

**Table 8.1-1
Proposed Phase 2 Program Area, Volume, and PCB Mass by River Reach**

Reach	Area (acres)*	Volume (cy)*	Mass (kg)*
8	257	808,000	47,000
7	28	108,000	8,240
6	58	256,200	20,300
5	58	295,200	16,280
4	12	53,300	4,150
3	16	80,000	2,240
2	4	21,700	380
1	6	42,300	960
TOTAL	439	1,664,700	99,550

Note:

*Based on Phase 2 Dredge Area Delineation using SSAP data

**Table 8.1-2
Phase 1 and Phase 2 Sediment Composition by Percentage of Design Volume**

CU Number	% Composition by Volume			
	Coarse Sand & Gravel	Fine Sand / Medium sand	Very Fine Sand	Clay / Silt
Phase 1 River Section 1				
01	57%	23%	6%	14%
02	37%	25%	12%	25%
03	36%	24%	12%	28%
04	38%	27%	12%	22%
05	59%	21%	6%	15%
06	43%	25%	10%	22%
07	47%	23%	8%	22%
08	42%	25%	11%	22%
17	24%	22%	16%	38%
18	18%	21%	17%	43%
Phase 2 River Section 1				
09	41%	26%	11%	22%
10	40%	26%	12%	23%
11	43%	22%	9%	26%
12	50%	24%	8%	18%
13	46%	21%	8%	26%
14	28%	25%	14%	32%
15	36%	25%	11%	28%
16	49%	23%	7%	21%
19	26%	20%	15%	39%
20	30%	25%	15%	30%
21	39%	25%	12%	25%
22	32%	25%	14%	28%
23	28%	24%	15%	33%
24	35%	25%	13%	27%
25	33%	23%	13%	31%
26	35%	27%	13%	24%
27	36%	28%	13%	23%
28	43%	27%	10%	20%
29	39%	27%	12%	22%
30	34%	28%	14%	24%
31	45%	27%	10%	18%
32	44%	27%	10%	18%
33	40%	29%	12%	20%
34	32%	25%	13%	29%
35	20%	23%	17%	40%
36	26%	27%	16%	30%
37	21%	23%	17%	39%
38	21%	21%	16%	41%
39	29%	24%	14%	32%
40	34%	25%	13%	28%
41	30%	29%	15%	27%
42	38%	26%	12%	24%
43	39%	25%	12%	25%
44	26%	24%	14%	36%
45	29%	23%	14%	34%
46	32%	26%	14%	28%
47	34%	22%	12%	32%
48	29%	26%	15%	30%
49	39%	25%	11%	25%
54	20%	26%	18%	36%
55	32%	23%	13%	32%
56	24%	21%	15%	40%
57	26%	21%	15%	39%
58	28%	21%	13%	37%
59	24%	22%	16%	38%
60	20%	20%	17%	44%

CU Number	% Composition by Volume			
	Coarse Sand & Gravel	Fine Sand / Medium sand	Very Fine Sand	Clay / Silt
River Section 2				
61	18%	27%	19%	37%
62	12%	22%	18%	48%
63	42%	28%	10%	20%
64	24%	22%	14%	41%
65	32%	26%	13%	29%
66	55%	27%	6%	12%
67	10%	20%	18%	52%
68	11%	23%	19%	48%
69	13%	25%	19%	43%
70	19%	24%	17%	40%
71	11%	23%	19%	47%
72	10%	21%	18%	51%
73	14%	22%	17%	46%
74	18%	24%	17%	42%
75	16%	22%	17%	45%
76	12%	18%	17%	53%
77	20%	26%	19%	35%
River Section 3				
79	7%	17%	19%	57%
80	16%	18%	17%	49%
81	16%	22%	18%	44%
82	8%	16%	18%	58%
83	12%	18%	17%	54%
84	7%	19%	19%	55%
85	5%	13%	17%	65%
86	7%	14%	17%	61%
87	6%	14%	17%	63%
88	8%	15%	16%	61%
89	6%	14%	17%	63%
90	7%	14%	17%	61%
91	7%	14%	17%	62%
92	20%	20%	14%	45%
93	11%	17%	17%	55%
94	7%	19%	19%	55%
95	5%	12%	17%	67%
96	8%	15%	17%	60%
97	16%	29%	21%	34%
98	9%	21%	20%	50%
99	8%	17%	18%	56%
100	4%	10%	16%	69%

	% Composition by Volume			
	Coarse Sand & Gravel	Fine Sand / Medium sand	Very Fine Sand	Clay / Silt
Phase 1 Summary	40%	24%	11%	25%
Phase 2 Summary	22%	22%	15%	40%
Phase 2 - River Section 1	31%	25%	14%	30%
Phase 2 - River Section 2	20%	24%	16%	40%
Phase 2 - River Section 3	9%	17%	18%	57%

**Table 8.1-3
Additional Bedrock Areas Identified in Phase 2 Certification Units**

CU ID	Description	Notes
Bedrock Areas		
CU25	Small bedrock, with gravel area surrounding, portion in south-central portion of CU. Continues upriver from larger area in CU26. There are also several mounds along the western shore of the river.	Area within CU25 has shallow probing penetrations; recovered cores are below both criteria surrounding the bedrock area. There are several mounds present along the western shore of the river that are likely spoils from dredging of the navigation channel.
CU26	Large bedrock area with gravel surrounding that divides the CU in half north to south. There are also several mounds along the western shore of the river.	To the west of the bedrock area in CU26 have several mound features that are likely spoils from the dredging of the navigation channel. Probing depths on these mounds were 2-3 ft while away from the mounds probes were only advanced 0 - 6 inches. In addition, coring results to the west of the bedrock area were predominantly inaccessible or the results did not meet either criteria.
CU27	Large bedrock area with gravel surrounding that divides the CU in half north to south.	To the west of the bedrock area within CU-27 probing data reports penetrations of 0 -6 inches within CU with SSAP location and penetrations of 6 - 12 inches during probing survey. Core results within area west of bedrock in CU met both criteria but amount of mass to be removed should be evaluated as area appears to be difficult area to dredge.
CU43	Small bedrock area with gravel deposits surrounding along the eastern portion of the CU.	Area to the east of bedrock area within CU has two coring locations that were originally inaccessible and several probing results with shallow penetration in the northeastern portion of the CU.
Mound Areas		
CU24	Small mound features appear along western shore of river	Mounds are likely spoils from dredging of navigation channel
CU41 and CU42	Begin seeing mounds again along east side of Hudson River	Mounds are likely spoils from dredging the navigation channel.
Additional Areas for Further Investigation		
CU61	Locations throughout western reach around Thompson Island.	Many of the small dredge areas within the CU are adjacent to or have small portions of bedrock areas. There are numerous inaccessible cores immediately outside of dredge area along with shallow probing depths.
CU62	Locations throughout eastern reach around Thompson Island.	Many of the small dredge areas within the CU are adjacent to or have small portions of bedrock areas. There are numerous inaccessible cores immediately outside of dredge area along with shallow probing depths.
CU66	Dredge areas on major eastward meander of river	Three out of four small dredge area have shallow probe penetrations on bedrock within area to be dredged.
CU75	Small area going west into navigation channel	Within this area of the larger CU to be dredged there are several shallow probe penetration depths surrounding one core location above the surface Tri+ PCB criteria.

**Table 8.1-4
Comparison of Water Depths in Certification Units at Hudson Mean Low Discharge (1,100 cfs)**

CU Number	Total CU Area	% 0-2 feet	% 2-4 feet	% 4-6 feet	% 6-8 feet	% > 8 feet
Phase 1 River Section 1						
01	3.39	10%	44%	20%	19%	7%
02	5.06	19%	7%	8%	9%	57%
03	4.87	16%	8%	6%	11%	59%
04	4.51	9%	6%	8%	8%	70%
05	4.77	38%	54%	7%	0%	0%
06	4.94	4%	47%	37%	11%	0%
07	4.71	17%	36%	31%	17%	0%
08	4.91	24%	9%	26%	35%	6%
17	4.99	6%	5%	5%	22%	62%
18	6.04	9%	7%	7%	18%	59%
Phase 2 River Section 1						
09	4.99	24%	15%	52%	6%	3%
10	4.86	15%	17%	35%	31%	2%
11	4.93	7%	5%	9%	26%	53%
12	4.94	5%	2%	2%	2%	89%
13	4.86	3%	2%	1%	2%	91%
14	5	9%	2%	2%	2%	85%
15	4.87	4%	3%	4%	5%	85%
16	5.5	3%	9%	13%	5%	71%
19	4.98	54%	4%	2%	0%	39%
20	5.06	27%	21%	5%	3%	44%
21	4.99	13%	28%	9%	0%	50%
22	5.03	12%	17%	18%	5%	48%
23	5.01	15%	14%	31%	3%	37%
24	5.03	14%	8%	25%	13%	42%
25	5.04	16%	11%	15%	18%	40%
26	4.24	21%	16%	15%	12%	36%
27	3.72	13%	7%	15%	12%	53%
28	4.78	8%	10%	13%	14%	55%
29	4.95	18%	8%	7%	5%	62%
30	4.95	14%	6%	17%	5%	57%
31	4.81	9%	8%	29%	11%	43%
32	4.94	9%	18%	23%	13%	36%
33	5.49	9%	16%	18%	15%	43%
34	5.51	10%	6%	7%	8%	69%
35	5.38	69%	17%	5%	6%	2%
36	5.39	21%	31%	32%	7%	10%
37	5.5	28%	15%	7%	4%	46%
38	5.57	24%	8%	8%	10%	50%
39	5.56	13%	6%	11%	13%	58%
40	5.55	21%	12%	7%	5%	56%
41	5.46	14%	12%	6%	9%	59%
42	5.32	4%	5%	8%	6%	76%

**Table 8.1-4
Comparison of Water Depths in Certification Units at Hudson Mean Low Discharge (1,100 cfs)**

CU Number	Total CU Area	% 0-2 feet	% 2-4 feet	% 4-6 feet	% 6-8 feet	% > 8 feet
43	5.36	9%	6%	6%	6%	72%
44	5	9%	3%	3%	5%	79%
45	4.98	12%	5%	7%	7%	69%
46	4.98	22%	6%	11%	8%	53%
47	5.03	38%	12%	9%	5%	37%
48	5.39	14%	8%	13%	11%	55%
49	5.37	5%	1%	1%	2%	90%
50	5.24	45%	15%	27%	13%	1%
51	5.31	79%	17%	3%	0%	1%
52	5.36	81%	18%	0%	0%	1%
53	5.47	67%	22%	7%	0%	3%
54	5.4	66%	20%	11%	0%	2%
55	5.44	17%	9%	7%	5%	62%
56	5.46	10%	3%	4%	3%	79%
57	5.43	9%	2%	5%	4%	80%
58	6.03	7%	3%	7%	8%	75%
59	4.02	9%	25%	38%	21%	6%
60	6.02	63%	12%	18%	6%	1%
River Section 2						
61	4.6	11%	13%	14%	17%	45%
62	3.99	11%	16%	15%	13%	45%
63	5.16	7%	13%	43%	13%	24%
64	4.46	41%	26%	20%	11%	3%
65	5.08	5%	9%	19%	23%	44%
66	4.7	2%	2%	2%	6%	88%
67	5.28	8%	23%	11%	10%	48%
68	5.29	30%	12%	9%	10%	40%
69	5.34	54%	12%	14%	8%	12%
70	5.35	37%	19%	26%	16%	2%
71	4.3	53%	11%	6%	4%	25%
72	5.31	21%	16%	18%	18%	27%
73	5.82	15%	9%	14%	32%	30%
74	5	15%	7%	13%	33%	32%
75	3.34	9%	12%	26%	31%	22%
76	6.47	47%	10%	6%	4%	33%
77	3.99	30%	16%	13%	14%	28%
River Section 3						
78	2.66	NA	NA	NA	NA	NA
79	1.14	53%	25%	15%	4%	4%
80	2.54	30%	22%	12%	4%	32%
81	1.24	31%	23%	14%	6%	27%
82	6.84	12%	9%	8%	6%	67%
83	6.66	34%	16%	7%	5%	38%
84	4.58	36%	22%	15%	9%	17%

Table 8.1-4
Comparison of Water Depths in Certification Units at Hudson Mean Low Discharge (1,100 cfs)

CU Number	Total CU Area	% 0-2 feet	% 2-4 feet	% 4-6 feet	% 6-8 feet	% > 8 feet
85	2.69	30%	16%	15%	18%	22%
86	1.54	15%	18%	19%	18%	31%
87	6.93	27%	29%	14%	8%	23%
88	6.13	0%	1%	3%	7%	89%
89	7.27	27%	41%	20%	9%	2%
90	4.84	5%	38%	29%	7%	21%
91	5.6	33%	18%	14%	8%	26%
92	7.06	0%	1%	15%	42%	42%
93	5.16	0%	0%	0%	9%	91%
94	1.91	39%	29%	10%	0%	23%
95	6.24	71%	9%	0%	0%	20%
96	7.35	52%	15%	13%	5%	15%
97	1.13	56%	12%	9%	9%	13%
98	2.79	44%	33%	14%	3%	5%
99	5.58	60%	12%	3%	0%	26%
100	0.41	6%	22%	22%	24%	27%

Note:

Information found by running the hydrodynamic model at a steady-state flow of 1,100 cfs at the Ford Edward gaging station.

**Table 8.1-5
Phase 1 and Phase 2 Volume Weighted Total PCB Sediment Composition**

CU Number	Volume Weighted Concentrations (mg/kg)	CU Number	Volume Weighted Concentrations (mg/kg)	CU Number	Volume Weighted Concentrations (mg/kg)	CU Number	Volume Weighted Concentrations (mg/kg)
Phase 1 River Section 1		Phase 2 River Section 1 (con't)		Phase 2 River Section 1 (con't)		Phase 2 River Section 3 (con't)	
01	8.13	28	115.40	56	293.75	82	112.87
02	73.39	29	48.77	57	51.50	83	97.21
03	89.47	30	130.67	58	66.49	84	103.91
04	103.70	31	28.37	59	88.76	85	89.58
05	24.92	32	21.93	60	97.78	86	63.71
06	34.69	33	28.26	Phase 2 River Section 2		87	97.72
07	49.47	34	47.86	61	231.11	88	122.63
08	45.89	35	347.16	62	181.96	89	110.34
17	178.22	36	177.80	63	53.41	90	83.54
18	405.23	37	117.24	64	157.05	91	85.13
Phase 2 River Section 1		38	113.85	65	169.15	92	81.04
09	51.90	39	173.97	66	47.07	93	183.18
10	39.01	40	100.79	67	282.42	94	34.78
11	67.46	41	61.07	68	302.08	95	53.61
12	42.72	42	67.51	69	229.30	96	67.57
13	63.49	43	123.95	70	176.04	97	53.53
14	137.83	44	153.38	71	126.70	98	27.45
15	102.49	45	99.71	72	98.49	99	53.54
16	90.14	46	147.23	73	143.19	100	23.72
19	154.27	47	94.48	74	153.61		
20	51.09	48	74.60	75	165.01		
21	50.31	49	65.99	76	166.10		
22	72.24	50	93.65	77	93.48		
23	62.36	51	33.35	Phase 2 River Section 3			
24	97.02	52	34.91	78	73.98		
25	215.53	53	29.54	79	110.78		
26	60.92	54	76.26	80	88.83		
27	121.87	55	135.88	81	39.63		

Table 8.3-1
Percent Area of Phase 2 by Confidence Area per Certification Unit

Certification Unit	%Area		
	High Confidence Area	Low Confidence Area	Missing Data
09	58	2	40
10	20	18	62
11	26	14	60
12	25	25	50
13	34	25	41
14	31	32	38
15	21	42	36
16	72	26	2
19	65	9	26
20	56	14	30
21	63	10	27
22	61	6	33
23	59	17	23
24	45	37	18
25	25	63	12
26	10	66	24
27	15	71	13
28	33	63	4
29	34	44	22
30	69	13	18
31	83	5	11
32	79	16	5
33	58	23	19
34	64	9	27
35	68	16	16
36	77	18	5
37	65	---	35
38	92	8	---
39	80	19	1
40	51	44	5
41	39	58	3
42	50	50	---
43	49	22	29
44	63	---	37
45	44	29	27
46	61	39	---

Table 8.3-1
Percent Area of Phase 2 by Confidence Area per Certification Unit

Certification Unit	%Area		
	High Confidence Area	Low Confidence Area	Missing Data
47	44	56	---
48	80	20	---
49	89	11	---
50	87	13	---
51	78	4	18
52	85	---	15
53	72	7	21
54	65	8	27
55	43	52	5
56	81	19	---
57	100	---	---
58	100	---	---
59	100	---	---
60	71	24	6
61	47	48	5
62	39	58	3
63	100	---	---
64	89	---	11
65	81	19	---
66	22	74	4
67	56	41	3
68	86	6	7
69	97	3	---
70	77	23	---
71	79	21	---
72	49	45	6
73	73	6	21
74	52	37	11
75	59	36	5
76	67	27	6
77	4	76	20
78	23	31	46
79	94	6	---
80	94	6	---
81	69	14	17
82	91	9	---

**Table 8.3-1
Percent Area of Phase 2 by Confidence Area per Certification Unit**

Certification Unit	%Area		
	High Confidence Area	Low Confidence Area	Missing Data
83	70	19	11
84	80	20	---
85	100	---	---
86	90	10	---
87	96	---	4
88	84	16	---
89	88	12	---
90	94	6	---
91	81	16	4
92	49	51	---
93	46	54	---
94	---	100	---
95	86	2	12
96	76	24	---
97	34	66	---
98	100	---	---
99	66	32	3
100	40	60	---
All CUs	64	24	12

Note

1. '---' = not applicable