

- Surface sediment sampling location with cPAH TEQ > the 2014 ROD RAL
 - Surface sediment sampling location with cPAH TEQ ≤ the 2014 ROD RAL
 - 0-45 cm core with cPAH TEQ > the 2014 ROD RAL^a
 - 0-45 cm core with cPAH TEQ ≤ the 2014 ROD RAL
 - 0-60 cm core or shoal interval with cPAH TEQ > the 2014 ROD RAL^a
 - 0-60 cm core or shoal interval with cPAH TEQ ≤ the 2014 ROD RAL
 - Sample above MHHW^b
 - 0-60 cm core with no cPAH RAL
 - Additional area with cPAH TEQ > 2014 ROD RAL
 - RAL exceedance area
 - Recovery Category 1
 - Early Action Area
- Overwater structures**
- Bridge
 - Dock/pier
 - Marina
 - Intertidal area
 - Potential vessel scour area
 - Shoal area
 - Below the navigation depth in the FNC and below potential vessel scour depth outside the FNC
 - Not covered by bathymetric survey
 - Bridge footing
 - LDW Superfund Site
 - King Co tax parcel
 - Federal Navigation Channel
 - River mile

Shoaling Locations (RM 1.6 to 1.7)
Authorized Depth of -30 ft MLLW

location ID:	1002	1006	1007	1011	1012
event / year:	PDI	PDI	PDI	PDI	PDI
mudline:	-26.9	-29.3	-27.8	-29.3	-28.3

-27 to -28 ft	A				
-28 to -29 ft	B		A		
-29 to -30 ft	C	A	B	A	B
-30 to -31 ft	C (cPAH ROD RAL EF of 2.0)	A	B	A	B
-31 to -32 ft	D	B	C	B	C
-32 to -33 ft					
-33 to -34 ft					

location ID	RAL exceedance factor
LDW23-SC1002:EF=2.0	

- Phase II locations to be analyzed for cPAHs**
- Surface (0-10 cm)
 - Intertidal (0-45 cm)
 - Subtidal (0-60 cm)
 - Vertical extent (non-RAL interval)
- Phase I sample to be analyzed for PAHs in Phase II**
- Phase I Archive: Surface (0-10 cm)
 - Phase I Archive: Subtidal (0-60 cm)

Legend for Vertical Extent Cores

RM Area	Loc No.	Actual mudline elevation (ft MLLW)
	-5.6	
A (0-60)		
B		
C		
D		
E		
F		
G		

← RAL interval(s) are indicated by bold outlines; red if > RAL, green if < RAL

← Letters indicate core interval for samples below RAL interval (purple if > surface sediment RAL; green if < surface sediment RAL)

← Light yellow indicates archive samples that were not analyzed

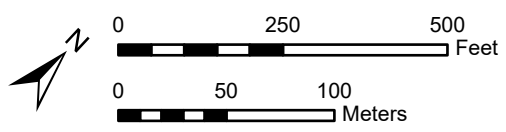
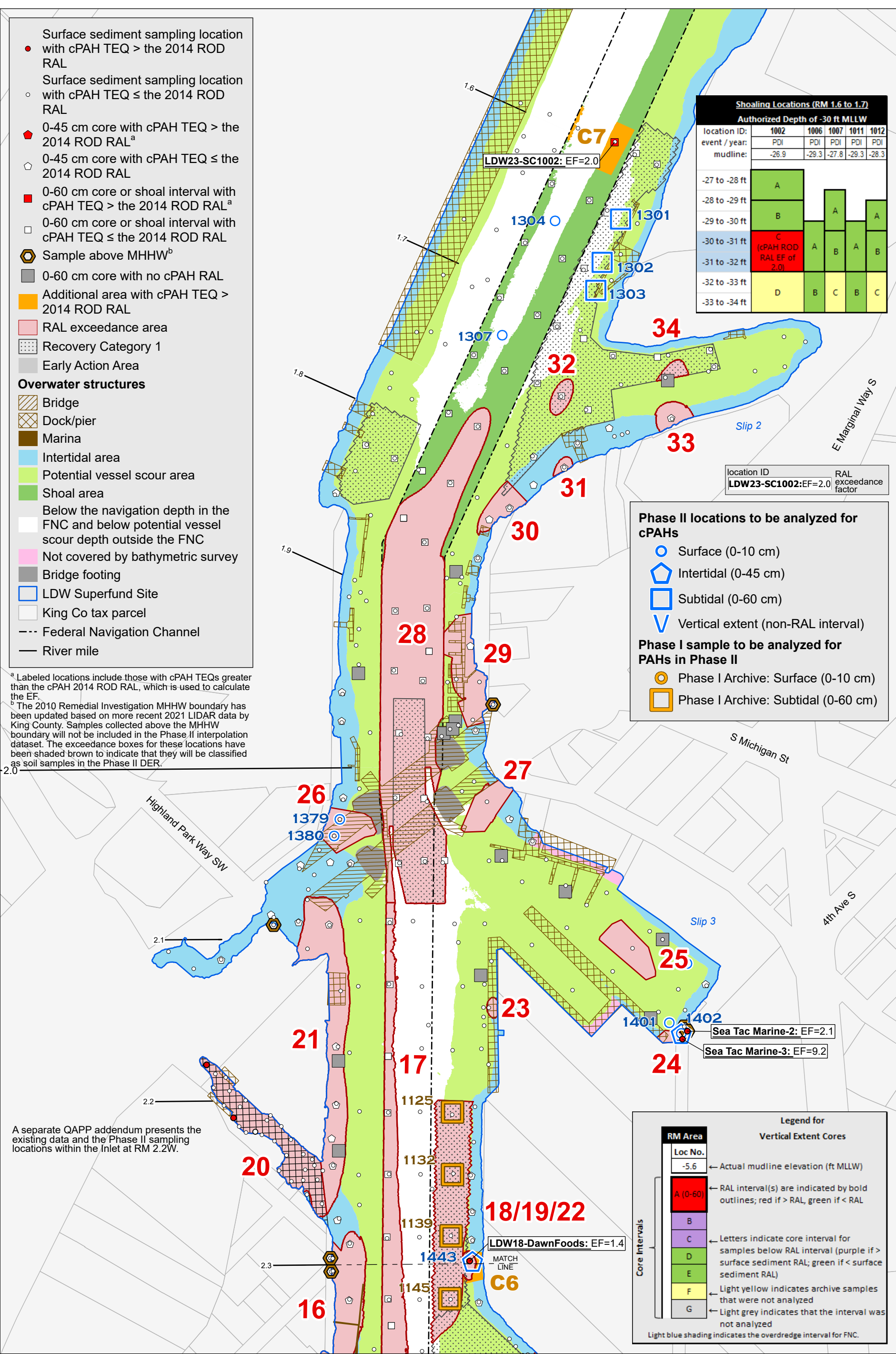
← Light grey indicates that the interval was not analyzed

Light blue shading indicates the overdrudge interval for FNC.

^a Labeled locations include those with cPAH TEQs greater than the cPAH 2014 ROD RAL, which is used to calculate the EF.

^b The 2010 Remedial Investigation MHHW boundary has been updated based on more recent 2021 LIDAR data by King County. Samples collected above the MHHW boundary will not be included in the Phase II interpolation dataset. The exceedance boxes for these locations have been shaded brown to indicate that they will be classified as soil samples in the Phase II DER.

A separate QAPP addendum presents the existing data and the Phase II sampling locations within the Inlet at RM 2.2W.



Map A-1a. Additional RAL Exceedance Areas in the Middle Reach Based on a Comparison with the 2014 ROD RAL for cPAHs, RM 1.6 to RM 2.3

QAPP ADDENDUM FOR PHASE II OF THE PRE-DESIGN INVESTIGATION OF THE LDW MIDDLE REACH

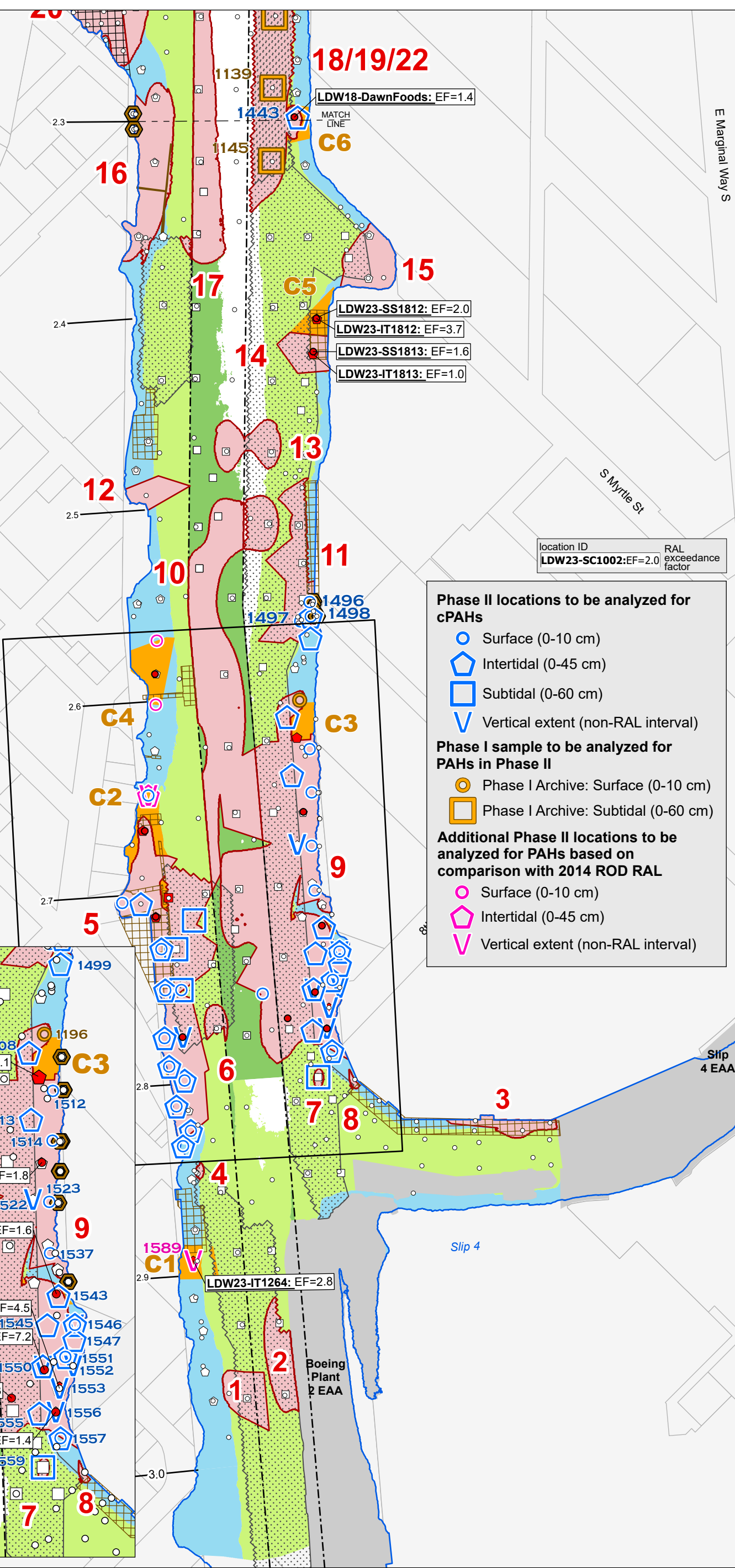
JUNE 12, 2024

Prepared by craigh, 6/13/2024, W:\Projects\Duwamish_AOC\GIS\Maps and Analyses\Phase 2\QAPP\Phase II\QAPP Addendum.aprx\Map A-1-7297 cPAH REA changes

- Surface sediment sampling location with cPAH TEQ > the 2014 ROD RAL
 - Surface sediment sampling location with cPAH TEQ ≤ the 2014 ROD RAL
 - 0-45 cm core with cPAH TEQ > the 2014 ROD RAL^a
 - 0-45 cm core with cPAH TEQ ≤ the 2014 ROD RAL
 - 0-60 cm core or shoal interval with cPAH TEQ > the 2014 ROD RAL^a
 - 0-60 cm core or shoal interval with cPAH TEQ ≤ the 2014 ROD RAL
 - Sample above MHHW^b
 - 0-60 cm core with no cPAH RAL
 - Additional area with cPAH TEQ > 2014 ROD RAL
 - RAL exceedance area
 - Recovery Category 1
 - Early Action Area
- Overwater structures**
- Dock/pier
 - Marina
 - Intertidal area
 - Potential vessel scour area
 - Shoal area
 - Below the navigation depth in the FNC and below potential vessel scour depth outside the FNC
 - LDW Superfund Site
 - King Co tax parcel
 - Federal Navigation Channel
 - River mile

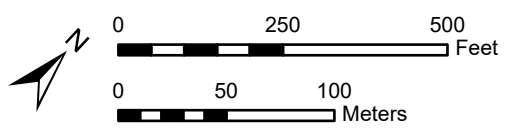
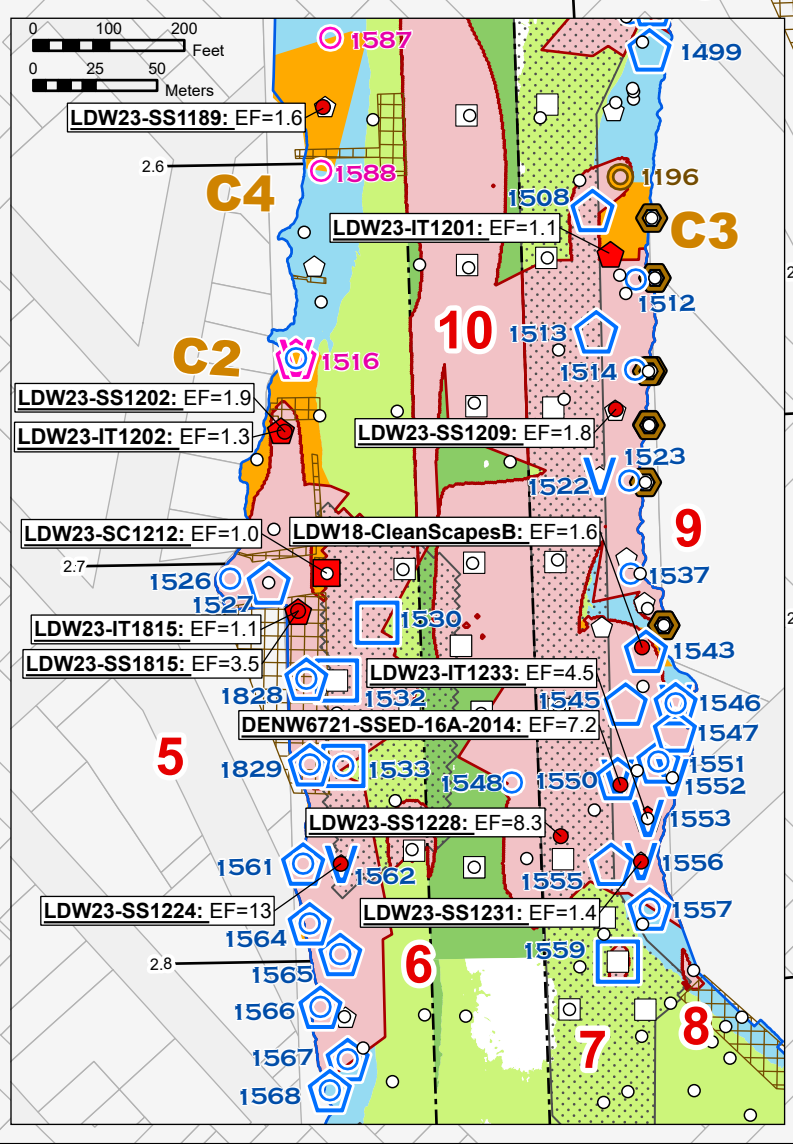
^a Labeled locations include those with cPAH TEQs greater than the cPAH 2014 ROD RAL, which is used to calculate the EF.

^b The 2010 Remedial Investigation MHHW boundary has been updated based on more recent 2021 LIDAR data by King County. Samples collected above the MHHW boundary will not be included in the Phase II interpolation dataset. The exceedance boxes for these locations have been shaded brown to indicate that they will be classified as soil samples in the Phase II DER.



location ID
LDW23-SC1002:EF=2.0
RAL exceedance factor

- Phase II locations to be analyzed for cPAHs**
- Surface (0-10 cm)
 - Intertidal (0-45 cm)
 - Subtidal (0-60 cm)
 - Vertical extent (non-RAL interval)
- Phase I sample to be analyzed for PAHs in Phase II**
- Phase I Archive: Surface (0-10 cm)
 - Phase I Archive: Subtidal (0-60 cm)
- Additional Phase II locations to be analyzed for PAHs based on comparison with 2014 ROD RAL**
- Surface (0-10 cm)
 - Intertidal (0-45 cm)
 - Vertical extent (non-RAL interval)



Map A-1b. Additional RAL Exceedance Areas in the Middle Reach Based on a Comparison with the 2014 ROD RAL for cPAHs, RM 2.3 to RM 3.0
QAPP ADDENDUM FOR PHASE II OF THE PRE-DESIGN INVESTIGATION OF THE LDW MIDDLE REACH
JUNE 12, 2024

Prepared by craigh, 6/13/2024, W:\Projects\Duwamish_AOC5\GIS\Maps and Analyses\Phase II QAPP Addendum.aprx\Map_A-1_7297_cPAH REA changes