Appendix O Work by Others

Appendix O
Tracking Work by Others During Remedial Design (as of February 2023)

						Anticipated Changes ²					Duals als litter	
Tax Parcel ID No.	Approximate River Mile ver (Downstream	Adjacent RAA ¹ to Upstream)	SMA Designation ¹	Owner	Tenant	Structural Demolition or Other	Dredging	Bank	Upland	Associated Active Permit (Agency, Title, Number)	Probability of Impact of Anticipated Changes	Additional Information ²
0022000005	3.0 E	1/2/3	17,18									Shoreline habitat restoration; interviewee suspects that sand placed at Boeing Plant 2 early action area is moving downstream and shoaling the navigation channel. Interviewee notes that sand bars shift often and that the nearshore area is eroding and deepening, while the outer berthing areas and navigation channel are shoaling (Integral et al. 2018).
2185000005	3.2 E	4/5, 6, 7, 8, 10, 11, 12	14,15,16			t 2				KCIW, Metal Finishing Permit No. 7811-04 Ecology, Industrial SW GP No.WAR000482	М	EPA indicated shoreline remediation and restoration activities have been completed at this site. Any remaining remediation (under Resource Conservation and Recovery Act/Toxic Substances Control Act) is limited to upland areas (Integral et al. 2018).
3324049002	3.35 E	4/5, 6, 7, 8, 10, 11, 12	14,15,16	Boeing Boeing	Boeing Plant 2			Y	Y			MTCA Agreed Order (July 2007, amended July 2013), Enforcement Order (March 2015). MTCA Agreed Order (July 2017). In June 2019, Boeing submitted a proposed upland cleanup plan. In 2020, EPA worked on preparing a response-to-comment on the draft Statement of Basis Proposed Cleanup Plan and its final corrective action decision for the clean of this site. EPA finalized the corrective action decision in July
0001600020	3.5 E											2022 (Ecology 2022a). Administrative order on Consent RCRA Docket No. 1092-01-22-3008(h) issued to Boeing in 1994.
0001600023	3.6 E	14, 15/16, 17	12	Star Forge LLC	Star Forge LLC		Y	Y		KCIW, Minor Discharge Authorization Permit No.1122-01 Ecology, Industrial SW GP No. WAR003231	н	Jorgensen Forge outfall work is complete. Separate Earle M. Jorgensen action for sediments may involve additional sediment work. The extent to which this will involve the shoreline is unknown (Integral et al. 2018). PCB-contaminated sediment and bank soils at the property were largely removed in 2014. Samples collected after the excavation indicated that some sediments were still contaminated. Jorgensen conducted sampling to assess the need for further cleanup at this site in spring 2019. In 2020, Jorgensen provided EPA with a draft Data Summary Report with results from the 2019 sampling effort. Jorgensen prepared an Engineering Evaluation/Cost Analysis document in late 2020 to determine what action can be taken at the EAA (alternatives include dredging; Ecology 2022a).
0001600014	3.75 E	40.24	10		Boeing			V	.,	Ecology, Industrial SW		Shoreline stabilization project (timing TBD; Anchor QEA 2022) Upland Model Toxics Control Act site (Integral et al. 2018)
0007400033	3.8 E	18, 21	10	Boeing	Isaacson Thompson			Υ	Y	GP No. WAR000148		In April 2010, Boeing and Ecology entered into Agreed Order DE-7088. Ecology reviewed the draft Final FS Report and prepared comments to send to Boeing in early 2020 (Ecology 2022a).

Appendix O
Tracking Work by Others During Remedial Design (as of February 2023)

							Anticipated Changes ²					
Tax Parcel ID No.	Approximate River Mile	Adjacent RAA ¹	SMA Designation ¹	Owner	Tenant	Structural Demolition or Other	Dredging	Bank	Upland	Associated Active Permit (Agency, Title, Number)	Probability of Impact of Anticipated Changes	Additional Information ²
5422600060	4.0 E	24/25, 26, 27	5,6,7	CenterPoint Properties	PACCAR- Kenworth			Y	Y	Ecology, Construction SW GP No. WAR310454	М	Upland construction consisting of 24.5 acres of soil disturbance for the construction of a warehouse facility and site improvements (Ecology 2022b) No interview form; lease ended in early 2018; likely moved (Integral et al. 2018). In 2006, PACCAR and Ecology signed Agreed Order No. DE-3599 to evaluate shoreline and nearshore sediments, seeps, and stormwater at the site. In 2008, Agreed Order No. DE-6069 was signed for upland clean up. Agreed Order DE-6069 was amended to update the property own in August 2017. The PLPs submitted the final FS to Ecology in July 2020. In July 2020, Ecology requested an addendum to the FS and the Interim Action Work Plan. The addendum was submitted in December 2020. The selected remedy for the shoreline area consists of excavation of soil in three hotspot areas, placing a clay cap, laying a drainage blanket, installing landscaping within the 100-foot river buffer, maintaining pavement outside the river buffer and establishing institutional controls. The site completed Phase 2 of the Sediment Evaluation Work, which included sediment core sampling in selected locations in LDW adjacent to the site (Ecology 2022a).
5422600010	4.1 E	27	5,6	Container Properties LLC	Container Properties LLC	Y	N	Y	Y	KCIW, Major Discharge Authorization No. 4167-03	н	In 3 to 5 years, a habitat rehabilitation project to regrade the slope of the bank from near vertical to 4.5 or 5:1 slope and vegetate (riparian habitat down to shelf habitat) will be completed. All current in-water structures will be removed and not replaced. The anticipated future use of the property will be for land-based operations or storage—no waterway use (Integral et al. 2018). Upland cleanup (timing TBD; Anchor QEA 2022). Corrective Measures Study, for the upland, is being performed to address the requirement's of the RCRA Administrative Order on Consent No.1091-11-20-3008 (Wood 2020).

Appendix O
Tracking Work by Others During Remedial Design (as of February 2023)

							A	Anticipate	d Change:	s ²		
Tax Parcel ID No.	Approximate River Mile	Adjacent RAA ¹	SMA Designation ¹	Owner	Tenant	Structural Demolition or Other	Dredging	Bank	Upland	Associated Active Permit (Agency, Title, Number)	Probability of Impact of Anticipated Changes	Additional Information ²
5624201032	4.3 E	28	4			Mainten- ance	N	Mainten- ance	N	Ecology, Industrial SW GP	L	Slip 6 facilities (pier) are subject to routine maintenance activities. No plans for changes development. Will maintain as needed in perpetuity. Boeing performs routine maintenance of the adjacent shoreline (Integral et al. 2018).
5624200990	4.4 E					N	N	Y	N	No. WAR000146 Ecology, Construction	L	Shoreline stabilization project and sheetpile wall installation (timing TBD; Anchor QEA 2022)
0003400018	4.6 E- 4.9 E	29, 32, 33/34/35	1,3	Boeing	BDC					SW GP No. WAR310165 KCIW, Major Discharge Authorization No. 526-08 (See Note 3.)	N/A	BDC Stormwater Improvements (August 2024; Anchor QEA 2022) Boeing and Ecology signed an Agreed Order No. DE-16275 in July 2019 which required Boeing to complete an RI, FS, Interim Action Work Plan, and to prepare a preliminary draft CAP at the BDC Site. In November 2020, Ecology WQ and Boeing signed Agreed Order No. 19427, which defined the compliance schedule for installation and performance monitoring of four stormwater treatment systems on site, in addition to PCB sampling and source control investigation and documentation (Ecology 2022a).
5624200992	4.4 E			Seattle City Light	City of Seattle, Seattle City Light						N/A	Overhead power line; authorized clearance: 134 feet (See DER Map 2-6e.)
0423049016	4.95 E	32, 33/34/35	1	Boeing	Boeing Vacant Site						N/A	BDC Stormwater Improvements (August 2024; Anchor QEA 2022)
West Side of Ri	iver (Downstream	to Upstream)			•	•		· -	1		1	
3224049037	3.15 W	4/5, 6, 7, 8, 10, 11, 12	14,15,16	Seattle Public Utilities	City of Seattle, Seattle Public Utilities						N/A	No available information
3224049004	3.15 W	4/5, 6, 7, 8, 10, 11, 12	14,15,16	Personal Property	Individual Owner						N/A	No available information
3224049003	3.15 W	4/5, 6, 7, 8, 10, 11, 12	14,15,16	Personal Property	Individual Owner						N/A	No available information
2185000520	3.17 W	4/5, 6, 7, 8, 10, 11, 12	14,15,16	Personal Property	Individual Owner						N/A	No available information
2185000495	3.2 W	4/5, 6, 7, 8, 10, 11, 12	14,15,16	Personal Property	Individual Owner						N/A	No available information
2185000475	3.2 W	4/5, 6, 7, 8, 10, 11, 12	14,15,16	Personal Property	Individual Owner						N/A	No available information

Appendix O
Tracking Work by Others During Remedial Design (as of February 2023)

						Anticipated Changes ²				, 2		
Tax Parcel ID No.	Approximate River Mile	Adjacent RAA ¹	SMA Designation ¹	Owner	Tenant	Structural Demolition or Other	Dredging	Bank	Upland	Associated Active Permit (Agency, Title, Number)	Probability of Impact of Anticipated Changes	Additional Information ²
2185000505	3.2 W	4/5, 6, 7, 8, 10, 11, 12	14,15,16	Personal Property	Individual Owner						N/A	No available information
2185000825	3.25 W	4/5, 6, 7, 8, 10, 11, 12	14,15,16	Personal Property	Individual Owner						N/A	No available information
2185000685	3.3 W	4/5, 6, 7, 8, 10, 11, 12	14,15,16	Personal Property	Individual Owner						N/A	No available information
2185000695	3.25 W	4/5, 6, 7, 8, 10, 11, 12	14,15,16	Hmh LLC	Hmh LLC						N/A	No available information
2185000895	3.3 W	4/5H, 4/5I, 8, 10, 11, 12	14	King County	King County Roads						N/A	No available information
2185600025	3.4 W			South Park Marina Ltd Part	Tire Factory						N/A	Tire Factory: No known water-dependent uses (Integral et al. 2018) Rick's Master Marine: Uses the boat ramp and performs maintenance in the yard
2185600070	3.45 W	4/5H, 4/5l, 8, 10, 11, 12	14	South Park Marina Ltd Part	Ricks Master Marine	N	N	N			N/A	(Integral et al. 2018) Vessels are dependent upon authorized depths being maintained. The last
0001600001	3.5-3.7 W	4/5H, 4/5l, 8, 10, 11, 12, 13	13,14	South Park Marina Ltd Part	South Park Marina	N	Y	N	Y	Ecology, Boatyard GP WAG30045 (See Note 3)	М	maintenance dredge event occurred in 1992, only at the downstream end of the marina. A 2003 application to dredge was filed, but dredging did not occur. South Park Marina had planned to dredge in 2017. Marina has authorized navigation depth of -8 feet MLLW in the inner portions and -12 feet MLLW in the outer portions (Integral et al. 2018). Ecology finalized Agreed Order No. DE 16185 to preform an RI in April 2019. In 2020,
												the PLPs developed an RI work plan for this site. The RI is scheduled to take place in spring 2021 (Ecology 2022a).
0001600044	3.5-3.9 W	13, 14, 15/16, 17	12,13	Port of Seattle	T-117	N	N	Y	Y		М	Construction for Duwamish River People's Park Habitat restoration and shoreline access, completed and park opened July 16, 2022 (Port of Seattle 2022). A port Natural Resource Damage Assessment restoration plan for T-117 and adjacent Trenton Boeing shoreline created 13 acres of off-channel intertidal/riparian habitat area in the central portion of the current T-117 uplands area, and the banks of the site will be modified slightly. A small sediment cap will remain in place (Integral et al. 2018).
7883608601	3.7 W	19/20	11	Boeing	Boeing South Park						L	No known water-dependent uses (Integral et al. 2018) RM 3.7-3.9 Duwamish River People's Park and Shoreline Habitat Project, completed in July 2022 (Port of Seattle 2022)

Appendix O
Tracking Work by Others During Remedial Design (as of February 2023)

							A	nticipate	d Changes	; ²	B. d. b. b. Pri	
Tax Parcel ID No.	Approximate River Mile	Adjacent RAA ¹	SMA Designation ¹	Owner	Tenant	Structural Demolition or Other		Bank	Upland	Associated Active Permit (Agency, Title, Number)	Probability of Impact of Anticipated Changes	Additional Information ²
					Boeing							No known water-dependent uses (Integral et al. 2018)
7883608603	3.85 W			Boeing	Radiation Effects Lab							RM 3.7-3.9 Duwamish River People's Park and Shoreline Habitat Project, completed in July 2022 (Port of Seattle 2022)
0001600060	3.95 W	23	8	Nation Industrial Holding	Sea King Industrial Park LLC	1		-1-			N/A	No available information
0001600061	4.1 W	23	8	Duwamish Yacht Club	Duwamish Yacht Club						N/A	No available information
5624200005	4.2 W			Delta Marine	Delta Marine					Ecology, Boatyard GP	N/A	Ecology conducted a stormwater compliance inspection at Delta Marine Industries in
5624200006	4.25 W			Industries Inc.	Industries Inc.					WAG030091	N/A	February 2020 (Ecology 2022a).
5624200931	4.3 W			Seattle City Light	City of Seattle, Seattle City Light						I NI/A	Shoreline designated habitat in perpetuity: Hamm Creek Restoration Area (no additional information).
5624200930	4.4 W		1	Seattle City Light	City of Seattle, Seattle City Light						I N/A	Overhead power line; authorized clearance 134 feet (see BODR Map 2-6e). Small habitat site adjacent to SCL, under power lines (no additional information).
5624200950	4.55 W			Seattle City Light	City of Seattle						N/A	Small habitat site adjacent to SCL (no additional information).
5624200970	4.6W		-	Muckleshoot Tribe USA in Trust	Muckleshoot Tribe USA in Trust						N/A	Designated habitat in perpetuity (no additional information).
0423049001	4.8 W				AIF Trailer Leasing			Υ			N/A	
0423049150	4.8 W			Desimone Trust Oxbow 2601	Boeing Employees Activity Center			Y			NI/A	Bank construction conducted along RM 4.8W, between 2020 and 2021 (See DER Map 2-6f).
423049073	4.8 W				Pamco Construction			Υ			N/A	
Other Future A	ctivities on the Ri	ver								ı		
-	Approximately from 3.68 W to 3.69 E	Adjacent to RAA 17	Adjacent to SMA 12	Boeing	Boeing South Park to Boeing Vacant Land	Und	lerwater Pov	ver Line ("	Donovan (Crossing Circuit")	M(?)	City of Seattle is planning the design and installation of a future underwater power line ("Donovan Crossing Circuit") on Boeing property. Design and construction are anticipated to be completed in 2024 and 2026, respectively (Anchor QEA 2023).

Appendix O

Tracking Work by Others During Remedial Design (as of February 2023)

Notes:

- 1. RAAs definition and designation are consistent with BODR Section 6 (Table 6-1).
- 2. Work by others, anticipated changes, and additional associated information (including permits) are tracked based on review of the following:
- a. Anchor QEA (Anchor QEA, LLC,) 2022. Personal communication with The Boeing Company.
- b. Ecology (Washington State Department of Ecology), 2022a. Lower Duwamish Waterway Source Control Status Report 2020. Washington State Department of Ecology. Publication No. 22-09-178. August 2022.
- c. Ecology, 2022b. Recommendation for Enforcement action Water Quality Program . Accessed July 2022. Available at: https://apps.ecology.wa.gov/paris/DownloadDocument.aspx?ld=37823).
- d. Integral Consulting Inc., Moffat & Nichol, and Windward Environmental LLC, 2018. Waterway User Survey and Assessment of In-water Structures Data Report. Prepared for U.S. Environmental Protection Agency Region 10. July 2, 2018.
- e. Port of Seattle 2022. Duwamish River People's Park and Shoreline Habitat (https://www.portseattle.org/peoplespark). Website access in July 2022.
- f. Ecology 2022b. Water Quality Permitting and Reporting Information System (PARIS) (https://apps.ecology.wa.gov/paris). Website access in November 2022.
- g. King County 2022. King County Lower Duwamish Source Control Annual Report Year 2021. King County, Department of Natural Resources and Parks, Department of Executive Services, Department of Local Services, and Department of Public Health-Seattle & King County. Prepared for Washington State Department of Ecology. October 2022.
- h. Wood, 2020. Carbon Dioxide Neutralization Pilot Study Results, Former Rhone-Poulenc Site . Prepare for Container Properties LLC. Prepared by Wood. May 2020.
- 3. Area with potential future maintenance dredging; however, USACE permit is not currently identified as active.
- 4. Anchor QEA (Anchor QEA, LLC), 2023. Personal communication with City of Seattle. January 30, 2023.
- --: no change anticipated

BDC: Boeing Developmental Center

BODR: Basis of Design Report

Boeing: The Boeing Company

CAP: cleanup action plan

DER: Data Evaluation Report

E: east

EAA: early action area

Ecology: Washington State Departement of Ecology

EPA: U.S. Environmental Protection Agency

FS: feasibility study

GP: General Permit

H: high probability of impact of anticipated changes

KCIW: King County Industrial Waste

L: low probability of impact of anticipated changes

LDW: Lower Duwamish Waterway

M: medium probability of impact of anticipated changes

MLLW: mean lower low water

MTCA: Model Toxics Control Act

N: no

N/A: not applicable

PCB: polychlorinated biphenyl

PLP: potentially liable party

RAA: remedial action area

RAL: remedial action level

RCRA: Resource Conservation and Recovery Act

RI: remedial investigation

RM: river mile

SCL: Seattle City Light

SMA: sediment management area

SW: Stormwater

TBD: to be determined

USACE: U.S. Army Corps of Engineers

W: west

Y: yes