The *SALISH SEA (& Surrounding Basin)*

The *SALISH SEA* extends from the north end of the *Strait of Georgia* and *Desolation Sound* to the south end of the *Puget Sound* and west to the mouth of the *Strait of Juan de Fuca* including the inland marine waters of southern British Columbia, Canada and northern Washington, USA. These separately named bodies of water form a single estuarine ecosystem. Formally adopted by British Columbia and Washington State in 2009, *'The Salish Sea'* as a name for these waters has been embraced by citizens on both sides of the border for years including the Coast Salish Gathering (the alliance of Coast Salish Tribal and First Nation leaders).

The *Salish Sea* is connected to the *Pacific Ocean* primarily via the *Strait of Juan de Fuca* (with relatively slight tidal influence from the north around *Vancouver Island* and through *Johnstone Strait*) and is contained by *Vancouver Island* and the *Olympic Peninsula*. In addition to the *Gulf* and *San Juan Islands* the watershed contains the lower *Fraser River Delta* and the *Puget Lowlands* as well as the *Hood Canal*, the *Tacoma Narrows* and *Deception Pass*.

Over 7 million people live within the drainage basin of the *Salish Sea*[1] (sometimes referred to as the *Georgia Basin - Puget Sound* watershed), including the cities of Vancouver, Seattle, Victoria, Olympia, Nanaimo, Bellingham, Everett, Port Angeles, Port Townsend and Tacoma.

Salish Sea Details:

The surface area of the *Salish Sea* (saltwater) is approximately 18,000 sq. km. (or about 7,000 sq miles).[2] Within the *Salish Sea* there are hundreds of islands (or even thousands, depending upon one's definition of an 'island').

	Approximate Maximum **Water Depths**[3] [4]	Approximate **Saltwater Surface Area**	Saltwater Surface Area **% of Salish Sea**
Strait of Georgia (inc. N. Gulf Islands)	410 m.	6,400 sq. km.	36 %
Strait of Juan de Fuca	250 m.	4,400 sq. km.	24 %
Desolation Sound	600 m.	1,100 sq. km.	6 %
Puget Sound	280 m.	2,500 sq. km.	14 %
Other BC	660 m. (*Jervis Inlet*)	2,000 sq. km.	11 %
(*Discovery Passage, Jervis Inlet, Howe Sound, S. Gulf Islands*)			
Other WA	300 m. (*Haro Strait*)	1,600 sq. km.	9 %
(*Haro Strait, Rosario Strait, San Juan Islands, Bellingham Bay, Padilla Bay*)			

The surrounding *Salish Sea* drainage basin (not counting the upper *Fraser River* watershed) includes approximately 110,000 sq km (or about 42,000 sq miles). In addition to the human population, the ecosystem is home to over 200 different species of fish, over 100 different species of bird, 20 different species of marine mammal and over 3,000 different species of invertebrates.[5] [6]

Name Details:

The name *Salish Sea* is not a historical term for the inland waters of British Columbia and Washington State. It was proposed by marine biologist Bert Webber in 1988. Dr. Webber recognized the need for a single geographic term that encompassed the entire ecosystem, spanning across the international border. Having a name to identify the entire area calls attention to the trans-border commonality of water, air, wildlife and history. Rather than being a replacement for any of the existing names, the designation *Salish Sea* is an overlay which includes and unites the established and familiar names of the various water and land bodies (the S*trait of Georgia, Strait of Juan de Fuca, Puget Sound, Gulf Islands, San Juan Islands,* etc.). The name also pays tribute to the Coast Salish peoples who have inhabited the area since long before Euro-American explorers first arrived. In 2009 the governments of both British Columbia and Washington officially adopted the name *Salish Sea*.[7]

Map Details:

The *Salish Sea* map was produced using a Geographic Information System (GIS) and publically available spatial datasets for elevation, bathymetry and hydrology. Variations of color on the map are based on elevation (not actual land cover). Colors were chosen to mimic the 'feel' of the Pacific coast landscape (lighter greens for the lowlands, white for the mountain peaks). In addition a *'hillshade'* effect has been created casting a virtual 'shadow' across the landscape to better depict the topography as if one is seeing a 3-dimensional shaded relief model. Similar color gradations are applied to the bathymetric data, again with a shadow effect applied as a *'floorshade'* (i.e. a 'hill'-shade for the ocean floor).

The *Salish Sea* basin boundary was derived from the elevation data following the peaks and ridges. Areas outside the surrounding basin have been shaded by a semi-transparent overlay to highlight the geographic area draining into the *Salish Sea*. Note that the entire upper *Fraser River* watershed is technically a part of the *Salish Sea* drainage area. For this map, the *Salish Sea* basin has been defined as just that area draining directly to the ocean, including only the lower *Fraser River* watershed.

It is unusual for a map of this type to not include the cities, roads and borders that have been created by humans. Instead, this map focuses on the *Salish Sea* and its surrounding watershed, defined not by political jurisdictions but by the geography of the water and land itself. As such, the text labels on the main map are likewise used only for the natural features defining the *Salish Sea*.

[1] GIS calculations derived from US Census Bureau data and Canadian Census statistics (http://www.censusfinder.com/ & http://www.metrovancouver.org/about/publications/Publications/KeyFacts-MetroVancouverPopulationEstimates1996-2007.pdf & http://www.vancouverisland.com/information/).

[2] GIS calculations derived from SRTM elevation data.

[3] *Water Properties in the Straits of Georgia and Juan de Fuca*, Emilie Davenne and Diane Masson, Institute of Ocean Sciences, Sidney, BC, Canada, 2001 (http://www.pac.dfo-mpo.gc.ca/sci/osap/projects/straitofgeorgia/JdFG_e.pdf).

[4] *The Puget Sound Model Summary*, John H. Lincoln, University of Washington, Department of Oceanography, Seattle, Wa.

[5] *Species of Concern within the Georgia Basin Puget Sound Marine Ecosystem: Changes from 2002 to 2006*, Nicholas A. Brown and Joseph K. Gaydos, The SeaDoc Society, 2007 (http://www.vetmed.ucdavis.edu/whc/seadoc/pdfs/brown-gaydos07.pdf).

[6] *Puget Sound Georgia Basin Ecosystem*, US EPA website, 2009 (http://www.epa.gov/region10/psgb/).

[7] *The Washington State Board of Geographic Names* (http://www.dnr.wa.gov/AboutDNR/BoardsCouncils/WBGN/) and the *Province of British Columbia Geographialc Names Office*.

[8] *2008, Hole-filled SRTM for the globe Version 4*, Jarvis, A., H.I. Reuter, A. Nelson, E. Guevara, (available from the CGIAR-CSI SRTM 90m Database: http://srtm.csi.cgiar.org).