

To Helen PANG

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FROM

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Here is the info you requested.

6 pages to follow.

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TABLE 10
CADMIUM BIOACCUMULATION DATA (ug/g)

KILLIFISH

DAY	EAST FOUNDRY COVE				COLD SPRING AREA				WEST FOUNDRY COVE			MANHATTAN
	Pre-Remed. ⁽¹⁾	1996	1998	2000	Pre-Remed. ⁽¹⁾	1996	1998	2000	1996	1998	2000	2000
1	0.12	0.06	<0.02	<0.031	0.11	0.06 ⁽²⁾	<0.009	<0.031	0.06 ⁽²⁾	<0.009	<0.031	<0.0
14	0.44	<0.05	<0.03	0.039	0.05	<0.04	<0.009	(3)	<0.04	0.012	<0.031	<0.0
28	0.33	0.04	<0.02	(3)	0.06	<0.04	0.023	(3)	<0.04	0.064	(3)	<0.0
40	0.58			-	0.50			-			-	-
42		0.09	<0.017	(3)		<0.04	<0.017	(3)	(3)	0.054	(3)	<0.0

CRAYFISH

DAY	EAST FOUNDRY COVE				COLD SPRING AREA				WEST FOUNDRY COVE			MANHATTAN
	Pre-Remed. ⁽¹⁾	1996	1998	2000	Pre-Remed. ⁽¹⁾	1996	1998	2000	1996	1998	2000	2000
1	0.2	<0.05	0.04	<0.031	0	<0.05	<0.009	<0.031	<0.05	0.035	<0.031	<0.0
14	1.25	0.13	0.15	0.053	0.16	<0.04	<0.009	<0.034	<0.04	0.038	<0.031	<0.0
28	1.42	0.16	0.057	(3)	0.83	0.07	0.041	<0.031	0.07	0.048	0.181	<0.0
40	1.83			-	2.08			-			-	-
42		0.22	0.108	(3)		0.06	0.033	<0.031	0.07	(3)	0.037	<0.0

⁽¹⁾ Values interpolated from figures 29, 36, and 38 of the August 1985 Draft Remedial Investigation Report prepared by ACRES International.

⁽²⁾ Average of samples taken from two locations used as the source of the killifish specimens.

⁽³⁾ Car was empty on scheduled sampling date.

F:\OFFICE\ACCOMPLISHMENTS\FILES\85-31\cad73001.mpd

TABLE 9**CADMIUM CONCENTRATIONS (mg/kg)
BIOLOGICAL TISSUE SAMPLES**

SPECIES	HISTORIC DATA (PRE-REMEDICATION)	LONG-TERM MONITORING DATA				
		1996	1997	1998	1999	2000
WOOD DUCK (liver)						
# of samples	4	5	5	5	5	5
Cd range (mg/kg, WW)	0.61 - 0.94	0.12 - 2.4	0.05 - 1.3	0.56 - 1.4	0.05 - 1.2	0.0938 - 1.43
mean Cd (mg/kg, WW)	0.76	1.0	0.42	1.06	0.54	0.66
WOOD DUCK (kidney)						
# of samples	4	5	5	5	5	5
Cd range (mg/kg, WW)	1.20 - 12.0	1.5 - 9.0	0.81 - 17.4	1 - 7.5	0.16 - 6.1	0.243 - 9.94
mean Cd (mg/kg, WW)	4.45	6.5	5.14	4.6	3.15	4.42
SWALLOWS (whole body)						
# of samples	2	5	4	no samples collected	3	5
Cd range (mg/kg, WW)	1.174 - 4.75	0.1 - 0.42	0.1 - 0.27	-	0.11 - 0.22	ND - 9.265
mean Cd (mg/kg, WW)	2.96	0.24	0.19	-	0.17	0.13

TABLE 9
(Continued)

SPECIES	HISTORIC DATA (PRE-REMEDATION)	LONG-TERM MONITORING DATA				
		1996	1997	1998	1999	2000
MARSH WREN (whole body)						
# of samples	8	5	no sampling	no sampling	no sampling scheduled	2
Cd range (mg/kg, WW)	0.29 - 10.53	0.13 - 0.31	scheduled	scheduled	-	.156 - 1.62
mean Cd (mg/kg, WW)	1.8	0.20		-	-	0.88
CANADA GEESE (liver)						
# of samples	no data	5	7	4	3	2
Cd range (mg/kg, WW)	-	0.82 - 5.7	0.04 - 8.1	0.07 - 3	0.35 - 1.1	0.117 - 0.992
mean Cd (mg/kg, WW)	-	2.4	1.77	1.06	0.77	0.55
CANADA GEESE (kidney)						
# of samples	no data	5	7	4	3	2
Cd range (mg/kg, WW)	-	0.88 - 10.5	0.04 - 22.9	0.07 - 14.2	0.48 - 5.3	0.101-2.93
mean Cd (mg/kg, WW)	-	5.2	4.80	4.19	2.63	1.52

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TABLE 9
(Continued)

SPECIES	HISTORIC DATA (PRE-REMEDATION)	LONG-TERM MONITORING DATA				
		1996	1997	1998	1999	2000
BENTHIC INVERTEBRATES (one sample @ each location)						
EFC (mg/kg, WW)	0.570	0.78	11.2	7.7	1.7	0.456
Oligochaete (mg/kg, WW)	2.205	-	-	-	-	
Chironomid (mg/kg, WW)	4.545	-	-	-	-	
CM (mg/kg, WW)	-	2.3	5.5	1.9	1.7	1.61
CATTAILS (CM)						
# of samples	11	1	5	5	5	5
Cd range (mg/kg, DW)	0.052 - 1.45	-	0.31 - 0.8	0.23 - 1.1	0.3 - 0.71	0.251 - 0.422
mean Cd (mg/kg, DW)	0.62	1.2	0.53	0.56	0.44	0.375
CATTAILS (EFCM)						
# of samples	7	4	20	20	20	20
Cd range (mg/kg, DW)	0.107 - 16.50	0.05 - 0.13	0.12 - 0.31	0.05 - 0.13	ND - .394	ND - 0.58
mean Cd (mg/kg, DW)	3.31	0.08	0.16	0.07	0.177	0.170
WATER CHESTNUT (EFC)						

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TABLE 9
(Continued)

SPECIES	HISTORIC DATA (PRE-REMEDATION)	LONG-TERM MONITORING DATA				
		1996	1997	1998	1999	2000
# of samples	4	1	5	5	5	4
Cd range (mg/kg, DW)	1.670 - 47.40	—	2.2 - 4.5	4 - 6.5	2.5 - 5.5	1.46 - 2.42
mean Cd (mg/kg, DW)	15.6	4.5	3.50	5.3	4.32	2.00
WATER CHESTNUT (CM)						
# of samples	1	1	5	5	5	5
Cd range (mg/kg, DW)	—	—	3.7 - 5.6	7.8-10	3-4.8	2.5 - 4.92
mean Cd (mg/kg, DW)	2.96	7.3	4.52	9	4.1	3.24
WATER CHESTNUT (WFC)						
# of samples	no data	1	5	5	5	5
Cd range (mg/kg, DW)	—	—	1.4 - 2.0	1 - 1.4	1.3 - 1.89	0.868 - 1.97
mean Cd (mg/kg, DW)	—	2.4	1.60	1.2	1.61	1.36

NOTES:

- Detection limits were used for non-detect samples when computing mean Cd values.
- WW = wet weight basis
- DW = dry weight basis
- Historic values for oligochaete and chironomid invertebrates were quoted from an Acres report referencing a 1984 study by J. Levinton
- CM = Constitution Marsh
- EFCM = East Foundry Cove Marsh
- EFC = East Foundry Cove
- WFC = West Foundry Cove