

Table 2-1
Sediment Analytical Data
Pigs Eye Landfill Focused Feasibility Study

Monitoring Point	PE12-2	PE2	PE2-2	PE3	PE3-2	PE4	PE4-2	PE5	PE5-2	PE6	PE6-2	PE7	PE7-2	PE8	PE8-2	PE9	PE9-2	PEL-001-0-6	PEL-001-6-14	PEL-002-0-6	PEL-002-6-15	PEL-003-0-6	PEL-003-6-11			
Eastings	498,093.10	497,912.90	497,912.90	497,873.50	497,873.50	498,268.14	498,268.14	497,491.28	497,491.28	497,879.53	497,879.53	497,072.62	497,072.62	497,783.11	497,783.11	498,256.04	498,256.04	497,613.21	497,613.21	497,703.79	497,703.79	497,770.59	497,770.59			
Northing	4,972,761.05	4,974,706.00	4,974,706.00	4,974,444.99	4,974,444.99	4,974,474.80	4,974,474.80	4,974,052.63	4,974,052.63	4,974,007.74	4,974,007.74	4,973,277.36	4,973,277.36	4,973,502.33	4,973,502.33	4,973,484.29	4,973,484.29	4,974,950.15	4,974,950.15	4,974,916.51	4,974,916.51	4,974,955.44	4,974,955.44			
Date	5/30/2007	5/29/2007	5/29/2007	5/29/2007	5/29/2007	5/29/2007	5/29/2007	5/29/2007	5/29/2007	5/29/2007	5/29/2007	5/29/2007	5/29/2007	5/29/2007	5/29/2007	5/29/2007	5/29/2007	10/22/2014	10/22/2014	10/27/2014	10/27/2014	10/27/2014	10/27/2014			
Depth	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"			
Parameter	Units	RGs																								
PFCs																										
PFBA	ng/g	--																								
PFPeA	ng/g	--																								
PFHxA	ng/g	--																								
PFHpA	ng/g	--																								
PFOA	ng/g	134	1.81	1.89	2.62	1.12	1.77	0.677	1.82	1.86	120	18.4														
PFNA	ng/g	--																								
PFDA	ng/g	--																								
PFUnA	ng/g	--																								
PFDnA	ng/g	--																								
PFBS	ng/g	--																								
PFHxS	ng/g	--																								
PFOS	ng/g	134	4.18	3.35	4.07	2.91	3.82	1.65	3.85	4.46	66.9	11.8														
PFOSA	ng/g	--																								
Metals																										
Cadmium	mg/kg	8	2	3.8	1.9	0.87	1.6	3.1	2	1.3	1.8	2.4	1.4	1.2	1.6	1.9	1.2	0.75	3.7	8.4	3.2	4.5	3.1	0.78		
Copper	mg/kg	91	16	22	28	17	19	16	24	16	15	21	14	15	14	18	11	10	59.5	98.3	52.9	60.1	49	41.7		
Lead	mg/kg	83	15	20	27	15	27	13	23	14	13	13	12	13	11	19	11	7.8	72.1	122	57.2	92.6	50.5	36		
Silver	mg/kg	--																								
Zinc	mg/kg	233	49	66	84	53	64	45	70	48	51	43	66	43	48	40	60	36	32	216	363	208	258	223	124	
PAH																										
Acenaphthene	mg/kg	12.3																								
Acenaphthylene	mg/kg	12.3																								
Anthracene	mg/kg	12.3																								
Benzo(a)anthracene	mg/kg	12.3																								
Benzo(a)pyrene	mg/kg	12.3																								
Benzo(b)fluoranthene	mg/kg	12.3																								
Benzo(e)pyrene	mg/kg	12.3																								
Benzo(g,h,i)perylene	mg/kg	12.3																								
Benzo(k)fluoranthene	mg/kg	12.3																								
Carbazole	mg/kg	12.3																								
2-Chloronaphthalene	mg/kg	12.3																								
Chrysene	mg/kg	12.3																								
Dibenz(a,h)acridine	mg/kg	12.3																								
Dibenz(a,h)anthracene	mg/kg	12.3																								
Dibenz(a,j)acridine	mg/kg	12.3																								
Dibenz(a,e)pyrene	mg/kg	12.3																								
Dibenz(a,h)pyrene	mg/kg	12.3																								
Dibenzo(a,i)pyrene	mg/kg	12.3																								
Dibenzo(a,j)pyrene	mg/kg	12.3																								
7H-Dimethylbenz(a)anthracene	mg/kg	12.3																								
Dibenzofuran	mg/kg	12.3																								
7,12-Dimethylbenz(a)anthracene	mg/kg	12.3																								
1,6-Dinitropyrene	mg/kg	12.3																								
1,8-Dinitropyrene	mg/kg	12.3																								
Fluoranthene	mg/kg	12.3																								
Fluorene	mg/kg	12.3																								
Indeno(1,2,3-cd)pyrene	mg/kg	12.3																								
3-Methylcholanthrene	mg/kg	12.3																								
5-Methylchrysene	mg/kg	12.3																								
1-Methylnaphthalene	mg/kg	12.3																								
2-Methylnaphthalene	mg/kg	12.3																								
Naphthalene	mg/kg	12.3																								
5-Nitroacenaphthalene	mg/kg	12.3																								
6-Nitrochrysene	mg/kg	12.3																								
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1-Nitropyrene	mg/kg	12.3																								
4-Nitropyrene	mg/kg	12.3																								
Perylene	mg/kg	12.3																								
Phenanthrene	mg/kg	12.3																								
Pyrene	mg/kg	12.3																								
Quinalone	mg/kg	12.3																								
Total PAH	mg/kg	12.3	5.922	9.05	8.938	19.82	17.03	7.179	5.98	3.277	1.836	4.1885	8.371	5.02	4.133	4.068	8.22	2.461	10.041							
Total BaP Eq.	mg/kg	12.3																								
PCBs^a																										
PCB-1016	mg/kg	--																								
PCB-1221	mg/kg	--																								
PCB-1232	mg/kg	--																								
PCB-1242	mg/kg	--																								
PCB-1248	mg/kg	--																								
PCB-1254	mg/kg	--																								
PCB-1260	mg/kg	--																								
PCB-1262	mg/kg	--																								
PCB-1268	mg/kg	--																								
			0.267	0.166	0.323	0.206	0.125	0.197	0.29	0.124	0.0493	0.187	0.337	0.158	0.128	0.182	0.415	0.11	0.052	ND	ND					

Notes:
BOLD - Exceeds RG Value
PFC - Perfluorinated chemical
PAH - Polyaromatic hydrocarbons
PCB - Polychlorinated biphenyl
-- Not Established
^a - Sum of all PCB detections
NA - data not available

Table 2-1
Sediment Analytical Data
Pigs Eye Landfill Focused Feasibility Study

Monitoring Point	PEL-004-0-6	PEL-004-6-14	PEL-005-0-6	PEL-005-6-14	PEL-006-0-6	PEL-006-6-15	PEL-007-0-6	PEL-007-6-14	PEL-008-0-6	PEL-008-6-16	PEL-009-0-6	PEL-009-6-18	PEL-010-0-6	PEL-010-6-15	PEL-011-0-6	PEL-011-6-17	PEL-012-0-6	PEL-012-6-16	PEL-013-0-6	PEL-013-6-17	PEL-014-0-6	PEL-014-6-15	PEL-015-0-6			
Easting	497,648.16	497,648.16	497,837.13	497,837.13	497,622.01	497,622.01	497,642.14	497,642.14	497,709.11	497,709.11	497,700.70	497,700.70	497,763.76	497,763.76	497,762.27	497,762.27	497,660.93	497,660.93	497,691.87	497,691.87	497,736.15	497,736.15	497,780.81			
Northing	4,974,928.31	4,974,928.31	4,974,978.02	4,974,978.02	4,974,929.61	4,974,929.61	4,974,946.58	4,974,946.58	4,974,872.69	4,974,872.69	4,974,810.60	4,974,810.60	4,974,827.01	4,974,827.01	4,974,777.48	4,974,777.48	4,974,959.05	4,974,959.05	4,974,989.61	4,974,989.61	4,974,915.84	4,974,915.84	4,975,012.77			
Date	10/23/2014	10/23/2014	10/27/2014	10/27/2014	10/23/2014	10/23/2014	10/23/2014	10/23/2014	10/27/2014	10/27/2014	10/27/2014	10/27/2014	10/27/2014	10/27/2014	10/22/2014	10/22/2014	10/23/2014	10/23/2014	10/23/2014	10/23/2014	10/27/2014	10/27/2014	10/24/2014			
Depth	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"	> 6"	0 - 6"			
Parameter	Units	RGs																								
PFCs																										
PFBA	ng/g	--																								
PFPeA	ng/g	--																								
PFHxA	ng/g	--																								
PFHpA	ng/g	--																								
PFOA	ng/g	134			169	70.9			2.61	2.05						2.71	22.8					4.8				
PFNA	ng/g	--																								
PFDA	ng/g	--																								
PFUnA	ng/g	--																								
PFDoA	ng/g	--																								
PFBS	ng/g	--																								
PFHxS	ng/g	--																								
PFOS	ng/g	134						77.4	10.5				3.02	4.03				4.14	15.4				11.6			
PFOSA	ng/g	--																								
Metals																										
Cadmium	mg/kg	8	0.89	0.5	3.5	0.66	34	20.8	1	0.49	1.5	5.1	4.6	19.3	2.6	0.56	4.5	6.4	2.7	3	1.1	0.51	4	0.62	2.1	
Copper	mg/kg	91	35.2	33.4	62.3	30.7	166	135	29.1	30.4	43.4	63.5	83.3	296	61.7	31.9	62.2	60.7	48.7	44.2	30.8	35.3	53.6	35.8	53.4	
Lead	mg/kg	83	53.8	58.7	65.8	40.8	179	143	45.1	55.9	58.4	94.6	56.9	169	34.7	56.1	54.3	73.8	58.5	81.7	55.3	61.3	57.7	63.5	57.6	
Silver	mg/kg	--	0.71	0.74	1.2	0.88	5.6	4.5	0.65	0.7	0.93	1.3	1.8	7.5	1.8	0.65	1.7	1.7	0.94	0.79	0.72	0.82	1.3	0.75	0.93	
Zinc	mg/kg	233	124	110	212	112	429	526	112	107	145	227	223	498	129	108	180	173	203	179	123	121	219	120	225	
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Quinalone	mg/kg	12.3																								
Total PAH	mg/kg	12.3																								
Total BaP Eq.	mg/kg	12.3																								
PCBs^a																										
PCB-1016	mg/kg	--	ND																			ND	ND	ND	MA	ND
PCB-1221	mg/kg	--																								
PCB-1232	mg/kg	--																								
PCB-1242	mg/kg	--																								
PCB-1248	mg/kg	--																								
PCB-1254	mg/kg	--																								
PCB-1260	mg/kg	--																								
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PCB-1268	mg/kg	--																								

Notes:
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PCB - Polychlorinated biphenyl
-- Not Established
^a - Sum of all PCB detections
NA - data not available

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Sediment Analytical Data
Pigs Eye Landfill Focused Feasibility Study

Monitoring Point			RRD-8	RRD-9	Sed-1	Sed-11 (duplicate26)	Sed-12	Sed-13	Sed-14	Sed-15	Sed-16	Sed-18	Sed-19	Sed-2	Sed-20	Sed-21	Sed-22	Sed-23	Sed-24	Sed-25	Sed-26	Sed-26d	Sed-27	Sed-28	Sed-3										
Easting			497,829.80	497,920.80	497,673.00	497,666.00	497,649.00	497,643.00	497,632.00	497,624.00	497,632.00	497,649.00	497,657.00	497,740.00	497,665.00	497,678.00	497,666.00	497,657.00	497,649.00	497,642.00	497,666.00	497,666.00	497,676.00	497,684.00	497,700.00										
Northing			4,975,056.50	4,975,002.00	4,975,046.00	4,974,991.00	4,975,024.00	4,975,017.00	4,975,008.00	4,974,990.50	4,975,009.00	4,975,015.00	4,975,065.00	4,975,024.00	4,975,018.00	4,975,009.00	4,975,000.00	4,974,990.00	4,974,985.00	4,974,991.00	4,974,991.00	4,974,991.00	4,975,001.00	4,975,012.00	4,974,900.00										
Date			12/12/2000	12/12/2000	9/16/1999	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	9/16/1999	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	9/16/1999										
Depth			> 6"	> 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	> 6"	0 - 6"	0 - 6"	0 - 6"										
Parameter	Units	RGs																																	
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PFBA	ng/g	--																																	
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PFOS	ng/g	134																																	
PFOSA	ng/g	--																																	
Metals																																			
Cadmium	mg/kg	8	1.5	1.1	5 U	5 U				5 U	6.2		5 U	5 U			5 U	5 U	5 U	10	5 U	5 U		5 U	5 U										
Copper	mg/kg	91	52.9	50.4	30	44				84	100		34	18			34	40	42	93	40	36		29	51										
Lead	mg/kg	83	67.1	45.3	62	53	43	81	77	76	94	60	43	26	23	59	39	50	55	120	50	92	53	44	72										
Silver	mg/kg	--	2.1 U	3.3 U	5 U									5 U											5 U										
Zinc	mg/kg	233	208	154	210	280				300	430		210	100			200	270	260	380	250	180		140	240										
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Phenanthrene	mg/kg	12.3																																	
Pyrene	mg/kg	12.3																																	
Quinalone	mg/kg	12.3																																	
Total PAH	mg/kg	12.3	1.2 U	0.71 U																															
Total BaP Eq.	mg/kg	12.3																																	
PCBs^a			0.071 U	0.11 U	21																				0.708									0.35	0.402
PCB-1016	mg/kg	--																																	
PCB-1221	mg/kg	--																																	
PCB-1232	mg/kg	--																																	
PCB-1242	mg/kg	--																																	
PCB-1248	mg/kg	--																																	
PCB-1254	mg/kg	--																																	
PCB-1260	mg/kg	--																																	
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BOLD - Exceeds RG Value
PFC - Perfluorinated chemical
PAH - Polycyclic aromatic hydrocarbons
PCB - Polychlorinated biphenyl
-- Not Established
^a - Sum of all PCB detections
NA - data not available

Table 2-1
Sediment Analytical Data
Pigs Eye Landfill Focused Feasibility Study

Monitoring Point			Sed-30	Sed-31	Sed-32	Sed-33	Sed-34	Sed-35	Sed-36	Sed-37	Sed-37d	Sed-39	Sed-4	Sed-40	Sed-5	SED-6	Sed-7	SS-10	SS-11	SS-13	SS-16	SS-17	SS-18	SS-19	SS-20	SS-21																	
Easting			497,684.00	497,694.00	497,682.00	497,704.00	497,734.00	497,684.00	497,667.00	497,671.00	497,671.00	497,613.00	497,493.00	497,608.00	497,640.00	NA	497,590.00	497,940.00	497,825.00	497,830.00	497,371.22	497,367.47	497,452.12	497,472.09	497,453.46	497,499.62																	
Northing			4,975,026.00	4,975,034.00	4,975,041.00	4,975,062.00	4,975,069.00	4,974,970.00	4,974,976.00	4,974,946.00	4,974,946.00	4,974,978.00	4,974,714.00	4,974,028.00	4,974,446.00	NA	4,974,945.00	4,974,420.00	4,974,250.00	4,975,174.00	4,974,688.67	4,974,661.61	4,974,694.83	4,974,712.25	4,974,639.65	4,974,655.84																	
Date			5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	9/17/1999	5/31/2000	9/17/1999	8/10/1992	9/17/1999	6/8/1994	6/8/1994	6/8/1994	6/8/1994	6/8/1994	6/8/1994	8/31/2000	8/31/2000	8/31/2000																	
Depth			0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	> 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"																	
Parameter	Units	RGs																																									
PFCs																																											
PFBA	ng/g	--																																									
PFPeA	ng/g	--																																									
PFHxA	ng/g	--																																									
PFHpA	ng/g	--																																									
PFOA	ng/g	134																																									
PFNA	ng/g	--																																									
PFDA	ng/g	--																																									
PFUnA	ng/g	--																																									
PFDoA	ng/g	--																																									
PFBS	ng/g	--																																									
PFHxS	ng/g	--																																									
PFOS	ng/g	134																																									
PFOSA	ng/g	--																																									
Metals																																											
Cadmium	mg/kg	8	5 U		5 U					5 U	5 U	5 U	27	5 U	5 U	1.2	5 U	2.7	2.5	1 U	145	78.1	30.5	13	46.1	5.000001																	
Copper	mg/kg	91	59		26					48	37	48	150	73	28	46.3	44	17	20	11	1090	502	99.8	85	331	48																	
Lead	mg/kg	83	63	69	33	20 U	47	64	51	58	56	80	100	71	24	25.4	43	17	21	16	750	244	83.3	57.1	187	37.4																	
Silver	mg/kg	--											5 U		5 U		5 U	1.2 U		1 U	37.8	16.8	3.7	2.2	12.1	0.83																	
Zinc	mg/kg	233	310		130					270	190	250	330	320	98	93.7	130	49	59	47	1350	596	232	159	414	119																	
PAH																																											
Acenaphthene	mg/kg	12.3																																									
Acenaphthylene	mg/kg	12.3																																									
Anthracene	mg/kg	12.3																																									
Benzo(a)anthracene	mg/kg	12.3																																									
Benzo(a)pyrene	mg/kg	12.3																																									
Benzo(b)fluoranthene	mg/kg	12.3																																									
Benzo(e)pyrene	mg/kg	12.3																																									
Benzo(g,h,i)perylene	mg/kg	12.3																																									
Benzo(k)fluoranthene	mg/kg	12.3																																									
Carbazole	mg/kg	12.3																																									
2-Chloronaphthalene	mg/kg	12.3																																									
Chrysene	mg/kg	12.3																																									
Dibenz(a,h)acridine	mg/kg	12.3																																									
Dibenz(a,h)anthracene	mg/kg	12.3																																									
Dibenz(a,j)acridine	mg/kg	12.3																																									
Dibenzo(a,e)pyrene	mg/kg	12.3																																									
Dibenzo(a,h)pyrene	mg/kg	12.3																																									
Dibenzo(a,i)pyrene	mg/kg	12.3																																									
Dibenzo(a,l)pyrene	mg/kg	12.3																																									
7H-Dimethylbenz(a)anthracene	mg/kg	12.3																																									
Dibenzofuran	mg/kg	12.3																																									
7,12-Dimethylbenz(a)anthracene	mg/kg	12.3																																									
1,6-Dinitropyrene	mg/kg	12.3																																									
1,8-Dinitropyrene	mg/kg	12.3																																									
Fluoranthene	mg/kg	12.3																																									
Fluorene	mg/kg	12.3																																									
Indeno(1,2,3-cd)pyrene	mg/kg	12.3																																									
3-Methylcholanthrene	mg/kg	12.3																																									
5-Methylchrysene	mg/kg	12.3																																									
1-Methylnaphthalene	mg/kg	12.3																																									
2-Methylnaphthalene	mg/kg	12.3																																									
Naphthalene	mg/kg	12.3																																									
5-Nitroacenaphthalene	mg/kg	12.3																																									
6-Nitrochrysene	mg/kg	12.3																																									
2-Nitrofluorene	mg/kg	12.3																																									
1-Nitropyrene	mg/kg	12.3																																									
4-Nitropyrene	mg/kg	12.3																																									
Perylene	mg/kg	12.3																																									
Phenanthrene	mg/kg	12.3																																									
Pyrene	mg/kg	12.3																																									
Quinalone	mg/kg	12.3																																									
Total PAH	mg/kg	12.3																				7.9	3.9	4.6																			
Total BaP Eq.	mg/kg	12.3																																									
PCBs^a																																											
PCB-1016	mg/kg	--	0.318																					0.224							0.73	0.462					7.4	1 U					
PCB-1221	mg/kg	--																																									
PCB-1232	mg/kg	--																																									
PCB-1242	mg/kg	--																																									
PCB-1248	mg/kg	--																																									
PCB-1254	mg/kg	--																																									
PCB-1260	mg/kg	--																																									
PCB-1262	mg/kg	--																																									
PCB-1268	mg/kg	--																																									

Notes:
BOLD - Exceeds RG Value
PFC - Perfluorinated chemical
PAH - Polyaromatic hydrocarbons
PCB - Polychlorinated biphenyl
-- Not Established
^a - Sum of all PCB detections
NA - data not available

Table 2-1
Sediment Analytical Data
Pigs Eye Landfill Focused Feasibility Study


Monitoring Point			SS-22	15-1M	15-2M	15-3M	SS-6	SS-7	SS-8	SS-9
Easting			497,569.60	497,965.00	497,337.00	498,247.00	497,590.00	497,670.00	497,763.53	497,655.00
Northing			4,974,598.71	4,974,532.00	4,973,577.00	4,973,260.00	4,974,950.00	4,974,830.00	4,974,688.97	4,974,455.00
Date			8/31/2000	10/26/2015	10/26/2015	10/26/2015	6/8/1994	6/8/1994	6/8/1994	6/8/1994
Depth			0 - 6"	> 6"	> 6"	> 6"	0 - 6"	0 - 6"	0 - 6"	0 - 6"
Parameter	Units	RGs								
PFCs										
PFBA	ng/g	--								
PFPeA	ng/g	--								
PFHxA	ng/g	--								
PFHpA	ng/g	--								
PFOA	ng/g	134								
PFNA	ng/g	--								
PFDA	ng/g	--								
PFUnA	ng/g	--								
PFDoA	ng/g	--								
PFBS	ng/g	--								
PFHxS	ng/g	--								
PFOS	ng/g	134								
PFOSA	ng/g	--								
Metals										
Cadmium	mg/kg	8	2	2.3	1.6	1.2	2.2	1	1.8	2.6
Copper	mg/kg	91	29	31.7	17.2	19.4	57	24	20	19
Lead	mg/kg	83	19.4	48.9	6.6	7	37	17	19	18
Silver	mg/kg	--	1.7 U					1.2 U	1 U	1.2 U
Zinc	mg/kg	233	85	116	60.4	62.8	130	82	60	53
PAH										
Acenaphthene	mg/kg	12.3								
Acenaphthylene	mg/kg	12.3								
Anthracene	mg/kg	12.3								
Benzo(a)anthracene	mg/kg	12.3								
Benzo(a)pyrene	mg/kg	12.3								
Benzo(b)fluoranthene	mg/kg	12.3								
Benzo(e)pyrene	mg/kg	12.3								
Benzo(g,h,i)perylene	mg/kg	12.3								
Benzo(k)fluoranthene	mg/kg	12.3								
Carbazole	mg/kg	12.3								
2-Chloronaphthalene	mg/kg	12.3								
Chrysene	mg/kg	12.3								
Dibenz(a,h)acridine	mg/kg	12.3								
Dibenz(a,h)anthracene	mg/kg	12.3								
Dibenz(a,j)acridine	mg/kg	12.3								
Dibenzo(a,e)pyrene	mg/kg	12.3								
Dibenzo(a,h)pyrene	mg/kg	12.3								
Dibenzo(a,i)pyrene	mg/kg	12.3								
Dibenzo(a,l)pyrene	mg/kg	12.3								
7H-Dimethylbenz(a)anthracene	mg/kg	12.3								
Dibenzofuran	mg/kg	12.3								
7,12-Dimethylbenz(a)anthracene	mg/kg	12.3								
1,6-Dinitropyrene	mg/kg	12.3								
1,8-Dinitropyrene	mg/kg	12.3								
Fluoranthene	mg/kg	12.3								
Fluorene	mg/kg	12.3								
Indeno(1,2,3-cd)pyrene	mg/kg	12.3								
3-Methylcholanthrene	mg/kg	12.3								
5-Methylchrysene	mg/kg	12.3								
1-Methylnaphthalene	mg/kg	12.3								
2-Methylnaphthalene	mg/kg	12.3								
Naphthalene	mg/kg	12.3								
5-Nitroacenaphthalene	mg/kg	12.3								
6-Nitrochrysene	mg/kg	12.3								
2-Nitrofluorene	mg/kg	12.3								
1-Nitropyrene	mg/kg	12.3								
4-Nitropyrene	mg/kg	12.3								
Perylene	mg/kg	12.3								
Phenanthrene	mg/kg	12.3								
Pyrene	mg/kg	12.3								
Quinalone	mg/kg	12.3								
Total PAH	mg/kg	12.3		10.8	25.12	9.94	7.8	2.3	3.3	3.7
Total BaP Eq.	mg/kg	12.3								
PCBs^a										
PCB-1016	mg/kg	--								
PCB-1221	mg/kg	--								
PCB-1232	mg/kg	--								
PCB-1242	mg/kg	--								
PCB-1248	mg/kg	--								
PCB-1254	mg/kg	--								
PCB-1260	mg/kg	--								
PCB-1262	mg/kg	--								
PCB-1268	mg/kg	--								

Notes:
BOLD - Exceeds RG Value
PFC - Perfluorinated chemical
PAH - Polyaromatic hydrocarbons
PCB - Polychlorinated biphenyl
-- Not Established
^a - Sum of all PCB detections
NA - data not available

Table 2-2
 Groundwater Analytical Results - 2016
 Pigs Eye Landfill Focused Feasibility Study

			GP-01	GP-03	GP-04	GP-05	GP-06	GP-07	GP-08	GP-09	GP-10	GP-11	GP-12	GP-13	GP-14	GP-15	GP-16
			5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	5/4/2016	11/7/2016	11/7/2016	11/7/2016	11/7/2016	11/7/2016	11/7/2016
Parameter	Units	SW Criteria															
PFCs																	
PFBA	ug/L	--	31.900	12.900	1.250	10.900	48.800	78.200	235 D	9.610	16.400	2.930	8.850	8.030	22.600	33.100	11.200
PFPeA	ug/L	--	0.138	0.642	0.259	1.210	3.360	0.936	2.790	0.594	1.440	0.205	1.740	0.850	4.580	3.920	1.390
PFHxA	ug/L	--	0.394	1.690	0.234	3.650	10.700	2.470	7.850	2.330	3.110	0.347	5.710	2.570	15.700	11.600	1.620
PFHpA	ug/L	--	0.212	0.656	0.196	1.200	4.070	1.030	2.960	0.760	1.120	0.219	3.390	0.953	8.080	5.910	0.693
PFOA	ug/L	2.7	7.340	39.000	7.640	51.100	227.000	11.500	40.600	30.500	16.900	2.670	222.000	31.900	269.000	341.000	15.800
PFNA	ug/L	--	<0.129	<0.253	<0.0492	<0.199	1.540	<0.196	<0.201	<0.118	<0.103	<0.093	<0.346	<0.0974	0.563	1.290	<0.101
PFDA	ug/L	--	<0.129	<0.253	<0.0492	<0.199	<0.269	<0.196	<0.201	<0.118	<0.103	<0.093	<0.346	<0.0974	<0.390	<0.361	<0.101
PFUnA	ug/L	--	<0.129	<0.253	<0.0492	<0.199	<0.269	<0.196	<0.201	<0.118	<0.103	<0.093	<0.346	<0.0974	<0.390	<0.361	<0.101
PFDoA	ug/L	--	<0.129	<0.253	<0.0492	<0.199	<0.269	<0.196	<0.201	<0.118	<0.103	<0.093	<0.346	<0.0974	<0.390	<0.361	<0.101
PFBS	ug/L	--	<0.257	<0.506	<0.0984	<0.398	<0.537	<0.393	0.410	<0.237	0.245	<0.186	<0.692	<0.195	2.670	<0.723	<0.202
PFHxS	ug/L	--	<0.257	0.523	0.104	0.527	1.620	<0.393	0.852	0.583	2.950	1.080	<0.692	0.531	10.900	3.340	0.958
PFOS	ug/L	0.006	6.220	9.390	2.760	12.200	31.000	0.882	4.520	2.770	9.270	12.200	14.700	10.300	83.400	48.900	2.530
PFOSA	ug/L	--	0.177	<0.253	0.091	<0.199	<0.269	<0.196	<0.201	<0.118	<0.103	<0.093	<0.346	<0.0974	<0.390	<0.361	<0.101

Notes:

 Exceeds SW Criteria

-- Not Established

D - Dilution data

< - non detected/concentration below reporting limit

PFCs - Perfluorinated Chemicals

GW - Groundwater

ug/L - Micrograms per liter

Table 2-3
Whole Sediment Toxicity Testing of *Chironomus dilutus*
Pigs Eye Landfill Focused Feasibility Study

	Laboratory Control		SE-04		SE-02		PEC-006		PEC-001		SE-03		PEC-21		Water Only	
GLC Number	CS#134		11,135		11,136		11,137		11,138		11,139		11,140		Secondary Control	
Replicate Number	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)
1	1.11200	1.11200	1.04300	1.04300	1.33100	1.33100	1.22400	1.22400	1.06500	1.06500	1.39100	1.39100	1.08500	1.08500	0.85200	0.85200
2	1.18300	1.18300	0.90700	0.90700	1.24500	1.24500	1.25250	1.00200	1.24300	1.24300	0.86400	0.86400	1.08200	1.08200	0.97600	0.97600
3	0.99600	0.99600	1.02444	0.92200	1.31200	1.31200	1.01500	1.01500	1.33000	1.19700	1.09200	1.09200	0.93500	0.93500	1.18778	1.06900
4	1.26000	1.26000	0.89000	0.89000	1.20600	1.20600	1.13125	0.90500	1.21125	0.96900	1.13800	1.13800	1.17000	1.05300	0.99444	0.89500
5	1.13222	1.01900	1.12600	1.12600	1.16500	1.16500	1.03900	1.03900	1.17900	1.17900	1.28000	1.15200	1.13200	1.13200	1.05700	1.05700
6	1.41778	1.27600	1.32125	1.05700	1.38222	1.24400	0.94100	0.94100	1.01700	1.01700	1.30778	1.17700	0.98200	0.98200	0.88700	0.88700
7	1.23900	1.23900	1.04222	0.93800	1.18300	1.18300	1.00600	1.00600	1.28778	1.15900	1.29556	1.16600	1.01100	1.01100	0.91500	0.91500
8	1.16000	1.16000	0.92333	0.83100	1.36500	1.36500	0.90200	0.90200	1.16600	1.16600	1.15111	1.03600	0.98000	0.98000	0.87300	0.87300
Average ¹ Ash-Free-Dry Weight (AFDW) (mg)	1.18750		1.03466 ^a		1.27365		1.06384		1.18738		1.18993		1.04713		0.96778	
Average Biomass ² Weight (AFDW) (mg)		1.15563		0.96425 ^a		1.25638		1.00425 ^a		1.12438		1.12700		1.03250 ^a		0.94050
10-Day Percent Survival	97.5		93.8		98.8		95.0		95.0		95.0		98.8		97.5	

Note: Average Ash-Free-Dry Weight (AFDW) of *Chironomus dilutus* at test initiation = 0.30813 mg

¹ Average Ash-Free-Dry-Weight (AFDW) is the total ash-free-dry weight of surviving organism

² Biomass weight is the total Ash-Free-Dry-Weight of surviving organisms divided by the initial number of organisms

^a Significantly different (p< 0.05) from laboratory control sediment (CS# 134).

Comparison of Average1 Dry Weight (mg), Biomass2 (mg) and Percent Survival Between; Laboratory Control Sediment and the Investigative Sediment Samples *Chironomus dilutus* 10-Day Whole Sediment Toxicity Tests Conducted December 02 - December 12, 2016; AECOM Pigs Eye Lake; Minneapolis, Minnesota.

Table 2-4
Whole Sediment Toxicity Testing of *Hyalella azteca*
Pigs Eye Landfill Focused Feasibility Study

GLC Number	Laboratory Control		SE-04		SE-02		PEC-006		PEC-001		SE-03		PEC-21		Water Only	
	CS#134		11,135		11,136		11,137		11,138		11,139		11,140		Secondary Control	
Replicate Number	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)	Average ¹ Weight (mg)	Biomass ² Weight (mg)
1	0.11500	0.11500	0.06250	0.05000	0.07400	0.07400	0.08000	0.08000	0.06200	0.06200	0.10600	0.10600	0.06900	0.06900	0.09300	0.09300
2	0.08800	0.08800	0.06600	0.06600	0.10444	0.09400	0.05700	0.05700	0.07100	0.07100	0.08000	0.08000	0.06444	0.05800	0.10000	0.10000
3	0.09700	0.09700	0.05900	0.05900	0.09200	0.09200	0.08500	0.05100	0.06300	0.06300	0.11667	0.10500	0.07200	0.07200	0.09800	0.09800
4	0.08100	0.08100	0.07889	0.07100	0.08875	0.07100	0.08111	0.07300	0.07700	0.07700	0.08700	0.08700	0.06600	0.06600	0.09100	0.09100
5	0.08800	0.08800	0.06500	0.06500	0.08000	0.08000	0.06600	0.06600	0.07100	0.07100	0.09800	0.09800	0.04889	0.04400	0.09300	0.09300
6	0.08700	0.08700	0.05900	0.05900	0.08400	0.08400	0.07444	0.06700	0.05000	0.05000	0.06600	0.06600	0.07833	0.04700	0.09300	0.09300
7	0.09900	0.09900	0.07300	0.07300	0.08500	0.08500	0.07889	0.07100	0.06400	0.06400	0.07200	0.07200	0.07700	0.07700	0.09100	0.09100
8	0.09400	0.09400	0.04700	0.04700	0.08556	0.07700	0.06667	0.06000	0.07800	0.07800	0.09900	0.09900	0.06125	0.04900	0.09200	0.09200
Average¹ Dry Weight (mg)	0.09363		0.06380^a		0.08672		0.07364^a		0.06700^a		0.09058		0.06711^a		0.09388	
Average Biomass² Weight (mg)		0.09363		0.06125^a		0.08213		0.06563^a		0.06700^a		0.08913		0.06025^a		0.09388
10-Day Percent Survival	100.0		96.3		95.0		90.0		100.0		98.8		90.0		100.0	

Note: Average Dry Weight of *Hyalella azteca* at test initiation = 0.01675 mg

¹ Average Dry Weight is the total dry weight of surviving organism:

² Biomass weight is the total dry weight of surviving organisms divided by the initial number of organisms

^a Significantly different (p < 0.05) from laboratory control sediment (CS# 134)

Comparison of Average1 Dry Weight (mg), Biomass2 (mg) and Percent Survival Between; Laboratory Control Sediment and the Investigative Sediment Samples; *Hyalella azteca* 10-Day Whole Sediment Toxicity Tests Conducted December 02 - December 12, 2016; AECOM Pigs Eye Lake; Minneapolis, Minnesota.

Table 2-5
 Fish Tissue Data
 Pigs Eye Landfill Focused Feasibility Study

Sample ID	163168	163159	COMP 163164	COMP 163149	COMP 163154	Lab Blank (101)
Fish ID	BBU	FWD	4x BBU	5x C	5x WHB	--
UNITS	ng/g (wet weight basis)	ng/g (wet weight basis)	ng/g (wet weight basis)	ng/g (wet weight basis)	ng/g (wet weight basis)	ng/g
PFBA	< 0.495	< 0.467	< 0.493	< 0.498	< 0.503	< 0.5
PFPeA	< 0.495	< 0.467	< 0.493	< 0.498	< 0.503	< 0.5
PFHxA	< 0.495	< 0.467	< 0.493	< 0.498	< 0.503	< 0.5
PFHpA	< 0.495	< 0.467	< 0.493	< 0.498	< 0.503	< 0.5
PFOA	< 0.495	0.505	< 0.493	< 0.498	< 0.503	< 0.5
PFNA	< 0.495	< 0.467	< 0.493	< 0.498	< 0.503	< 0.5
PFDA	0.581	1.98	< 0.493	< 0.498	2.76	< 0.5
PFUnA	< 0.495	1.18	< 0.493	< 0.498	1.29	< 0.5
PFDoA	< 0.495	1.19	< 0.493	< 0.498	1.22	< 0.5
PFBS	< 0.99	< 0.935	< 0.985	< 0.995	< 1.01	< 1
PFHxS	< 0.99	< 0.935	< 0.985	< 0.995	< 1.01	< 1
PFOS	15.8	92.3	15.2	65.6	49	< 1
PFOSA	< 0.495	2.57	0.537	< 0.498	1.3	< 0.5

Notes:

< - indicates concentration below reporting limit

BOLD - indicates concentration above reporting limit

COMP - composite sample

BBU - Bigmouth Buffalo

FWD - Freshwater Drum

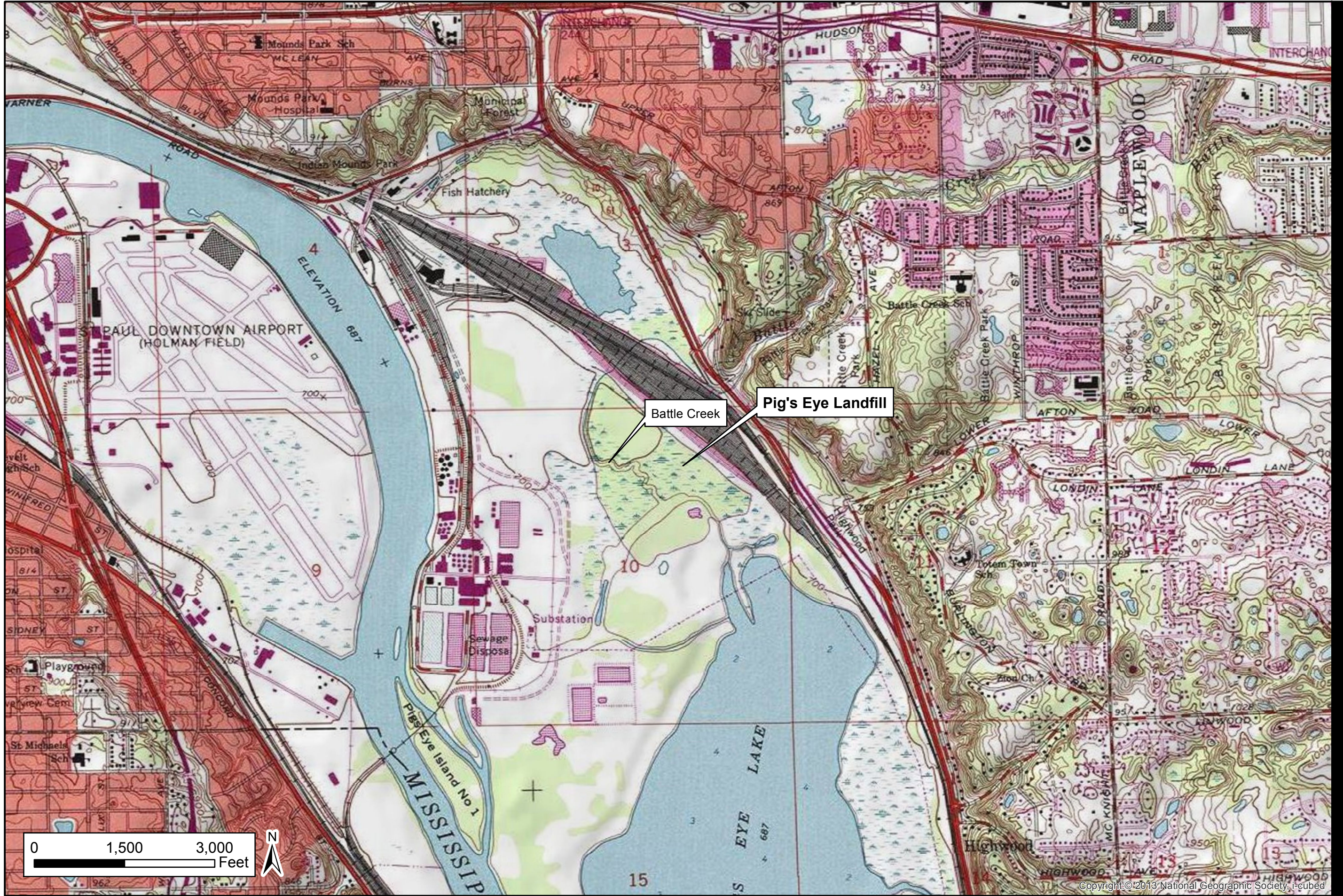
C - Common Carp

WHB - White Bass

Fish samples were collected by the Minnesota Department of Natural Resources on July 21 and 29, 2016

Fish samples were submitted to Axys Analytical Services, Ltd. on November 21, 2016 for PFC analysis

Fish samples were analyzed using fillet method





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Topographic Location Map



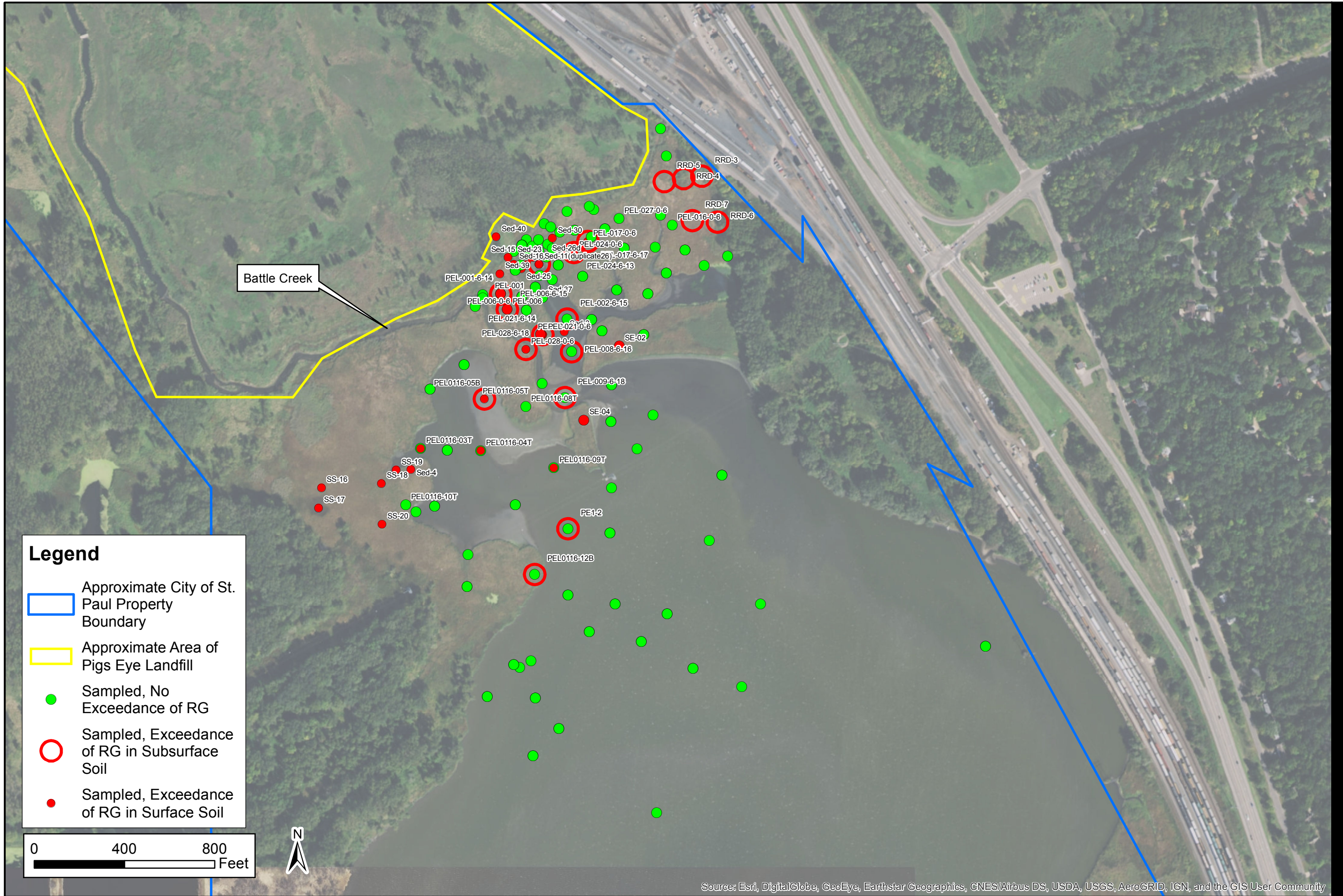
Legend

-  Approximate City of St. Paul Property Boundary
-  Approximate Area of Pigs Eye Landfill

0 690 1,380
Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



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