

Tables

Table 1-1
Estimated sv-CWCM Event-Mean Flow and Tidal Range

Event	Sampling Period	Mean Flow at Dundee Dam (cfs)	Mean Tidal Range at Point No Point (feet)
August 2011	8/15/11 to 8/18/11	2,530	5.1
February 2012	2/20/2012 to 2/23/2012	650	6.2
March 2012	3/26/2012 to 3/29/2012	390	4.0
June 2012	6/4/2012 to 6/7/2012	1,330	6.8
August 2012	8/28/2012 to 8/30/2012	290	6.1
December 2012	12/10/2012 to 12/13/2012	600	6.7
February/March 2013	2/26/2013 to 2/28/2013 and 3/4/2013 to 3/5/2013	2,200	5.6
June 2013	6/7/2013 to 6/10/2013 and 6/20/2013 to 6/21/2013	3,180	5.5

Note:
cfs: cubic feet per second

Table 5-1**COPC Concentration Correlation Coefficients with Physical Variables**

Variable	2,3,7,8-TCDD (pg/L, log)	Total PCB (ng/L, log)	HMW PAH (ng/L, log)	LMW PAH (ng/L, log)	Total DDx (ng/L, log)	Mercury (ng/L, log)
River Mile	0.37	0.34	0.46	0.4	0.36	0.14
Dundee Dam Flow (cfs)	-0.05	-0.11	0.11	0.29	0.1	-0.06
Tidal Range (feet)	0.14	0.09	0.25	0.3	0.44	0.13
TSS (mg/L, log)	0.66	0.76	0.83	0.65	0.73	0.83
Salinity (ppt)	-0.48	-0.47	-0.54	-0.48	-0.47	-0.24
POC (mg/L, log)	0.62	0.68	0.83	0.74	0.65	0.63

Notes:

cfs: cubic feet per second

COPC: contaminant of potential concern

HMW PAH: high-molecular-weight polycyclic aromatic hydrocarbon

LMW PAH: low-molecular-weight polycyclic aromatic hydrocarbon

mg/L: milligrams per liter

ng/L: nanograms per liter

PCB: polychlorinated biphenyl

pg/L: picograms per liter

POC: particulate organic carbon

ppt: parts per thousand

TCDD: tetrachlorodibenzo-p-dioxin

TSS: total suspended solids

Table 5-2a**Regression Analysis of 2,3,7,8-TCDD (Log) and Physical Variables, by Data Grouping**

Data Grouping	Statistic	River Mile	Dundee Dam Flow (cfs)	Tidal Range (feet)	TSS (mg/L, log)	Salinity (ppt)	POC (mg/L, log)	Multiple-Variable Regression
All Data	R ²	0.07	0.01	0.05	0.42	0.19	0.39	0.54 (adj.)
Low Flow	R ²	0.15	0.03	0.03	0.29	0.18	0.31	0.48 (adj.)
Moderate Flow	R ²	0.03	0.03	0.05	0.55	0.15	0.43	0.65 (adj.)
T102	R ²	--	0.05	0.12	0.43	0.01	0.35	0.60 (adj.)
TTR1	R ²	--	0.01	0.05	0.39	0.05	0.27	0.40 (adj.)
TTR2	R ²	--	0.12	0.04	0.39	0.04	0.27	0.45 (adj.)
T014	R ²	--	0.07	0.09	0.44	0.21	0.33	0.61 (adj.)
T000	R ²	--	0.07	0.04	0.07	0.27	0.08	0.38 (adj.)

Notes:

Analysis of individual variables was performed as single-variable regressions.

Multiple-variable regression includes river mile, Dundee Dam flow, tidal range, TSS, and salinity as independent variables.

Moderate-flow sampling events include August 2011, June 2012, June 2013, and February and March 2013.

Low-flow sampling events include February 2012, March 2012, August 2012, and December 2012.

R² values noted in red indicate statistically significant regression slopes with p-values of <0.05.

adj.: adjusted

cfs: cubic feet per second

mg/L: milligrams per liter

POC: particulate organic carbon

ppt: parts per thousand

TCDD: tetrachlorodibenzo-p-dioxin

TSS: total suspended solids

Table 5-2b
Regression Analysis of Total PCB (Log) and Physical Variables, by Data Grouping

Data Grouping	Statistic	River Mile	Dundee Dam Flow (cfs)	Tidal Range (feet)	TSS (mg/L, log)	Salinity (ppt)	POC (mg/L, log)	Multiple-Variable Regression
All Data	R ²	0.03	0.00	0.02	0.66	0.14	0.54	0.74 (adj.)
Low Flow	R ²	0.03	0.07	0.02	0.61	0.08	0.47	0.74 (adj.)
Moderate Flow	R ²	0.03	0.01	0.02	0.69	0.18	0.58	0.79 (adj.)
T102	R ²	--	0.02	0.06	0.72	0.00	0.65	0.81 (adj.)
TTR1	R ²	--	0.00	0.11	0.69	0.02	0.46	0.74 (adj.)
TTR2	R ²	--	0.11	0.00	0.66	0.02	0.48	0.67 (adj.)
T014	R ²	--	0.02	0.02	0.58	0.24	0.43	0.76 (adj.)
T000	R ²	--	0.00	0.01	0.24	0.34	0.24	0.63 (adj.)

Notes:

Analysis of individual variables was performed as single-variable regressions.

Multiple-variable regression includes river mile, Dundee Dam flow, tidal range, TSS, and salinity as independent variables.

Moderate-flow sampling events include August 2011, June 2012, June 2013, and February and March 2013.

Low-flow sampling events include February 2012, March 2012, August 2012, and December 2012.

R² values noted in red indicate statistically significant regression slopes with p-values of <0.05.

adj.: adjusted

cfs: cubic feet per second

mg/L: milligrams per liter

PCB: polychlorinated biphenyl

POC: particulate organic carbon

ppt: parts per thousand

TSS: total suspended solids

Table 5-2c**Regression Analysis of HMW PAH (Log) and Physical Variables, by Data Grouping**

Data Grouping	Statistic	River Mile	Dundee Dam Flow (cfs)	Tidal Range (feet)	TSS (mg/L, log)	Salinity (ppt)	POC (mg/L, log)	Multiple-Variable Regression
All Data	R ²	0.22	0.01	0.06	0.70	0.29	0.68	0.84 (adj.)
Low Flow	R ²	0.30	0.00	0.10	0.71	0.29	0.59	0.82 (adj.)
Moderate Flow	R ²	0.14	0.02	0.04	0.73	0.30	0.83	0.89 (adj.)
T102	R ²	--	0.01	0.28	0.53	0.01	0.58	0.78 (adj.)
TTR1	R ²	--	0.05	0.12	0.81	0.02	0.49	0.89 (adj.)
TTR2	R ²	--	0.25	0.00	0.81	0.10	0.60	0.87 (adj.)
T014	R ²	--	0.06	0.03	0.77	0.11	0.64	0.92 (adj.)
T000	R ²	--	0.00	0.14	0.46	0.07	0.35	0.64 (adj.)

Notes:

Analysis of individual variables was performed as single-variable regressions.

Multiple-variable regression includes river mile, Dundee Dam flow, tidal range, TSS, and salinity as independent variables.

Moderate-flow sampling events include August 2011, June 2012, June 2013, and February and March 2013.

Low-flow sampling events include February 2012, March 2012, August 2012, and December 2012.

R² values noted in red indicate statistically significant regression slopes with p-values of <0.05.

adj.: adjusted

cfs: cubic feet per second

HMW PAH: high-molecular weight polycyclic aromatic hydrocarbon

mg/L: milligrams per liter

POC: particulate organic carbon

ppt: parts per thousand

TSS: total suspended solids

Table 5-2d**Regression Analysis of LMW PAH (Log) and Physical Variables, by Data Grouping**

Data Grouping	Statistic	River Mile	Dundee Dam Flow (cfs)	Tidal Range (feet)	TSS (mg/L, log)	Salinity (ppt)	POC (mg/L, log)	Multiple-Variable Regression
All Data	R ²	0.16	0.09	0.09	0.42	0.23	0.55	0.66 (adj.)
Low Flow	R ²	0.27	0.02	0.08	0.54	0.33	0.59	0.70 (adj.)
Moderate Flow	R ²	0.11	0.14	0.38	0.41	0.10	0.57	0.79 (adj.)
T102	R ²	--	0.04	0.31	0.19	0.00	0.29	0.60 (adj.)
TTR1	R ²	--	0.15	0.15	0.36	0.01	0.28	0.60 (adj.)
TTR2	R ²	--	0.28	0.00	0.66	0.18	0.68	0.78 (adj.)
T014	R ²	--	0.23	0.11	0.44	0.07	0.55	0.70 (adj.)
T000	R ²	--	0.14	0.12	0.05	0.01	0.14	0.31 (adj.)

Notes:

Analysis of individual variables was performed as single-variable regressions.

Multiple-variable regression includes river mile, Dundee Dam flow, tidal range, TSS, and salinity as independent variables.

Moderate-flow sampling events include August 2011, June 2012, June 2013, and February and March 2013.

Low-flow sampling events include February 2012, March 2012, August 2012, and December 2012.

R² values noted in red indicate statistically significant regression slopes with p-values of <0.05.

adj.: adjusted

cfs: cubic feet per second

LMW PAH: low-molecular-weight polycyclic aromatic hydrocarbon

mg/L: milligrams per liter

POC: particulate organic carbon

ppt: parts per thousand

TSS: total suspended solids

Table 5-2e**Regression Analysis of Total DDx (Log) and Physical Variables, by Data Grouping**

Data Grouping	Statistic	River Mile	Dundee Dam Flow (cfs)	Tidal Range (feet)	TSS (mg/L, log)	Salinity (ppt)	POC (mg/L, log)	Multiple-Variable Regression
All Data	R ²	0.13	0.01	0.19	0.54	0.22	0.42	0.74 (adj.)
Low Flow	R ²	0.19	0.00	0.34	0.47	0.21	0.31	0.54 (adj.)
Moderate Flow	R ²	0.05	0.01	0.01	0.82	0.23	0.73	0.71 (adj.)
T102	R ²	--	0.09	0.47	0.31	0.05	0.35	0.53 (adj.)
TTR1	R ²	--	0.00	0.31	0.73	0.00	0.25	0.45 (adj.)
TTR2	R ²	--	0.29	0.07	0.72	0.11	0.39	0.52 (adj.)
T014	R ²	--	0.05	0.21	0.55	0.17	0.36	0.50 (adj.)
T000	R ²	--	0.08	0.27	0.21	0.03	0.08	0.35 (adj.)

Notes:

Analysis of individual variables was performed as single-variable regressions.

Multiple-variable regression includes river mile, Dundee Dam flow, tidal range, TSS, and salinity as independent variables.

Moderate-flow sampling events include August 2011, June 2012, June 2013, and February and March 2013.

Low-flow sampling events include February 2012, March 2012, August 2012, and December 2012.

R² values noted in red indicate statistically significant regression slopes with p-values of <0.05.

adj.: adjusted

cfs: cubic feet per second

mg/L: milligrams per liter

POC: particulate organic carbon

ppt: parts per thousand

TSS: total suspended solids

Table 5-2f
Regression Analysis of Mercury (Log) and Physical Variables, by Data Grouping

Data Grouping	Statistic	River Mile	Dundee Dam Flow (cfs)	Tidal Range (feet)	TSS (mg/L, log)	Salinity (ppt)	POC (mg/L, log)	Multiple-Variable Regression
All Data	R ²	0.01	0.01	0.04	0.73	0.06	0.50	0.74 (adj.)
Low Flow	R ²	0.00	0.03	0.03	0.71	0.01	0.41	0.72 (adj.)
Moderate Flow	R ²	0.02	0.00	0.02	0.74	0.09	0.55	0.77 (adj.)
T102	R ²	--	0.01	0.06	0.81	0.00	0.70	0.89 (adj.)
TTR1	R ²	--	0.05	0.16	0.83	0.12	0.67	0.85 (adj.)
TTR2	R ²	--	0.23	0.03	0.75	0.04	0.59	0.81 (adj.)
T014	R ²	--	0.02	0.07	0.84	0.06	0.55	0.86 (adj.)
T000	R ²	--	0.00	0.00	0.33	0.00	0.05	0.37 (adj.)

Notes:

Analysis of individual variables was performed as single variable regressions.

Multiple-variable regression includes river mile, Dundee Dam flow, tidal range, TSS, and salinity as independent variables.

Moderate-flow sampling events include August 2011, June 2012, June 2013, and February and March 2013.

Low-flow sampling events include February 2012, March 2012, August 2012, and December 2012.

R² values noted in red indicate statistically significant regression slopes with p-values of <0.05.

adj.: adjusted

cfs: cubic feet per second

mg/L: milligrams per liter

POC: particulate organic carbon

ppt: parts per thousand

TSS: total suspended solids