Table 2 Water Quality Sampling Parameters And Frequency By Year

Year	# of Stations	Times Tested	Oil	PAH	Salinity	DO	Turbidity	pH	Chloride	BOD COD	SS/TSS	TKN	Nitrate Nitrite	NH_3	Total P	Total Coliform	Fecal Coliform	Enterococcus	Metals
1968	5	1	yes					yes		yes	yes					yes			
1969																			
1970																			
1971																			
1972	8	4 to 6			yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes		
1973																			
1974																			
1975																			
1976																			
1977																			
1978																			
1979																			
1980																			
1981																			
1982																			
1983																			
1984	4	8				yes	yes	yes	yes		yes	yes		yes	yes	yes	yes		yes
1985	4	5 to 9				yes	yes	yes	yes		yes	yes		yes	yes	yes	yes		yes
1986	4	6			yes	yes	yes	yes	yes		yes	yes		yes	yes	yes	yes		
1987	5	4			yes	yes	yes	yes	yes		yes	yes		yes	yes	yes	yes		
1988																			
1989	1	20			yes	yes											yes	yes	
1990	1	25			yes	yes											yes	yes	
1991	1	14			yes	yes											yes	yes	
1992	1	37			yes	yes											yes	yes	
1993	1	25			yes	yes											yes	yes	
1994	1	25			yes	yes	yes	yes									yes	yes	
1995	1	46			yes	yes	yes	yes									yes	yes	
1996	1	39			yes	yes	yes	yes									yes	yes	
1997	1	41			yes	yes	yes	yes									yes	yes	
1998	1	35			yes	yes	yes	yes									yes	yes	
1999	1	41			yes	yes	yes	yes									yes	yes	
2000	1	27		yes(2)	yes	yes	yes	yes									yes	yes	

Table 3- Estimated Annual Average Ambient Concentrations in Suffolk County (ug / m^3)
(Toxics of greatest concern in New England are shown in bold)

	Average Contribution From:						
	Major	**Area**	**On-Road Vehicles**	**Non-Road Vehicles**	**Background**	**Total**	**Cancer Health Benchmark**
Acetadehyde	8.81E-006	6.87E-006	6.90E-001	5.65E-004	0.00E+000	1.32E+000	
Acrolein	4.48E-006	2.26E-002	8.36E-002	9.48E-002	0.00E+000	2.01E-001	
Acrylonitrile	4.71E-007	1.55E-003	0.00E+000	0.00E+000	0.00E+000	1.55E-003	
Arsenic Compounds	8.81E-006	1.32E-004	1.40E-006	3.50E-005	0.00E+000	1.77E-004	
Benzene	2.32E-005	9.43E-002	1.48E+000	4.61E-001	4.8E-001	**2.52E+000**	1.20E-001
Beryllium Compounds	3.54E–007	3.54E-005	0.00E+000	3.29E-007	0.00E+000	3.61E-005	
1,3 Butadiene	0.00E+000	4.95E-004	1.39E-001	3.93E-002	0.00E+000	**1.79E-001**	3.60E-003
Cadmium Compounds	2.84E-006	6.23E-005	0.00E+000	4.59E-006	0.00E+000	6.97E-005	
Carbon Tetrachloride	0.00E+000	1.20E-003	0.00E+000	0.00E+000	8.80E-001	**8.81E-001**	6.70E-002
Chloroform	0.00E+000	8.08E-003	0.00E+000	0.00E+000	8.30E-002	**9.11E-002**	4.30E-002
Chromium Compounds	7.35E-006	2.06E-003	8.56E-005	4.19E-004	0.00E+000	**2.57E-003**	8.30E-005
Coke Oven Emissions	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	0.00E+000	
1,3 Dichloropropene	0.00E+000	2.38E-001	0.00E+000	0.00E+000	0.00E+000	2.38E-001	

Table 3 Continued							
Ethylene Dibromide	0.00E+000	1.56E-00+	0.00E+000	0.00E+000	7.70E-003	**7.70E-003**	4.50E-003
Ethylene Dichloride	7.12E-007	1.84E-004	0.00E+000	0.00E+000	6.10E-002	**6.12E-002**	3.80E-002
Ethylene Oxide	0.00E+000	3.71E-002	0.00E+000	0.00E+000	0.00E+000	3.71E-002	
Formaldehyde	1.67E-004	5.74E-002	9.90E-001	1.13E+000	2.50E-001	**2.43E+000**	7.70E-002
Hexachlorobenzene	0.00E+000	1.30E-008	0.00E+000	0.00E+000	9.30E-005	9.30E-005	
Hydrazine	0.00E+000	7.48E-007	0.00E+000	0.00E+000	0.00E+000	7.48E-007	
Lead Compounds	1.04E-004	9.72E-004	1.20E-004	9.89E-003	0.00E+000	1.11E-002	
Manganese Compounds	1.09E-005	5.32E-003	3.53E-005	4.06E-004	0.00E+000	5.77E-003	
Mercury Compounds	1.44E-004	9.00E-005	1.16E-006	6.90E-005	1.50E-003	1.80E-003	
Methylene Chloride	1.23E-002	1.03E+000	0.00E+000	0.00E+000	1.50E-001	**1.19E+000**	5.60E-001
Nickel Compounds	2.13E-005	2.90E-003	6.70E-005	1.44E-003	0.00E+000	4.43E-003	
Perchlorethylene	1.47E-004	7.91E-001	0.00E+000	0.00E+000	1.40E-001	9.31E-001	
Polychlorinated Biphenyls	0.00E+000	0.00E+000	0.00E+000	0.00E+000	3.80E-004	3.80E-004	
Polycyclic Organic Matter	1.15E-007	7.47E-002	4.23E-004	2.18E-004	0.00E+000	7.53E-002	
7-PAH	2.26E-006	1.24E-006	2.01E-004	4.36E-005	0.00E+000	3.71E-004	

Table 3 Continued							
Propylene Dichloride	0.00E+000	9.09E-005	0.00E+000	0.00E+000	0.00E+000	9.09E-005	
Quinoline	0.00E+000	1.10E-006	0.00E+000	0.00E+000	0.00E+000	1.10E-006	
1,1,2,2-Tetrachloroethane	0.00E+000	6.34E-004	0.00E+000	0.00E+000	0.00E+000	6.34E-004	
Trichloroethylene	2.74E-002	6.04E-001	0.00E+000	0.00E+000	8.10E-002	7.12E-001	
Vinyl Chloride	2.46E-007	1.86E-003	0.00E+000	0.00E+000	0.00E+000	1.86E-003	
Total	4.04E-002	3.04E+000	3.38E+000	2.30E+000	2.13E+000	1.09E+001	

Source: National Scale Air Toxics Assessment (Draft)
Major sources are facilities that emit more than 10 tons of any one pollutant per year.
Area sources are smaller sources such as dry cleaners or gas stations.
On-road vehicles include cars, trucks, and buses.
Non-road vehicles include air planes and construction and agricultural vehicles.
“Background” includes naturally occurring compounds as well as long-range transport of compounds from other areas.

Table 20 Data Gap Summary Table					
Chelsea CRA Issue	**Community Data Needs**	**East Boston**	**Chelsea**	**Current Data/Sampling**	**Comments**
Water Quality in Chelsea Creek	Salinity Dissolved oxygen Turbidity Fecal coliform pH Enterococcus PAHs Oil/grease Chloride Biological oxygen demand Chemical oxygen demand Solids Total suspended solids Nutrients Total coliform Heavy metals	yes yes yes yes yes		Biweekly Biweekly Biweekly Biweekly Biweekly	Sampling is conducted at only one point, in the center of the Creek. Additional points and parameters should be included in water quality monitoring.
Air Quality	NO_2 SO_2 CO PM 10 PM 2.5 Pb O_3 Hazardous Air Pollutants Modeled estimates for Suffolk County Validation of model inputs and projected air quality.	yes yes yes yes		Continuous monitoring	Regional monitoring system and county based modeling do not reflect local air quality conditions. Additional monitoring and parameters should be included.

Table 20 Data Gap Summary Table Continued					
Open and Green Space	Acreage Recreational facilities Local park conditions Soil quality	yes yes yes	yes yes	Municipalities periodically update open space plans.	More detailed data on park conditions must also be updated.
Asthma and Respiratory Disease	Pediatric ER visits. Asthma prevalence Cancer rates Chronic pulmonary obstructive disease hospitalizations deaths	yes yes	yes yes yes yes	Most data is available on an annual basis.	ER data does not adequately reflect asthma prevalence. Data on adults is not available.
Traffic	Sumner Tunnel Local vehicular traffic Local truck traffic Anti-idling data	yes		Daily, average counts	Local data to reflect impacts of traffic on quality of life in urban neighborhoods is needed.
Noise	Records from the Logan Airport complaint line. Local noise complaints Local decibel levels	yes	yes	No data collection conducted.	Local monitoring of airport, truck, and other noise is needed.