Department of the Environment

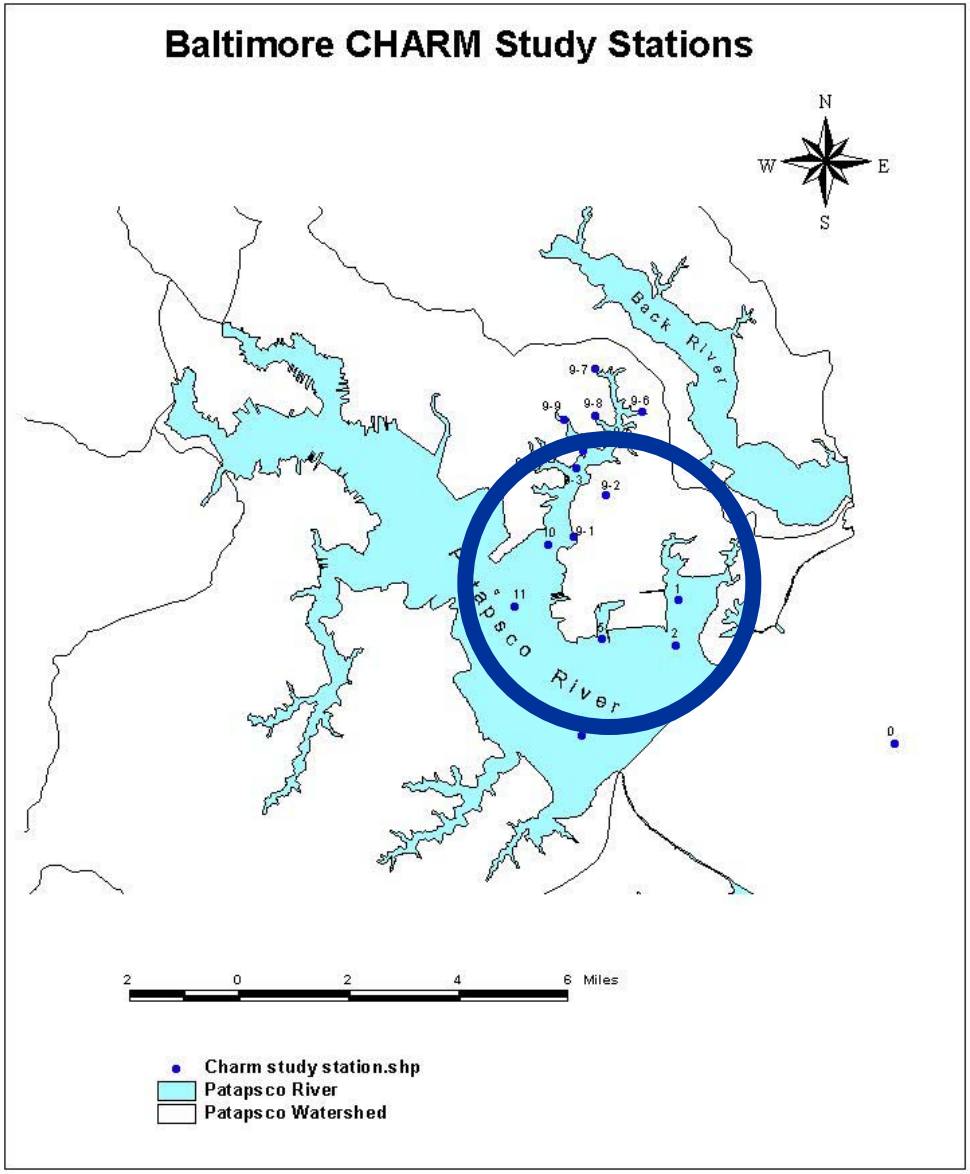
Water Quality Status Near Sparrows Point: Toxic Contaminants

LNG Task Force

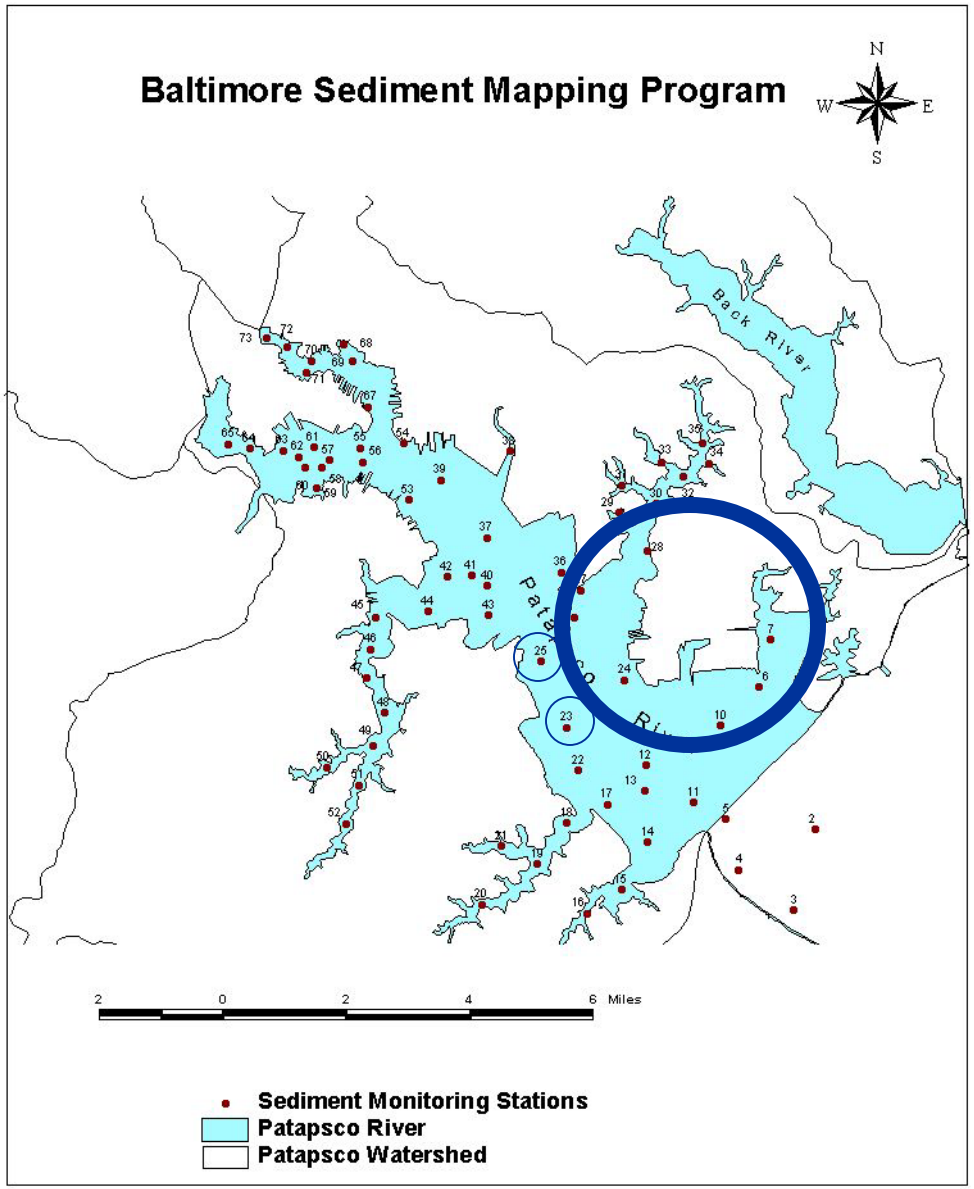
Nov. 1, 2006

Locations

- Two major recent studies of sediment in Baltimore Harbor
  - CHARM Study
  - Mapping Study


Baltimore CHARM Study Stations
N
W
E
S
Back River
Patapsco River
9-7
9-9
9-8
9-6
9-3
9-2
10
9-1
11
1
2
0
2
0
2
4
6 Miles
Charm study station.shp
Patapsco River
Patapsco Watershed

Station 11



Station 24

Comparison
23 and 25

Dissolved Metals (ug/l) CHARM STN. 11

Contaminant	Mean Diss	Max. Value	WQC*
CD	0.31	0.31	4.3/2.2
CR[1]	0.45	0.82	16/11
CU	0.90	1.32	5.2/3.4
NI	2.18	3.50	75/8.3
PB	0.52	0.56	65/2.5
ZN	9.18	10.72	90/81

N = 4

*Most stringent of FW or SW; Acute/Chronic

[1]Cr VI; more toxic than Cr III

Dissolved PAHs an PCBs (ug/l) CHARM STN. 11

Contaminant	Mean Diss	Max. Value	WQC*
PAH- Diss	21.00	32	--
PAH- Tot	91.75	144	
PAH- Susp	71.00	119	
PCB - Diss	0.31	0.67	14
PCB - Diss	1.53	1.94	
PCB - Diss	1.23	1.84	

N = 4 for PAHs; N = 3 for PCBs

Sediment Metals (ug/g dry wt) Mapping STN. 24 cf 23 and 25

Contaminant	Stn 24	Stn 23	Stn 25
CR	321	524	572
CU	116	153	129
HG	54	519	531
NI	67	70	68
PB	125	157	128
ZN	561	715	582
Tot. PCBs **ng**	154	151	200
Tot. PAHs **ng**	**40,435**	13,036	12,005