

Table 1 – Cost Estimate Breakdown for Barrier Wall

Direct Capital Costs					
Item Description	Quantity	Unit	Cost/Unit	Factor ¹	Cost ²
Monitoring Well Abandonment ³	1	lump sum	\$10,000	1	\$10,000
Wall Contractor Mobilization/Demobilization	1	lump sum	\$200,000	1	\$200,000
Slurry Wall Construction ⁴	149,825	square feet	\$7.31	1	\$1,095,000
Sheet Pile Wall Construction ^{4,5}	83,008	square feet	\$15.00	1	\$1,245,000
Contingency for Waste Soil Disposal	1	lump sum	\$100,000	1	\$100,000
Subtotal direct Capital costs					\$2,650,000
Contingency Allowance (20%)					\$530,000
<i>Total Direct Capital costs</i>					\$3,180,000
Indirect Capital Costs					
Treatability Study	1	lump sum	\$5,000	1	\$5,000
Slurry Wall Performance Bond (1% of wall cost)					\$32,000
Engineering and Design (3%)					\$95,000
Legal Fees and License/Utility connection Costs (5%)					\$159,000
Contractor Reporting Requirements (5%)					\$159,000
Construction Oversight (10%) ⁶					\$318,000
<i>Total Indirect Capital costs</i>					\$768,000
TOTAL CAPITAL COST					\$3,948,000
Operation and Maintenance (O&M) and Periodic Costs					
Testing of Barrier Wall ⁷	1	5 Years	\$30,000	1	\$30,000

Note:

All costs rounded to nearest \$1,000.

¹ The factors represent adjustments for materials and installation for Portland, Oregon, if the costs were estimated using either R.S. Mean Building Construction Cost Data or from estimating data contained in Environmental Cost and Handling Option Solutions.

² Because of rounding, the amount in the "Cost" column may be slightly different from the product of the values in the "Quantity", "Cost/Unit", and "Factor" columns.

³ Assumes 12 wells with an average depth of 50 feet would require decommissioning along the wall alignment.

⁴ See "Barrier Wall Costs" Sheet, *Barrier Wall Focused Technology Evaluation*, for how unit cost was developed.

⁵ Assumes contractor within Portland area and mobilization/demobilization costs are negligible.

⁶ Includes preparation of site-specific construction plans, construction management, resident inspections and agency oversight.

⁷ Assumes wall will be tested every 5 years.

Site Location

McCormick & Baxter Creosoting Company Superfund Site

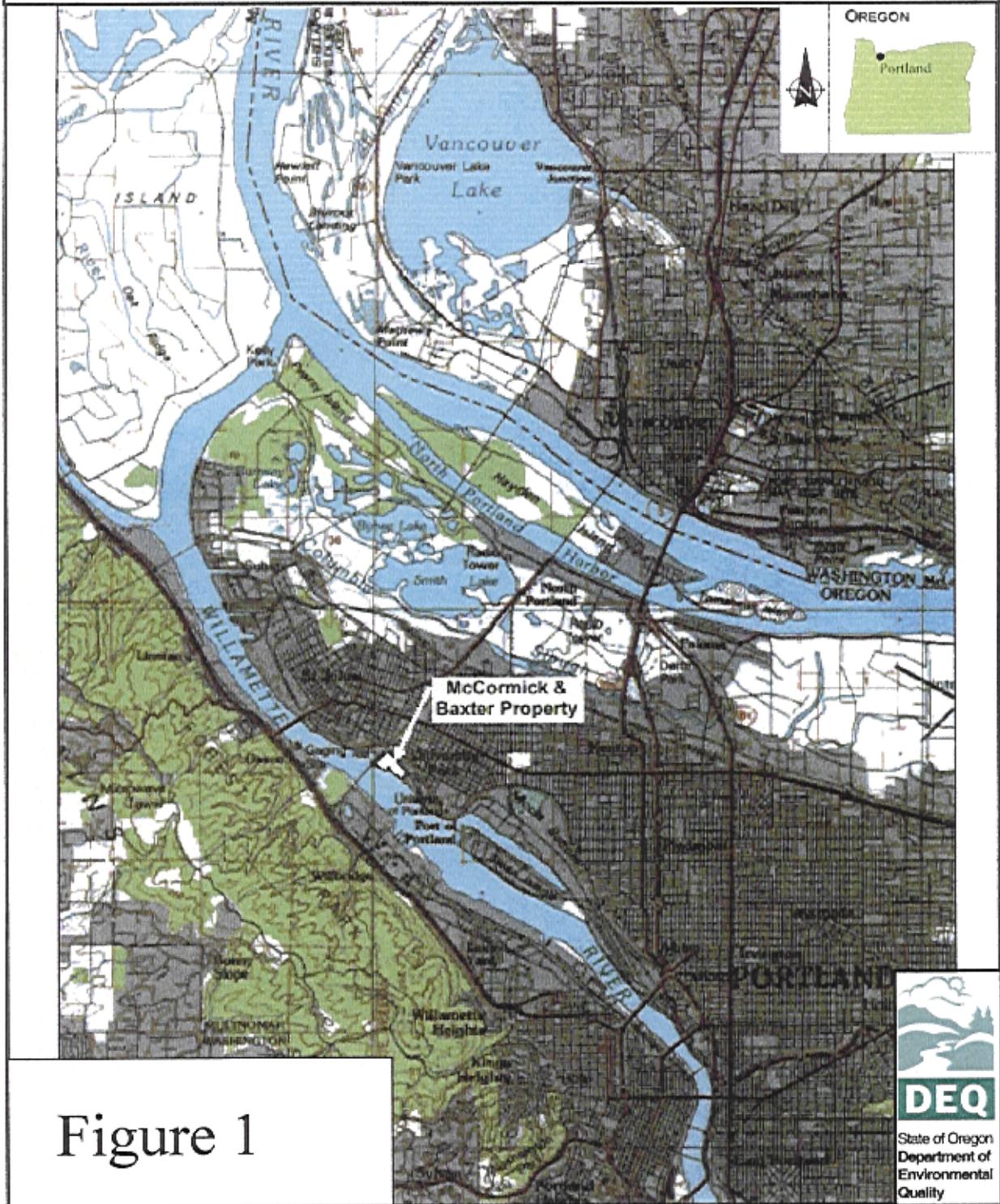


Figure 1

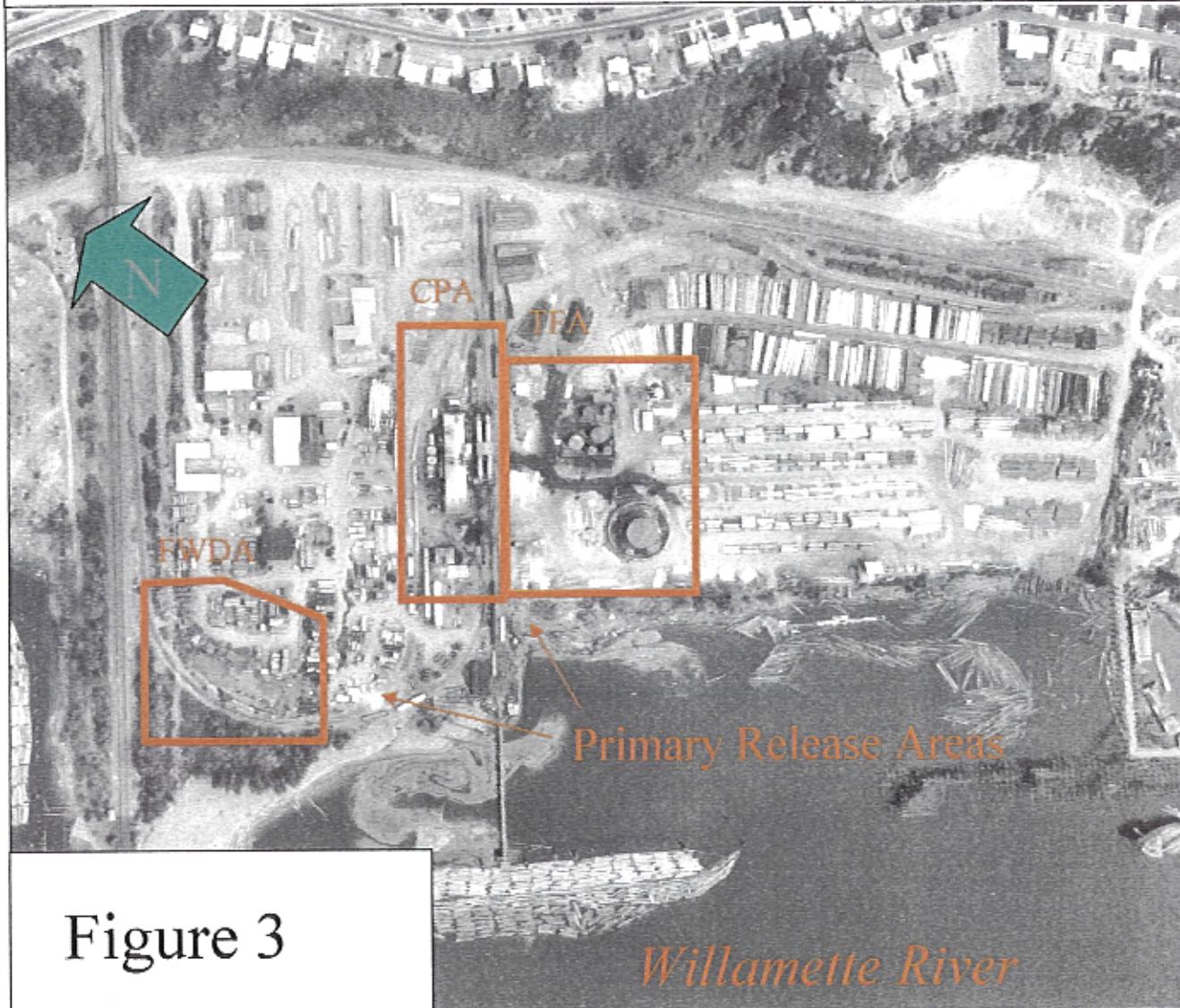


Current Site Features



Figure 2

Historic Site Features



*Aerial Photo
1973*



Extent of NAPL Contamination (current site features)

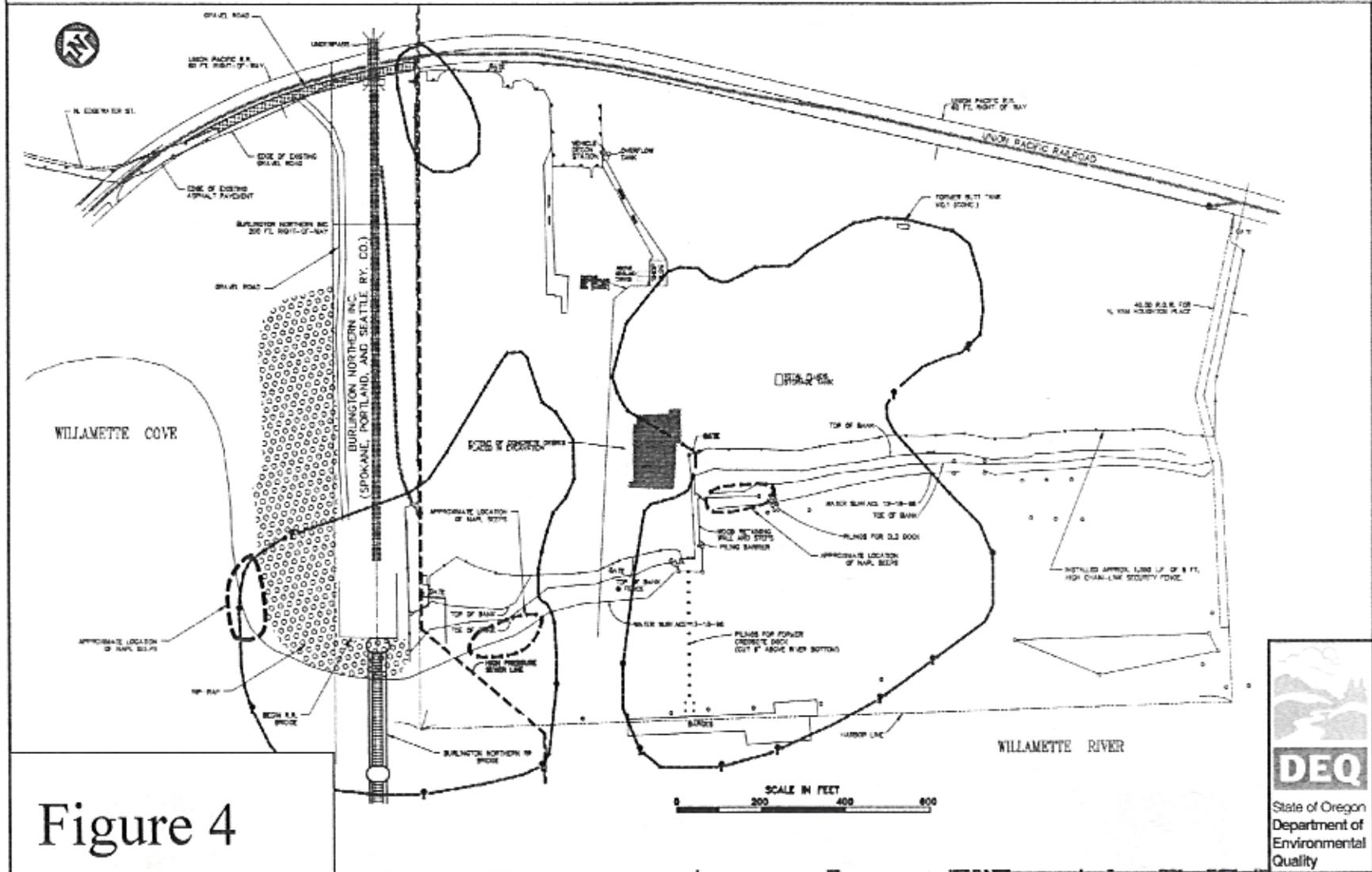


Figure 4

Barrier Wall Alternatives Evaluated (current site features)

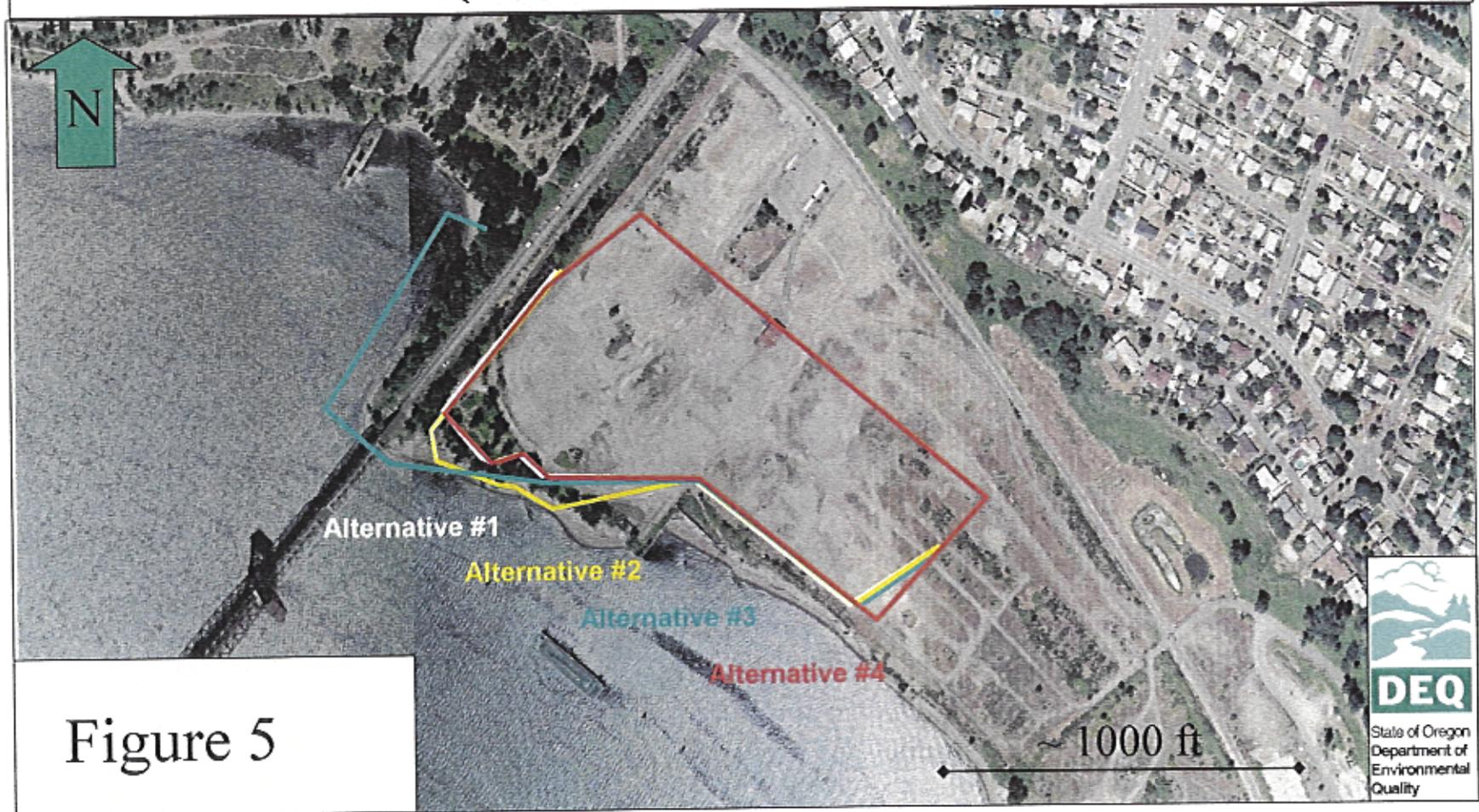


Figure 5

Barrier Wall Alignment (historic site features)

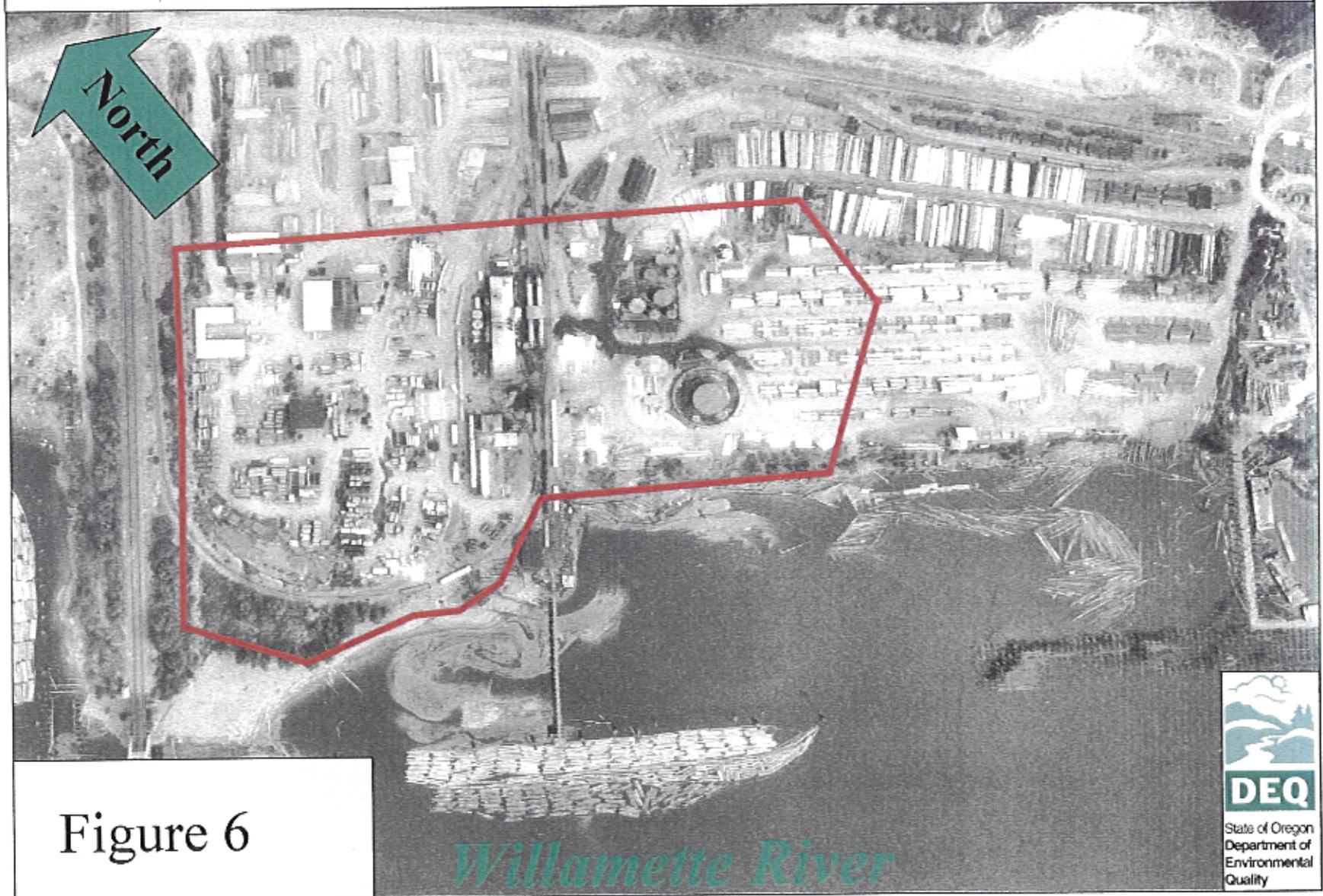


Figure 6

Willamette River

Barrier Wall Alignment (current site features)

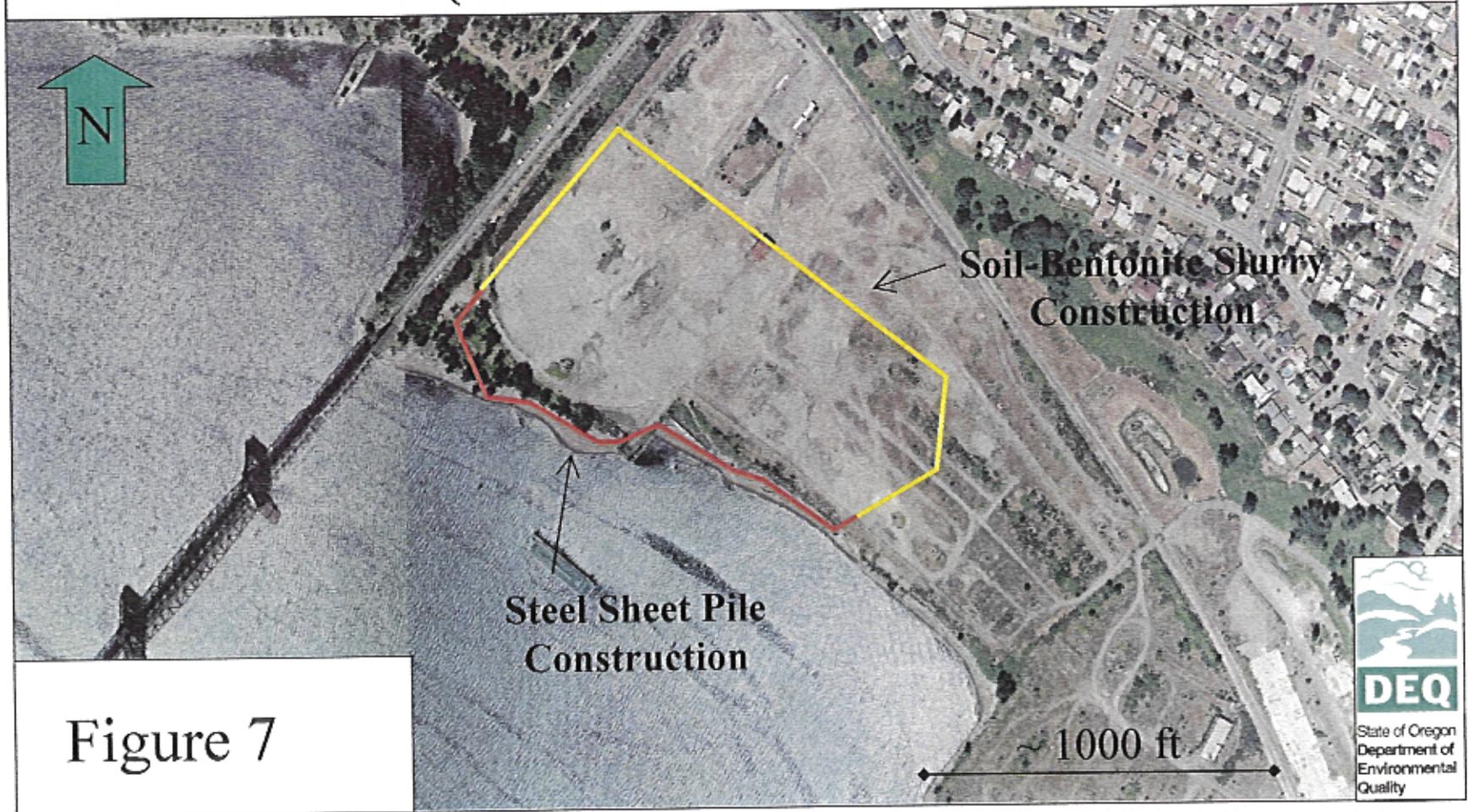


Figure 7