/environ/water/ps/shellfish.htm>

“Puget Sound Chinook Salmon Recovery Plan” (chapters including Nisqually watershed, Puyallup/White and Chambers/Clover watersheds, Deschutes watershed, Kennedy/Goldsborough watersheds, and West Sound watersheds). 2007. Available: http://www.psp.wa.gov/SR_map.php

Puyallup Tribe: <http://www.puyallup-tribe.com/>

“South Puget Sound Action Area Action Agenda Basis”. South Puget Sound Core Group, 2008. Available: www.tpchd.org/file_viewer.php?id=3517

Squaxin Island Tribe Natural Resources Department:
http://www.squaxinland.org/natural_resources/index.html