

Little Squalicum Estuary



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Location



1856

~~C. & G. SURVEY~~
~~Permanent Library file~~

Plate No.

Date 1856

COAST SURVEY

J. D. BACHE, Supdt.

NNAISSANCE OF

NGHAM BAY

INGTON TER.

the Hydrographic party

of Lieut. Comdg. J. ALDEN U.S.N. Asst.

Scale $\frac{1}{40,000}$

1856



Verified
A. P. Hill, 1st Lieut. 1st Art.
Acty. Asst. in charge C.S. Office.

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The soundings are expressed in feet to 13 feet, or within the dotted line in fathoms, and show the depth at the mean of the lowest low 2 1/2 hours of the plane of reference. The dotted line beyond low water marks the bottom within the respective depths of 6.12 and 18 feet, thus:

for 12 feet. for 18 feet. The characteristic soundings only on the map, they are selected from the numerous soundings taken in the area to represent the figure of the bottom.

Latitude of Point Francis (approx)
Longitude of do. west from Greenwich Obv. in arc. } data to
Longitude of do. do. do. in time } 1856
Variation of the Magnetic Needle in July 1856

The Topography was executed in _____
The Hydrography do in _____

Abbreviations used in the footnotes:
hfd. for *hard* | *sft.* for *soft*
stk. for *sticky*

3

1954



2014





Project Goals

Goal 1

- Restore lost estuarine wetland habitat near the Nooksack River mouth that can serve as juvenile salmon rearing habitat for ESA-listed Chinook salmon. Restoration will also benefit ESA-listed Southern Resident Killer Whale.

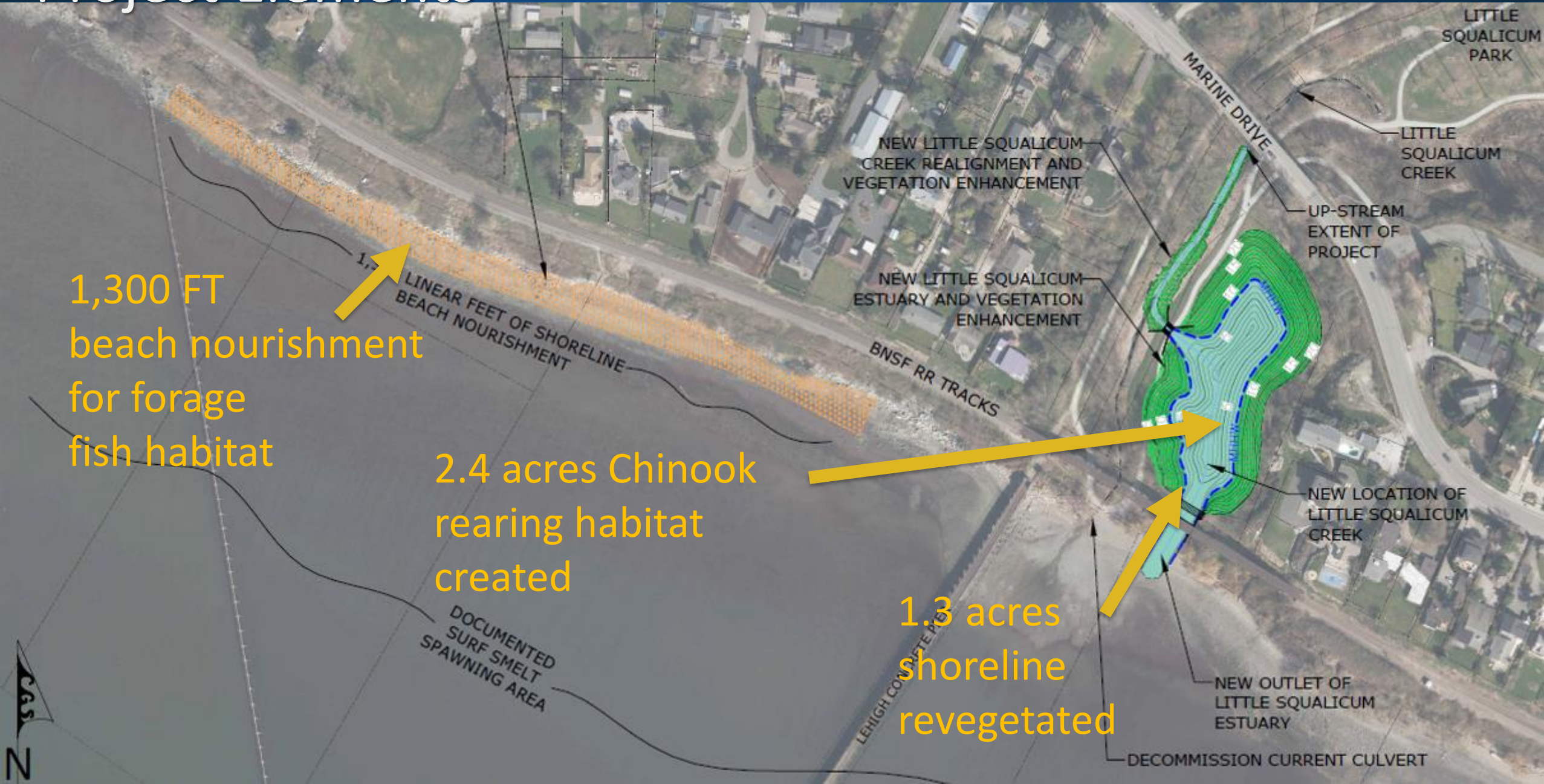
Goal 2

- Enhance sediment supply and forage fish spawning processes.

Goal 3

- Enhance wetland water quality function and remove contaminated soils.

Project Elements



Project Elements

Beach Nourishment Area



Landowner Permission

This project would not be possible without the partnership of landowners within the project area:

- Lehigh Northwest Cement Company
- Port of Bellingham,
- Whatcom County, BNSF, and
- City of Bellingham

Funding

- City of Bellingham (majority funder)
- Washington Department of Ecology Centennial Clean Water Program
- Washington Department of Ecology One-Time Grant Program
- WA State Aquatic Lands Enhancement Account Grant Program (ALEA)
- WA State Estuary and Salmon Restoration Program (ESRP)
- US Fish and Wildlife Service National Coastal Wetland Conservation Grant Program
- Port of Bellingham
- Whatcom County
- Nooksack Salmon Enhancement Association (NSEA)

Process To Date



Construction

Began in 2022

\$3,474,179.48

Glacier Environmental Services

Design by Coastal Geologic Services

with support from Aspect Consulting, Jones Engineers, Northwest Ecological Services, Pacific Surveying and Engineering and Washington Conservation Corps









Community Work Party – January 14, 2023



















Before



After



Before



After



Before



After



Before



After





Final Statistics

- \$6.1M total cost (design + construction)
- 4.85 acres coastal restoration, including
 - 2.4-acre estuary
 - 32,000 CY excavation
 - 10,000 CY beach nourishment for forage fish
 - 200 CY debris removal
 - ~20,000 plants installed
 - New pedestrian bridge

Next Steps

- Post-construction monitoring

SCHEDULE	Y0	Y1	Y2	Y3	Y5
Monitoring Tasks					
Salinity Measurements	X	X	X	X	X
Photo monitoring	X	X	X	X	X
Snorkel Surveys		X	X	X	X
Riparian & Estuarine Vegetation		X	X	X	X
Visual Inspections	X	X	X	X	
Forage Fish Surveys *	X				
Annual Report		X	X	X	X

* Whatcom MRC may conduct additional surveys

Thank You!

Funded By:



WASHINGTON STATE
Recreation and Conservation
Funding Board
ALEA Grant Program



Constructed By:



Prime Design Consultant:



Landowners:

City of Bellingham
Port of Bellingham
Whatcom County
BNSF
Lehigh Northwest Cement Co

Questions?



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