SHSTMP_PS_Marine_Over_Water_Structures_2018.shp

NOAA Fisheries developed this layer as part of the Salmon Habitat Status and Trend Monitoring Program (SHSTMP) in order to evaluate the status of over water structures by count, area, and other features in the nearshore of Puget Sound. This layer was modified from a DNR marine overwater structure layer created with imagery from 2002-2006 (WDNR 2007). We made several updates to the DNR layer and created a new protocol to reduce variability and provide a comprehensive baseline layer for Puget Sound.

We define marine overwater structures as human-built structures that shade out inter-tidal zones in the nearshore up to 200 meters inland of the shoreline or visible high-water mark. Structures were digitized at a 1:1000 scale, using less than 0.5-meter resolution true-color Google satellite and aerial imagery and supplemented with oblique shoreline photos provided by Washington State Department of Ecology's Coastal Atlas Program. (https://fortress.wa.gov/ecy/coastalatlas/tools/Map.aspx). The data were collected and QA/QC'd from December 14, 2015 to September 26, 2018.

In some cases there were multiple entries made under one structure id. This was done if significant differences were observed between years or differences in protocol between the DNR and NOAA fisheries layer occurred.

Field Name	Description	Units
OWS_ID	Unique structure identifier	
Area_M	Area of structure	meters
Perimeter	Perimeter of structure	meters
Structure	Structure type: Aquaculture Boat Rail Bridge Buoy/Float Dock/Pier Log Boom	
Decking	Cover of the structure is either: Complete, Partial, or None	
Building	Presence of a building on the structure: Yes or No	
Boat	Presence of a boat: Yes or No	
Complexity	Additional detail about the structure: Boat Rail Boat Ramp Bridge Building Buoy/Float	

	Culvert Dam Dock/Pier Fill Largedock (> 560m^2) Log Boom Marina Net Pen Pier Pillings Shellfish Smalldock (< 560m^2) Staircase Unknown	
Observer	Cartographer's last name	
Img_Source	Source of the aerial imagery used to digitize the structure	
County	WA state county	
GNIS_WB_NM	Geographic Names Information Water Body Name - USGS classification system	
Digitized	Date the structure was digitized	
Img_Year	Year of the image used to digitize structure	
D_LC	Percent of developed land cover of adjacent shoreline segment	
F_LC	Percent of forest land cover of adjacent shoreline segment	
Ag_LC	Percent of agriculture land cover of adjacent shoreline segment	
LCC	Dominant land cover class developed using C-CAP 2010 data (NOAA, 2014), aggregated into classes using methods in Beechie et al. 2017: Ag - agriculture D - developed F - forest/wetland M - mixed	

MarinBasin	Marine Basins of Puget Sound (NMFS 2007 and 2011, Rice et al. 2011): Striat of Juan de Fuca Hood Canal North Puget Sound Whidbey Basin South Central Puget Sound	
MBarea_km	Area of Marine Basin	kilometers
2002_2006	Column representing the presence (1) or absence (0) of a structure during the survey period which used imagery between the years of 2003-2006	
2013_2016	Column representing the presence (1) or absence (0) of a structure during the survey period which used imagery between the years of 2013-2016	

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