

Table E-1
Ambient Air Monitoring Program - Total Detectable PCB Homologues
New Bedford Harbor Superfund Site
Current as of 1/11/2016

Sampling Date	PCB Concentration by Location (ng/m ³ in 24-hour time-weighted average)																									Activity Period						
	24 Aerovox	25 Manomet	25 Cliftex	27 Porter	30 Fibre Leather	42 NSTAR North	43 Veranda	44 Taber	46 Coffin	Area C			Area D			53 Dredge	55 Aerovox West	56 Acushnet Park	57 Riverside Park	58 Pearl	59 Popes	60 Wash-burn	61 South Fence	62 Century House	63 Boathouse		64 Pilgrim	65 LHCC Dredge	66 Huddleston	67 Revere		
											47	48	49	50	51	52																
12/15/15	NS	NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	5.15	NS	NS	NS	NS				0.711	NA	4.57				6.34	13.5/13.2d	13.4	1.47	2015 Lower Harbor Debris Removal only. Location #59 Popes was collected but the media was found lying on the ground so it was not analyzed. Strong winds were experienced during most of the evening. Unvalidated results.	
11/18/15	14.6	NS		NS	12.6	4.14	NS	3.11	6.27	14	NS	NS	13.7	NS	NS	35.4/38.4d	2.29				NS	NS	NS				2.13	NS	NS	NS	2015 Hydraulic Dredging in Upper Harbor Area T. Unvalidated results.	
11/02/15	NS	NS		NS	NS	NS	NS	13.3	NS	NS	NS	NS	34.9	NS	NS	NS	NS				5.68	9.7	25.43				12.8	NS	10.9	23.5	2105 Lower Harbor Pre-debris removal. Unvalidated results.	
10/14/15	22.6	16.4		17.4	4.48	13.2	42.9	19.5	7.38	23.6	NS	NS	17.5	NS	NS	187	0.361									11.4					2015 Hydraulic Dredging in Upper Harbor - Area S; Samples 25, 27, 30, 42, 55 and one blank analyzed on 10 day TAT for submarine power cable removal activities. The pump for the duplicate sample at Station #50 - Area D failed to run the equivalent time of the primary sample and was voided. Unvalidated results.	
09/23/15	150	180		3.9	57/50d	8.1	19	16	50	63	NS	NS	42	NS	NS	300	7.4									7.5					2015 Hydraulic Dredging in Upper Harbor Area H.	
8/26/2015	62	46/35d		22	19	34	84	13	21	35	NS	NS	32	NS	NS	1900	1.2									15					2015 Hydraulic Dredging in Upper Harbor - Area S.	
7/21/2015	44	48		10	44	20	37	19	27	16	NS	NS	11/15d	NS	NS	NS	7.2									11					2015 Pre-Dredge Samples for the Upper Harbor. Location #56 - Acushnet Park can no longer be used as a sampling station due to frequent vandalization of pump and/or media.	
6/3/2015	45	38		0.97	17	4.2	8.6	1.2	5.6	13/14d	NS	NS	16	NS	NS	NS	1.9	1.1								1.2	NS				2015 Off Season Data Collection.	
4/22/2015	52	26		NA	20	3.4	16	7.6	12	0.0530	NS	NS	3.6	NS	NS	NS	4.9	NS								5.7	NS				2015 Off Season Data Collection and Pre-dredge sampling for the Upper Harbor. Pump at Station #27 failed to run long enough to collect a viable sample so it was not analyzed.	
4/6/2015	NS	NS		NS	NS	NS	NS	5.1	NS	NS	NS	NS	8.5	NS	NS	NS	NS	NS								2.2	NS				Lower Harbor CAD Cell Construction Phase II (Post Top of CAD Cell dredging); Pump at Station #50 failed to run the same duration as the duplicate so only the duplicate sample was analyzed. This sample is considered the primary sample so there is no duplicate for this post-dredge sampling event.	
3/11/2015	NS	0.55/0.39d		NS	0.19	NS	NS	0.53	0.15	1.00	NS	NS	0.56	NS	NS	NS	0.12	NS								0.53	2.4				Lower Harbor CAD Cell Construction Phase II (Top of CAD Cell dredging); Stations 24, 27, 42, and 43 were inaccessible for sampling due to obstructions from snow/ice piles.	
2/6/2015	NS	NS		NS	NS	NS	NS	0.14/0.17	NS	NS	NS	NS	0.099	NS	NS	NS	NS	NS								0.15	NS				Lower Harbor CAD Cell Construction Phase II (Top of CAD Cell dredging); The dredge sample media was found broken at the dredge and therefore was not analyzed.	
1/13/2015	0.58	0.55		0.1600	0.11 / 0.15d	0.87	1.4	0.17	0.075	0.43	NS	NS	1.3	NS	NS	NS	0.05	0.12								0.230	2.48				Lower Harbor CAD Cell Construction Phase II (top of CAD Cell dredging).	
12/29/2014	NS	NS		NS	NS	NS	NS	0.98	NS	NS	NS	NS	0.5	NS	NS	NS	NS	NS								1.6/1.9d	3.5				Rapid TAT data. Lower Harbor CAD Cell Construction Phase II (top of CAD Cell dredging).	
12/18/2014	NS	NS		NS	NS	NS	NS	1.00	NS	NS	NS	NS	0.49	NS	NS	NS	NS	NS								2.3	3.5/4.6d				Rapid turn around time (TAT) data. Lower Harbor CAD Cell Construction Phase II (top of CAD Cell dredging). Reissue of data due to error in laboratory calculations.	
12/15/2014	6.7	7.2		0.73	5.6	2.3	3.6	1.6	2.7	4.4	NS	NS	3.7/4.3d	NS	NS	NS	1.6	0.51								1.1	4.7				Lower Harbor CAD Cell Construction Phase II (top of CAD Cell dredging). Off-season data collection included on January 5, 2015 as received from laboratory.	
11/4/2014	43	21.4		9.9	26.8	8.9	17.41	24.2	21	4.85	NS	NS	7.43	NS	NS	NS	4.38	7.05								15.72/5.19d	NS				2014 Post-Dredge Operation for Upper Harbor. Pre-Dredge sampling for the Lower Harbor CAD Cell Phase II (#44, 50 and 64).	
10/6/2014	150	98/110d		5.2	180	3.6	17	21	70	21	NS	NS	21	NS	NS	90	NS	NA								12	NS				2014 Hydraulic Dredging in Areas L & S.	
9/3/2014	91	44		9.1	39	36	53	12/10d	10	20	NS	NS	11	NS	NS	100	NS	3.8								11					2014 Hydraulic Dredging in Area R-east.	
8/5/2014	75	72		8	61	17	37	17	42	55	NS	NS	23	NS	NS	260	NS	4.9								8.5					2014 Hydraulic Dredging in Area R-east.	
7/8/2014	82	25		23	36	19	43	34	24	33/33d	NS	NS	22	NS	NS	110	NS	4.2								15					2014 Hydraulic Dredging in Area R-east.	
6/16/2014	200	90		12/13d	100	25	35	27	50	25	NS	NS	20	NS	NS	320	NS	21								8.6					2014 Hydraulic Dredging in Area R.	
5/7/2014	56.9	32.6		NS	33.8	10.86	29.7	24.3	38.28	13.38	NS	NS	10.96	NS	NS	194	NS	7.01								11.56					2014 Hydraulic Dredging in Area R.	
3/18/2014	17	5.8		0.36/0.42d	4.5	2.2	1.7	0.41	ND	3.3	NS	NS	2.8	NS	NS	NS	NS	0.14								0.22					2014 Pre-Dredge Samples for the Upper Harbor.	
3/18/2014								0.41					2.8													0.22	NS				Post-Dredge Samples for the Lower Harbor.	
12/19/2014								2.32					3.5/3.02d													3.13	0.89				Lower Harbor CAD Cell Construction Phase 1 (top of CAD Cell dredging).	
12/4/2013								3.31/3.0d					0.643													2.16	3.57				Lower Harbor CAD Cell Construction Phase 1 (top of CAD Cell dredging).	
11/20/2013								2.17					3.55													1.68/2.0d	6.21				Lower Harbor CAD Cell Construction Phase 1 (top of CAD Cell dredging).	
9/25/2013	25.6	26.5		2.65	14.7	8.05	11.2	NS	4.1	NS	NS	NS	13.3/12.8d	NS	NS	NS	NS	NS								NS					2013 Post-Dredge Operation.	
8/20/2013	230	130		15	160	18	61	NS	60/57d	29	NS	NS	29	NS	NS	240	NS	NS								NS					2013 Hydraulic Dredging in Area P.	
7/16/2013	240	110		8.1	130	22	36	16	48	110	NS	NS	69	NS	NS	510	NS	NS								14.4					2013 Hydraulic Dredging in Area P.	
3/26/2013	14	1.4		3.2	NS	6.6	8.3	1.1	0.65	NS	NS	NS	NS	NS	0.49	NS	NS	NS								1.8/1.8d					2013 Pre-Dredge Samples for the Upper Harbor.	
3/26/2013								1.1							0.49												1.8/1.8d	NS				2013 Pre-Dredge Samples for the Lower Harbor.
10/1/2012	98	18		17/18d	25	17	87		18	NS	NS	14	0.56	NS	NS	NS	15	NS						NA							2012 Post Dredge Operation; Sample at Station 62 had insufficient air volume and was not analyzed. Due to several vandalized samples this station has been discontinued.	
8/21/2012	67	28		23	17	19	67		14/16d	NS	NS	20	4	NS	NS	NA	0.00033	NS														2012 Hydraulic Dredging in Area P; Sample at Station 53 had insufficient air volume and was not analyzed.
7/16/2012	220	1.2		24/24d	110	36	140		26	NS	NS	57	10	NS	NS	280	10	NS														2012 Hydraulic Dredging in Area L.
7/2/2012	NA	NA		NA	NA	NA	NA		NA	NS	NS	NA	NA	NS	NS	NA	NA	NA														All samples collected were voided due to out of temperature specification upon arrival at laboratory.
5/21/2012	51	NS	67/66d	0.81	NS	NS	NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS							0.0029						2012 Pre-Dredge Samples; Station 27 is a new location in 2012 season for eastern residential receptor.	
10/11/2011	36	NS	NS		42	10	18		11	NS	NS	25	17	NS	NS	NS	420	18													2011 Post-Dredge Operation.	

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	24 Aerovox	25 Manomet	25 Cliftex	27 Porter	30 Fibre Leather	42 NSTAR North	43 Veranda	44 Taber	46 Coffin	Area C			Area D			53 Dredge	55 Aerovox West	56 Acushnet Park	57 Riverside Park	58 Pearl	59 Popes	60 Washburn	61 South Fence	62 Century House	63 Boathouse		64 Pilgrim	65 LHCC Dredge	66 Huddleston	67 Revere
											47	48	49	50	51	52														
9/14/2011	480	NS	NS		120	29	61		93	NS	NS	220	0.62	NS	NS	460	28	57						NS						2011 Hydraulic Dredging in Area N. Sample at Station 62 was tampered and not analyzed.
8/23/2011	280	NS	NS		60	80	94		NS	NS	NS	220/200d	16	NS	NS	1800	48	13						52						2011 Hydraulic Dredging in Area K.
7/26/2011	NS	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS					NS	51					Excavation of Area Q.	
7/13/2011	1100	NS	NS		130	40	43		43	NS	NS	78	110	NS	NS	1000/1100d	79	25						6.7	NS				2011 Hydraulic Dredging in Area K.	
5/25/2011	56	NS	NS		NS	NS	NS		NS	NS	NS	NS	NS	NS	NS	NS	93/97d	NS						0.68	25				2011 Pre-Dredge Samples; Station 63 is a new location in 2011 season for Area Q.	
10/13/2010	80	NS	NS		36	9	7.4		21	NS	NS	24	4.4	NS	NS	NS	19	5.9						1.1	NS				2010 Post-Dredge Operation.	
8/18/2010	1800	NS	NS		300	25	36		31	NS	NS	130	37	NS	NS	560/580d	200	11						13					2010 Hydraulic Dredging.	
7/20/2010	270	NS	NS		29	NS	26		47	NS	NS	79/73d	37.0	NS	NS	450	93	26						2.7					2010 Hydraulic Dredging.	
6/30/2010	120.0	NS	NS		7.3	0.0013	82.0		13	NS	NS	32	3.3	NS	NS	230	3.20	12.0						44/41d					2010 Pre-Dredge Samples.	
5/21/2010	86	NS	NS		NS	0.042	NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS						ND/NDd					2010 Pre-Dredge Samples.	
5/13/2010	void	NS	NA		NS	void	NS		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS						void					2010 pre-dredge samples. Sample location at Century House Resturant (#62) in Acushnet added at the direction of the EPA. Samples taken on 5/13/10 were damaged during shipment.	
12/16/2009	3.3	NS	NS		0.134	23.8	9.12		0.171	NS	NS	1.78	NS	0.18	NS	NS	0.372/0.353d	0.63											2009 Post-Dredge Operation.	
11/9/2009	45.2	NS	NS		20.4/31d	25.3	55.2		32.8	NS	NS	51.8	NS	2.92	NS	205.1	8.31	17.2											2009 Hydraulic Dredging.	
10/14/2009	48.79	NS	NS		11.77	17.92	10.01		6.0/6.07d	NS	NS	13.26	NS	3.75	NS	0.13	10.00	2.62											2009 Hydraulic Dredging.	
9/17/2009	160	NS	NS		24	2.2	51		13	NS	NS	35	NS	42	NS	180	14	10/9.8d											2009 Hydraulic Dredging.	
8/13/2009	130	NS	NS		21	14	49		14	NS	NS	32	NS	31	NS	130	28/30d	20											2009 Hydraulic Dredging.	
7/13/2009	130	NS	NS		18	39	110		36	NS	NS	77/76d	NS	5.3	NS	290	7.4	6											2009 Hydraulic Dredging.	
6/16/2009	150	NS	NS		77	10	33		35	43	NS	NS	NS	32	NS	120	33	8.2											2009 Hydraulic Dredging.	
11/10/2008	NS	NS	NS		NS	NS	15		1.3	NS	NS	6.2	NS	ND	NS	NS	NS	NS	0.11										2008 Post-Dredge Operation.	
10/7/2008	NS	NS	NS		NS	NS	NS		5.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS										2008 Post-Dredge Operation.	
9/24/2008	NS	NS	NS		NS	NS	18		NS	NS	NS	42	NS	NS	NS	1.5	NS	NS	15.0										2008 Hydraulic Dredging.	
8/21/2008	NS	NS	NS		NS	NS	31.66		121.9	NS	NS	123.4/116.4d	NS	2.85	NS	178.0	NS	NS	37.46										2008 Hydraulic Dredging.	
7/16/2008	NS	NS	NS		NS	NS			NS	NS	NS	NS	NS	NS	NA	68.6	NS												2008 Land-Based Excavation of Shoreline at Aerovox. Sample Station 61 - South Fence was used only during the excavation timeframe.	
7/8/2008	NS	NS	NS		NS	NS			NS	NS	NS	NS	NS	NS	NA	8.7	NS												2008 Land-Based Excavation of Shoreline at Aerovox. Sample Station 61 - South Fence was used only during the excavation timeframe.	
6/25/2008	NS	NS	NS		NS	NS			NS	NS	NS	NS	NS	NS	NA	5.52	NS												2008 Land-Based Excavation of Shoreline at Aerovox. Sample Station 61 - South Fence was used only during the excavation timeframe.	
6/19/2008	NS	NS	NS		NS	NS			NS	NS	NS	NS	NS	NS	NA	8.9	NS												2008 Land-Based Excavation of Shoreline at Aerovox. Sample Station 61 - South Fence was used only during the excavation timeframe.	
6/12/2008	NS	NS	NS		NS	NS			NS	NS	NS	NS	NS	NS	NA	7.3	NS												2008 Land-Based Excavation of Shoreline at Aerovox. Sample Station 61 - South Fence was used only during the excavation timeframe.	
6/8/2008	NS	NS	NA		NS	NS			NS	NS	NS	NS	NS	NS	NA	25.9	NS												2008 Land-Based Excavation of Shoreline at Aerovox. Sample Station 61 - South Fence was used only during the excavation timeframe.	
11/9/2007	19.7	NS	20.2		NS	15.7			1.86	9.29	NS	NS	NS	4.39	NS	NA	NS	NS											2007 Post-Dredge Operation.	
9/18/2007	176	NS	120		NS	16.3			21.4	57.1	NS	NS	48.7	NS	NS	130	NS	NS											2007 Hydraulic Dredging	
8/21/2007	282	NS	147		NS	19.2			36.1	46.9	NS	NS	36.7	NS	NS	138	NS	NS											2007 Hydraulic Dredging	
11/19/2006	41.1	NS	0.14		NS	NS			4.05	NS	NS	81.4	2.6	NS	NS	NA	NS	NS											2006 Post-Dredge Operation.	
10/6/2006	2,357	NS	451		NS	NS			108	NS	NS	157	NS	NS	197	13430	NS	NS											2006 Hydraulic Dredging.	
8/31/2006	1,629	NS	176		NS	NS			70.4	39.2	NS	NS	NS	67.3	NS	2336	NS	NS											2006 Hydraulic Dredging.	
12/29/2005	83.2	NS	10.9		NS	21.4			65.1	7.4	NS	NS	NS	2.2	NS	NA	10.8	13.5											2005 Post-Dredge Operation.	
11/18/2005	15.9	NS	0.1		NS	63.6			0.1	NS	0.1	3.7	NS	NS	NS	913.0	0.1	3.8											2005 Post-Dredge Operation.	
10/28/2005	15.4	NS	NS		NS	32.3			2.1	NS	4.6	12.3	0.0	NS	NS	505.0	4.0	2.7											2005 Hydraulic Dredging.	
10/6/2005	1822.0	NS	251.0		NS	119.0			130.0	NS	60.1	114.0	81.7	NS	NS	6315.0	222.0	180.0											2005 Hydraulic Dredging.	
9/29/2005	383.0	NS	104.0		NS	5.3			124.0	NS	17.3	44.2	24.2	NS	NS	391.0	87.0	77.9											2005 Hydraulic Dredging.	
9/23/2005	178.0	NS	35.2		NS	83.3			115.0	NS	19.1	97.0	0.3	NS	NS	780.0	2.6	23.9											2005 Hydraulic Dredging.	
9/15/2005	1490.0	NS	58.2		NS	22.5			99.8	NS	14.9	83.6	0.5	NS	NS	1280.0	37.6	102.0											2005 Hydraulic Dredging.	
8/11/2005	216.0	NS	103.0		NS	25.9			37.2	NS	NS	29.3	NS	NS	21.3	NA	42.1	49.9											2005 Pre-Dredge Samples.	
12/3/2004	30	NS	27		NS	40			15	22	NS	26	22	NS	31	NA	9.33	1.52											2004 Post-Dredge Operation.	
11/5/2004	578	NS	61		NS	73			80	NS	NS	28	NS	NS	NS	351	28.42	39.08											2004 Hydraulic Dredging.	
10/19/2004	559	NS	259		NS	NS			36	47	48	66	17	74	74	704	NS	NS											2004 Hydraulic Dredging.	
9/28/2004	9557	NS	423		NS	NS			342	35	165	207	80	75	115	2734	NS	NS											2004 Hydraulic Dredging.	
9/23/2004	588	NS	97		NS	NS			5	7	10	17	6	5	19	1212	NS	NS											2004 Hydraulic Dredging.	
9/14/2004	1449	NS	229		NS	NS			48	64	64	86	38	39	61	98	NS	NS											Initial MU-2 Dredging During Startup.	
9/9/2004	1024	NS	167		NS	NS			145	28	37	56	20	16	47	723	NS	NS											Initial MU-2 Dredging During Startup.	
6/29/2004	2286	NS	NS		NS	NS			NS	NS	NS	NS	NS	56	NS		NS	NS											No Dredging Activities.	
March-May 2000	76	NS	35		NS	29			35	61	61	61	6.8	6.8	6.8		NS	NS											No Dredging Activities. Data from Foster-Wheeler.	
Dec 1999-Feb 2000	32	NS	3.2		NS	9.9			3.2	89	89	89	3.4	3.4	3.4		NS	NS											No Dredging Activities. Data from Foster-Wheeler.	
Sept-Nov 1999	67	NS	22		NS	24			22	43	43	43	5.9	5.9	5.9		5.2	5.2											No Dredging Activities. Data from Foster-Wheeler.	
June-August 1999	130	NS	46		NS	31			46	33	33	33	12	12	12		NS	NS											No Dredging Activities. Data from Foster-Wheeler.	

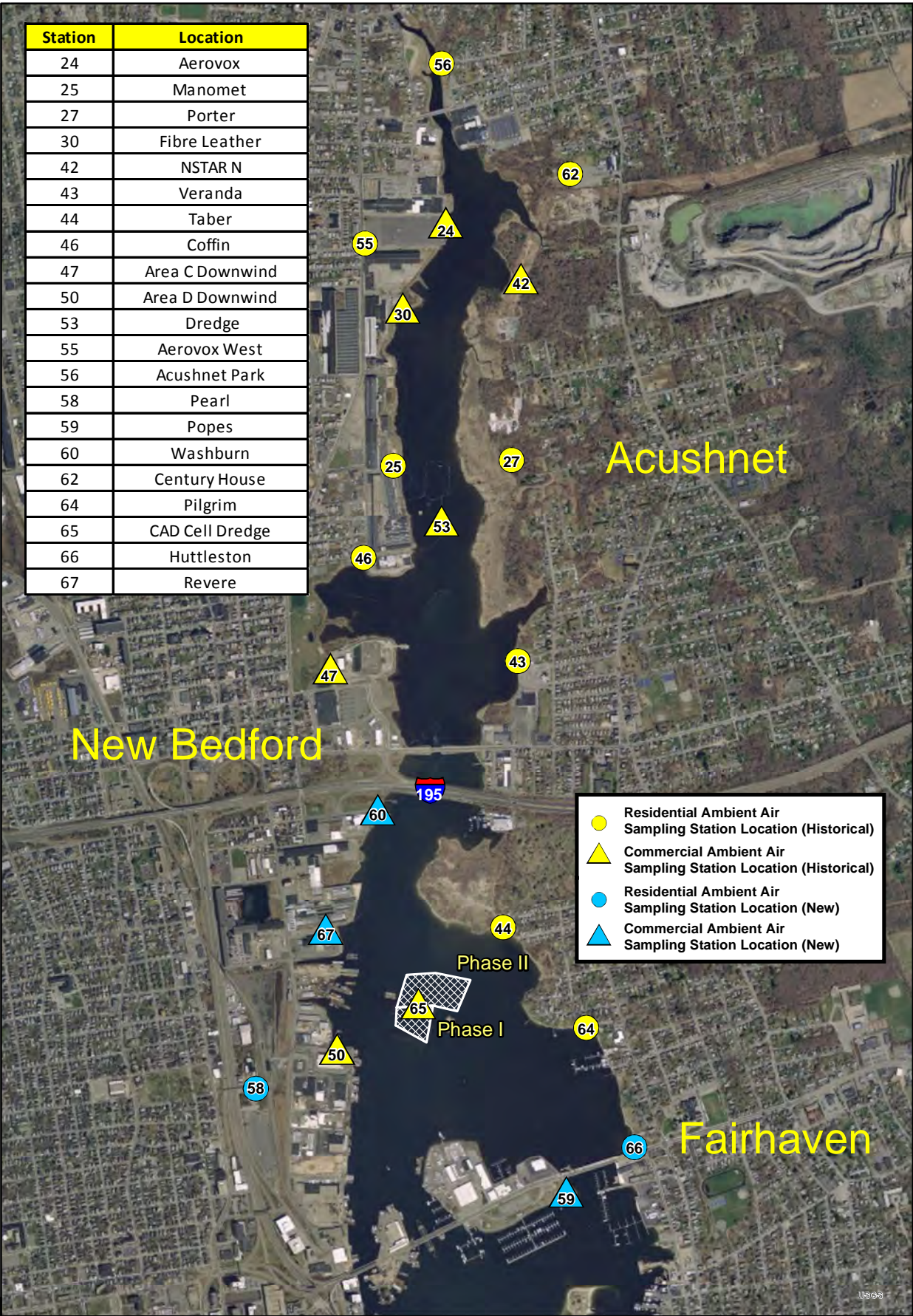
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	24	25	25	27	30 Fibre	42	43	44	46	Area C			Area D			53	55	56	57	58	59	60	61	62	63		64	65	66	67
	Aerovox	Manomet	Cliftex	Porter	Leather	NSTAR North	Veranda	Taber	Coffin	47	48	49	50	51	52	Dredge	Aerovox West	Acushnet Park	Riverside Park	Pearl	Popes	Wash-burn	South Fence	Century House	Boathouse		Pilgrim	LHCC Dredge	Huddleston	Revere

Notes:

- d = field duplicate result
- NA = sample collected but not analyzed
- ng/m³ = nanograms per cubic meter of air
- NS = not sampled
- PCB = polychlorinated biphenyl
- ND = no detections (non-detect)
- Sample station with gray blocking is a newer station added to the air sampling program or discontinued station (no activity).

Station	Location
24	Aerovox
25	Manomet
27	Porter
30	Fibre Leather
42	NSTAR N
43	Veranda
44	Taber
46	Coffin
47	Area C Downwind
50	Area D Downwind
53	Dredge
55	Aerovox West
56	Acushnet Park
58	Pearl
59	Popes
60	Washburn
62	Century House
64	Pilgrim
65	CAD Cell Dredge
66	Huttleston
67	Revere



- Residential Ambient Air Sampling Station Location (Historical)
- ▲ Commercial Ambient Air Sampling Station Location (Historical)
- Residential Ambient Air Sampling Station Location (New)
- ▲ Commercial Ambient Air Sampling Station Location (New)

Legend

EPA CAD CELL

Aerial Photography MASSGIS 2014

0 750 1,500
Feet



1:21,600

JACOBS

Available Ambient Air
Sampling Station
Locations

New Bedford Harbor Superfund Site

NAME: jacobn

DATE: 8/2/2015

Figure 3-4

Path: Y:\NBH\Projects\356G\00\12015008\BAACG\SNBH_ambient_sampling_stations_Figure_3-4B.mxd