

Berths 1–3 Bathymetric Survey

Depth Assessment & Dredge Need Analysis · MLLW Datum

SURVEY DATE

February 2025

VERTICAL DATUM

MLLW

PROJECTION

EPSG:2286 · WA State Plane South
(ft)

DESIGN DEPTH

-42 ft MLLW

BERTH FACE

1,756 ft total length

PREPARED

May 20, 2026

DREDGE VOLUME REQUIRED

23,290 CY

Cubic yards to restore -42 ft design

AREA ABOVE DESIGN DEPTH

5.36 acres

Requires dredging

SHALLOWEST DEPTH FOUND

--25.2 ft

3 ft offset · north end of Berth 1

ESTIMATED TOTAL COST

\$8.035M

At \$344/CY mobilized unit rate

GRANT FUNDING (63%)

\$5.035M

Estimated federal / state share

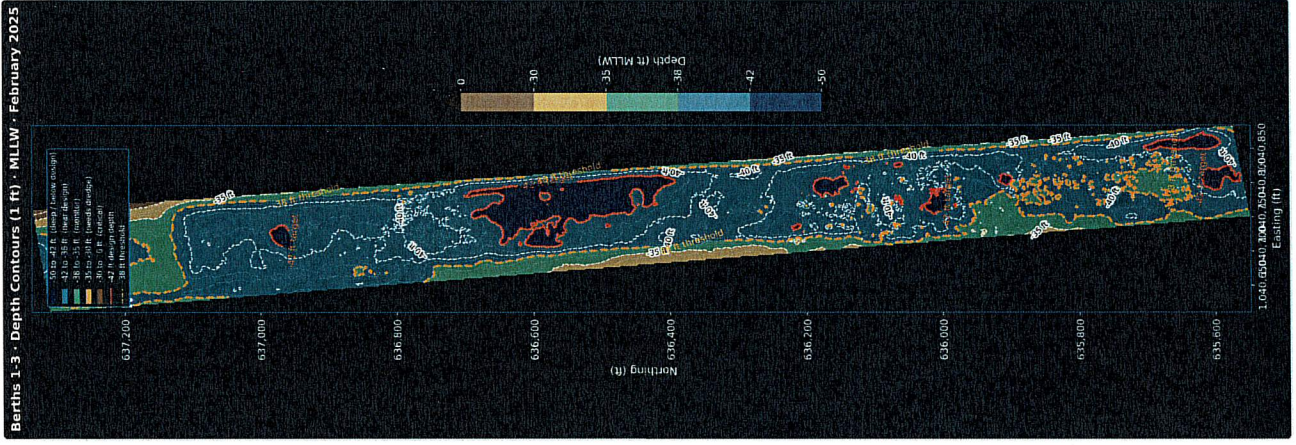
PORT LOCAL MATCH (37%)

\$3.00M

Required port contribution

KEY FINDINGS — FEBRUARY 2025 PRIVATE SURVEY

- Significant shoaling documented across all three berths, concentrated at the **north end of Berth 1**.
- Shallowest recorded depth: **--25.2 ft MLLW** at 3 ft off the berth face.
- **87.7% of the Berth 1 face** is above design depth when measured at 10 ft offset.
- Total estimated dredge requirement: **26,482 cubic yards** across **5.36 acres**.
- Estimated project cost: **\$9.11M** — approximately \$6.38M grant-eligible and \$2.73M local match at a \$344/CY preliminary unit rate.



Berths 1-3 bathymetric depth contours (1 ft interval, MLLW).

Figures 3 & 4 — Longitudinal Profiles Along Berth Face

Seafloor depth sampled along the berth face · South → North · Orange fill = above -42 ft design depth

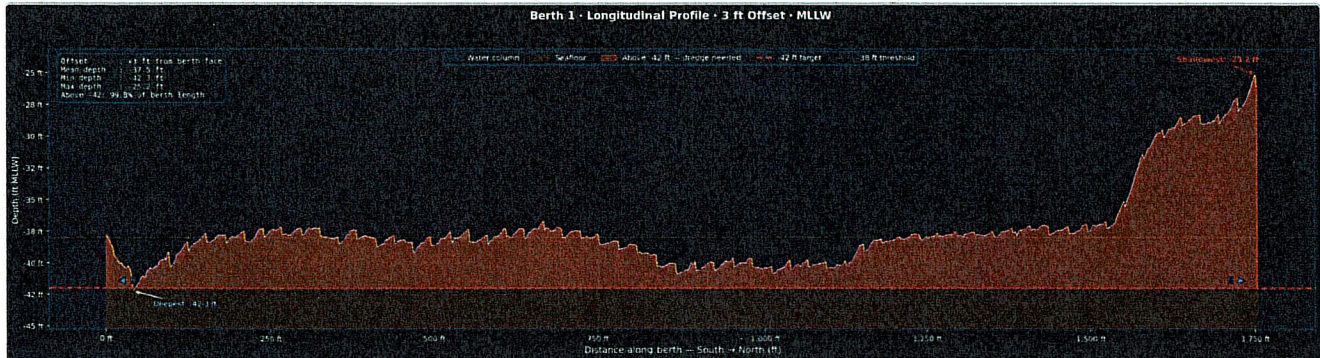


Figure 3 — Berth 1 longitudinal profile at 3 ft offset from face (1,756 ft length).

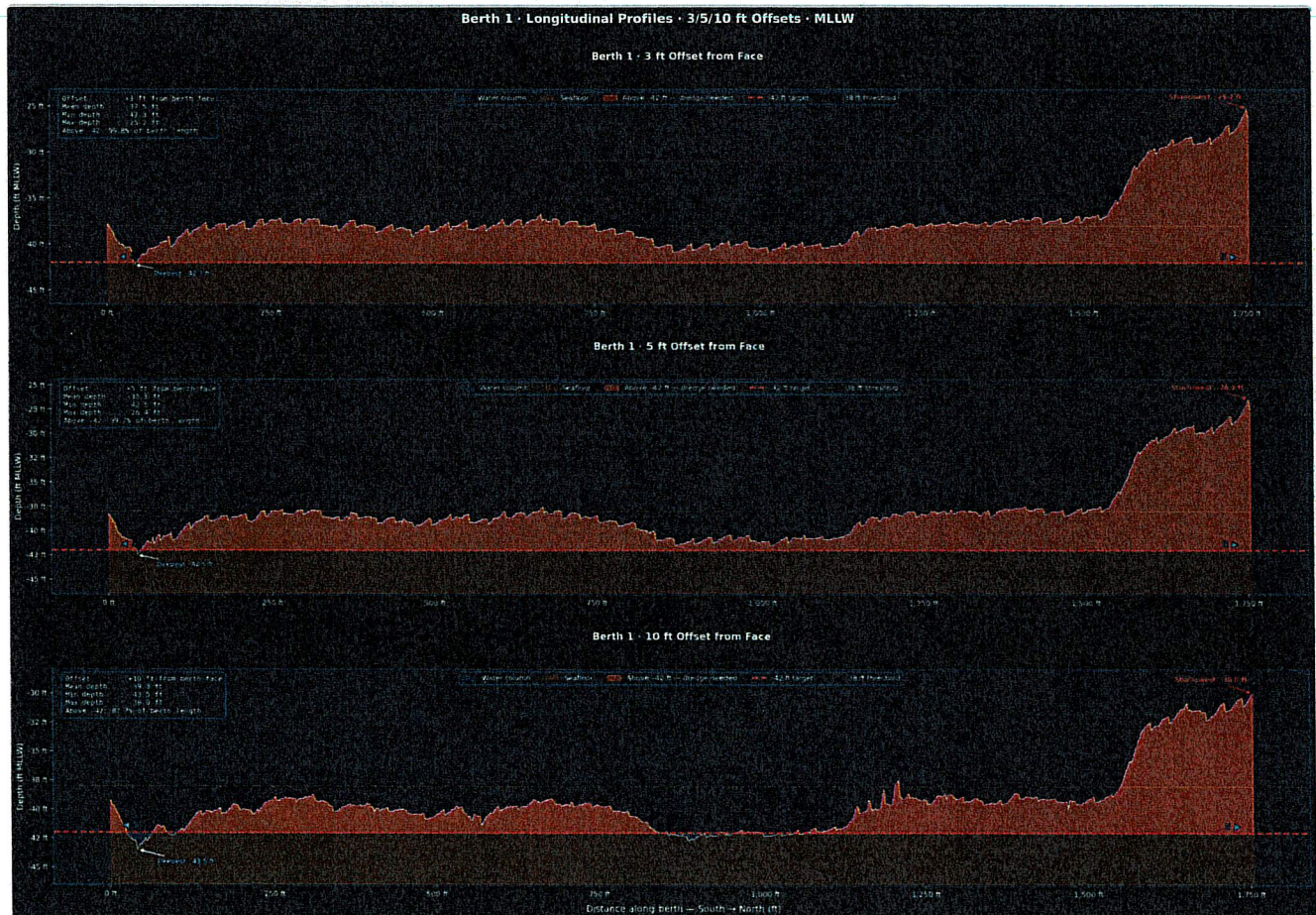


Figure 4 — Profiles at 3 / 5 / 10 ft offsets compared.

Dredge Cost & Funding Summary

Preliminary planning estimate only — subject to contractor bid, permitting, sediment testing, and final survey

Item	Estimate	Basis / Notes
Dredge Volume	23,290 CY	Material above -42 ft MLLW design depth
Dredge Area	5.36 acres	Spatial footprint requiring removal
Preliminary Unit Rate	\$344 / CY	Includes mob/demob, placement, testing
Estimated Total Project Cost	\$8.035M	
Federa Grant (63%)	\$5.035M	Estimated eligible grant portion
Port of Olympia Match (37%)	\$3.00M	Required local contribution

ASSUMPTIONS & LIMITATIONS

- Unit rate of \$345/CY is a preliminary planning figure based on recent regional dredge contract data. Actual bid prices may vary significantly.
- Volume computed from the February 2025 private survey against the -42 ft MLLW design datum using 2 ft resolution bathymetric raster data.
- The 63/37 grant/match split is an assumption for planning purposes — actual program eligibility and cost-share requirements must be confirmed with the applicable grant program.