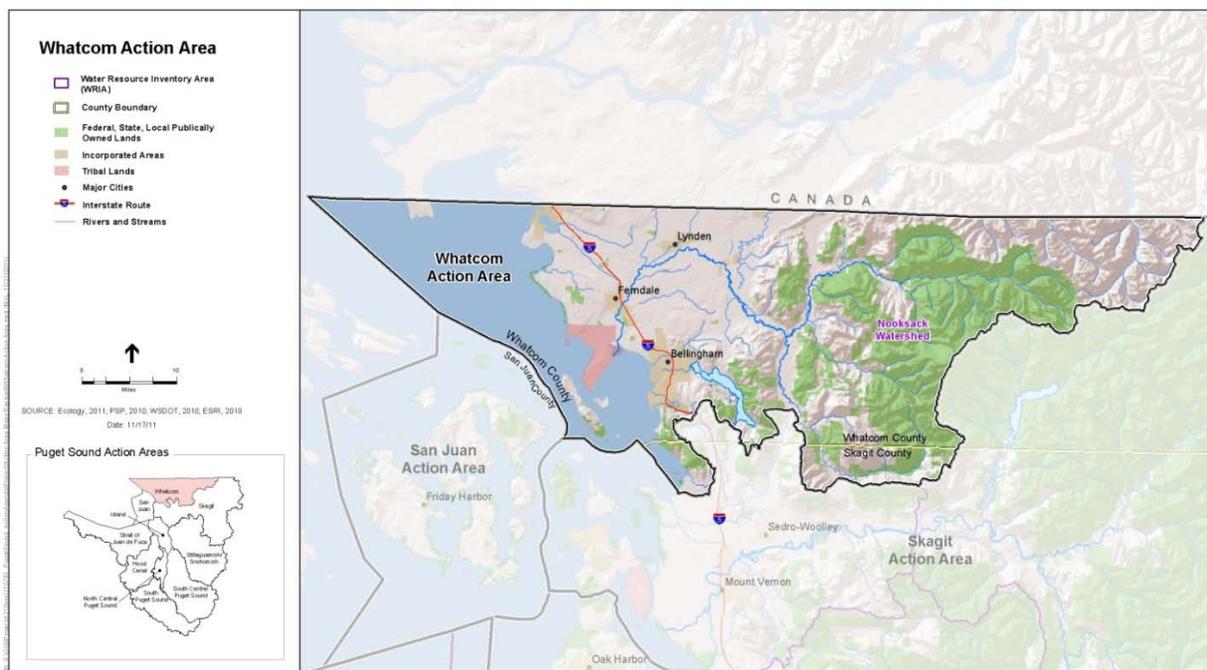


The Action Agenda in Whatcom County and WRIA 1

Profile³⁴

Anchoring the northeast corner of Puget Sound is the Nooksack Watershed (WRIA 1) in Whatcom County and a part of Skagit County. WRIA 1 is located at the northwest corner of Washington State and covers 1,410 square miles. Elevation ranges from sea level to the top of Mount Baker at 10,700 feet. Approximately 21 square miles of WRIA 1 are in Skagit County and 147 square miles in British Columbia. The Nooksack's headwaters lie within the National Park and National Forest Boundaries with Mount Baker towering above the area at 10,778 feet and Mount Shuksan jutting out from the North Cascades National Park. Mount Baker is an active volcano and one of the snowiest places on earth. In 1999 the Mount Baker Ski Area set a world record with 95 feet of snow in a single season. The many glaciers of Mount Baker have expanded and contracted in the past century, but have generally been in rapid retreat since the 1980s. Glacial snowmelt feeds two branches of the Nooksack River, the namesake of the watershed and the largest river in the area, and direct runoff and groundwater feed other tributaries.



³⁴ Puget Sound Partnership will double check facts and figures listed in profiles during the public review period.

The Nooksack River has three main forks – the North Fork, Middle Fork, and South Fork. Other major river systems in WRIA 1 include the Lummi River, independent coastal streams, and tributaries to the Fraser River in Canada. Portions of the Nooksack River originate in British Columbia. There are more than 3,000 total miles of freshwater courses, including streams, rivers, lakes, ponds and wetlands, as well as 155 miles of marine shoreline in Whatcom County.

The Whatcom County portion of WRIA 1 is home to over 200,000 residences, half who live in the City of Bellingham. Whatcom County is located between two major metro areas, Vancouver, BC supporting over two million people 30 miles north of the County and King/Snohomish Counties also supporting over two million people living 60 – 100 miles south of the County.

Approximately 85,300 acres of 11 percent of Whatcom County land is designated for agricultural use, supporting robust dairy, berry, and seed potato production. Whatcom County's dairy industry ranks second out of 34 dairy-producing counties in the State and is in the top five percent of dairy production nationwide. Half of the 103,000 milk cows in Puget Sound are in Whatcom County. The County also produces more than 65 percent of the nation's raspberries, with an estimated value of \$65 million in 2011. Other major crops include strawberries, blueberries, greenhouse/nursery items, poultry, eggs, and seed potatoes. Approximately nine percent of Whatcom County's land use is agriculture, while 82 percent of the land is considered forest and rural. Cities and urban growth areas account for seven percent of the land use. Other land uses consist of mining, industrial, and commercial development. Two refineries, an aluminum smelter, Western Washington University, the Port of Bellingham, and traditional commercial forestry and fishing also contribute to the region's economy. The former pulp mill site in Bellingham Bay is in the process of evolving from a heavy industrial site to a mixed use waterfront with parks, businesses, and public moorage that will be linked to downtown Bellingham, while portions of the Whatcom Waterway are reserved for deepwater commercial use.

The reservation lands of the Nooksack Tribe are located primarily along and in the vicinity of the Nooksack River and its tributaries. The Lummi Indian Nation lands include the Lummi and Sandy Point peninsulas, Portage Island, and associated tidelands. Both tribes exercise treaty rights to fish, hunt, and gather throughout the Nooksack watershed area. Shellfish harvest is an important activity for local tribes and a major commercial industry for the region. Recreational shellfish harvest is an active pursuit by area residents at Semiahmoo Spit, Birch Bay, and Chuckanut Bay.



The relatively shallow depths of Birch Bay result in warm water temperatures and increased recreational activities in the summer. Of all the State Parks, it was the most visited for recreational shellfish harvesting in 2009. Lake Whatcom, is another popular recreational and residential area, is also the drinking water reservoir for Bellingham and parts of Whatcom County. Winter recreation enthusiasts rely on the proximity to the Mount Baker Ski Area for easy access to snow sports. The residents of, and visitors to, Whatcom County, university students, tribal citizens, and pioneer descendents place a high value on the diverse environment and economy of Whatcom County. There is active participation in marine resource committees, watershed councils, and education and restoration programs related to the continued health of the ecosystem.

Unique Ecosystem Characteristics and Assets

Mount Baker has been a landmark since humans first began to navigate and explore this corner of Puget Sound, and the abundant snowfields provide water and electricity for communities in Puget Sound. In addition to the striking natural beauty of Whatcom County, the region supports habitat types from alpine headwaters to tidal bays, along with farming, fishing, and forestry operations. This area sustains every native Pacific salmonid species, and includes unusual types such as riverine sockeye salmon and even-year pink. The Chinook populations in the North/Middle and South Forks of the Nooksack River have distinct genetic and timing traits that are considered to be crucial in retaining the diversity and viability of threatened Puget Sound Chinook salmon overall. All of the salmon species depend on the nearshore habitats for food and shelter as they adjust between freshwater and saltwater.

The marine shorelines of Whatcom County produce surf smelt, sand lance, and anchovy, along with other fish and shellfish species. Birch Bay has recreational clam digging, Drayton Harbor and Portage Bay has commercial growing areas, while Alden Bank offers shallow offshore habitat for isolated populations of geoduck, sea urchins, and clams. Cherry Point was historically the most highly productive area for herring in Puget Sound, producing an estimated 32 percent of all the known herring spawning in the Sound, prior to a precipitous decline of 94 percent from 1973 to 2000.

Natural features and human activities have made Whatcom County an important area for migratory waterfowl, raptors, and other birds. The nearshore areas have abundant food sources for marine birds; and the floodplains, wetlands, and agricultural fields provide forage areas. Birch Bay is designated as a, "Shoreline of Statewide Significance," the only marine shoreline in Whatcom County with this designation. Greater Bellingham Bay, including Chuckanut and Portage bays, Drayton Harbor, Semiahmoo Spit, and Birch Bay are stopovers for the migratory birds' flight path between the Fraser River estuary and Skagit Bay.

Local Action Agenda Process

The Consolidated WRIA 1 Policy Boards have started to work on updating the Action Agenda through efforts of the staff teams and the management team. The WRIA 1 LIO currently has over 28 draft strategies under consideration for the 2011 Action Agenda update. Further vetting and prioritization of the strategies, along with identification and prioritization of near-term actions, will be the focus of the newly formed LIO in 2012.

Key Threats/Pressures

At this time, the WRIA 1 LIO has started to work on identifying key pressures. The following table provides an initial perspective on the pressures, focusing primarily on those pressures associated with Chinook Recovery, Flood/Fish integration, stream flows, stream temperature, and instream/riparian habitat.

Key Pressures	Watershed Characteristics/Processes Affected by Key Pressures										Notes
	Water Quality		Water Flow			Habitat					
	Surface	Ground	Storage (capacity; connectivity)	Discharge (velocity; volume)	Instream (flow level; pools)	Nearshore	Estuary	Upland	Riparian	Instream	
Timber Production	Turbidity; SS; Temp			x					x	x	
Recreational Activities	FC; other							x	x	x	Seasonal impact to instream habitat from tubers in SF; recreational vehicle use in areas
Dams			x	x						x	Middle Fork diversion dam
Freshwater Levees/Floodgates	Temp		x	x						x	
Freshwater Shoreline Infrastructure	Temp; SS; Turbidity		x	x	x				x	x	Bank armoring
Water Withdrawals/Diversions			x		x					x	WAC flows not met in summer.
Residential and Commercial Development; Runoff from Built Environment (Unmanaged Runoff)	Turbidity; SS; Temp; FC; Nutrients; Pesticides	FC, Nutrients, (domestic wells)	x	x	x			x	x	x	Between 2005 and 2009, 315 single family residential permits issued with the majority in the North Fork Watershed.
Agriculture, Livestock Grazing; Agricultural Runoff	Turbidity; SS; Temp; FC; Nutrients; Pesticides	FC, Nutrients, Other (domestic wells)	x	x	x				x	x	Pressure applies primarily to South Fork Watershed where approximately 3% of area is designated agricultural lands (other Forks are <1%)

In the table below, the pressures are organized by the Puget Sound Partnership categories and explanations. The “key” pressures are not inclusive of all pressures in the watersheds. The intent of the table is to identify the pressures most directly associated with the “key threats and pressures” in the watersheds.

Opportunities, Priorities and Near Term Actions

A significant amount of work is underway across WRIA 1 to advance habitat protection, habitat restoration, and reduction of pollution. Below is a draft set of strategies and near term actions that represents the LIO’s input to the Action Agenda at this time. The working list of draft strategies and near term actions reflect the best thinking of the LIO to-date and will be further refined and vetted as the organization continues to hold discussions and conversation relating to sequencing and prioritizing strategies. Not all strategies listed show actions underway or planned; the Whatcom LIO will continue to work on refining their strategies, actions and relative priorities in the coming year.

The WRIA 1’s working document that crosswalks the draft strategies with the August 16, 2011 draft Action Agenda strategies is available online at:

http://www.mypugetsound.net/index.php?option=com_docman&task=cat_view&gid=321&Itemid=238

Link to Recovery Targets

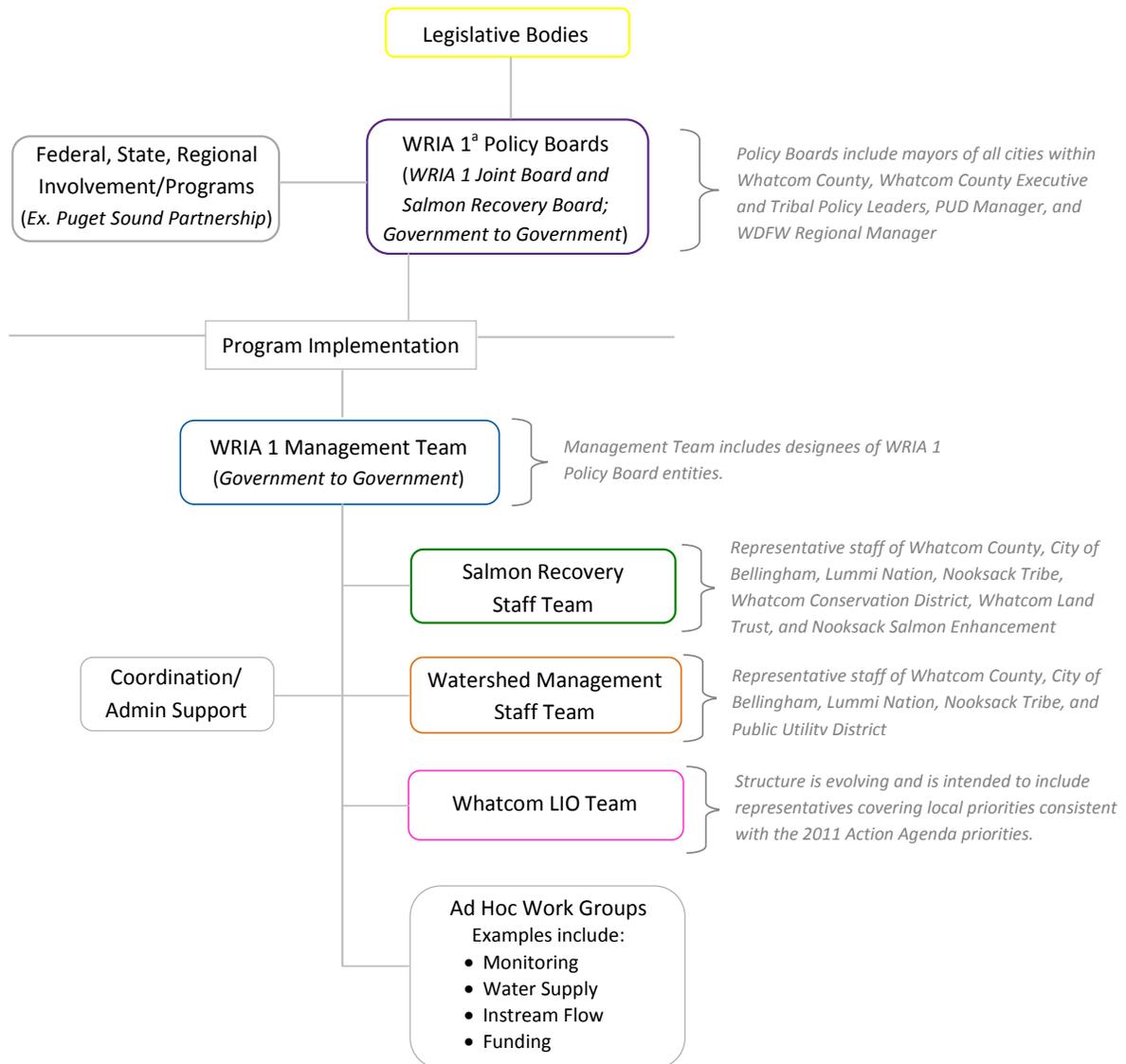
The Nooksack Watershed is critically important to accomplish the regional recovery targets. There are many activities in WRIA 1 that will contribute to regional recovery targets and further identification of these activities will be a focus of the Whatcom LIO in 2012.³⁵

Local Implementation Structure

The Consolidated WRIA 1 Policy Boards is the local integrating organization (LIO) for the Nooksack Watershed and Whatcom County geography, and was officially recognized by the Puget Sound Partnership's Leadership Council in November of 2010. The consolidated WRIA 1 Policy Boards consist of the WRIA 1 Joint Board (Watershed Management) and WRIA 1 Salmon Recovery Board, which meet together but retain individual decision-making structures. Within this structure, there is a management team that supports the Boards, and staff teams that support the management team. Further work is underway to flesh out the role and activities of the Consolidated WRIA 1 Joint Board as the LIO. In terms of structure, the below diagram depicts how the local integrating organization (LIO) is currently structured and where additional work is being focused.

³⁵ See WRIA 1's working document that crosswalks the draft strategies with the August 16, 2011 draft Action Agenda strategies available online at http://www.mypugetsound.net/index.php?option=com_docman&task=cat_view&gid=321&Itemid=238

Whatcom Local Integrating Organization Structure



^aWater Resource Inventory Area (WRIA) 1 refers the geographic scope for the governance structure.

References and Additional Resources

To be listed