

Fish and Floods – where trackhoes hit the mud in the Stillaguamish estuary

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The Nature
Conservancy. 
Protecting nature. Preserving life.

Puget Sound



The Puget Sound, Washington State



AREA
ENLARGED

Iconic wildlife



Natural Abundance



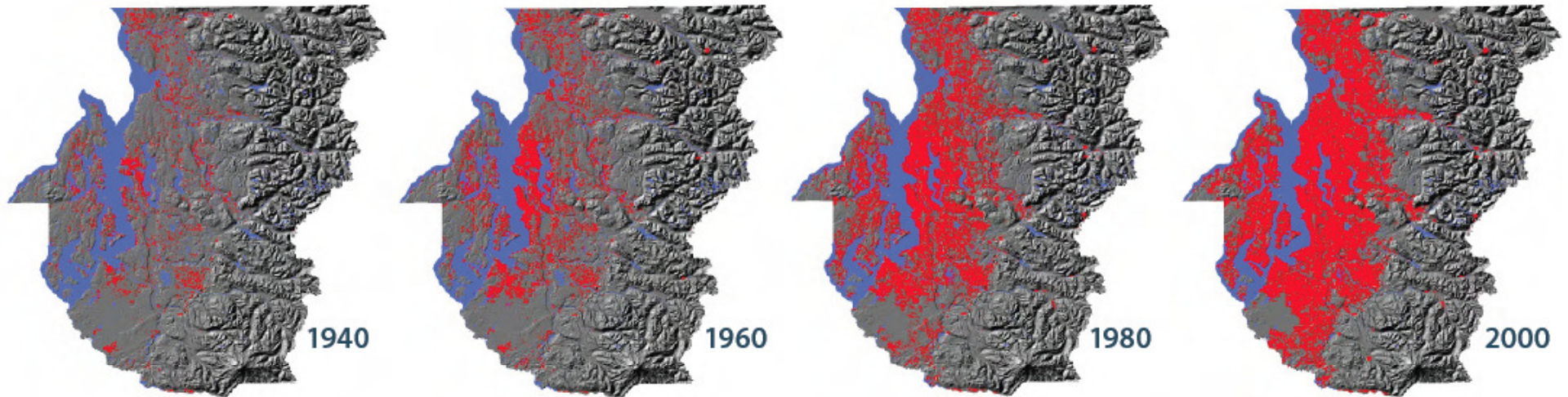
Threatened



© Tim Knight

Human Population in the Puget Sound Region

Growth of the Region's Urban Footprint



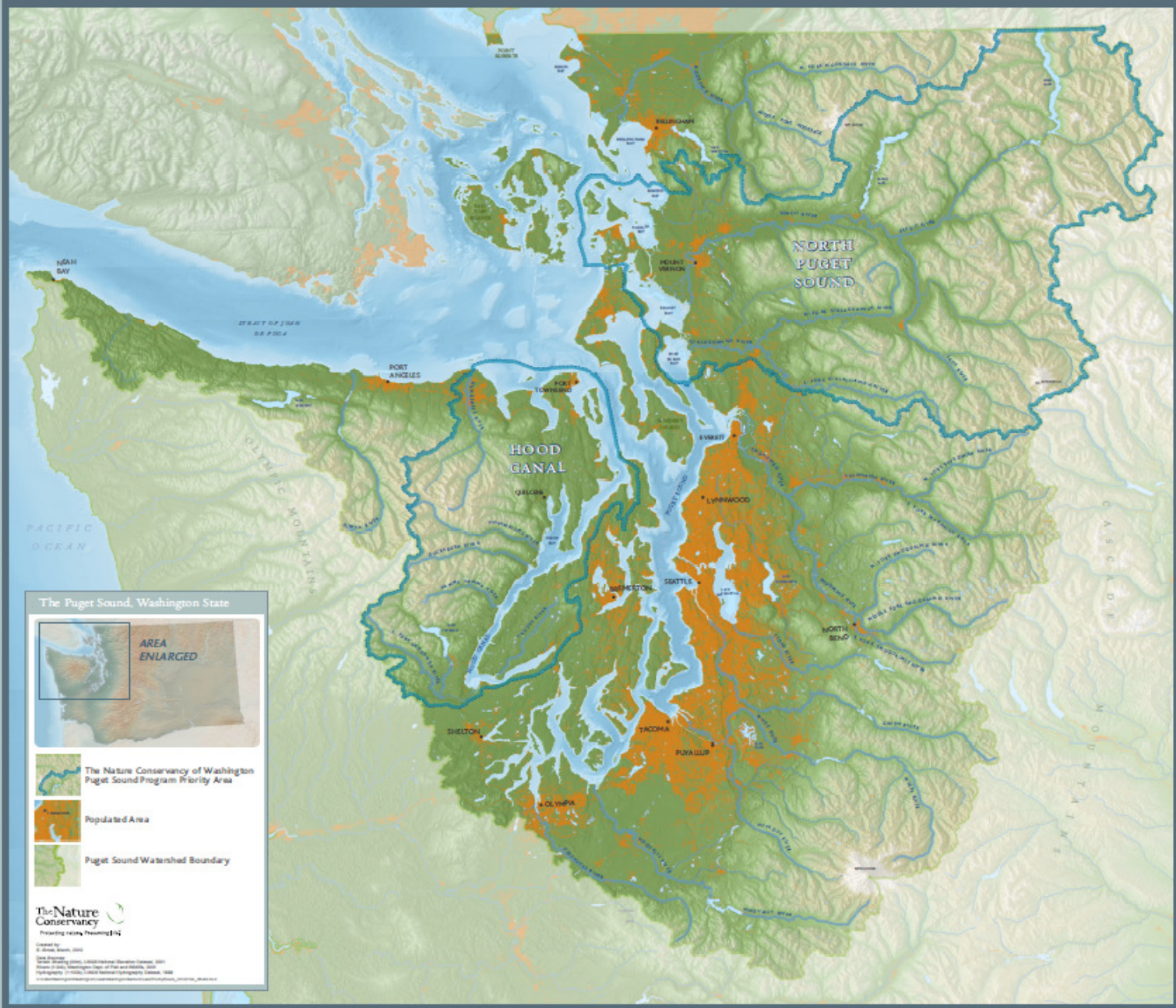
Source: Urban Ecology Research Lab, University of Washington. Note: Footprint is depicted by parcel boundaries containing development.

1940 - 1 million

2010 - 4.4 million

The Puget Sound

We are protecting the waters where Washington lives by conserving critical shores, bays and rivers through local partnerships.





Puget Sound Estuaries

- 83% of Estuarine wetlands lost across the Sound.
- Goal of 15% of degraded estuarine wetlands restored by 2020

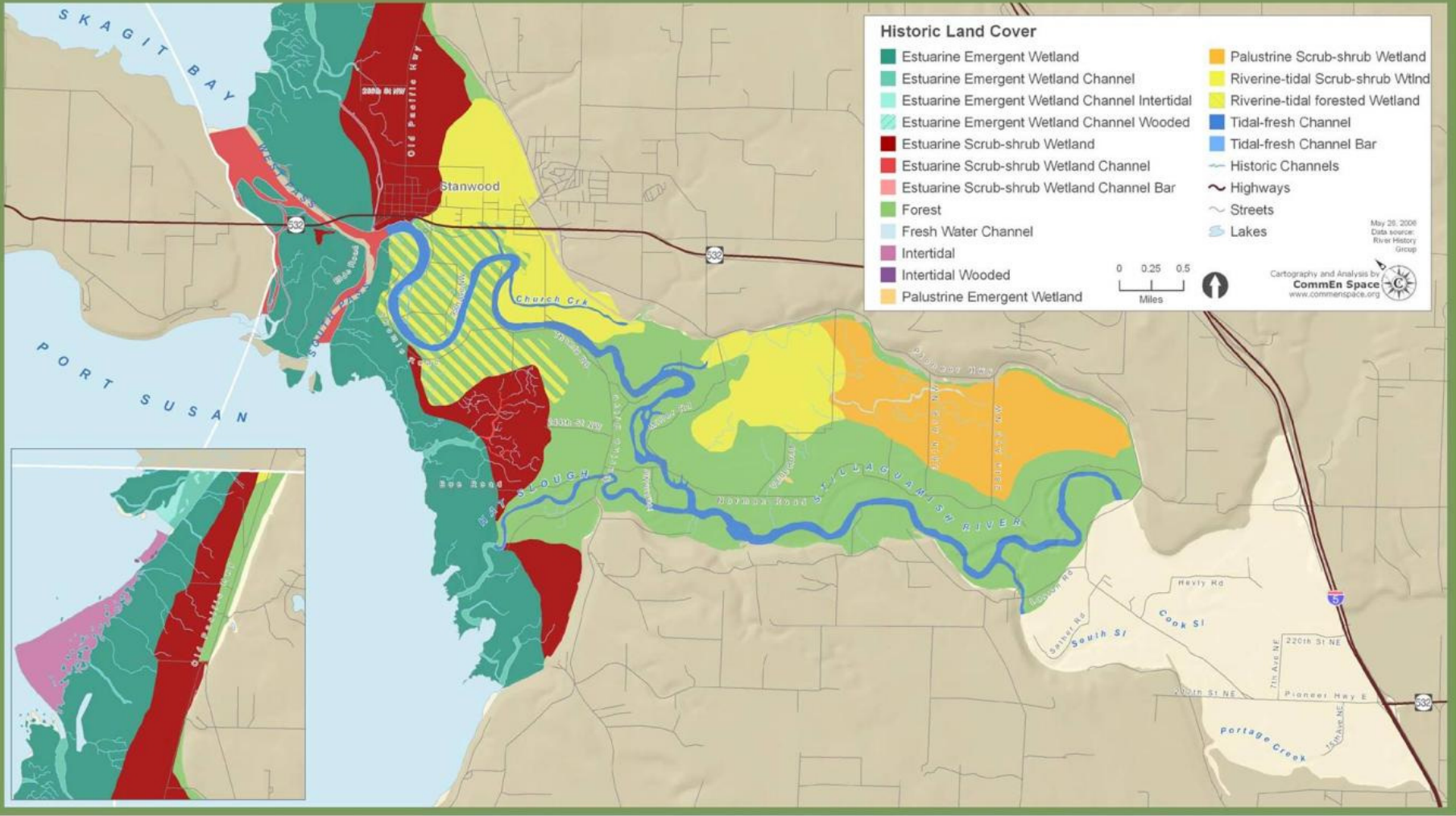
Heritage





Historic Land Cover and Channel Locations

Stillaguamish River Estuary Prioritization



Current Land Use



North Stanwood

Stanwood

532

Stillaguamish River

Silvana

Florence Island (historical)

Port Susan Bay

Warm Beach

Date: 4/30/2009

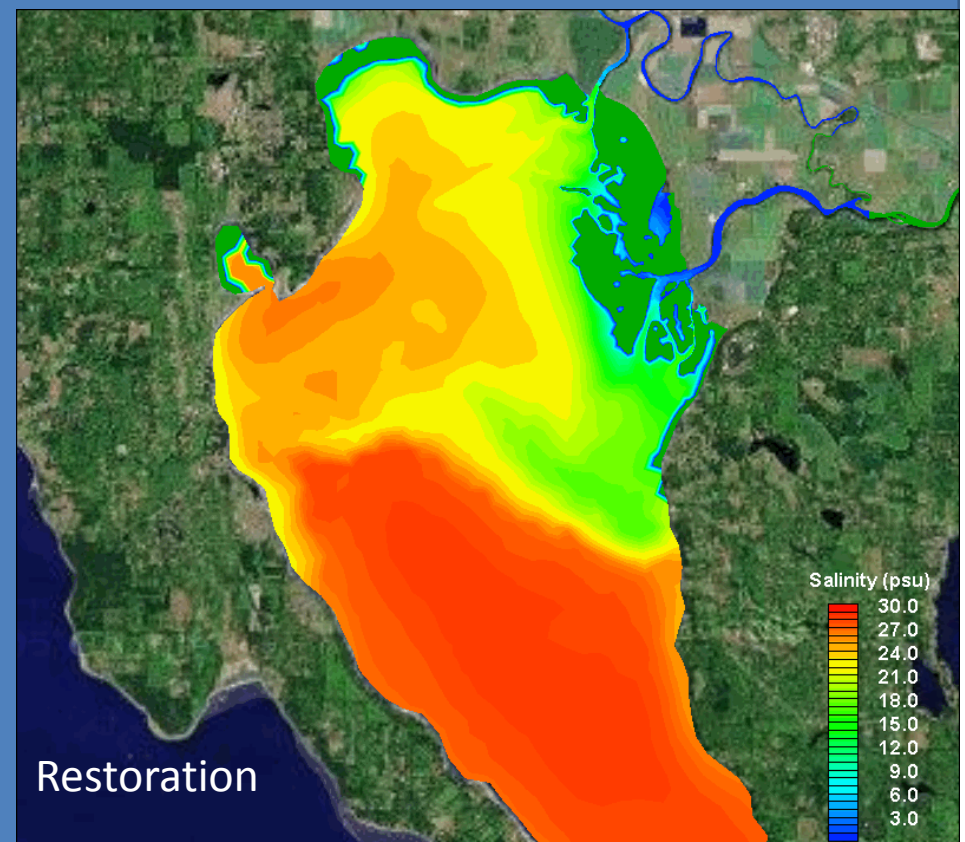
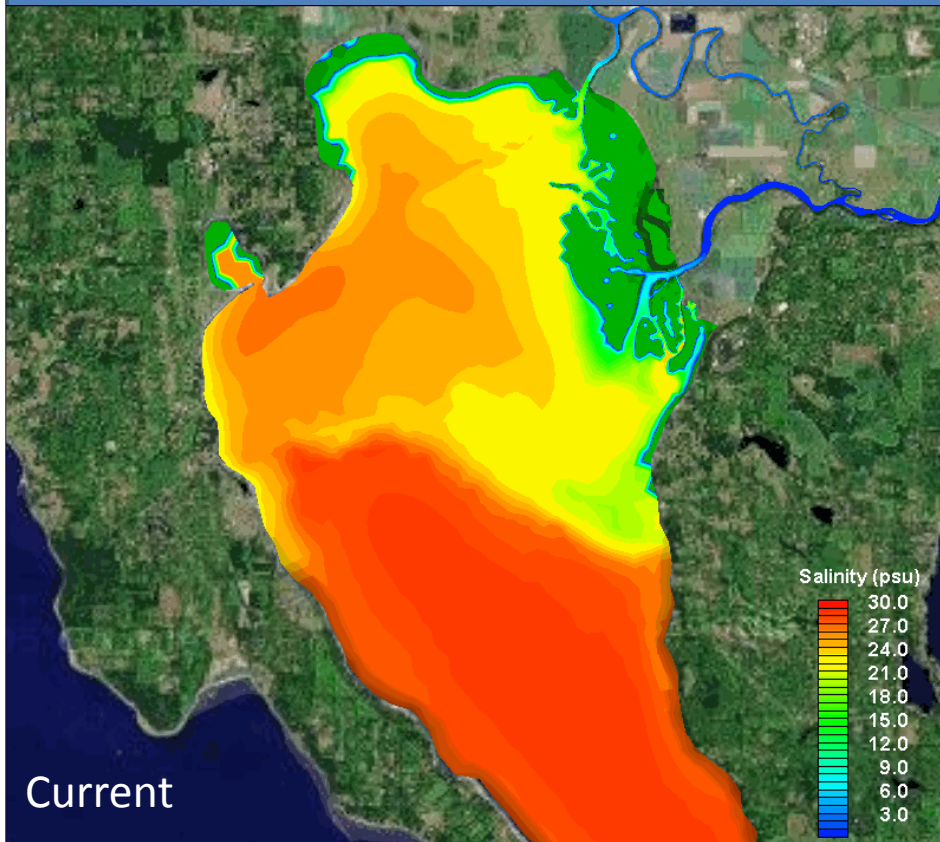
Image U.S. Geological Survey
Image Island County
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7-Lakes area
48°12'41.54" N 122°18'31.53" W elev. 5m



Hydrodynamic Model → Restoration

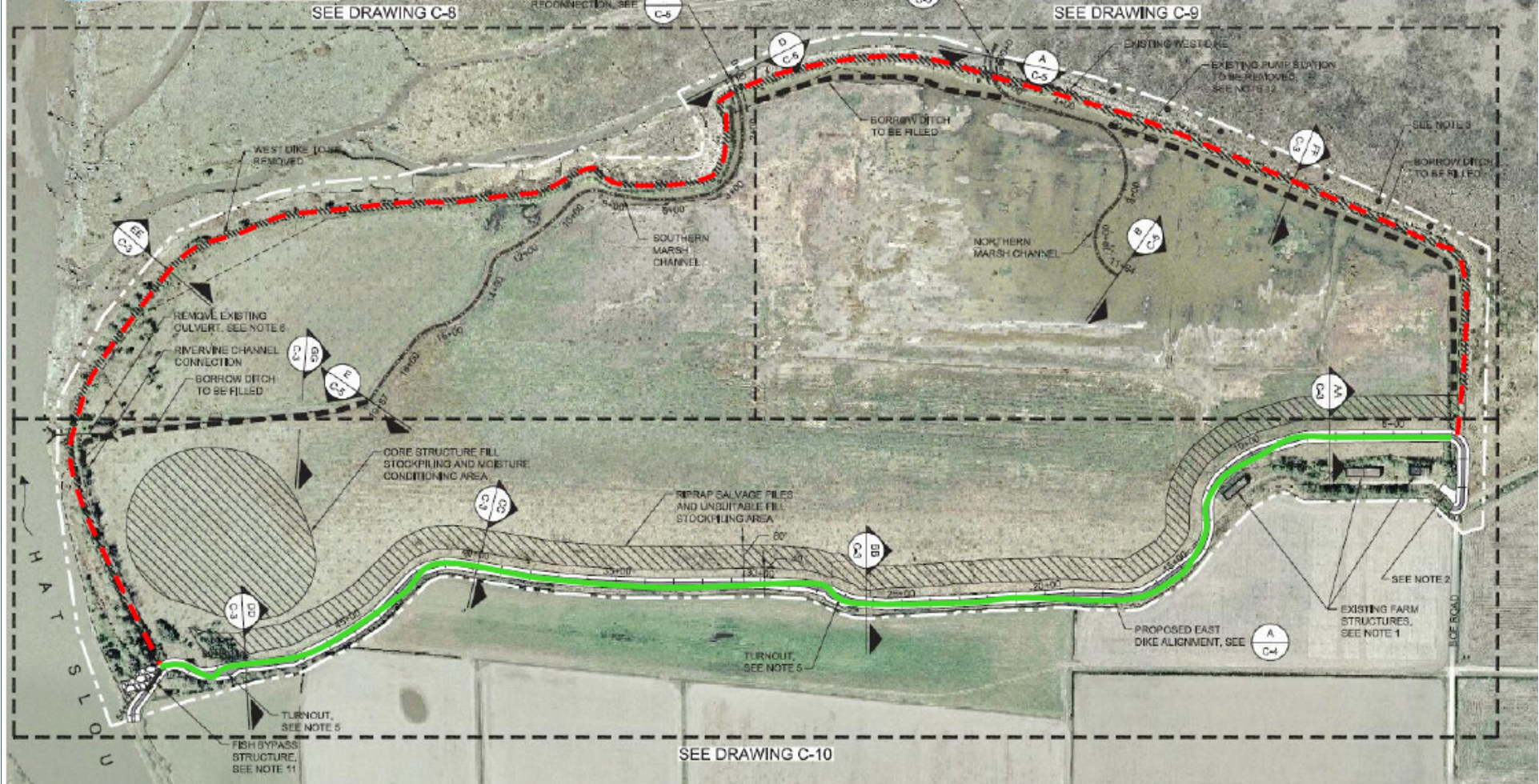


Washington State



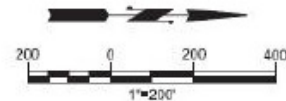
LEGEND:

	PROJECT BOUNDARY		EXISTING TIMBER PILES
	STARTER CHANNEL		STABILIZED CONSTRUCTION ENTRANCE
	BREACH LOCATIONS		WEST DIKE TO BE REMOVED
	PROPOSED EAST DIKE		WETLANDS
	BORROW DITCH TO BE FILLED		STAGING AREAS
	FISH BYPASS STRUCTURE		
	SPILLWAY SCOUR PAD		



Port Susan Bay Estuary Restoration
 Restoration Site Map

- Existing Dike to be Removed
- New Dike to be Constructed



January 7, 2009 Flood



***THE WORST FLOODING WILL OCCUR ON THE UPPER SKAGIT ...
STILLAGUAMISH...SKYKOMISH...SNOQUALMIE...TOLT...AND SNOHOMISH RIVERS***

- US Weather Service Notice January 6, 2009



Date: 4/30/2009

Image U.S. Geological Survey
Image Island County
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Lakes area
48°12'41.54" N 122°18'31.53" W elev. 5m

©2010 G

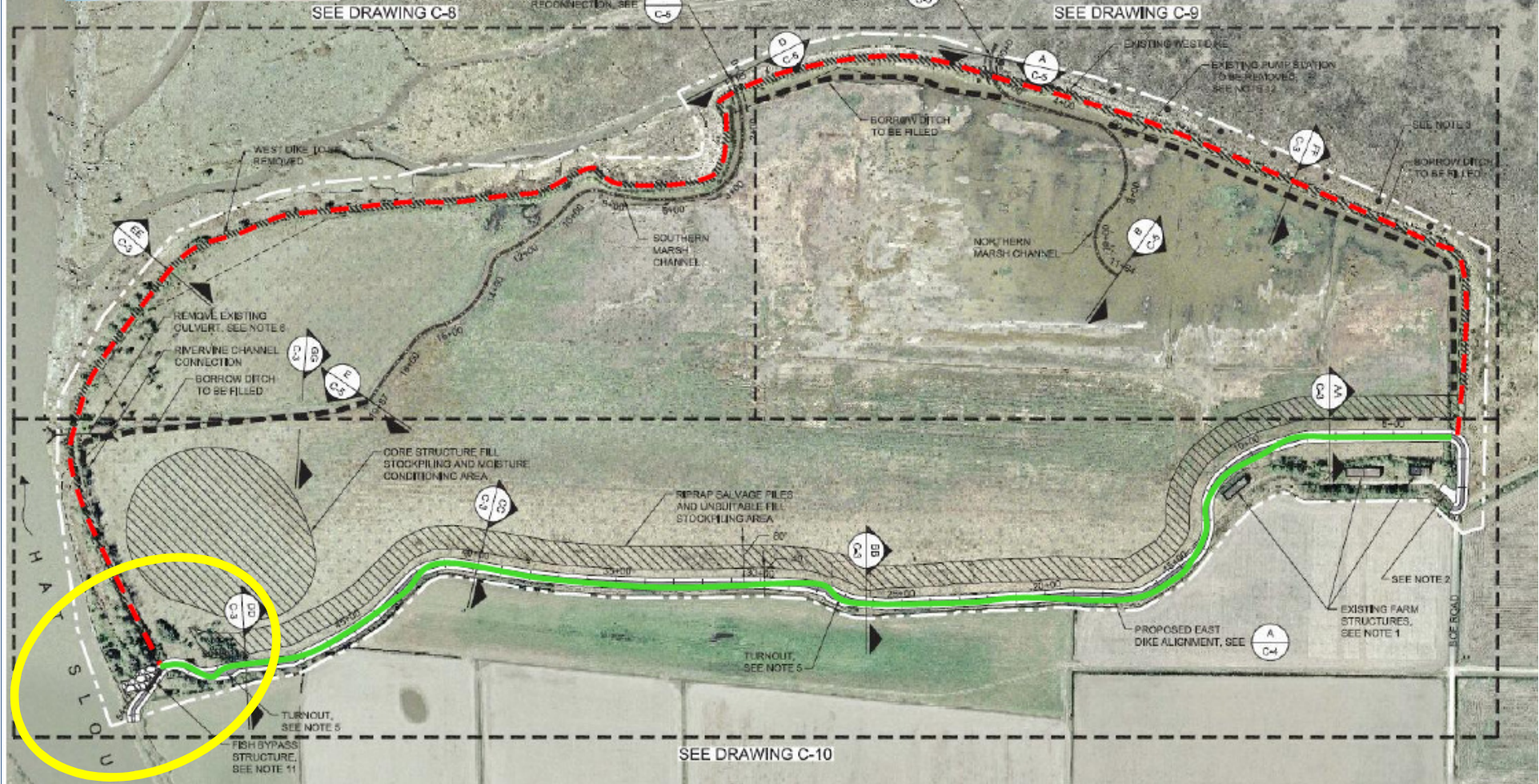
Washington State



Project Site
Area Enlarged

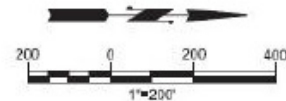
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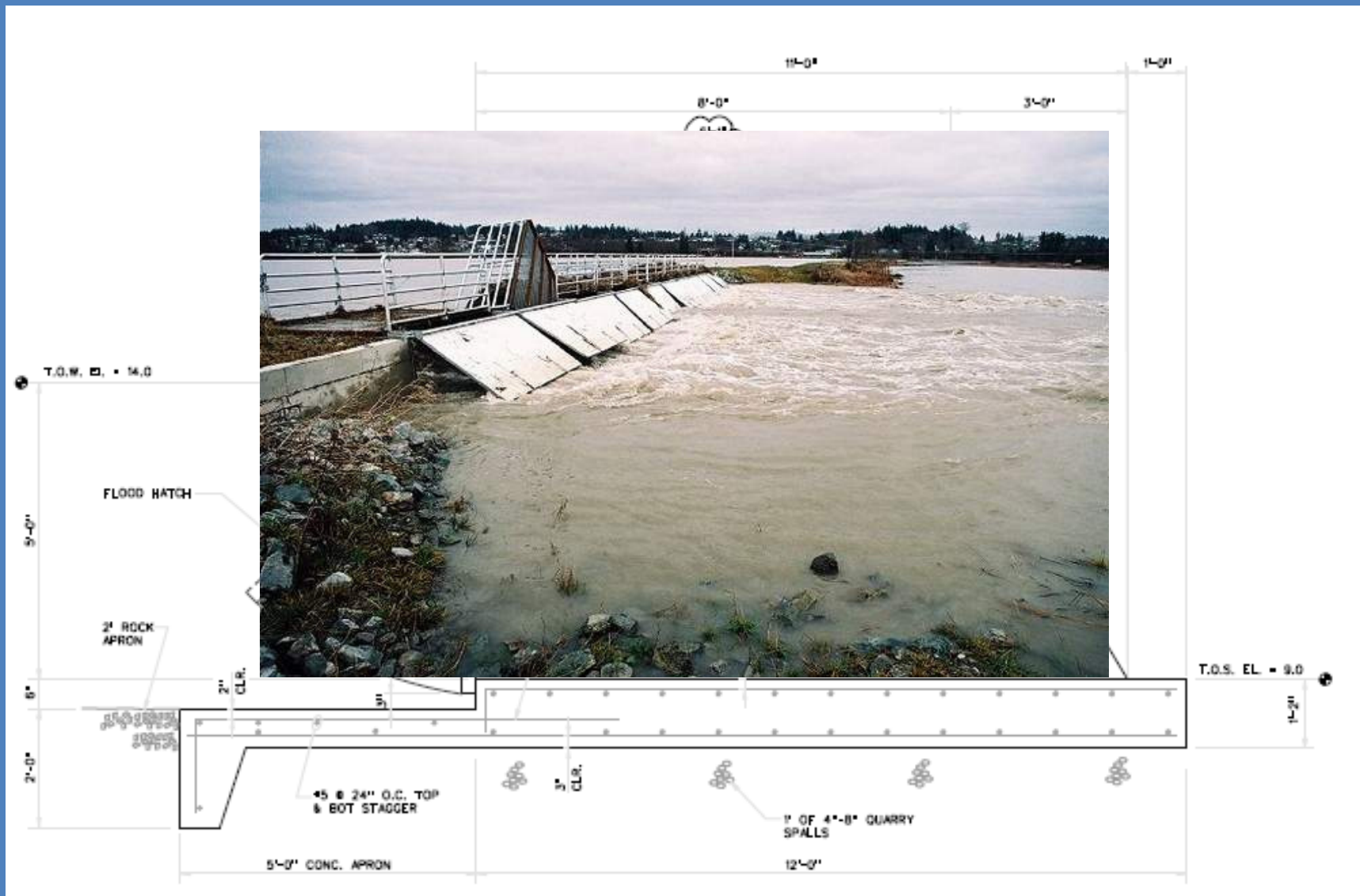


Port Susan Bay Estuary Restoration Restoration Site Map

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Emergency Flood Release Structure



Construction Schedule



- *September 2011 - Project to Bid*
- *Jan-May 2012 – Site de-watering*
- *June-September 2012 – levee construction*
- *July 2012 – Emergency flood structure construction*

Heritage

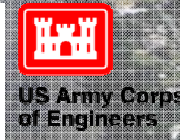
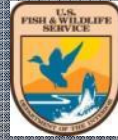


Acknowledgements

Washington Department of Fish and Wildlife
(Estuary Salmon Restoration Program)

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(NOAA; EPA; USFWS; USDA/NRCS; USACOE)







Birds take flight at Port Susan Bay Preserve, Washington.

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