SHSTMP_PS_Delta_Habitat_Features_2011.shp data dictionary

This layer was developed by NOAA Fisheries to delineate distributaries, tidal channels, tidal channel complexes, and tidal mud flats of major deltas within the Puget Sound region to be used as part of the salmon and steelhead habitat monitoring effort by the Salmon Habitat Status and Trend Monitoring Program. Habitat features were digitized at 1:750–1:1000 scale using 0.3-meter resolution true-color 2010–2011 Microsoft Global Ortho project and 2012 King County aerial imagery.

A channel was identified as a distributary when its bankfull width was greater than 2-3 meters, there was a clear upstream connection to the main channel or other distributaries, and the channel was part of or all of a continuous flow path from the river to the delta mouth. Distributaries were designated as primary where channel conveyed the greatest amount of river flow downstream, as determined by the size of the channels at the bifurcations. We digitized the perimeter of all distributaries along the bankfull edge.

The channel was identified as a tidal channel when there was no clear connection at the upstream end. Tidal channels were designated as large where bankfull width was at least 2-3 meters and small where bankfull width was less than 2-3 meters. We digitized the perimeter of all large tidal channels along the vegetated channel edge or the artificial bank edge (along docks, seawalls, etc.) where connections between distributaries, tidal channels, or the geomorphic delta boundary were evident from the aerial image. For small tidal channels, we digitized polylines along the flow path and then buffered the polylines by 1 meter to create a polygon feature.

Where mostly vegetated marsh and scrub shrub environments prevent accurate delineation of tidal channels, we digitized polygons around tidal channel complexes. Polygons were digitized to include both the vegetated islands and the tidal channel network. Tidal complexes were also digitized in areas of maturing restoration projects, where vegetation has become mostly established but channels have not yet fully formed.

The tidal flat perimeter was digitized within the delta polygons, where complex channel networks occurred within largely unvegetated, tidally flooded areas. We restricted the delineation of tidal flats to the seaward extent of vegetated marsh and excluded mud flat habitat that occurred at the delta terminus. Interior delta areas within restoration project extents were also digitized as tidal flats where tidal connectivity was restored, but channel formation and vegetation establishment have not progressed enough to develop clearly defined channel networks between vegetated substrates.

Where it was evident that a habitat feature was created as part of a restoration project, it was designated as such. Similarly, where it was evident that a habitat feature was constructed or heavily modified (often with piers or docks), it was designated as modified.

Field Name	Description	Units
Delta	Delta name: DES – Deschutes DOS – Dosewallips DUC – Duckabush DUN – Dungeness DUW – Duwamish ELW – Elwha HAM – Hamma Hamma NKS – Nooksack NSQ – Nisqually PUY – Puyallup QUL – Big Quilcene SAM – Sammamish SKG – Skagit SKO – Skokomish SNO - Snohomish STL – Stillaguamish SWI – Swinomish UNI – Union	
FeatType	Feature type: Distributary, Tidal Channel, Tidal Complex, Tidal Flat	
SizType	Channel size designation. Distributaries: Primary, Secondary	
HabType	Feature modification designation: Modified, Natural, Restoration.	
ImageYr	Aerial or satellite imagery collection year	
Vintage	Year range of the aerial and satellite imagery used	
ProjID	Restoration Project ID identifier, taken from restoration project footprints layer	
ChinMPG	Puget Sound Chinook salmon major population groups (NMFS, 2007): Central/South Basin Hood Canal Strait of Georgia Strait of Juan de Fuca Whidbey Basin	
StlhdMPG	Puget Sound steelhead salmon major population groups (NMFS, 2011): Northern Cascades Olympic South-Central Cascades	
AreaHA	Polygon area	hectare
LengthKM	Channel length, calculated using Perimeter/2	kilometer
PerimKM	Perimeter length	kilometer

References

NMFS (National Marine Fisheries Service). 2007. Puget Sound Salmon Recovery Plan, volume 1. Shared Strategy for Puget Sound, Seattle.

NMFS (National Marine Fisheries Service). 2011. 5-Year Review: Summary & Evaluation of Puget Sound Chinook, Hood Canal Summer Chum, Puget Sound Steelhead. NMFS Northwest Region, Portland, Oregon.