

Table 1. Comparison of depth-integrated concentrations in the channels and slopes of Southern Newark Bay, NBSA RI/FS Phase I Data only.

Chemical	Geomorphology	Count	Minimum	Maximum	Mean	Std Dev	Median	T-Test
Benzo(a)pyrene (mg/kg)	In Channel	19	0.15	3.00	0.91	0.70	0.76	0.86
	Slope **	5	0.24	2.01	1.05	0.66	1.14	
Chromium (mg/kg)	In Channel	19	29.42	455.50	116.26	97.70	90.47	0.08
	Slope	5	18.99	90.88	65.26	31.32	82.24	
Total DDT (mg/kg)	In Channel	19	0.01	0.63	0.10	0.14	0.05	0.13
	Slope	5	0.00	0.07	0.04	0.03	0.05	
Mercrury (mg/kg)	In Channel	19	0.30	220.48	13.64	50.16	1.29	0.30
	Slope	5	0.19	1.56	0.97	0.58	1.17	
Total PCB (mg/kg)	In Channel	19	0.08	5.01	0.89	1.22	0.45	0.09
	Slope	5	0.02	0.59	0.31	0.26	0.43	
2,3,7,8 TCDD (ng/kg)	In Channel	19	2.45	186.00	52.64	53.73	39.63	0.30
	Slope	5	0.78	53.90	25.90	22.32	31.00	

\* In channel cores are designated with a geomorphology of "navigation channel" in the NBSA RI/FS Phase I data

\*\* Slope cores are designated with a geomorphology of "transitional slopes in the NBSA RI/FS Phase I data

Table 2. Calculated dredge material concentrations.

	<b>Dredge Area</b>	<b>2,3,7,8 TCDD (ng/kg)</b>	<b>Total PCBs (mg/kg)</b>	<b>DDT (mg/kg)</b>	<b>Benzo(a)pyrene (mg/kg)</b>	<b>Mercury (mg/kg)</b>	<b>Chromium (mg/kg)</b>
<i>Current dredge material concentrations used in the evaluation of the impacts of the HDP (base case)</i>							
	S-AK-1	6.75	0.30	0.52	1.12	1.68	94.24
	S-AK-2	2.76	0.32	0.67	1.83	2.73	111.53
	S-AK-3	33.53	0.69	0.71	0.95	3.26	129.00
	S-E-1(A)	43.33	0.73	0.05	0.68	1.32	85.88
	S-E-1(B)	45.02	0.52	0.02	0.61	1.33	84.39
	S-NB-1(A)	11.73	0.05	0.02	0.64	0.62	58.56
	S-NB-1(B)	54.58	0.06	0.01	0.57	1.34	105.90
	S-NB-1(C)	20.06	0.13	0.03	0.40	0.90	76.60
	S-NB-2(A)	10.81	0.21	0.02	0.25	0.55	47.78
	S-NB-2(B)	15.61	0.31	0.02	0.25	0.72	55.16
	S-NB-2(C)	17.39	0.22	0.02	0.38	0.68	53.76
<i>90th percentile concentration (1)</i>	Surrounding the HDI	339.60	4.64	0.56	8.69	17.59	441.55
<i>Upper bound concentrations used in AEC analysis</i>							
	S-AK-1	31.71	0.63	0.52	1.69	2.87	120.29
	S-AK-2	28.03	0.65	0.66	2.34	3.84	136.28
	S-AK-3	56.48	0.99	0.70	1.53	4.33	152.44
	S-E-1(A)	65.55	1.02	0.09	1.28	2.54	112.55
	S-E-1(B)	67.12	0.82	0.06	1.22	2.55	111.18
	S-NB-1(A)	36.32	0.39	0.06	1.24	1.89	87.28
	S-NB-1(B)	75.96	0.40	0.05	1.18	2.56	131.07
	S-NB-1(C)	44.02	0.47	0.07	1.02	2.15	103.97
	S-NB-2(A)	35.47	0.55	0.06	0.88	1.83	77.32
	S-NB-2(B)	39.91	0.63	0.06	0.88	1.99	84.14
	S-NB-2(C)	41.56	0.56	0.06	1.01	1.95	82.84

(1) See text for calculation of 90th percentile concentration

Table 3. Comparison of Active Historic Data with NBSA RI/FS Phase I Data

Location	Data	Benzo(a)pyrene (mg/kg)		Chromium (mg/kg)		Total DDT (mg/kg)		Mercury (mg/kg)		Total PCBs (mg/kg)		2,3,7,8 TCDD (ng/kg)	
		NBSA RI/FS Phase I	Historic	NBSA RI/FS Phase I	Historic	NBSA RI/FS Phase I	Historic	NBSA RI/FS Phase I	Historic	NBSA RI/FS Phase I	Historic	NBSA RI/FS Phase I	Historic
<i>In Channel Navigation In Channel</i>	Count	24	14	24	11	22	11	24	12	24	12	24	17
	Mean	1.36	1.26	97.31	121.98	0.12	0.27	1.81	2.27	0.54	0.48	46.17	65.12
	Median	0.81	0.67	81.95	133.50	0.03	0.05	1.20	2.50	0.37	0.73	37.95	50.43
	Min	0.23	0.05	32.95	24.30	0.01	0.00	0.37	0.02	0.13	0.05	5.01	0.35
	Max	7.60	3.90	328.00	195.40	1.13	1.57	5.60	5.36	3.70	1.32	154.00	155.00
	Std Dev	1.56	1.18	61.04	56.42	0.25	0.50	1.27	1.47	0.70	0.38	36.68	51.04
	T-Test*	0.636		0.64		0.39		0.91		0.76		0.78	
<i>Port Channels</i>	Count	8	0	8	0	7	0	8	0	8	0	8	0
	Mean	1.27		141.40		0.04		11.50		1.31		65.14	
	Median	1.10		118.90		0.03		2.50		0.71		59.60	
	Min	0.39		77.60		0.02		1.00		0.31		19.60	
	Max	2.75		265.00		0.06		77.00		2.92		133.50	
	Std Dev	0.79		66.04		0.02		26.48		1.10		34.33	
<i>Combined In Channel Total</i>	Count	32	14	32	11	29	11	32	12	32	12	32	17
	Mean	1.34	1.26	108.33	121.98	0.10	0.27	4.24	2.27	0.73	0.48	50.91	65.12
	Median	0.91	0.67	88.05	133.50	0.03	0.05	1.30	2.50	0.43	0.73	42.30	50.43
	Min	0.23	0.05	32.95	24.30	0.01	0.00	0.37	0.02	0.13	0.05	5.01	0.35
	Max	7.60	3.90	328.00	195.40	1.13	1.57	77.00	5.36	3.70	1.32	154.00	155.00
	Std Dev	1.39	1.18	64.23	56.42	0.22	0.50	13.33	1.47	0.87	0.38	36.53	51.04
<i>Not in Channel</i>	Count	35	47	35	40	34	40	35	35	35	38	35	37
	Mean	1.95	1.06	135.13	125.48	0.10	0.16	2.71	2.86	0.76	0.51	75.54	69.65
	Median	0.94	0.73	118.00	122.00	0.04	0.05	1.90	2.20	0.46	0.30	48.80	47.60
	Min	0.24	0.00	28.00	24.80	0.00	0.00	0.27	0.06	0.00	0.02	0.95	0.37
	Max	15.00	5.90	649.00	367.00	1.00	3.09	17.40	19.85	7.69	2.82	592.00	470.00
	Std Dev	2.80	1.07	111.85	76.97	0.21	0.48	3.20	3.35	1.34	0.63	105.09	88.81
	T-Test*	0.01		0.71		0.09		0.93		0.58		0.61	

\* Two-tailed t-tests following f-tests to determine variance equality/inequality. Statistics were conducted on log-transformed data. The p-value represents the probability that the means are equivalent at the 95% confidence level.

Table 4. Gross dredging volumes for the HDP.

<b>Contract area</b>	<b>Rock</b>	<b>Pleistocene Sand and Gravel</b>	<b>Silt to HARS disposal</b>	<b>Silt to upland disposal</b>	<b>Total Volume Modeled</b>
S-AK-1	463,400	329,900	0	120,600	120,600
S-AK-2	388,800	441,700	0	59,100	59,100
S-AK-3	1,567,300	466,000	0	21,000	21,000
S-E-1	36,000	1,066,100	0	629,400	629,400
S-NB-1	97,200	1,549,000	0	577,300	577,300
S-NB-2	183,200	2,766,600	194,000	232,800	426,800
<b>Total</b>	<b>2,735,900</b>	<b>6,619,300</b>	<b>194,000</b>	<b>1,640,200</b>	<b>1,834,200</b>

Notes

All volumes in cubic yards.

HARS: Historic Area Remediation Site

Total volume modeled includes silt to HARS and to upland

Table 5. Duplicates in the NBSA RI/FS Phase I Data.

Sample ID	2,3,7,8 TCDD (ng/kg)				Total PCBs (mg/kg)				DDT (mg/kg)			
HR01SED067B-04	0.1	U	0.1	U	0.00	B	0.00	B	0.0105	U	0.0105	U
NB01SED001B-02	36.5		33.0		0.91	D B	0.87	D B	1.2	J	0.7	J
NB01SED004B-02	65.2		57.9		1.32	D B	1.20	B D	0.09	J	0.088	J
NB01SED010I-02	0.4	G	0.3	EMPC	0.14	D B	0.12	D B	0.048	U	0.0435	U
NB01SED012A-06	466.0	J	322.0		3.83		3.22		1.4	J	0.64	J
NB01SED018D-01	16.8		13.2		0.20	B D	0.15	B D	0.007	U	0.0065	U
NB01SED019A-05	0.1	U	0.1	U	0.01	B	0.00	B	0.0021	U	0.00205	U
NB01SED020A-01	185.0		182.0		0.90	D B	0.82	D B	0.045	J	0.039	J
NB01SED028C-05	474.0	J	453.0		4.58	D B	4.42	D B	0.065	U	0.055	U
NB01SED029C-03	NA		NA		NA		NA		0.018	J	0.015	J
NB01SED029C-04	44.2		33.5		0.47	D B	0.46	D B	NA		NA	
NB01SED034AC-01	68.3		54.9		0.49	D	0.48	D	NA		NA	
NB01SED034AC-02	NA		NA		NA		NA		0.019	J	0.017	J
NB01SED037C-01	98.0		89.4		0.48	D B	0.46	D B	0.042		0.04	
NB01SED038A-04	0.1	U	0.1	U	0.00		0.00		0.006	U	0.006	U
NB01SED044A-01	79.6		73.5		0.77	D B	0.59	D B	0.024	J	0.022	J
NB01SED049C-01	139.0		128.0		2.69	D B	2.14	D B	0.077		0.052	J
NB01SED051D-04	1070.0		582.0		1.83	D	1.72	D	0.11		0.1	
NB01SED052B-01	126.0		85.1		0.56		0.54		0.029	J	0.028	J
NB01SED053B-01	17.8		15.3		0.15	B	0.10	B	0.0085	J	0.0079	
NB01SED059A-01	106.0	J	35.3	J	0.27	B	0.25	B D	0.012	J	0.012	J
NB01SED064B-01	4.0		1.7		0.03	B	0.02	B	0.013	U	0.011	U

  

Sample ID	Benzo(a)pyrene (mg/kg)				Mercury (mg/kg)				Chromium (mg/kg)			
HR01SED067B-04	0.18	U M	0.18	U M	0.032	B M	0.024	B M	37.5	M	35.9	M
NB01SED001B-02	2.6	G D M	2.1	J	3.2	* M	2.6	* M	130	* M	120	* M
NB01SED004B-02	1.1	G D M	0.98	G D M	3.8	M	3.5	M	177	M	164	M
NB01SED010I-02	1.9	G D	1.7	G D	4.4		3.3		128		107	
NB01SED012A-06	2.4	D M	2.3	D M	38.7	* M	22.8	* M	647	* M	528	* M
NB01SED018D-01	0.26	G D	0.2	G	0.62	N * J L	0.11	N * J L	34.6	E J	31.3	E J
NB01SED019A-05	0.11	U	0.105	U	0.017	B	0.016	B	17.2	E J	16.6	E J
NB01SED020A-01	0.62	G D	0.5	J	2.1		1.7		134		104	
NB01SED028C-05	1.6	J	1.6	J	7.5	* M	6.9	* M	403	N	396	N
NB01SED029C-03	0.63	G D	0.61	G D	0.98		0.8		70		64	
NB01SED029C-04	NA		NA		NA		NA		NA		NA	
NB01SED034AC-01	NA		NA		NA		NA		NA		NA	
NB01SED034AC-02	0.62	G D M	0.57	G D M	1.2	M	1.1	M	81.5	M	80.9	M
NB01SED037C-01	1.4	D M	0.96	G D M	2.3	N J L	2.1	N J L	146	M	140	M
NB01SED038A-04	0.315	U D	0.105	U	0.0034	B N J H	0.0029	J N J H	13.1		12.7	
NB01SED044A-01	1.5	D M	0.86	G D	2.2	*	2.2	* M	119	M	112	
NB01SED049C-01	3.5	D J	2	J	88.1	M	65.9	M	201	M	182	M
NB01SED051D-04	1	D M	0.96	D	3.6		3.4	M	262	M	234	
NB01SED052B-01	2.2	D	1.9	D	2.1		2		117	E J	104	E J
NB01SED053B-01	0.93		0.89		0.66		0.64		58.9		48.9	
NB01SED059A-01	0.95		0.93		1.1		0.98		78.7		71.7	
NB01SED064B-01	0.65	U M	0.37	G M	0.32	M	0.29	M	62.1	M	49.1	M

\* NA indicates no duplicates for this sample

\*\* Description of qualifier codes not available as of this writing; any sample with a qualifier code of "U" was assumed to be nondetect

\*\*\* Duplicates with both samples measuring at non-detect levels were excluded

Table 6. Calculation of the uncertainty threshold based upon the NBSA RI/FS Phase I duplicates.

	<b>Count</b>	<b>Mean</b>	<b>Standard</b>	<b>Median</b>	<b>Maximum</b>	<b>UT</b>
2,3,7,8 TCDD	17	29%	28%	22%	100%	41%
Total PCBs	20	39%	61%	13%	200%	60%
DDT	13	19%	23%	10%	75%	30%
Benzo(a)pyrene	17	20%	19%	12%	55%	28%
Mercury	20	22%	30%	11%	140%	31%
Chromium	20	10%	7%	9%	25%	13%

Notes

<sup>(1)</sup> Values used to calculate the UT using Land's method (Gilbert 1987, Land 1975)

Table 7. Comparison of concentration changes computed by the model with data precision as measured with the NBSA RI/FS Phase 1 field duplicates.

	<b>2,3,7,8 TCDD</b>	<b>Total PCBs</b>	<b>DDTs</b>	<b>Benzo(a)pyrene</b>	<b>Mercury</b>	<b>Chromium</b>
<b>Uncertainty Threshold (1)</b>	41%	60%	30%	28%	31%	13%
<i>Percent of grid cells projected to change in concentration more than the uncertainty threshold</i>						
<b>Post HDP</b>	0.42%	0.50%	1.05%	1.51%	0.42%	0.13%
<b>AEC Analysis</b>	1.09%	1.13%	1.39%	1.60%	0.50%	0.08%
<b>Cumulative Assessment</b>	0.52%	0.68%	1.15%	1.47%	0.44%	0.24%

Notes:

<sup>(1)</sup> Relative percent difference, unitless

Table 8. Estimated changes to contaminant concentrations at NBSA RI/FS Phase II sampling locations.

2,3,7,8 TCDD (ng/kg)						Benzo(a)pyrene (mg/kg)					
NBSA RI/FS Phase II Core ID	Closest Core ***	Current Concentration	Predicted Post-HDP Concentration	Concentration Difference	Relative Percent Difference	NBSA RI/FS Phase II Core ID	Closest Core ***	Current Concentration	Predicted Post-HDP Concentration	Concentration Difference	Relative Percent Difference
NB02SED082	NB01SED013	3.580	3.581	0.00	0%	NB02SED082	NB01SED013	0.450	0.450	0.00	0%
NB02SED070	NB01SED005	36.200	35.952	-0.25	-1%	NB02SED070	NB01SED005	0.870	0.868	0.00	0%
NB02SED075	NB01SED049	133.500	133.493	-0.01	0%	NB02SED075	NB01SED049	2.750	2.750	0.00	0%
NB02SED071	NB01SED007	33.200	33.048	-0.15	0%	NB02SED071	NB01SED007	0.530	0.528	0.00	0%
NB02SED072	NB01SED022	40.200	40.174	-0.03	0%	NB02SED072	NB01SED022	0.760	0.759	0.00	0%
NB02SED074	NB01SED044	76.550	76.453	-0.10	0%	NB02SED074	NB01SED044	1.180	1.179	0.00	0%
NB02SED073	NB01SED032	67.300	67.267	-0.03	0%	NB02SED073	NB01SED032	0.790	0.790	0.00	0%
NB02SED076	NB01SED051	89.600	89.492	-0.11	0%	NB02SED076	NB01SED051	1.600	1.598	0.00	0%
NB02SED077	NB01SED056	145.000	144.999	0.00	0%	NB02SED077	NB01SED056	1.700	1.700	0.00	0%
NB02SED078	NB01SED052	105.550	105.496	-0.05	0%	NB02SED078	NB01SED052	2.050	2.049	0.00	0%
KK02SED081	NB207	6.070	6.082	0.01	0%	KK02SED081	NB207	3.000	2.999	0.00	0%
NB02SED080	NB01SED060	79.300	79.224	-0.08	0%	NB02SED080	NB01SED060	2.900	2.897	0.00	0%
NB02SED079	NB01SED057	93.100	93.094	-0.01	0%	NB02SED079	NB01SED057	1.700	1.700	0.00	0%
USACEP2-14	NB211	29.400	29.399	0.00	0%	USACEP2-14	NB211	1.100	1.100	0.00	0%
USACEP2-01A	39_PRP-99-02	155.000	154.727	-0.27	0%	USACEP2-01A	39_PRP-99-02	0.725	0.726	0.00	0%
USACEP2-15	NB01SED003	14.700	14.645	-0.06	0%	USACEP2-15	NB01SED003	0.600	0.609	0.01	2%
USACEP2-16	NB01SED003	14.700	14.634	-0.07	0%	USACEP2-16	NB01SED003	0.600	0.608	0.01	1%
USACEP2-13	NB01SED023	63.600	56.353	-7.25	-11%	USACEP2-13	NB01SED023	1.300	1.142	-0.16	-12%
USACEP2-02A	NB01SED023	63.600	63.050	-0.55	-1%	USACEP2-02A	26_NB044	0.570	0.567	0.00	0%
USACEP2-17	17_42A	19.000	19.123	0.12	1%	USACEP2-17	17_42A	0.330	0.334	0.00	1%
USACEP2-05A	NB01SED041	51.400	51.336	-0.06	0%	USACEP2-05A	NB01SED041	0.830	0.829	0.00	0%
USACEP2-03A	NB01SED028	48.800	48.796	0.00	0%	USACEP2-03A	27_NB103	0.720	0.720	0.00	0%
USACEP2-04A	NB01SED028	48.800	48.798	0.00	0%	USACEP2-04A	NB01SED028	0.750	0.750	0.00	0%
USACEP2-12	NB226	40.050	40.038	-0.01	0%	USACEP2-12	NB226	1.500	1.498	0.00	0%
USACEP2-11	NB01SED051	89.600	89.481	-0.12	0%	USACEP2-11	NB01SED051	1.600	1.598	0.00	0%
USACEP2-07	NB01SED060	79.300	79.218	-0.08	0%	USACEP2-07	NB01SED060	2.900	2.896	0.00	0%
USACEP2-06A	NB901	130.000	129.858	-0.14	0%	USACEP2-06A	27_NB110	0.140	0.141	0.00	0%
USACEP2-10	NB01SED066	40.200	40.192	-0.01	0%	USACEP2-10	26_NB065	2.000	1.999	0.00	0%

\* Values in yellow are greater than the UT, see text.

\*\* Stations indicated as "USACEP2" are NBSA RI/FS Phase II sampling locations proposed by USACE to USEPA

\*\*\* Closest core: NBSA RI/FS Phase I or active historic core

Table 8. Estimated changes to contaminant concentrations at NBSA RI/FS Phase II sampling locations.

NBSA RI/FS						NBSA RI/FS					
Phase II	Closest	Current	Predicted	Concentration	Relative	Phase II	Closest	Current	Predicted	Concentration	Relative
Core ID	Core ***					Core ID	Core ***				
Total PCBs (mg/kg)						Mercury (mg/kg)					
NB02SED082	NB01SED013	0.069	0.069	0.00	0%	NB02SED082	NB01SED013	0.830	0.830	0.00	0%
NB02SED070	NB01SED005	0.693	0.687	-0.01	-1%	NB02SED070	NB01SED005	2.000	1.990	-0.01	-1%
NB02SED075	NB01SED049	2.415	2.415	0.00	0%	NB02SED075	NB01SED049	77.000	76.994	-0.01	0%
NB02SED071	NB01SED007	0.537	0.533	0.00	-1%	NB02SED071	NB01SED007	1.100	1.096	0.00	0%
NB02SED072	NB01SED022	0.538	0.537	0.00	0%	NB02SED072	NB01SED022	1.400	1.399	0.00	0%
NB02SED074	NB01SED044	0.679	0.678	0.00	0%	NB02SED074	NB01SED044	2.200	2.198	0.00	0%
NB02SED073	NB01SED032	0.521	0.521	0.00	0%	NB02SED073	NB01SED032	1.500	1.499	0.00	0%
NB02SED076	NB01SED051	0.642	0.642	0.00	0%	NB02SED076	NB01SED051	2.500	2.497	0.00	0%
NB02SED077	NB01SED056	1.090	1.090	0.00	0%	NB02SED077	NB01SED056	3.100	3.100	0.00	0%
NB02SED078	NB01SED052	0.548	0.548	0.00	0%	NB02SED078	NB01SED052	2.050	2.049	0.00	0%
KK02SED081	27_NB115	0.298	0.297	0.00	0%	KK02SED081	27_NB115	1.730	1.730	0.00	0%
NB02SED080	NB01SED060	0.450	0.449	0.00	0%	NB02SED080	NB01SED060	2.200	2.198	0.00	0%
NB02SED079	NB01SED057	0.573	0.573	0.00	0%	NB02SED079	NB01SED057	2.400	2.400	0.00	0%
USACEP2-14	39_PRP-99-01	0.047	0.049	0.00	3%	USACEP2-14	39_PRP-99-01	0.016	0.024	0.01	49%
USACEP2-01A	39_PRP-99-02	2.565	2.561	0.00	0%	USACEP2-01A	39_PRP-99-02	19.850	19.814	-0.04	0%
USACEP2-15	NB01SED003	0.146	0.148	0.00	2%	USACEP2-15	NB01SED003	1.500	1.511	0.01	1%
USACEP2-16	NB01SED003	0.146	0.148	0.00	1%	USACEP2-16	NB01SED003	1.500	1.509	0.01	1%
USACEP2-13	NB01SED023	0.818	0.741	-0.08	-9%	USACEP2-13	NB01SED023	3.000	2.656	-0.34	-11%
USACEP2-02A	26_NB044	0.517	0.514	0.00	-1%	USACEP2-02A	26_NB044	3.796	3.760	-0.04	-1%
USACEP2-17	17_42A	0.048	0.052	0.00	9%	USACEP2-17	17_42A	2.200	2.162	-0.04	-2%
USACEP2-05A	NB01SED041	0.391	0.391	0.00	0%	USACEP2-05A	NB01SED041	1.800	1.798	0.00	0%
USACEP2-03A	27_NB103	0.381	0.381	0.00	0%	USACEP2-03A	27_NB103	2.350	2.350	0.00	0%
USACEP2-04A	NB01SED028	0.461	0.461	0.00	0%	USACEP2-04A	NB01SED028	1.400	1.400	0.00	0%
USACEP2-12	NB01SED032	0.521	0.520	0.00	0%	USACEP2-12	NB01SED032	1.500	1.499	0.00	0%
USACEP2-11	NB01SED051	0.642	0.642	0.00	0%	USACEP2-11	NB01SED051	2.500	2.497	0.00	0%
USACEP2-07	NB01SED060	0.450	0.449	0.00	0%	USACEP2-07	NB01SED060	2.200	2.198	0.00	0%
USACEP2-06A	27_NB110	0.083	0.083	0.00	0%	USACEP2-06A	27_NB110	0.517	0.518	0.00	0%
USACEP2-10	26_NB065	0.163	0.163	0.00	0%	USACEP2-10	26_NB065	0.408	0.408	0.00	0%

\* Values in yellow are greater than the UT, see text.

\*\* Stations indicated as "USACEP2" are NBSA RI/FS Phase II sampling locations proposed by USACE to USEPA

\*\*\* Closest core: NBSA RI/FS Phase I or active historic core

Table 8. Estimated changes to contaminant concentrations at NBSA RI/FS Phase II sampling locations.

NBSA RI/FS						NBSA RI/FS					
Phase II	Closest	Current	Predicted	Concentration	Relative	Phase II	Closest	Current	Predicted	Concentration	Relative
Core ID	Core ***	Concentration	Post-HDP	Difference	Percent	Core ID	Core ***	Concentration	Concentration	Difference	Percent
<i>DDTs (mg/kg)</i>						<i>Chromium (mg/kg)</i>					
NB02SED082	NB01SED013	0.036	0.036	0.00	0%	NB02SED082	NB01SED013	28.000	28.002	0.00	0%
NB02SED070	NB01SED005	0.038	0.040	0.00	6%	NB02SED070	NB01SED005	105.000	104.660	-0.34	0%
NB02SED075	NB01SED049	0.065	0.064	0.00	0%	NB02SED075	NB01SED049	191.500	191.492	-0.01	0%
NB02SED071	NB01SED007	0.014	0.014	0.00	1%	NB02SED071	NB01SED007	81.600	81.327	-0.27	0%
NB02SED072	NB01SED022	0.016	0.016	0.00	0%	NB02SED072	NB01SED022	98.400	98.347	-0.05	0%
NB02SED074	15_31	0.122	0.122	0.00	0%	NB02SED074	NB01SED044	115.500	115.421	-0.08	0%
NB02SED073	NB01SED032	0.033	0.033	0.00	0%	NB02SED073	NB01SED032	121.000	120.957	-0.04	0%
NB02SED076	NB01SED051	0.035	0.035	0.00	0%	NB02SED076	NB01SED051	119.000	118.917	-0.08	0%
NB02SED077	NB01SED056	0.035	0.035	0.00	0%	NB02SED077	NB01SED056	153.000	152.999	0.00	0%
NB02SED078	NB01SED052	0.029	0.028	0.00	0%	NB02SED078	NB01SED052	110.500	110.477	-0.02	0%
KK02SED081	27_NB115	0.052	0.052	0.00	0%	KK02SED081	27_NB115	128.000	127.979	-0.02	0%
NB02SED080	NB01SED060	0.015	0.015	0.00	0%	NB02SED080	NB01SED060	119.000	118.937	-0.06	0%
NB02SED079	NB01SED057	0.027	0.027	0.00	0%	NB02SED079	NB01SED057	129.000	128.994	-0.01	0%
USACEP2-14	39_PRP-99-01	0.001	0.003	0.00	173%	USACEP2-14	39_PRP-99-01	37.100	37.321	0.22	1%
USACEP2-01A	39_PRP-99-02	0.225	0.226	0.00	0%	USACEP2-01A	39_PRP-99-02	277.500	277.173	-0.33	0%
USACEP2-15	NB01SED003	0.043	0.049	0.01	13%	USACEP2-15	NB01SED003	64.100	64.551	0.45	1%
USACEP2-16	NB01SED003	0.043	0.048	0.00	11%	USACEP2-16	NB01SED003	64.100	64.470	0.37	1%
USACEP2-13	NB01SED023	0.112	0.098	-0.01	-12%	USACEP2-13	NB01SED023	108.000	100.019	-7.98	-7%
USACEP2-02A	26_NB044	0.135	0.134	0.00	-1%	USACEP2-02A	26_NB044	153.900	152.775	-1.13	-1%
USACEP2-17	17_42A	0.051	0.051	0.00	0%	USACEP2-17	17_42A	62.000	62.285	0.29	0%
USACEP2-05A	NB01SED041	0.197	0.197	0.00	0%	USACEP2-05A	NB01SED041	201.000	200.682	-0.32	0%
USACEP2-03A	27_NB103	0.101	0.101	0.00	0%	USACEP2-03A	27_NB103	149.000	148.990	-0.01	0%
USACEP2-04A	NB01SED028	0.025	0.025	0.00	0%	USACEP2-04A	NB01SED028	109.000	108.996	0.00	0%
USACEP2-12	NB01SED032	0.033	0.033	0.00	0%	USACEP2-12	NB01SED032	121.000	120.910	-0.09	0%
USACEP2-11	NB01SED051	0.035	0.035	0.00	0%	USACEP2-11	NB01SED051	119.000	118.909	-0.09	0%
USACEP2-07	NB01SED060	0.015	0.015	0.00	0%	USACEP2-07	NB01SED060	119.000	118.933	-0.07	0%
USACEP2-06A	27_NB110	0.011	0.011	0.00	0%	USACEP2-06A	27_NB110	49.600	49.646	0.05	0%
USACEP2-10	26_NB065	0.008	0.008	0.00	0%	USACEP2-10	26_NB065	45.100	45.113	0.01	0%

\* Values in yellow are greater than the UT, see text.

\*\* Stations indicated as "USACEP2" are NBSA RI/FS Phase II sampling locations proposed by USACE to USEPA

\*\*\* Closest core: NBSA RI/FS Phase I or active historic core

Table 9. Estimated changes to contaminant concentrations at Phase II sampling locations, AEC analysis.

2,3,7,8 TCDD (ng/kg)						Benzo(a)pyrene (mg/kg)					
NBSA RI/FS Phase II Core ID	Closest Core ***	Current Concentration	Predicted Post-HDP Concentration	Concentration Difference	Relative Percent Difference	NBSA RI/FS Phase II Core ID	Closest Core ***	Current Concentration	Predicted Post-HDP Concentration	Concentration Difference	Relative Percent Difference
NB02SED082	NB01SED013	3.580	3.581	0.00	0%	NB02SED082	NB01SED013	0.450	0.450	0.00	0%
NB02SED070	NB01SED005	36.200	36.274	-0.07	0%	NB02SED070	NB01SED005	0.870	0.876	0.00	1%
NB02SED075	NB01SED049	133.500	133.495	-0.01	0%	NB02SED075	NB01SED049	2.750	2.750	0.00	0%
NB02SED071	NB01SED007	33.200	33.371	0.17	1%	NB02SED071	NB01SED007	0.530	0.537	0.00	1%
NB02SED072	NB01SED022	40.200	40.213	0.01	0%	NB02SED072	NB01SED022	0.760	0.760	0.00	0%
NB02SED074	NB01SED044	76.550	76.498	-0.05	0%	NB02SED074	NB01SED044	1.180	1.180	0.00	0%
NB02SED073	NB01SED032	67.300	67.286	-0.01	0%	NB02SED073	NB01SED032	0.790	0.790	0.00	0%
NB02SED076	NB01SED051	89.600	89.542	-0.06	0%	NB02SED076	NB01SED051	1.600	1.599	0.00	0%
NB02SED077	NB01SED056	145.000	144.999	0.00	0%	NB02SED077	NB01SED056	1.700	1.700	0.00	0%
NB02SED078	NB01SED052	105.550	105.515	-0.04	0%	NB02SED078	NB01SED052	2.050	2.049	0.00	0%
KK02SED081	NB207	6.070	6.092	0.02	0%	KK02SED081	NB207	3.000	2.999	0.00	0%
NB02SED080	NB01SED060	79.300	79.258	-0.04	0%	NB02SED080	NB01SED060	2.900	2.897	0.00	0%
NB02SED079	NB01SED057	93.100	93.096	0.00	0%	NB02SED079	NB01SED057	1.700	1.700	0.00	0%
USACEP2-14	NB211	29.400	29.457	0.06	0%	USACEP2-14	NB211	1.100	1.101	0.00	0%
USACEP2-01A	39_PRP-99-02	155.000	154.777	-0.22	0%	USACEP2-01A	39_PRP-99-02	0.725	0.727	0.00	0%
USACEP2-15	NB01SED003	14.700	14.872	0.17	1%	USACEP2-15	NB01SED003	0.600	0.614	0.01	2%
USACEP2-16	NB01SED003	14.700	14.839	0.14	1%	USACEP2-16	NB01SED003	0.600	0.613	0.01	2%
USACEP2-13	NB01SED023	63.600	60.021	-3.58	-6%	USACEP2-13	NB01SED023	1.300	1.237	-0.06	-5%
USACEP2-02A	NB01SED023	63.600	63.342	-0.26	0%	USACEP2-02A	26_NB044	0.570	0.575	0.00	1%
USACEP2-17	17_42A	19.000	19.832	0.83	4%	USACEP2-17	17_42A	0.330	0.353	0.02	7%
USACEP2-05A	NB01SED041	51.400	51.396	0.00	0%	USACEP2-05A	NB01SED041	0.830	0.831	0.00	0%
USACEP2-03A	NB01SED028	48.800	48.799	0.00	0%	USACEP2-03A	27_NB103	0.720	0.720	0.00	0%
USACEP2-04A	NB01SED028	48.800	48.801	0.00	0%	USACEP2-04A	NB01SED028	0.750	0.750	0.00	0%
USACEP2-12	NB226	40.050	40.087	0.04	0%	USACEP2-12	NB226	1.500	1.499	0.00	0%
USACEP2-11	NB01SED051	89.600	89.537	-0.06	0%	USACEP2-11	NB01SED051	1.600	1.599	0.00	0%
USACEP2-07	NB01SED060	79.300	79.260	-0.04	0%	USACEP2-07	NB01SED060	2.900	2.897	0.00	0%
USACEP2-06A	NB901	130.000	129.892	-0.11	0%	USACEP2-06A	27_NB110	0.140	0.142	0.00	1%
USACEP2-10	NB01SED066	40.200	40.203	0.00	0%	USACEP2-10	26_NB065	2.000	2.000	0.00	0%

\* Values in yellow are greater than the UT, see text.

\*\* Stations indicated as "USACEP2" are NBSA RI/FS Phase II sampling locations proposed by USACE to USEPA

\*\*\* Closest core: NBSA RI/FS Phase I or active historic core

Table 9. Estimated changes to contaminant concentrations at Phase II sampling locations, AEC analysis.

NBSA RI/FS						NBSA RI/FS					
Phase II Core ID	Closest Core ***	Current Concentration	Predicted Post-HDP Concentration	Concentration Difference	Relative Percent Difference	Phase II Core ID	Closest Core ***	Current Concentration	Predicted Post-HDP Concentration	Concentration Difference	Relative Percent Difference
<b>Total PCBs (mg/kg)</b>						<b>Mercury (mg/kg)</b>					
NB02SED082	NB01SED013	0.069	0.069	0.00	0%	NB02SED082	NB01SED013	0.830	0.830	0.00	0%
NB02SED070	NB01SED005	0.693	0.691	0.00	0%	NB02SED070	NB01SED005	2.000	2.006	0.01	0%
NB02SED075	NB01SED049	2.415	2.415	0.00	0%	NB02SED075	NB01SED049	77.000	76.994	-0.01	0%
NB02SED071	NB01SED007	0.537	0.537	0.00	0%	NB02SED071	NB01SED007	1.100	1.113	0.01	1%
NB02SED072	NB01SED022	0.538	0.538	0.00	0%	NB02SED072	NB01SED022	1.400	1.401	0.00	0%
NB02SED074	NB01SED044	0.679	0.679	0.00	0%	NB02SED074	NB01SED044	2.200	2.200	0.00	0%
NB02SED073	NB01SED032	0.521	0.521	0.00	0%	NB02SED073	NB01SED032	1.500	1.500	0.00	0%
NB02SED076	NB01SED051	0.642	0.642	0.00	0%	NB02SED076	NB01SED051	2.500	2.500	0.00	0%
NB02SED077	NB01SED056	1.090	1.090	0.00	0%	NB02SED077	NB01SED056	3.100	3.100	0.00	0%
NB02SED078	NB01SED052	0.548	0.548	0.00	0%	NB02SED078	NB01SED052	2.050	2.050	0.00	0%
KK02SED081	27_NB115	0.298	0.298	0.00	0%	KK02SED081	27_NB115	1.730	1.730	0.00	0%
NB02SED080	NB01SED060	0.450	0.450	0.00	0%	NB02SED080	NB01SED060	2.200	2.200	0.00	0%
NB02SED079	NB01SED057	0.573	0.573	0.00	0%	NB02SED079	NB01SED057	2.400	2.400	0.00	0%
USACEP2-14	39_PRP-99-01	0.047	0.050	0.00	5%	USACEP2-14	39_PRP-99-01	0.016	0.026	0.01	65%
USACEP2-01A	39_PRP-99-02	2.565	2.562	0.00	0%	USACEP2-01A	39_PRP-99-02	19.850	19.817	-0.03	0%
USACEP2-15	NB01SED003	0.146	0.151	0.01	4%	USACEP2-15	NB01SED003	1.500	1.522	0.02	1%
USACEP2-16	NB01SED003	0.146	0.150	0.00	3%	USACEP2-16	NB01SED003	1.500	1.518	0.02	1%
USACEP2-13	NB01SED023	0.818	0.790	-0.03	-3%	USACEP2-13	NB01SED023	3.000	2.847	-0.15	-5%
USACEP2-02A	26_NB044	0.517	0.518	0.00	0%	USACEP2-02A	26_NB044	3.796	3.775	-0.02	-1%
USACEP2-17	17_42A	0.048	0.062	0.01	30%	USACEP2-17	17_42A	2.200	2.199	0.00	0%
USACEP2-05A	NB01SED041	0.391	0.391	0.00	0%	USACEP2-05A	NB01SED041	1.800	1.801	0.00	0%
USACEP2-03A	27_NB103	0.381	0.381	0.00	0%	USACEP2-03A	27_NB103	2.350	2.350	0.00	0%
USACEP2-04A	NB01SED028	0.461	0.461	0.00	0%	USACEP2-04A	NB01SED028	1.400	1.400	0.00	0%
USACEP2-12	NB01SED032	0.521	0.521	0.00	0%	USACEP2-12	NB01SED032	1.500	1.502	0.00	0%
USACEP2-11	NB01SED051	0.642	0.642	0.00	0%	USACEP2-11	NB01SED051	2.500	2.500	0.00	0%
USACEP2-07	NB01SED060	0.450	0.450	0.00	0%	USACEP2-07	NB01SED060	2.200	2.200	0.00	0%
USACEP2-06A	27_NB110	0.083	0.084	0.00	1%	USACEP2-06A	27_NB110	0.517	0.519	0.00	0%
USACEP2-10	26_NB065	0.163	0.163	0.00	0%	USACEP2-10	26_NB065	0.408	0.409	0.00	0%

\* Values in yellow are greater than the UT, see text.

\*\* Stations indicated as "USACEP2" are NBSA RI/FS Phase II sampling locations proposed by USACE to USEPA

\*\*\* Closest core: NBSA RI/FS Phase I or active historic core

Table 9. Estimated changes to contaminant concentrations at Phase II sampling locations, AEC analysis.

NBSA RI/FS						NBSA RI/FS					
Phase II	Closest	Current	Predicted	Concentration	Relative	Phase II	Closest	Current	Predicted	Concentration	Relative
Core ID	Core ***	Concentration	Post-HDP	Difference	Percent	Core ID	Core ***	Concentration	Post-HDP	Difference	Percent
<b>DDTs (mg/kg)</b>						<b>Chromium (mg/kg)</b>					
NB02SED082	NB01SED013	0.036	0.036	0.00	0%	NB02SED082	NB01SED013	28.000	28.003	0.00	0%
NB02SED070	NB01SED005	0.038	0.041	0.00	7%	NB02SED070	NB01SED005	105.000	105.022	0.02	0%
NB02SED075	NB01SED049	0.065	0.064	0.00	0%	NB02SED075	NB01SED049	191.500	191.494	-0.01	0%
NB02SED071	NB01SED007	0.014	0.014	0.00	5%	NB02SED071	NB01SED007	81.600	81.713	0.11	0%
NB02SED072	NB01SED022	0.016	0.016	0.00	0%	NB02SED072	NB01SED022	98.400	98.394	-0.01	0%
NB02SED074	15_31	0.122	0.122	0.00	0%	NB02SED074	NB01SED044	115.500	115.474	-0.03	0%
NB02SED073	NB01SED032	0.033	0.033	0.00	0%	NB02SED073	NB01SED032	121.000	120.979	-0.02	0%
NB02SED076	NB01SED051	0.035	0.035	0.00	0%	NB02SED076	NB01SED051	119.000	118.977	-0.02	0%
NB02SED077	NB01SED056	0.035	0.035	0.00	0%	NB02SED077	NB01SED056	153.000	153.000	0.00	0%
NB02SED078	NB01SED052	0.029	0.029	0.00	0%	NB02SED078	NB01SED052	110.500	110.500	0.00	0%
KK02SED081	27_NB115	0.052	0.052	0.00	0%	KK02SED081	27_NB115	128.000	127.991	-0.01	0%
NB02SED080	NB01SED060	0.015	0.015	0.00	0%	NB02SED080	NB01SED060	119.000	118.977	-0.02	0%
NB02SED079	NB01SED057	0.027	0.027	0.00	0%	NB02SED079	NB01SED057	129.000	128.997	0.00	0%
USACEP2-14	39_PRP-99-01	0.001	0.003	0.00	170%	USACEP2-14	39_PRP-99-01	37.100	37.379	0.28	1%
USACEP2-01A	39_PRP-99-02	0.225	0.226	0.00	0%	USACEP2-01A	39_PRP-99-02	277.500	277.224	-0.28	0%
USACEP2-15	NB01SED003	0.043	0.049	0.01	13%	USACEP2-15	NB01SED003	64.100	64.777	0.68	1%
USACEP2-16	NB01SED003	0.043	0.048	0.00	11%	USACEP2-16	NB01SED003	64.100	64.676	0.58	1%
USACEP2-13	NB01SED023	0.112	0.104	-0.01	-7%	USACEP2-13	NB01SED023	108.000	104.394	-3.61	-3%
USACEP2-02A	26_NB044	0.135	0.135	0.00	0%	USACEP2-02A	26_NB044	153.900	153.120	-0.78	-1%
USACEP2-17	17_42A	0.051	0.052	0.00	2%	USACEP2-17	17_42A	62.000	63.114	1.11	2%
USACEP2-05A	NB01SED041	0.197	0.197	0.00	0%	USACEP2-05A	NB01SED041	201.000	200.752	-0.25	0%
USACEP2-03A	27_NB103	0.101	0.101	0.00	0%	USACEP2-03A	27_NB103	149.000	148.993	-0.01	0%
USACEP2-04A	NB01SED028	0.025	0.025	0.00	0%	USACEP2-04A	NB01SED028	109.000	109.000	0.00	0%
USACEP2-12	NB01SED032	0.033	0.033	0.00	0%	USACEP2-12	NB01SED032	121.000	120.969	-0.03	0%
USACEP2-11	NB01SED051	0.035	0.035	0.00	0%	USACEP2-11	NB01SED051	119.000	118.976	-0.02	0%
USACEP2-07	NB01SED060	0.015	0.015	0.00	0%	USACEP2-07	NB01SED060	119.000	118.983	-0.02	0%
USACEP2-06A	27_NB110	0.011	0.011	0.00	1%	USACEP2-06A	27_NB110	49.600	49.685	0.09	0%
USACEP2-10	26_NB065	0.008	0.008	0.00	0%	USACEP2-10	26_NB065	45.100	45.126	0.03	0%

\* Values in yellow are greater than the UT, see text.

\*\* Stations indicated as "USACEP2" are NBSA RI/FS Phase II sampling locations proposed by USACE to USEPA

\*\*\* Closest core: NBSA RI/FS Phase I or active historic core

Table 10. Dredge volumes used in the calculation of cumulative effects.

<b>Dredge Area</b>	<b>Area (yd2)</b>	<b>Total HDP Dredge Volumes</b>	<b>Other USACE Dredging</b>	<b>PANYNJ Other Dredging</b>	<b>Total Other Dredge Volumes</b>	<b>Cumulative Dredge Volume</b>
O&MBasicShoalArea1	91,684	0.00	130,000		130,000	130,000
O&MOptionShoal3456	178,581	0.00	55,276		55,276	55,276
In Channel	54,270	0.00	6,690	72,283	78,972	78,972
O&MOptionShoal1A	37,779	0.00	3,034	50,317	53,351	53,351
S-AK-1	321,506	120,600.00				120,600
S-AK-2	400,838	59,100.00				59,100
S-AK-3	354,185	21,000.00	117,000	81,070	198,070	219,070
S-E-1(A)	544,356	414,289.00	65,000	114,035	179,035	593,324
S-E-1(B)	298,296	215,111.00		61,091	61,091	276,202
S-NB-1(A)	284,313	143,164.00	30,000		30,000	173,164
S-NB-1(B)	383,928	219,622.00				219,622
S-NB-1(C)	647,677	214,514.00	20,250	134,399	154,649	369,163
S-NB-2(A)	471,760	129,138.00	14,750	97,745	112,495	241,633
S-NB-2(B)	148,509	200,594.00				200,594
S-NB-2(C)	385,651	97,068.00				97,068

*Notes*

1. The area of Option Shoal Area 3456 used in the model (Figure 18) represents areas where dredging has recently been performed. Future dredging will cover the entire Port Newark Branch Channel, which includes Area 3456, as well as the smaller area extending inland from Area 3456 to the entrance to the Port Newark Inland Channel (the pierhead). Dredge volumes are accurate current estimates of future dredging volumes. The approximation of the footprint area is unlikely to materially affect model results.
2. The area of Option Shoal Area 1A and 2 used in the model (Figure 18) represents areas where dredging has recently been performed. Future dredging will cover the entire inland Port Newark Channel. Dredge volumes are accurate current estimates of future dredging volumes. The approximation of the footprint area is unlikely to materially affect model results.
3. The 117,000 cy of material to be dredged from the area of S-AK-3 represents work performed to deepen the channel. All other entries labeled "Other USACE" and "Other PANYNJ" represent O&M.

Table 11. Estimated changes to contaminant concentrations at NBSA RI/FS Phase II sampling locations, cumulative analysis.

NBSA RI/FS						NBSA RI/FS					
Phase II Core ID	Closest Core ***	Current Concentration	Predicted Post-HDP Concentration	Concentration Difference	Relative Percent Difference	Phase II Core ID	Closest Core ***	Current Concentration	Predicted Post-HDP Concentration	Concentration Difference	Relative Percent Difference
<b>2,3,7,8 TCDD (ng/kg)</b>						<b>Benzo(a)pyrene (mg/kg)</b>					
NB02SED082	NB01SED013	3.580	3.583	0.00	0%	NB02SED082	NB01SED013	0.450	0.450	0.00	0%
NB02SED070	NB01SED005	36.200	35.913	-0.29	-1%	NB02SED070	NB01SED005	0.870	0.867	0.00	0%
NB02SED075	NB01SED049	133.500	133.487	-0.01	0%	NB02SED075	NB01SED049	2.750	2.750	0.00	0%
NB02SED071	NB01SED007	33.200	33.039	-0.16	0%	NB02SED071	NB01SED007	0.530	0.528	0.00	0%
NB02SED072	NB01SED022	40.200	40.171	-0.03	0%	NB02SED072	NB01SED022	0.760	0.759	0.00	0%
NB02SED074	NB01SED044	76.550	76.422	-0.13	0%	NB02SED074	NB01SED044	1.180	1.178	0.00	0%
NB02SED073	NB01SED032	67.300	67.265	-0.03	0%	NB02SED073	NB01SED032	0.790	0.790	0.00	0%
NB02SED076	NB01SED051	89.600	89.474	-0.13	0%	NB02SED076	NB01SED051	1.600	1.597	0.00	0%
NB02SED077	NB01SED056	145.000	144.999	0.00	0%	NB02SED077	NB01SED056	1.700	1.700	0.00	0%
NB02SED078	NB01SED052	105.550	105.484	-0.07	0%	NB02SED078	NB01SED052	2.050	2.049	0.00	0%
KK02SED081	NB207	6.070	6.082	0.01	0%	KK02SED081	NB207	3.000	2.999	0.00	0%
NB02SED080	NB01SED060	79.300	79.213	-0.09	0%	NB02SED080	NB01SED060	2.900	2.896	0.00	0%
NB02SED079	NB01SED057	93.100	93.100	0.00	0%	NB02SED079	NB01SED057	1.700	1.700	0.00	0%
USACEP2-14	NB211	29.400	29.443	0.04	0%	USACEP2-14	NB211	1.100	1.098	0.00	0%
USACEP2-01A	39_PRP-99-02	155.000	153.759	-1.24	-1%	USACEP2-01A	39_PRP-99-02	0.725	0.728	0.00	0%
USACEP2-15	NB01SED003	14.700	14.802	0.10	1%	USACEP2-15	NB01SED003	0.600	0.612	0.01	2%
USACEP2-16	NB01SED003	14.700	14.705	0.01	0%	USACEP2-16	NB01SED003	0.600	0.610	0.01	2%
USACEP2-13	NB01SED023	63.600	56.338	-7.26	-11%	USACEP2-13	NB01SED023	1.300	1.141	-0.16	-12%
USACEP2-02A	NB01SED023	63.600	62.978	-0.62	-1%	USACEP2-02A	26_NB044	0.570	0.567	0.00	-1%
USACEP2-17	17_42A	19.000	19.114	0.11	1%	USACEP2-17	17_42A	0.330	0.334	0.00	1%
USACEP2-05A	NB01SED041	51.400	51.318	-0.08	0%	USACEP2-05A	NB01SED041	0.830	0.829	0.00	0%
USACEP2-03A	NB01SED028	48.800	48.796	0.00	0%	USACEP2-03A	27_NB103	0.720	0.720	0.00	0%
USACEP2-04A	NB01SED028	48.800	48.798	0.00	0%	USACEP2-04A	NB01SED028	0.750	0.750	0.00	0%
USACEP2-12	NB226	40.050	40.037	-0.01	0%	USACEP2-12	NB226	1.500	1.498	0.00	0%
USACEP2-11	NB01SED051	89.600	89.461	-0.14	0%	USACEP2-11	NB01SED051	1.600	1.597	0.00	0%
USACEP2-07	NB01SED060	79.300	79.210	-0.09	0%	USACEP2-07	NB01SED060	2.900	2.895	0.00	0%
USACEP2-06A	NB901	130.000	129.849	-0.15	0%	USACEP2-06A	27_NB110	0.140	0.141	0.00	1%
USACEP2-10	NB01SED066	40.200	40.190	-0.01	0%	USACEP2-10	26_NB065	2.000	1.999	0.00	0%

\* Values in yellow are greater than the UT, see text.

\*\* Stations indicated as "USACEP2" are NBSA RI/FS Phase II sampling locations proposed by USACE to USEPA

\*\*\* Closest core: NBSA RI/FS Phase I or active historic core

Table 11. Estimated changes to contaminant concentrations at NBSA RI/FS Phase II sampling locations, cumulative analysis.

NBSA RI/FS						NBSA RI/FS					
Phase II Core ID	Closest Core ***	Current Concentration	Predicted Post-HDP Concentration	Concentration Difference	Relative Percent Difference	Phase II Core ID	Closest Core ***	Current Concentration	Predicted Post-HDP Concentration	Concentration Difference	Relative Percent Difference
<b>Total PCBs (mg/kg)</b>						<b>Mercury (mg/kg)</b>					
NB02SED082	NB01SED013	0.069	0.069	0.00	0%	NB02SED082	NB01SED013	0.830	0.830	0.00	0%
NB02SED070	NB01SED005	0.693	0.686	-0.01	-1%	NB02SED070	NB01SED005	2.000	1.988	-0.01	-1%
NB02SED075	NB01SED049	2.415	2.415	0.00	0%	NB02SED075	NB01SED049	77.000	76.984	-0.02	0%
NB02SED071	NB01SED007	0.537	0.532	0.00	-1%	NB02SED071	NB01SED007	1.100	1.095	0.00	0%
NB02SED072	NB01SED022	0.538	0.537	0.00	0%	NB02SED072	NB01SED022	1.400	1.399	0.00	0%
NB02SED074	NB01SED044	0.679	0.678	0.00	0%	NB02SED074	NB01SED044	2.200	2.197	0.00	0%
NB02SED073	NB01SED032	0.521	0.521	0.00	0%	NB02SED073	NB01SED032	1.500	1.499	0.00	0%
NB02SED076	NB01SED051	0.642	0.642	0.00	0%	NB02SED076	NB01SED051	2.500	2.497	0.00	0%
NB02SED077	NB01SED056	1.090	1.090	0.00	0%	NB02SED077	NB01SED056	3.100	3.100	0.00	0%
NB02SED078	NB01SED052	0.548	0.548	0.00	0%	NB02SED078	NB01SED052	2.050	2.049	0.00	0%
KK02SED081	27_NB115	0.298	0.297	0.00	0%	KK02SED081	27_NB115	1.730	1.730	0.00	0%
NB02SED080	NB01SED060	0.450	0.449	0.00	0%	NB02SED080	NB01SED060	2.200	2.198	0.00	0%
NB02SED079	NB01SED057	0.573	0.573	0.00	0%	NB02SED079	NB01SED057	2.400	2.400	0.00	0%
USACEP2-14	39_PRP-99-01	0.047	0.056	0.01	18%	USACEP2-14	39_PRP-99-01	0.016	0.058	0.04	265%
USACEP2-01A	39_PRP-99-02	2.565	2.546	-0.02	-1%	USACEP2-01A	39_PRP-99-02	19.850	19.682	-0.17	-1%
USACEP2-15	NB01SED003	0.146	0.153	0.01	5%	USACEP2-15	NB01SED003	1.500	1.526	0.03	2%
USACEP2-16	NB01SED003	0.146	0.150	0.00	3%	USACEP2-16	NB01SED003	1.500	1.515	0.02	1%
USACEP2-13	NB01SED023	0.818	0.741	-0.08	-9%	USACEP2-13	NB01SED023	3.000	2.655	-0.34	-11%
USACEP2-02A	26_NB044	0.517	0.514	0.00	-1%	USACEP2-02A	26_NB044	3.796	3.755	-0.04	-1%
USACEP2-17	17_42A	0.048	0.053	0.01	12%	USACEP2-17	17_42A	2.200	2.153	-0.05	-2%
USACEP2-05A	NB01SED041	0.391	0.390	0.00	0%	USACEP2-05A	NB01SED041	1.800	1.797	0.00	0%
USACEP2-03A	27_NB103	0.381	0.381	0.00	0%	USACEP2-03A	27_NB103	2.350	2.350	0.00	0%
USACEP2-04A	NB01SED028	0.461	0.461	0.00	0%	USACEP2-04A	NB01SED028	1.400	1.400	0.00	0%
USACEP2-12	NB01SED032	0.521	0.520	0.00	0%	USACEP2-12	NB01SED032	1.500	1.499	0.00	0%
USACEP2-11	NB01SED051	0.642	0.642	0.00	0%	USACEP2-11	NB01SED051	2.500	2.496	0.00	0%
USACEP2-07	NB01SED060	0.450	0.449	0.00	0%	USACEP2-07	NB01SED060	2.200	2.198	0.00	0%
USACEP2-06A	27_NB110	0.083	0.083	0.00	0%	USACEP2-06A	27_NB110	0.517	0.518	0.00	0%
USACEP2-10	26_NB065	0.163	0.163	0.00	0%	USACEP2-10	26_NB065	0.408	0.408	0.00	0%

\* Values in yellow are greater than the UT, see text.

\*\* Stations indicated as "USACEP2" are NBSA RI/FS Phase II sampling locations proposed by USACE to USEPA

\*\*\* Closest core: NBSA RI/FS Phase I or active historic core

Table 11. Estimated changes to contaminant concentrations at NBSA RI/FS Phase II sampling locations, cumulative analysis.

NBSA RI/FS Phase II Core ID	Closest Core ***	Current Concentration	Predicted Post-HDP Concentration	Concentration Difference	Relative Percent Difference	NBSA RI/FS Phase II Core ID	Closest Core ***	Current Concentration	Predicted Post-HDP Concentration	Concentration Difference	Relative Percent Difference
<b>DDTs (mg/kg)</b>						<b>Chromium (mg/kg)</b>					
NB02SED082	NB01SED013	0.036	0.036	0.00	0%	NB02SED082	NB01SED013	28.000	28.011	0.01	0%
NB02SED070	NB01SED005	0.038	0.041	0.00	7%	NB02SED070	NB01SED005	105.000	104.591	-0.41	0%
NB02SED075	NB01SED049	0.065	0.064	0.00	0%	NB02SED075	NB01SED049	191.500	191.478	-0.02	0%
NB02SED071	NB01SED007	0.014	0.014	0.00	1%	NB02SED071	NB01SED007	81.600	81.315	-0.28	0%
NB02SED072	NB01SED022	0.016	0.016	0.00	0%	NB02SED072	NB01SED022	98.400	98.343	-0.06	0%
NB02SED074	15_31	0.122	0.122	0.00	0%	NB02SED074	NB01SED044	115.500	115.397	-0.10	0%
NB02SED073	NB01SED032	0.033	0.033	0.00	0%	NB02SED073	NB01SED032	121.000	120.954	-0.05	0%
NB02SED076	NB01SED051	0.035	0.035	0.00	0%	NB02SED076	NB01SED051	119.000	118.904	-0.10	0%
NB02SED077	NB01SED056	0.035	0.035	0.00	0%	NB02SED077	NB01SED056	153.000	152.999	0.00	0%
NB02SED078	NB01SED052	0.029	0.028	0.00	0%	NB02SED078	NB01SED052	110.500	110.473	-0.03	0%
KK02SED081	27_NB115	0.052	0.052	0.00	0%	KK02SED081	27_NB115	128.000	127.976	-0.02	0%
NB02SED080	NB01SED060	0.015	0.015	0.00	0%	NB02SED080	NB01SED060	119.000	118.928	-0.07	0%
NB02SED079	NB01SED057	0.027	0.027	0.00	0%	NB02SED079	NB01SED057	129.000	129.000	0.00	0%
USACEP2-14	39_PRP-99-01	0.001	0.010	0.01	927%	USACEP2-14	39_PRP-99-01	37.100	38.299	1.20	3%
USACEP2-01A	39_PRP-99-02	0.225	0.230	0.00	2%	USACEP2-01A	39_PRP-99-02	277.500	275.990	-1.51	-1%
USACEP2-15	NB01SED003	0.043	0.054	0.01	26%	USACEP2-15	NB01SED003	64.100	65.093	0.99	2%
USACEP2-16	NB01SED003	0.043	0.050	0.01	17%	USACEP2-16	NB01SED003	64.100	64.716	0.62	1%
USACEP2-13	NB01SED023	0.112	0.098	-0.01	-12%	USACEP2-13	NB01SED023	108.000	100.002	-8.00	-7%
USACEP2-02A	26_NB044	0.135	0.134	0.00	-1%	USACEP2-02A	26_NB044	153.900	152.626	-1.27	-1%
USACEP2-09	26_NB066	0.105	0.104	0.00	0%	USACEP2-17	17_42A	62.000	62.307	0.31	0%
P2-71A	26_NB045	0.035	0.035	0.00	0%	USACEP2-05A	NB01SED041	201.000	200.592	-0.41	0%
USACEP2-05A	NB01SED041	0.197	0.196	0.00	0%	USACEP2-03A	27_NB103	149.000	148.989	-0.01	0%
P2-74A	15_31	0.122	0.121	0.00	-1%	USACEP2-04A	NB01SED028	109.000	108.996	0.00	0%
USACEP2-04A	NB01SED028	0.025	0.025	0.00	0%	USACEP2-12	NB01SED032	121.000	120.906	-0.09	0%
USACEP2-12	NB01SED032	0.033	0.033	0.00	0%	USACEP2-11	NB01SED051	119.000	118.894	-0.11	0%
USACEP2-07	NB01SED060	0.015	0.015	0.00	0%	USACEP2-07	NB01SED060	119.000	118.926	-0.07	0%
USACEP2-06A	27_NB110	0.011	0.011	0.00	0%	USACEP2-06A	27_NB110	49.600	49.647	0.05	0%
USACEP2-10	26_NB065	0.008	0.008	0.00	0%	USACEP2-10	26_NB065	45.100	45.114	0.01	0%

\* Values in yellow are greater than the UT, see text.

\*\* Stations indicated as "USACEP2" are NBSA RI/FS Phase II sampling locations proposed by USACE to USEPA

\*\*\* Closest core: NBSA RI/FS Phase I or active historic core