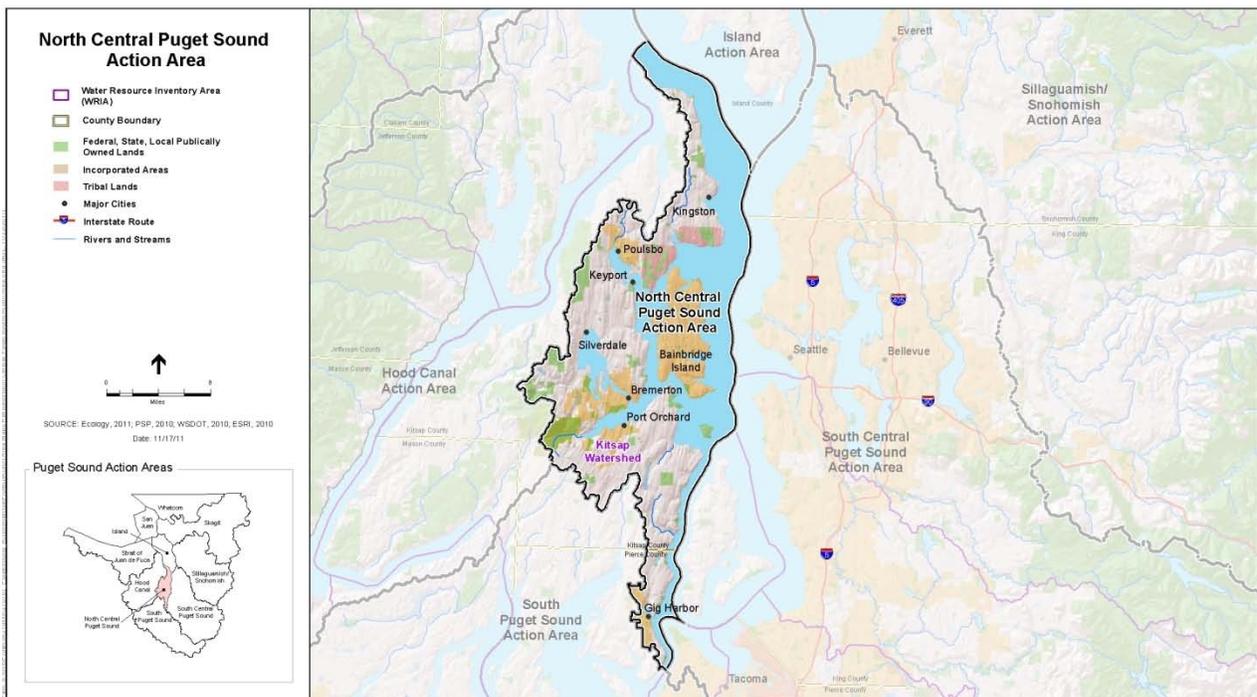


# The Action Agenda in North Central/ West Puget Sound

## Profile<sup>25</sup>

The North Central/ West Sound Action Area occupies the geographic center of the Puget Sound Basin. With over 220 miles of shoreline, and extensive bluffs, pocket estuaries, protected bays, harbors, and lagoons, the West Sound's most prominent feature is its expanse of nearshore reaches. Bluffs along the coastline provide a supply of sediment that drifts along the shore, building beaches and forming spits, lagoons, deltas, and tideflats. Bainbridge Island, approximately five miles wide by ten miles long, is one of the largest islands in Puget Sound and has 53 miles of shoreline. Agate Passage, Port Washington Narrows, and Rich Passage are characterized by high currents due to the circulation of Puget Sound tides through these narrow openings. Streams originate from lakes, groundwater discharge, or headwater wetlands that often contribute flow to multiple watersheds. These unique lowland freshwater ecosystems provide highly productive habitat for salmon and trout.

The history of the West Sound is completely connected to Puget Sound. "Old Man House", located at Suquamish on Agate Passage, was the largest Native American "longhouse" in Puget Sound. The site was occupied for over 2000 years and was the home to Chief Sealth and Chief Kitsap. The five



<sup>25</sup> Puget Sound Partnership will double check facts and figures listed in profiles during the public review period.

incorporated cities began as dock locations for the historic “Mosquito Fleet”. The Puget Sound “Mosquito Fleet” was comprised of small steamers and sternwheelers that carried passengers and cargo up and down the Sound prior to bridges and state run ferries. Businesses, homes and eventually roads, were all located close to the shorelines of Puget Sound. Gig Harbor and Poulsbo were also home to cod and salmon fishing fleets.

The West Sound’s port districts are important as centers for commerce, military installations, and as critical hubs for marine transportation. More than half of the 23 million annual passengers on the Washington State Ferry System travel between the West Sound and the greater Seattle metropolitan area. Eagle Harbor on Bainbridge Island hosts the ferry system’s maintenance and repair facility. Bridges at Agate Passage and the Tacoma Narrows link the West Sound Action Area by road to the rest of Puget Sound. Recreational vessels are moored throughout the West Sound Action Area, with over 2000 permanent and transient slips. Other recreational amenities of the region include several state and local parks used for camping, boat launching, beach walking, hiking, bird watching, swimming, picnicking and kayaking.

The United States military presence in West Sound Puget Sound began in the 1891 and since that time the region has played a pivotal role for military operations in several wars and conflicts. Naval Base Kitsap has facilities at Bremerton, Keyport and Manchester, and is the West Sound’s largest employer.

The Port Madison Indian Reservation, straddling Miller Bay between the communities of Suquamish and Indianola, is the center of the Suquamish (meaning ‘place of clear saltwater’ in Lushootseed) tribal community. Incorporated cities in the West Sound Action Area include Bainbridge Island, Port Orchard, Poulsbo, Bremerton and Gig Harbor. Bremerton is the largest city in the Action Area, with a population of almost 38,000. Incorporated cities and Urban Growth Areas make up 44% of the land base.

### **Unique ecosystem characteristics and assets**

The West Sound Action Area constitutes almost half of the nearshore habitat in the Central Basin of Puget Sound. This habitat includes dozens of embayments including open coastal inlets and functioning pocket estuaries, intact bluffed back beaches, and the only plunging rocky coastline in the Basin. The subtidal and intertidal portions of the West Sound support some of the densest and highest quality wildstock geoduck clam fishery in the world. The West Sound has 90 streams used by wild populations of chum, coho, steelhead, and cutthroat trout. The shoreline provides refuge, food and rearing area for other juvenile salmon, including Chinook and Hood Canal summer chum, as they enter the Sound from larger rivers on the eastern shore and Hood Canal. Much of the nearshore is utilized for spawning by native marine fishes including Pacific herring, surf smelt and Pacific sand lance. Commercial, recreational and tribal shellfish activity is prominent along most of West Sound’s shorelines. Hatchery

**Notable  
Accomplishments**

Carpenter Creek Estuary is currently being restored, which was a high priority in the first Action Agenda.

The Action Area is also making considerable progress on restoring Chico Creek, leveraging the partnerships and work of many to restore the watershed in phases.

The area is a leader in wastewater management, which includes pollution identification and clean up programs.

programs operated by the Suquamish Tribe at Gorst and Grovers Creek provide some salmon harvest opportunities for Tribal fishers and recreational anglers.

The historic uses of military support activities and ship building left a toxic legacy at Eagle Harbor, Keyport, Dyes Inlet, Sinclair Inlet and Manchester. The sites were contaminated by disposal of military testing materials, creosote and other chemicals, and are in varying degrees of remediation as part of the EPA superfund site clean-up process.

Many people move to the West Sound Action Area because of its rural feel, and the majority of residents choose to live outside the incorporated cities. This can result in conversion from existing rural forestland to an urban/suburban landscape, resulting in fragmented or degraded habitat. The population is expected to grow by 43% in the next 20 years, adding another 100,000 people. The increased population will require additional sewage or septic systems, and drinking water. Since the West Sound has no snow fed water supplies, key aquifer recharge areas will need protecting. An urbanizing landscape will also increase stormwater runoff which threatens water quality, patterns of streamflow, and the availability of groundwater for human use. Stormwater has also been noted as a vector for pathogens which have closed shellfish harvesting in some West Sound bays.

## Local Action Agenda Process

The West Sound Action Area is currently working to establish a Local Implementing Organization (LIO) that will leverage on-going efforts, improve communication and prioritize local actions. A representative planning group met in 2011 to work on identifying the local threats, strategies, and actions listed below and determine how to move implementation forward in the area.

## Key Threats/Pressures

For the 2011 Action Agenda update, the West Sound has identified 12 local priority issues to address pressures on the West Sound ecosystem. The local priority issues are listed below, categorized by the four pressure reduction targets.

### Land Development

- Loss of Forest Cover, Riparian Habitat and intact freshwater ecosystems
- Population Growth, New Development and Redevelopment
- Transportation Network (shoreline roads, infrastructure needs, etc.)

### Shoreline Alteration

- Protection of Existing High Quality, Highly Functioning Shoreline

### Stormwater

- Surface Water Loading and Runoff from the Built Environment / Alteration of the hydrologic regime (increased flow/flooding) Impairment/enhancement of Groundwater Infiltration and Recharge
- Impairment/enhancement of Groundwater Infiltration and Recharge

**Wastewater**

- Identification and repair of Failing Septic Systems
- Discharge from Vessels

**Other**

- Address gaps in Fisheries Management
- Climate Change and Sea Level Rise
- Loss and degradation of freshwater habitats
- Shellfish Protection and Restoration (loss of approved commercial growing area certification; loss of safe areas for shellfish harvest)

## Opportunities, Priorities and Near Term Actions

The West Sound culled a list of 80+ strategies of importance to the area down to the comprehensive list of 45 strategies included in the table below. In addition, they have identified a list of 31 draft near term actions (NTAs). The NTAs will be further refined during the 2011 Action Agenda public comment and review period. Further prioritization of both the strategies and actions will continue as the LIO becomes operational.

LOCAL PRESSURES TO ADDRESS	STRATEGIES (BOLDED ARE OF HIGHEST PRIORITY)	ACTIONS (BOLDED ARE OF HIGHEST PRIORITY)
Loss of Forest Lands and Riparian /Freshwater systems	<ul style="list-style-type: none"> <li>• <b>Develop framework for identifying and prioritizing areas for conservation; identify areas at risk and strategies to protect/prevent their development</b></li> <li>• <b>Update and correct all “water type” maps in the West Sound Action Area to improve protection of designated streams and wetlands and address fish passage issues; take actions based on recommendations as water type assessments are completed, as with recently completed 2010 assessment in North Kitsap (including Grovers, Carpenter, and Cowling creeks)</b></li> <li>• <b>Establish performance goals to ensure land cover changes create no net loss of important forested and freshwater ecosystem functions</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Identify and adopt priority conservation areas based on completed and pending Puget Sound watershed characterizations and related local assessments (East Kitsap Nearshore, salmon recovery plans, etc.)</b></li> <li>• <b>Support Kitsap Forest and Bay Project</b> - a shoreline and forest conservation project spanning from near the Carpenter Creek Estuary and including 7,000 acres of forest and 1.5 miles of shoreline on Port Gamble Bay. This spans two action areas.</li> <li>• Continue to utilize WSWC as a forum for prioritizing areas for watertyping and for identifying sources of funding.</li> <li>• Support GMA to increase focus on accommodating population in urban areas to</li> </ul>

LOCAL PRESSURES TO ADDRESS	STRATEGIES (BOLDED ARE OF HIGHEST PRIORITY)	ACTIONS (BOLDED ARE OF HIGHEST PRIORITY)
		avoid loss of rural lands and important habitat
Population Growth, New Development and Redevelopment	<ul style="list-style-type: none"> <li>• <b>Methodically monitor and report key metrics related to population growth and development for adaptive management and to minimize urban sprawl (examples include annual urban/rural growth patterns, average density for new construction, average bulk density per jurisdiction, canopy cover change in priority conservation and development areas)</b></li> <li>• <b>Within priority conservation areas address historic and potential new development patterns, legacy lots and redevelopment to ensure no net loss of ecosystem function</b></li> <li>• <b>Encourage infill development in urban areas as an alternative to expanding UGAs</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Identify conservation areas to ensure no net loss of ecological function in priority conservation areas (e.g., Alternative Futures modeling, Watershed Characterization)</b></li> <li>• Identify properties within current UGAs available for development</li> <li>• Convene cities, county, and regional planning offices to identify key metrics related to population growth (e.g. land use) that are necessary for adaptive management</li> </ul>
Transportation Network (old roads, infrastructure needs, etc.)	<ul style="list-style-type: none"> <li>• <b>Advocate for viable funding solutions for retrofitting streets for stormwater improvement and water crossing structures with inadequate fish passage.</b></li> <li>• <b>Ensure transportation planning and development is aligned with ecosystem protection to avoid new development in priority conservation areas</b></li> <li>• <b>Prioritize actions to eliminate/minimize/mitigate impacts from shoreline roads to nearshore processes and species and from road crossings over streams and estuaries. Complete design and implement PSNERP 10% design projects at Harper Estuary</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Advocate for changes in state law that would allow cities the use of enterprise funds for retrofitting streets for stormwater improvements and water crossing structures that currently disrupt ecosystem processes</b></li> <li>• <b>WSWC/LIO review and assist in transportation planning to prioritize road retrofits and new construction to address environmental impacts</b></li> </ul>
Loss of Existing High Quality, Highly Functioning Shoreline	<ul style="list-style-type: none"> <li>• <b>Prioritize and protect marine and nearshore ecosystems by improving shoreline permitting compliance monitoring and enforcement using SMPs, watershed assessments,</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Remove regulatory loopholes and provide incentives for removing armoring</b></li> <li>• <b>Identify drift cell processes - erosion, sediment</b></li> </ul>

LOCAL PRESSURES TO ADDRESS	STRATEGIES (BOLDED ARE OF HIGHEST PRIORITY)	ACTIONS (BOLDED ARE OF HIGHEST PRIORITY)
	<p>watershed and marine spatial plans and regional ecosystem protection standards</p> <ul style="list-style-type: none"> <li>• <b>Align regulatory program across cities/counties for better coordination on development, and address publicly owned shoreline (Including Corps, EPA, and Navy; GMA, SMA, Hydraulic code, etc); Improve communication, planning, and integration between County and City SMPs and Navy INRMPs so that shoreline functions are protected at the drift cell scale regardless of political or jurisdictional lines</b></li> <li>• <b>Identify priority areas where otherwise functioning drift cells and their associated processes – erosion, sediment contribution, transport and deposition – are compromised by armoring, and encourage armoring removal and erosion control alternatives that better protect and restore nearshore ecosystem processes.</b></li> <li>• Encourage shoreline restoration by developing streamlined materials and designs for property owners; keep in mind property owner’s perspective; include evaluation metrics for awareness and willingness to make a change.</li> </ul>	<p><b>contribution, transport and deposition - compromised by armoring</b></p> <ul style="list-style-type: none"> <li>• <b>Conduct critical ecosystem surveys, including a complete and periodic survey and mapping of eelgrass, and expanding and conducting periodic forage fish spawning surveys (e.g., through DNR/WDFW)</b></li> <li>• Continue and expand a regular interagency team of local-state-federal-tribe shoreline review experts to achieve conservation objectives and help align existing conservation plans</li> <li>• Encourage joint permit processing through interagency multi-level collaboration (already happens thru JARPA)</li> <li>• Cooperatively develop regional advanced mitigation options to restore shoreline ecosystem processes through coordinated review</li> <li>• Regularly conduct and report on status and trends relative to local shoreline pressure reductions</li> </ul>
<p>Surface Water Loading and Runoff from the Built Environment / Stormwater from Existing Development</p>	<ul style="list-style-type: none"> <li>• <b>Adopt and implement the most current stormwater and LID regulations and design guidance</b></li> <li>• <b>Implement new stormwater program regulations that address vesting and create incentives for developers (upland areas in particular) to conserve ecosystem function.</b></li> <li>• <b>Implement stormwater and LID Retrofit Plan projects in priority areas</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Continue to identify and implement high priority areas for regional stormwater and LID and retrofit projects</b></li> </ul>

LOCAL PRESSURES TO ADDRESS	STRATEGIES (BOLDED ARE OF HIGHEST PRIORITY)	ACTIONS (BOLDED ARE OF HIGHEST PRIORITY)
	<p><b>and continue stormwater and LID retrofit planning in other priority areas.</b></p> <ul style="list-style-type: none"> <li>• Utilize the a sound-wide education program created at the regional level about pesticides/herbicides with tools for implementation at the local level, coordinated by NPDES Phase II permittees locally.</li> <li>• Improve coordination of water quality, sediment, and stream health monitoring with a feedback mechanism to implement adaptive management of stormwater</li> <li>• Train local installers and designers of LID facilities, specifically bioretention and permeable pavement</li> <li>• Fund or cost-share high-priority LID retrofits on commercial properties.</li> <li>• Implement and share Kitsap County’s “Water as Resource” Policy.</li> </ul>	
<p>Impairment/enhancement of Groundwater Infiltration and Recharge</p>	<ul style="list-style-type: none"> <li>• <b>Rank water reuse projects by priority, cost and feasibility; Implement the top ranked water reuse projects.</b></li> <li>• <b>Fund and construct water reuse projects in the West Sound (purple pipe) that emphasize reusing water for consumptive use first (e.g., golf courses, non-potable uses), and environmental applications second (wetland enhancement, stream augmentation, aquifer recharge)</b></li> <li>• Encourage development that uses water from professional purveyors. Monitor number of exempt wells and include this information in managing groundwater resources</li> <li>• Provide financial and technical support to methodically monitor key metrics and systematically manage groundwater resources</li> <li>• Develop and implement water conservation strategies targeting users</li> </ul>	<ul style="list-style-type: none"> <li>• Work with WaterPAK to identify and prioritize water reuse projects and create a timeline for implementing top ranked projects</li> <li>• Develop a reclaimed water comprehensive plan</li> <li>• Work with water districts to identify and protect highest priority upland and headwater forests on critical aquifer recharge areas. Encourage development that retains a high percentage of forest land as dedicated open space.</li> </ul>

LOCAL PRESSURES TO ADDRESS	STRATEGIES (BOLDED ARE OF HIGHEST PRIORITY)	ACTIONS (BOLDED ARE OF HIGHEST PRIORITY)
	<p>and owners of exempt wells. Incorporate an evaluation measure</p> <ul style="list-style-type: none"> <li>• Use the USGS groundwater model to inform future land use planning and test possible strategies for groundwater infiltration and recharge.</li> </ul>	
Sewage from Failing Septic Systems	<ul style="list-style-type: none"> <li>• <b>Strengthen Cascadia or other revolving loan programs for homeowners' onsite septic system repair.</b></li> <li>• <b>Secure dedicated funding for Kitsap and Pierce Pollution Identification and Correction programs.</b></li> <li>• <b>Establish sewer systems where OSS is failing in key areas</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Strengthen/expand PIC programs in Kitsap &amp; Pierce</b></li> <li>• <b>Establish and fund a septic repair and grant program</b></li> <li>• Fund sewer infrastructure feasibility and installation of sewers in key areas of failing OSS located in areas of inherently poor soils. The two high priority areas are Ostrich Bay Creek and Phinney Bay Creek (in that order).</li> </ul>
Discharge from Vessels	<ul style="list-style-type: none"> <li>• <b>Fund and locate adequate pump-out stations for both transient and permanent on board septic tanks.</b></li> <li>• Develop West Sound strategies to deal with marine vessel live aboard communities, consistent with local SMPs and DNR policies.</li> <li>• Identify all buoys, permitted and illegal. Develop strategies to estimate cumulative impact of buoys.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Identify potential pump out stations and develop funding plan</b></li> </ul>
Address gaps in Fisheries Management	<ul style="list-style-type: none"> <li>• <b>Integrate harvest and hatchery plans into local recovery planning</b></li> <li>• Update salmon escapement estimates on an in-season basis (happens already?)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Integrate harvest and hatchery plans into local recovery planning</b></li> <li>• Understand the breadth of supplementation programs in West Sound (Expand smolt trapping for salmonids and spawning surveys, etc.)</li> <li>• Update salmon escapement estimates</li> </ul>
Climate Change and Sea Level Rise	<ul style="list-style-type: none"> <li>• Identify local public infrastructure and private structures at risk due to sea level rise; report findings to affected parties.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify local public infrastructure and major private structures at risk due to sea level rise; report findings to</li> </ul>

LOCAL PRESSURES TO ADDRESS	STRATEGIES (BOLDED ARE OF HIGHEST PRIORITY)	ACTIONS (BOLDED ARE OF HIGHEST PRIORITY)
Loss and degradation of freshwater habitats	<ul style="list-style-type: none"> <li>• <b>Develop and implement local chapter of Steelhead Recovery Plan</b></li> <li>• <b>Engage regional leaders in funding solutions for high price, high priority capital projects (e.g. SR3 Bridge at Chico)</b></li> <li>• Assist NOAA fisheries in identifying steelhead habitats with necessary features for designation as “critical” under ESA</li> <li>• Develop and implement watershed specific, detailed protection and restoration plans for priority, refugia watersheds (e.g. Chico, Curley, Blackjack)</li> </ul>	<p>affected parties.</p> <ul style="list-style-type: none"> <li>• <b>Assist with regional and local Steelhead Recovery Planning</b></li> <li>• <b>Form an appointed committee of elected officials and active citizens to develop a funding strategy for high priority capital projects</b></li> </ul>
Shellfish Protection and Restoration (loss of approved commercial growing area certification; loss of safe areas for shellfish harvest)	<ul style="list-style-type: none"> <li>• <b>Map and inventory commercially and recreationally important shoreline areas with shellfish beds</b></li> <li>• <b>Encourage local private shellfish harvest as a means of creating connections between people and shoreline health and of increasing the public’s investment in the nearshore.</b></li> <li>• <b>Identify shellfish growing areas with closed or potential to close and initiate actions that will lead to harvest</b></li> <li>• <b>Implement a pilot shoreline owner shellfish gardening program as an outreach tool for water quality and shoreline issues.</b></li> <li>• <b>Address intertidal wastewater collection systems that preclude approved certification (e.g. Ostrich and Oyster Bays)</b></li> <li>• <b>Address bacterial contamination in freshwater streams with high landscape connectivity with receiving estuaries and bay that create closure zones at their mouths (e.g. Clear, Barker Creeks, Grover’s Creek, Miller Bay)</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Identify and map shellfish growing areas with closed or potential to close and develop and implement plan that will lead to harvest.</b></li> </ul>

LOCAL PRESSURES TO ADDRESS	STRATEGIES (BOLDED ARE OF HIGHEST PRIORITY)	ACTIONS (BOLDED ARE OF HIGHEST PRIORITY)
Toxic Contaminants	<ul style="list-style-type: none"> <li>• Support efforts that address source identification, control, and cleanup.</li> <li>• Continue monitoring of toxics in biota to track progress on improving ecological health and to protect human health</li> </ul>	<ul style="list-style-type: none"> <li>• Support WDFW’s Toxics in Biota Program (a component of PSAMP)</li> </ul>

## Link to Recovery Targets

Many of the strategies and actions listed above will address and bolster Puget Sound Partnership Soundwide Recovery Targets, including on-site septics, freshwater quality, shellfish beds, shoreline armoring, swimming beaches, and wild Chinook salmon. West Sound Action Area jurisdictions participated in the development of the Soundwide Targets by attending public meetings on those subjects and providing written comments as they were being developed.

## Local Implementation Structure

A planning group assembled in March 2011, including representation from the cities of Bremerton, Poulsbo, Port Orchard and Bainbridge Island; Kitsap and Pierce Counties; the Suquamish and Port Gamble S’Klallam tribes; public utility districts; land trusts; WSU Extension; Kitsap Health District and the Kitsap Regional Coordinating Council. The Port Districts and the City of Gig Harbor were invited but unable to attend. The group met four times in 2011 and agreed to form a caucus based organization represented through four key areas: government and regulatory; restoration and protection; public health, education and outreach; and the private sector and commerce. The LIO is expected to be established and operating in 2012. In the absence of an LIO, smaller workgroups and the West Sound Watersheds Council have been engaged to help identify local strategies and actions.

---

### IMPLEMENTATION COORDINATION IN THE WEST SOUND

The Updating the Action Agenda has been administered through engaging the participants of the salmon recovery lead entity, the West Sound Watersheds Council (WSWC). (The geographic area of WSWC includes all of the West Sound Action Area and a portion of the South Sound Action Area). WSWC members are tracking the Action Agenda, with critical knowledge necessary to provide an informed update for the West Sound Action Area. Participants regularly include counties, cities, Tribes, NGOs, University staff, citizens and state agency staff. WSWC has a broad email notification list that was notified about this update process.

## References and Additional Resources

West Sounds Watershed Council. <http://www.westsoundwatersheds.org/>

Shoreline Master Plan Update: Kitsap County. <http://www.kitsapshoreline.org/>