Prepared by: Dredged Material Management Office
Seattle District, U.S. Army Corps of Engineers

Memorandum for Record **June 26, 2025**

Subject: Tier 1 Evaluation for the Yakima River Gap to Gap Locally Preferred Alternative (LPA) Project, Yakima County, Washington (NWS-2023-374A)

Introduction

This memorandum documents the Tier 1 sediment quality and antidegradation evaluation conducted by the Dredged Material Management Program (DMMP) agencies (U.S. Army Corps of Engineers (USACE), Washington Department of Ecology, Washington Department of Natural Resources, and the U.S. Environmental Protection Agency), regarding the restoration of the Yakima River floodplain. The evaluation followed the guidance in the DMMP User Manual (2021). This project is led by the County of Yakima and will be complimentary to the proposed actions of the USACE through the Yakima River 1135 Ecosystem Restoration Project.

Project Description

The project site is located in Yakima, Washington on the Yakima River and floodplain in Yakima County (Figures 1 and 2). The purpose of the project is to restore 150 acres of the Yakima River floodplain to improve and restore hydrologic and water quality functions. The proposed project will include fill/berm removals, levee setbacks, pilot channel construction, replacing fish barrier culverts, and create island habitat mounds. The project also proposes to construct up to 7-miles of channels and enhance or create up to 60 acres of wetlands.

Four restoration areas are proposed: WSDOT Pilot Channels (Figure 3), Greenway Trails Project Area (Figure 4), Nob Hill Levee Setback (Figure 5), and Lower Blue Slough Project Area (Figure 6). Across all sites, approximately 193,069 cy of material will be excavated and 116,281 cy will be beneficially reused within the project site. Any excess, clean, material will be available to the USACE during the 1135 Project and/or placed in borrow pits for other features.

Soils associated with the Nob Hill Levee Setback were sampled and tested for heavy metals during a Phase III Environmental Site Assessment (ESA; Shannon & Wilson, 2025b). Elevated concentrations were found in the adjacent auto wrecking yard and the Phase III ESA delineated the extent of the contamination (Figure 7). All contaminated soils will be removed, taken to approved upland disposal facility, and clean material will be backfilled to construct the new levee (Figures 8-10; Shannon & Wilson, 2025a). The proposed levee will tie into high ground, serve as a drainage ditch, and not be restored to a wetland.

Tier 1 Evaluation

Available data were obtained and reviewed by the Dredged Material Management Office (DMMO) to evaluate the project location's sediment chemical quality and understand whether sources of contamination could have historically impacted or currently be impacting the project site. The following resources were reviewed to conduct this evaluation:

1. **Previous studies, suitability determinations or antidegradation assessments conducted by DMMO or other agencies.** No previous assessments were conducted at this site.
2. **Ecology's Environmental Information Management (EIM) Database.** A search was conducted to review chemical or biological data within the project location. One of the 22 locations in the floodplain had sediment data available (Figure 11). Sediments did not contain contaminants at levels of concern and were below the DMMP sediment screening levels (SLs) with a majority of samples

being "non-detect" (Table 1).

3. **Ecology's "What's in My Neighborhood" Site Cleanup Database.** A search was conducted to look at historical and active cleanup sites near the project site. There are two cleanup sites within the vicinity of the project site and one on-site (Figure 12).
    a. Birchfield Rd USTs (Cleanup Completed): In 2011, multiple underground storage tanks (USTs) were located on the property and identified polycyclic aromatic hydrocarbons (PAHs) in soils. The USTs and impacted soils were removed in 2012. No Further Action was given in 2019 by the Department of Ecology.
    b. Fiscus Motor Freight (Active – Awaiting Cleanup): This site is an active freight trucking company that fuels and washes trucks with no containment/collection system. It is suspected to have diesel in soil and groundwater but has not been confirmed. It is unclear if remediation actions have occurred and/or what further action will be needed to be taken at this site.
    c. Nob Hill Auto Wrecking Project (Active – Awaiting Cleanup): This cleanup site was identified in 2023 for confirmed and/or suspected contamination of metals and PAHs in soils and groundwater. As shown in Figure 7, soil exceedances occurred when compared to the Model Toxics Control Act (MTCA) Clean Up Level (CUL) for soils that were protective of surface and groundwater (Shannon & Wilson, 2025b). The MTCA CUL criteria used was more strict than the DMMP SLs for freshwater. Table 2 displays the Phase III ESA samples with DMMP SL exceedances.
4. **Ecology's Spill Map.** A search was conducted to look at spills within the project site over the last 9 years. No spills were reported within or near the project area.

Suitability/Antidegradation Determination

Clean soils excavated from the four restoration areas (WSDOT Pilot Channels, Greenway Trails Project Area, Lower Blue Slough Project Area, and the eastern portion of Nob Hill Levee Setback) will be beneficially reused on-site. The potential for contamination to be present is low and "like on like placement" is not anticipated to degrade the downstream reaches.

The excavated contaminated material from the western portion of Nob Hill Levee Setback will be taken off site and the area will be backfilled with clean material to match existing grade. During excavation of the soils, confirmation samples will be analyzed to ensure all debris and contaminated soils are removed.

There are no reported spills within the vicinity and the Nob Hill Auto Wrecking site is the only active cleanup adjacent to the project, indicating no additional sources of contamination to the project areas. The DMMP agencies believe that the leave surface for the project areas will meet the antidegradation standard and a soil management plan is in place for full removal of heavy metal impacted material for the western Nob Hill Levee Setback.

This determination does ***not*** constitute final agency approval of the project. During the public comment period that follows a public notice, resource agencies will provide input on the overall project. A final decision will be made after full consideration of agency input, and after an alternatives analysis is done under section 404(b)(1) of the Clean Water Act.

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References

DMMP, 2021. Dredged Material Evaluation and Disposal Procedures (User Manual). Dredged Material Management Program, updated July 2021.

Ecology's EIM Database Search: https://apps.ecology.wa.gov/eim/search/default.aspx

Ecology's Spill Incidents Database: https://ecology.wa.gov/Spills-Cleanup/Spills/Spill-preparedness-response/Responding-to-spill-incidents/Spill-incidents

Ecology's What's in My Neighborhood Search: https://apps.ecology.wa.gov/neighborhood/

Shannon & Wilson, 2025a. Nob Hill Auto Wrecking Yard Land Acquisition Conceptual Sketch. June 2025.

Shannon & Wilson, 2025b. Yakima River Gap to Gap Ecosystem Restoration Project. Phase III Environmental Site Assessment. Nob Hill Auto Wrecking, Yakima, Washington. February 14, 2025.

Washington State's JARPA Form and drawings for #NWS-2023-374A provided to USACE Regulatory Department.

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Agency Signatures

The signed copy is on file in the Dredged Material Management Office, Seattle District U.S. Army Corps of Engineers

_____	_____
Date	Sarah Benson – U.S. Army Corps of Engineers, Seattle District
_____	_____
Date	Sarah Burgess – U.S. Environmental Protection Agency, Region 10
_____	_____
Date	Laura Inouye, PhD. – Washington State Department of Ecology
_____	_____
Date	Shannon Soto – Washington State Department of Natural Resources

Copies Furnished:
DMMP agencies
David Moore, USACE Regulatory Project Manager
Troy Havens, Yakima County Public Services
DMMO File

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Figures

Figure 1: Project Location – Map (excerpt from JARPA)

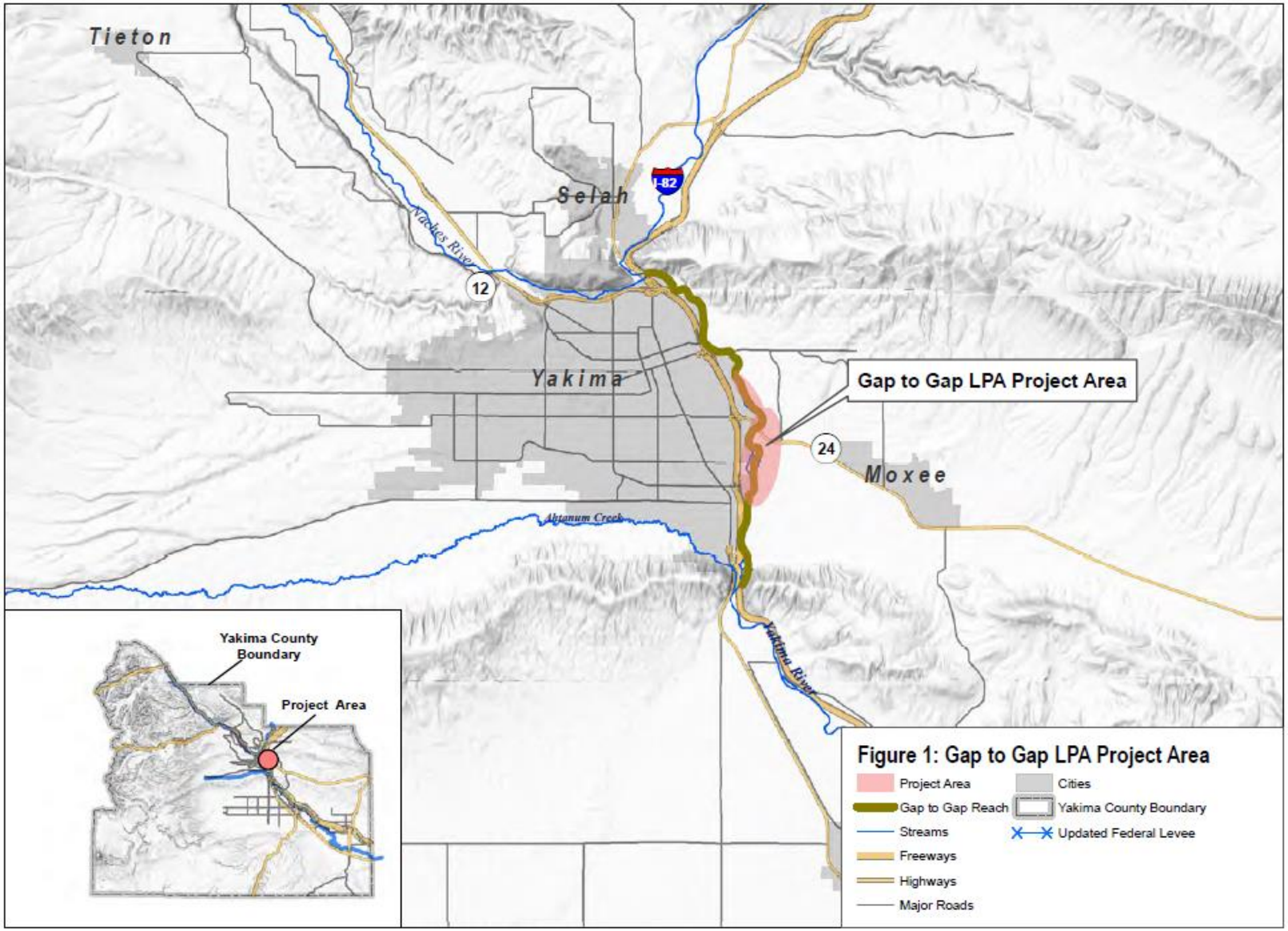

Figure 2: Project Location – Aerial (excerpt from JARPA Drawings)

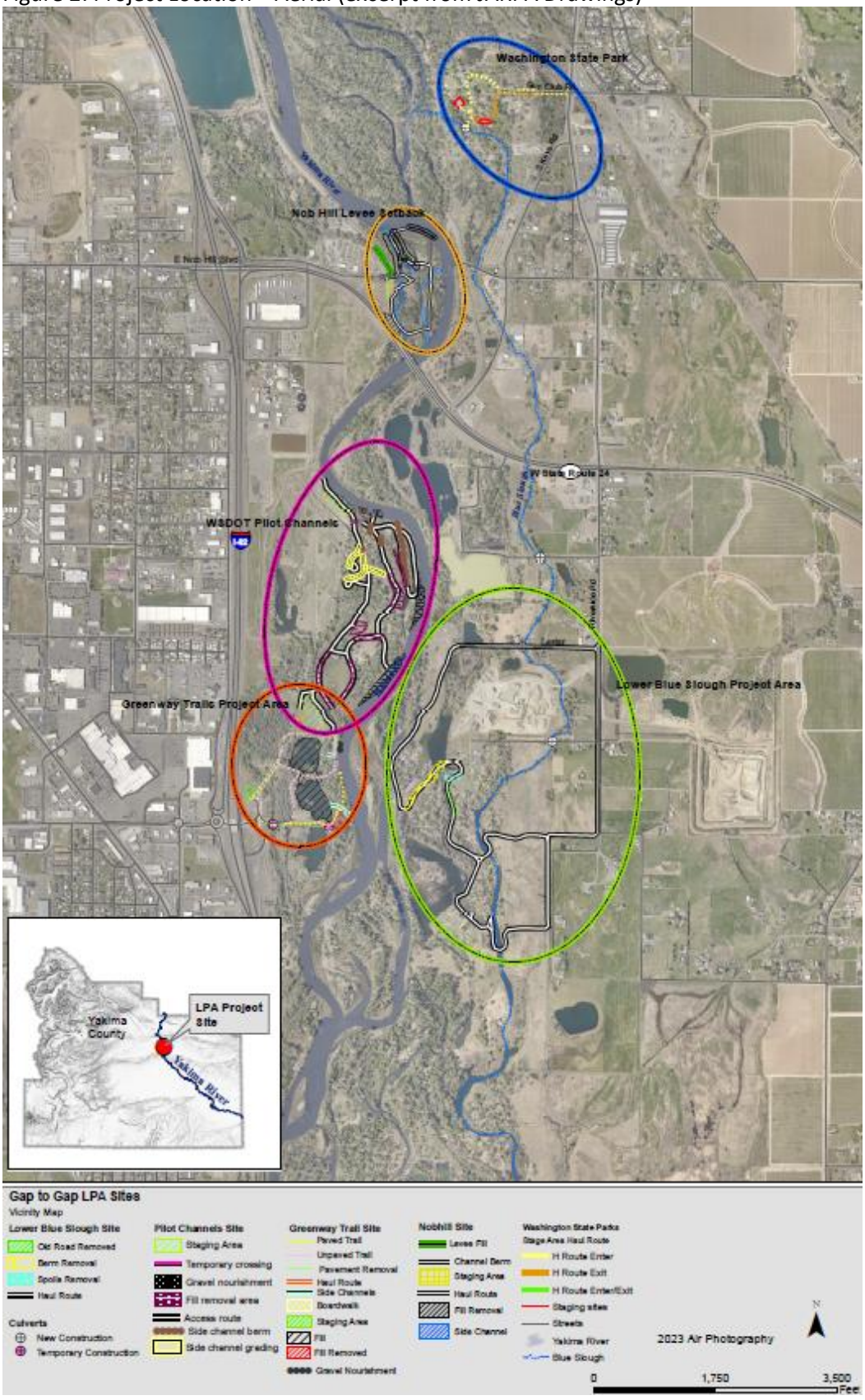

Figure 3: WSDOT Pilot Channels Site Plan (excerpt from JARPA Drawings)

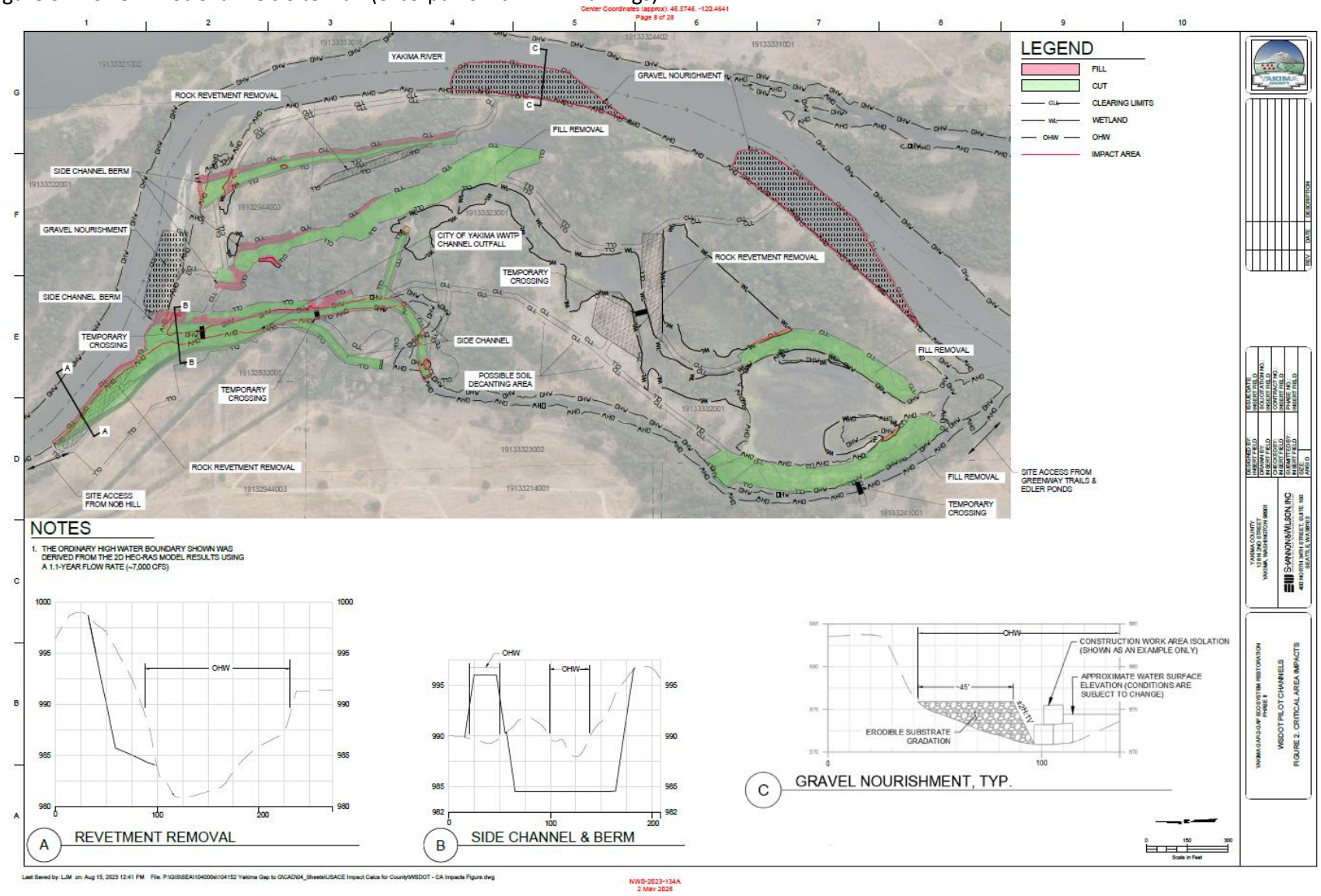

Figure 4: Greenway Trail and Elder Ponds Site Plan (excerpt from JARPA Drawings)

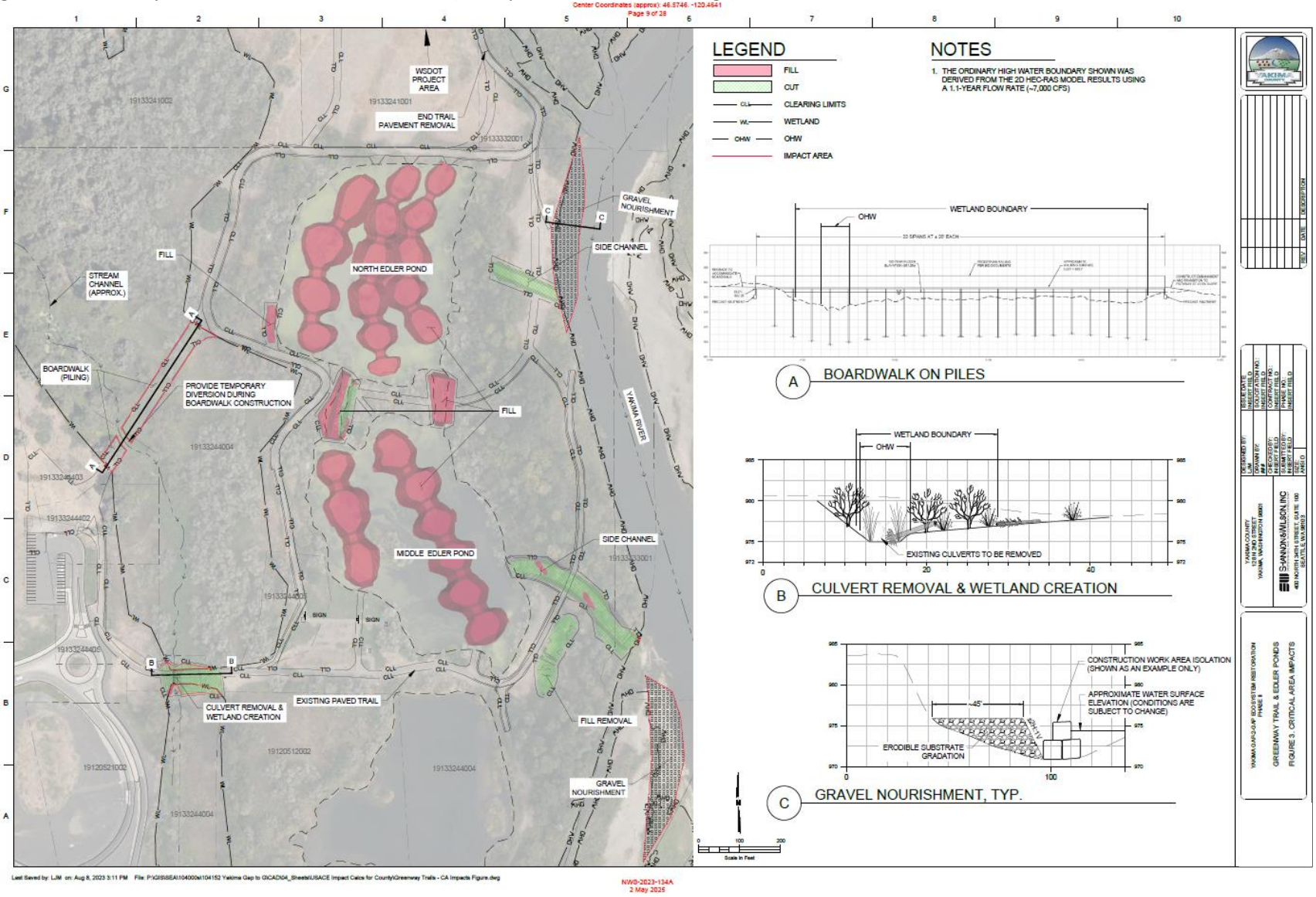

Figure 5: Nob Hill Levee Setback Site Plan (excerpt from JARPA Drawings)

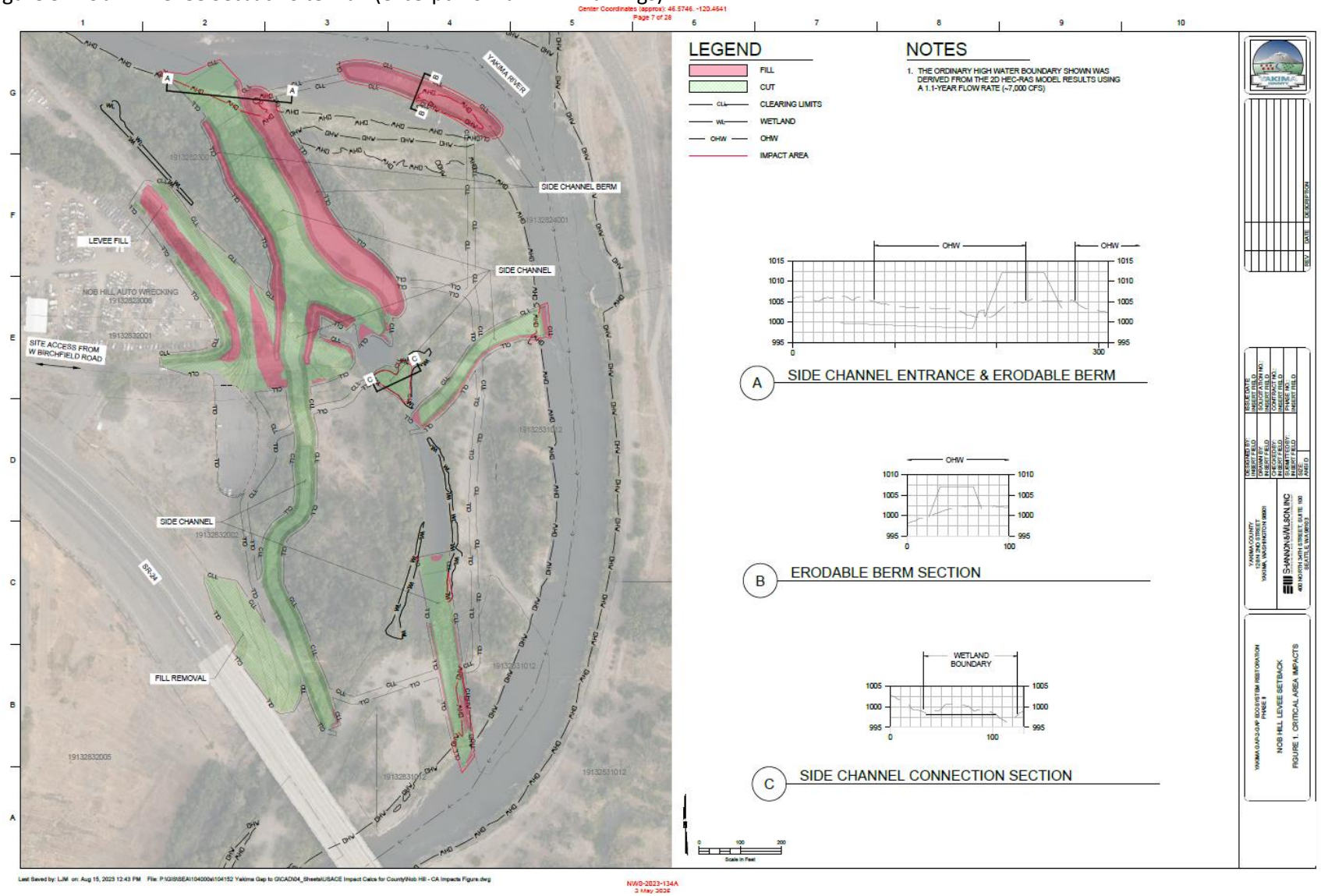

Figure 6: Lower Blue Slough Floodplain Features Site Plan (excerpt from JARPA Drawings)

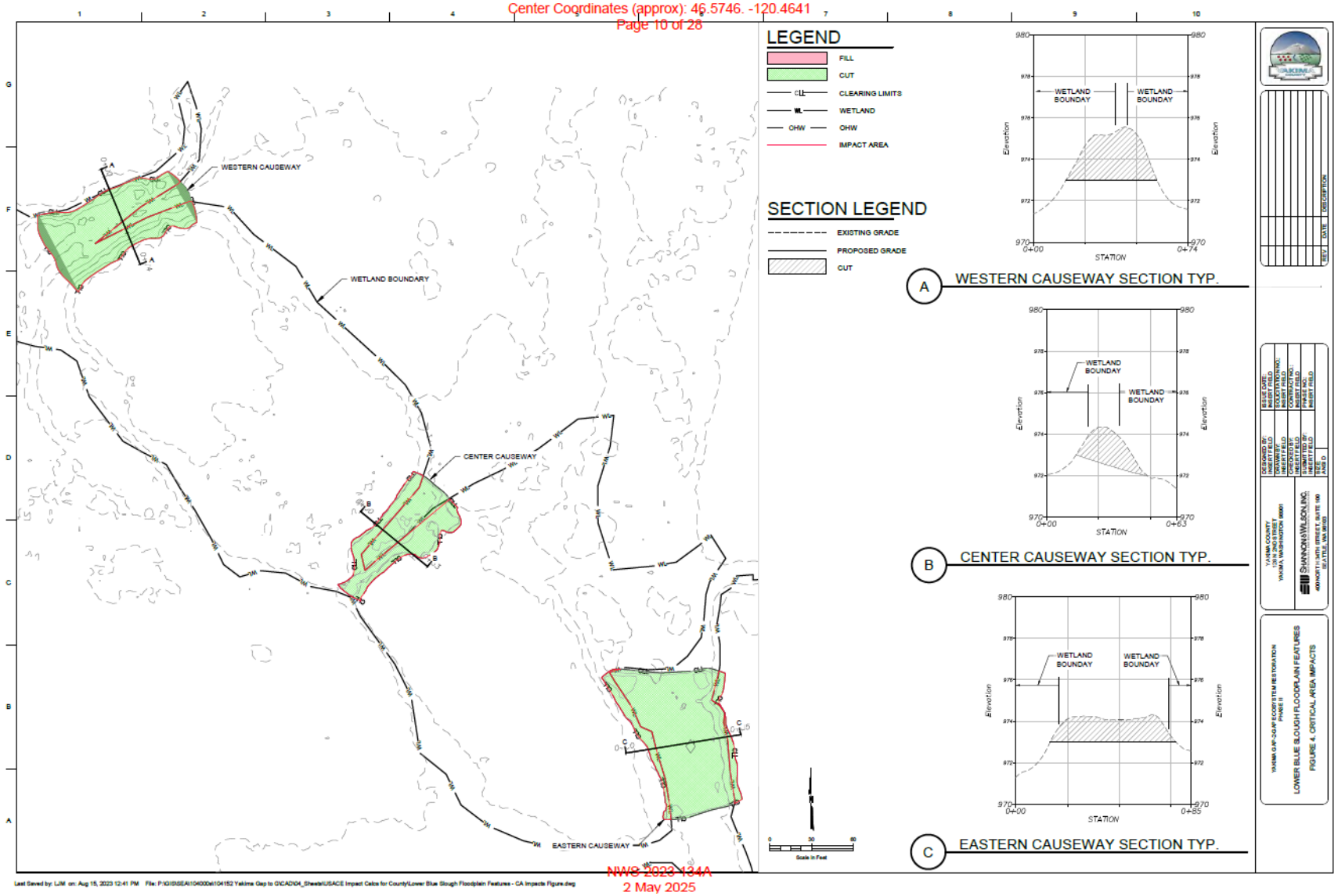

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Figure 7: Phase III Environmental Site Assessment – Soil Concentrations In/Outside Nob Hill Auto Wrecking

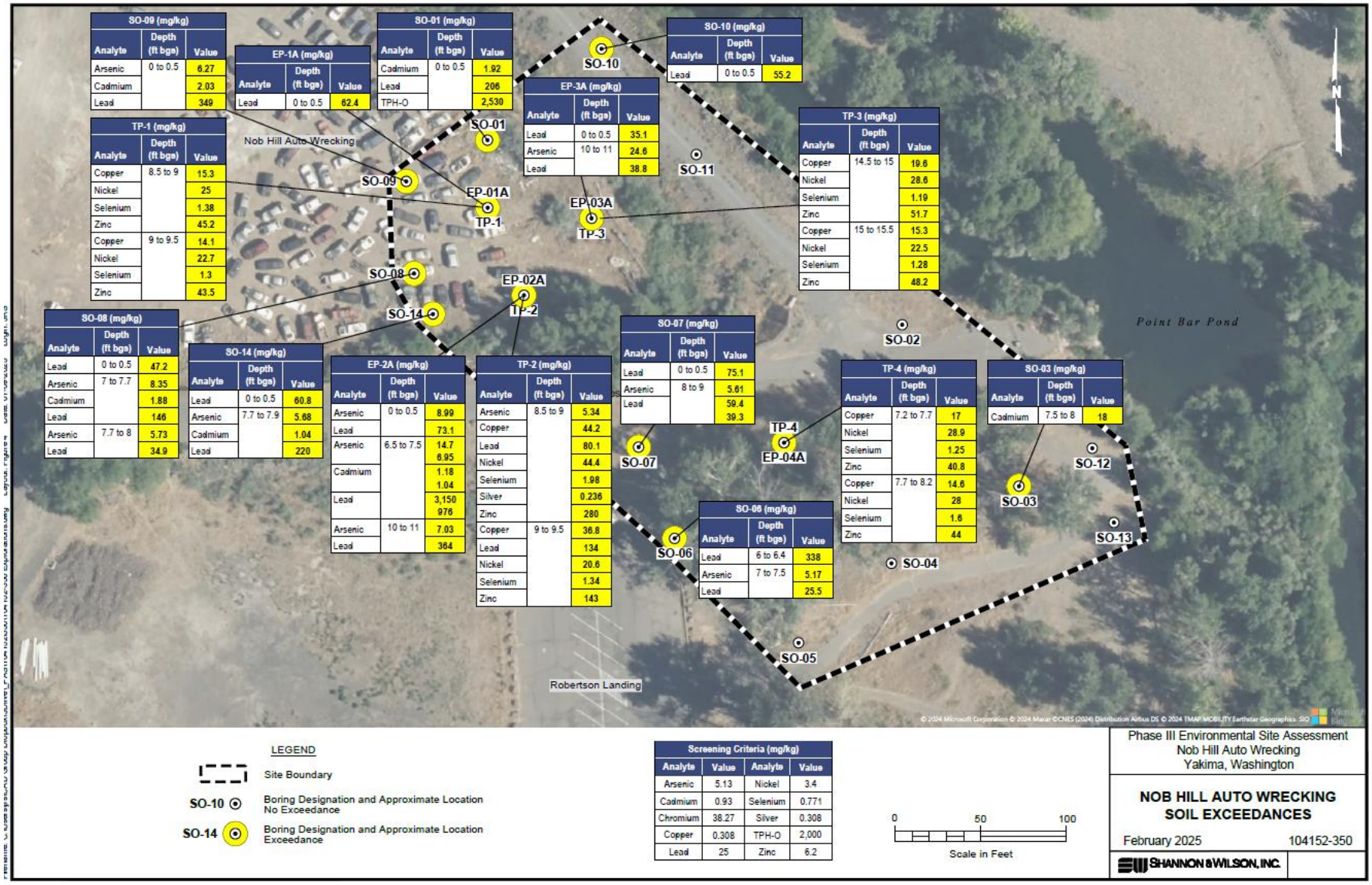

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Figure 8: Nob Hill Levee Setback Illustration (excerpt from Shannon & Wilson, 2025a)

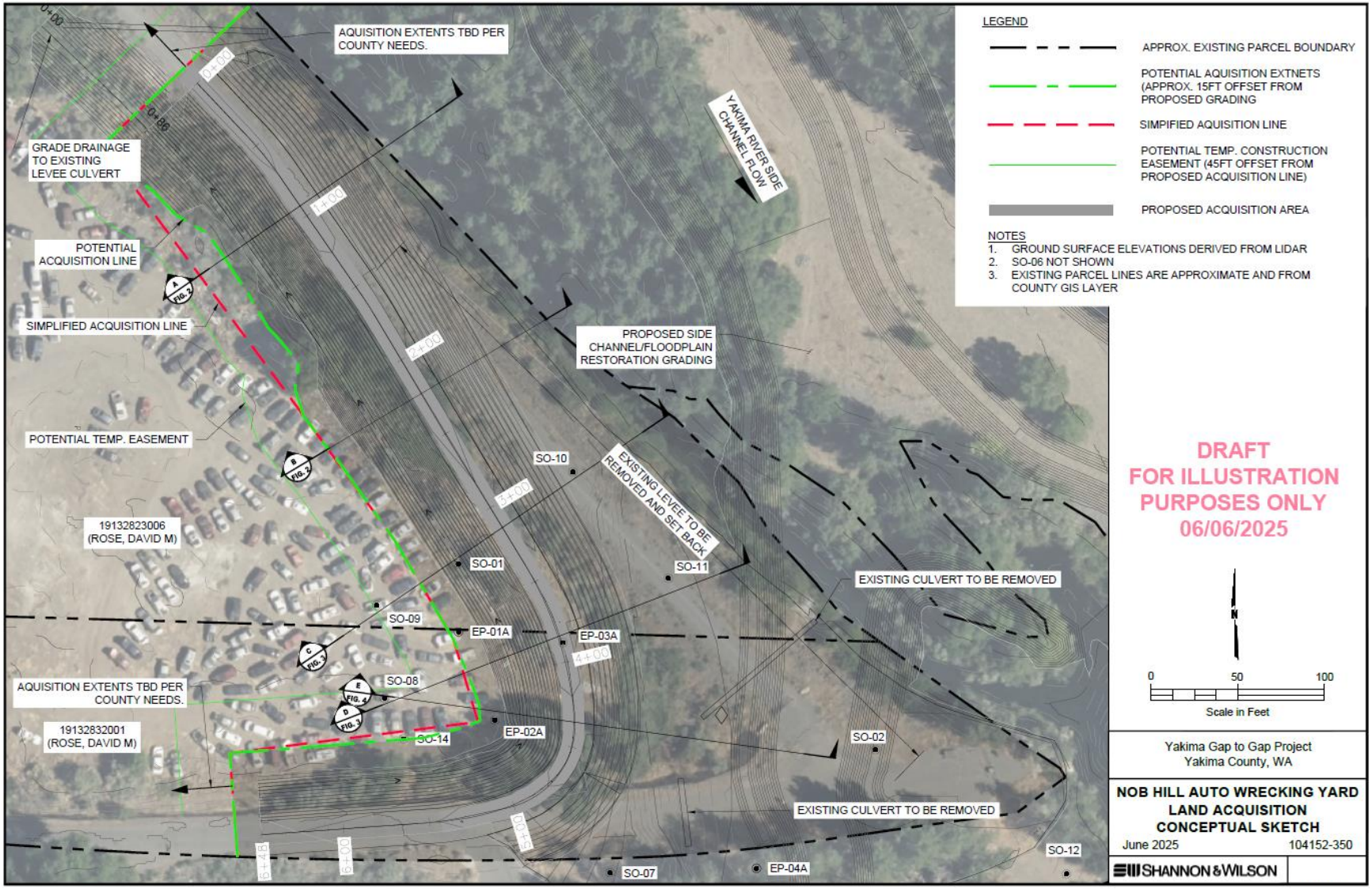


Figure 9: Nob Hill Levee Setback Cross Sections (excerpt from Shannon & Wilson, 2025a)

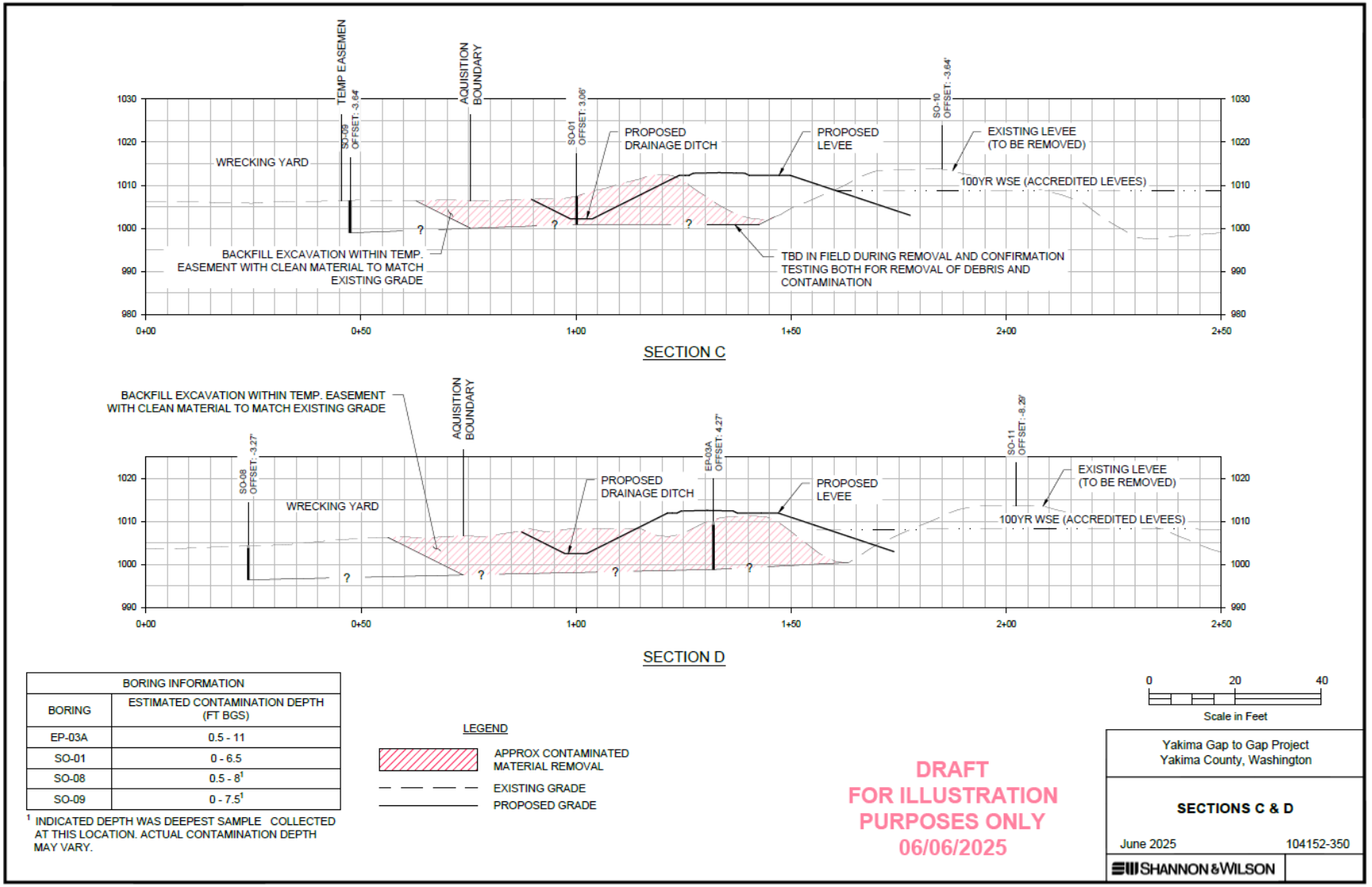


Figure 10: Nob Hill Levee Setback Cross Section (excerpt from Shannon & Wilson, 2025a)

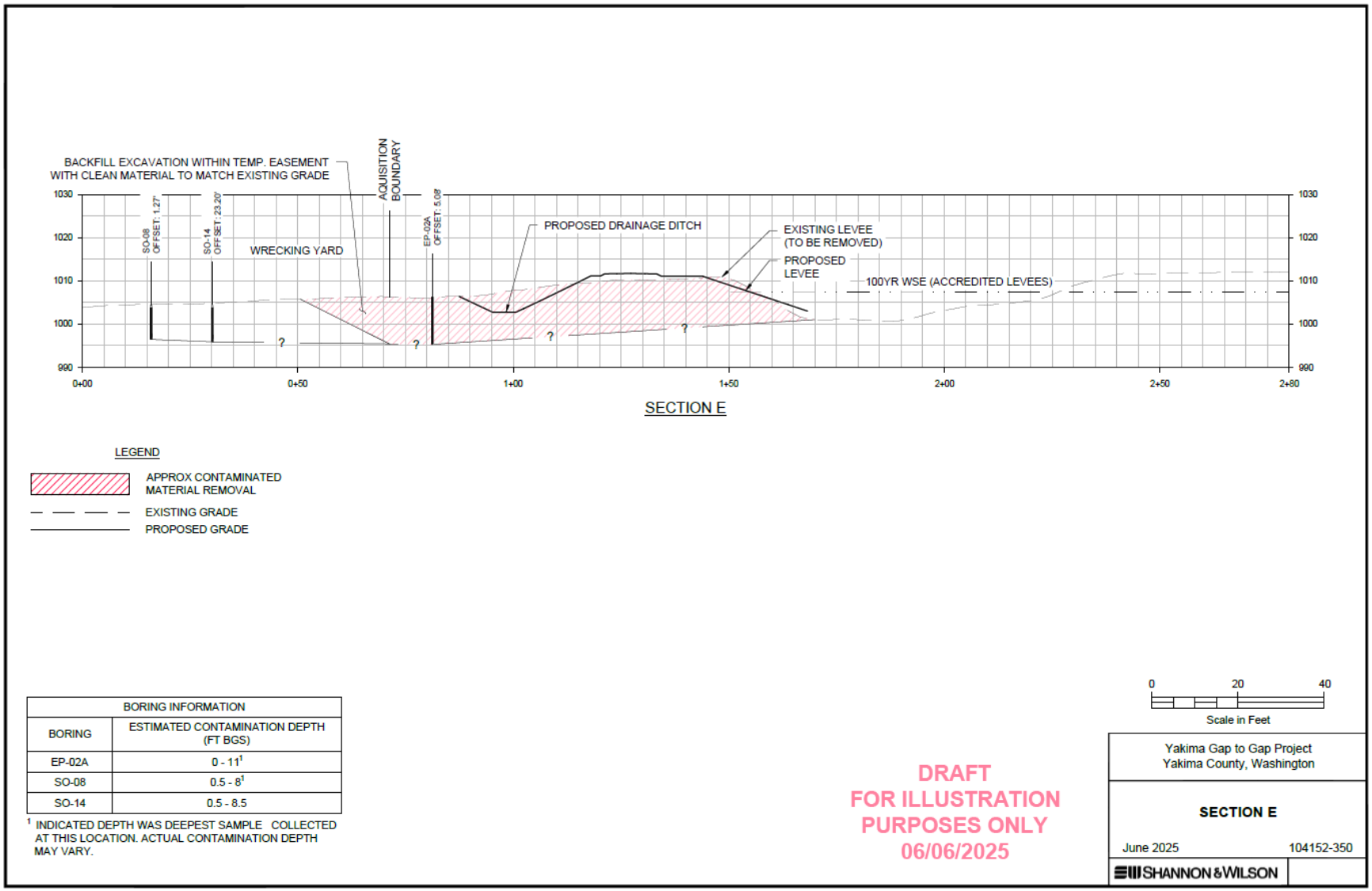
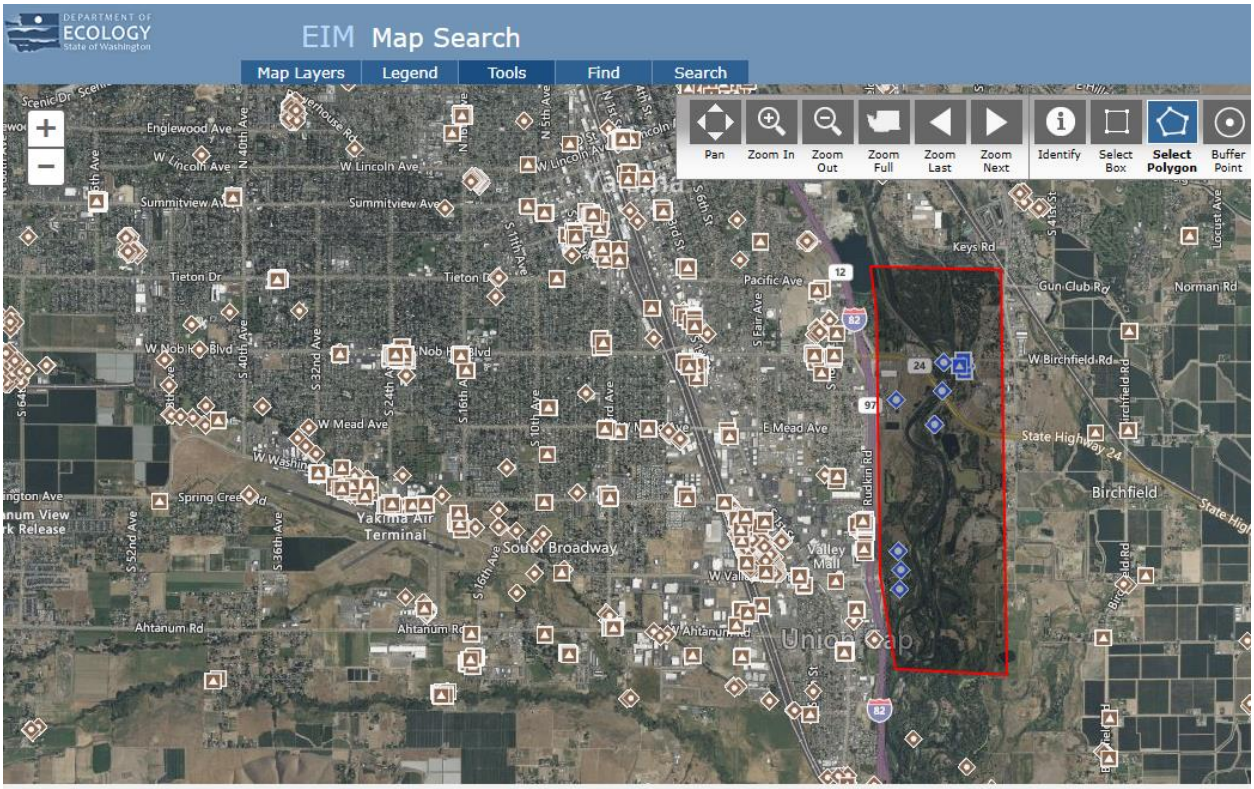
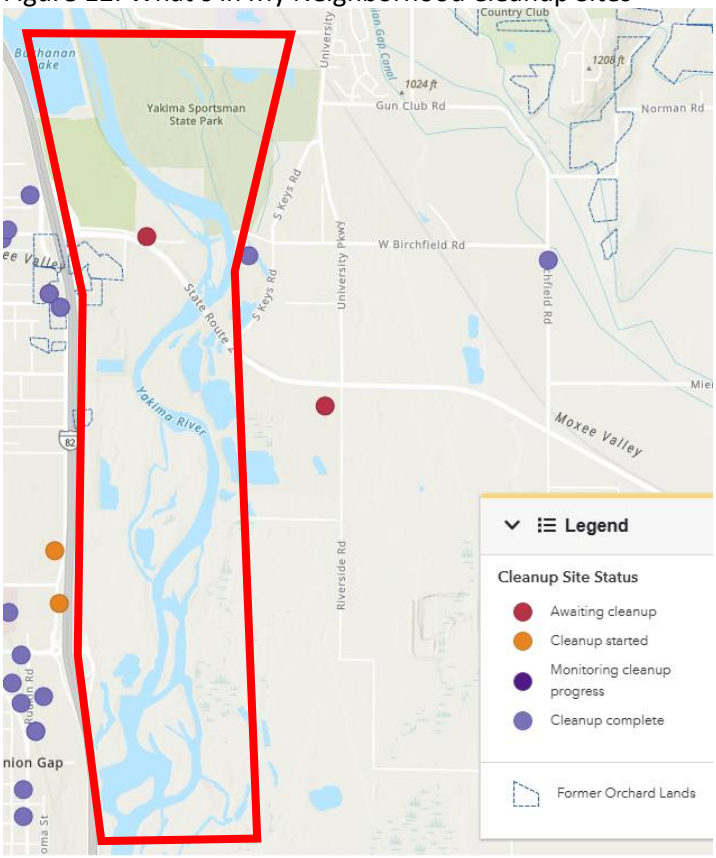


Figure 11: EIM Data Search



*Red polygon around the project site. One location had sediment data and is located in the cluster of points in the upper right portion of the polygon. All remaining location report water quality and/or freshwater taxonomy data.

Figure 12: What's in My Neighborhood Cleanup Sites



*Red polygon around the project site.

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Tables

Table 1: EIM Sediment Data

Analyte (mg/kg)	DMMP FW SL		FS24043_ 01.7	Q	FS24043_ 02.7	Q	FS24043_ 03.7	Q	FS24043_ 05.7	Q	FS24043_ 06.7	Q	FS24043_ 07.8	Q	FS24043_ 08.85	Q
	SL1	SL2														
Benzene	--	--	0.0199	U	0.0227	U	0.0205	U	0.0194	U	0.0228	U	0.0436		0.0204	U
Diesel Fuel	340	510	18.3	U	20.9	U	18.9	U	20.9	U	19	U	21.1	U	18.5	U
Ethylbenzene	--	--	0.0298	U	0.0341	U	0.0307	U	0.0291	U	0.0343	U	0.0344	U	0.0307	U
Gasoline	--	--	4.97	U	5.68	U	5.12	U	4.86	U	5.71	U	24.3		5.11	U
Heavy Fuel Oil	--	--	45.7	U	52.3	U	47.2	U	52.3	U	47.5	U	52.8	U	46.2	U
m, p-Xylene	--	--	0.0199	U	0.0227	U	0.0205	U	0.035		0.0228	U	1.97		0.0414	
Naphthalene	--	--	0.0343	U	0.0296	U	--		--		0.0343	U	--		0.0307	U
o-Xylene	--	--	0.0199	U	0.0227	U	0.0205	U	0.0248		0.0228	U	0.848		0.0343	
Toluene	--	--	0.0199	U	0.0227	U	0.0205	U	0.0194	U	0.0228	U	0.0953		0.0204	U

Table 1: EIM Sediment Data continued

Analyte (mg/kg)	DMMP FW SL		FS24043_ 09.7	Q	FS24043_ 010.85	Q	FS24043_ 012.7	Q	FS24043_ 013.7	Q
	SL1	SL2								
Benzene	--	--	0.0221		0.024	U	0.0192	U	0.021	U
Diesel Fuel	340	510	21.4	U	22	U	18.5	U	16.8	U
Ethylbenzene	--	--	0.0322		0.036	U	0.0288	U	0.0315	U
Gasoline	--	--	5.03	U	6	U	4.8	U	5.24	U
Heavy Fuel Oil	--	--	53.5	U	55.1	U	46.3	U	84	
m, p-Xylene	--	--	0.62		0.024	U	0.0192	U	0.021	U
Naphthalene	--	--	0.0302	U	--		--		--	
o-Xylene	--	--	0.275		0.024	U	0.0192	U	0.021	U
Toluene	--	--	0.387		0.024	U	0.0192	U	0.021	U

Notes:
FW: Freshwater
SL: Screening Level
Q: Data Qualifier
U: Non-detect

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Table 2: Soil Concentration DMMP Exceedances In/Outside of Nob Hill Auto Wrecking

Location of Sample:			Inside Nob Hill Auto Wrecking Perimeter				Outside Perimeter	
	DMMP FW SL		TP-2-AGW-01-8.5-9 Q	EP-02-6.5-7.5 Q	EP-02-10-11 Q	EP-03-10-11 Q	SO-03-7.5-8	Q
Analyte (mg/kg)	SL1	SL2						
Antimony	--	--	0.308	U	--	--	--	--	
Arsenic	14	120	5.34		14.7	7.03	24.6	2.98	D
Cadmium	2.1	5.4	0.803		1.18	0.797	0.239	18	D
Chromium	72	88	33.7		19.4	29	21.3	21.5	D
Copper	400	1,200	44.2		--	--	--	--	
Lead	360	1,300	80.1		3,150	364	38.8	11.5	DC
Mercury	0.66	0.8	0.448	U	--	--	--	--	
Nickel	38	110	44.4		--	--	--	--	
Selenium	11	20	1.98		--	--	--	--	
Silver	0.57	1.7	0.236		--	--	--	--	
Zinc	3,200	4,200	280		--	--	--	--	
TPH-O	--	--	295		887	528	666	141	U

Notes:
Exceeds SL1
Exceeds SL2
FW: Freshwater
SL: Screening Level
Q: Data Qualifier
C: Analyte with an initial or continuing calibration that does not meet established acceptance criteria.
D: Dissolved
U: Non-detect