Table 15. Contaminant Data for St. Croix River

		Record #	1589	1593	1597	1611	1610	1606	1602	526	526	311	312	525	1528	1543
		River Mile	23.0	23.0	23.0	23.0	23.0	23.0	23.0	17.5	17.5	17.1	17.0	16.4	16.0	16.0
		Location	Stillwater - east	Stillwater - mid	Stillwater - west	Stillwater - mean	Stillwater - west	Stillwater - mid	Stillwater - east	HUDSON	HUDSON	HUDSON	HUDSON	HUDSON	Hudson - east	Hudson - mid
		Year	1984	1984	1984	1985	1985	1985	1985	1989	1989	1982	1982	1989	1982	1982
		System	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		Habitat Type	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Pool	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
		Sam. Gear	3	3	3	3	3	3	3	1	1	1	1	1	3	3
		Sam. Depth	10	10	10	10	10	10	10	10	10	10	10	10	10	10
		Data Clt.	MWCC	MWCC	MWCC	MWCC	MWCC	MWCC	MWCC	COE	COE	COE	COE	COE	MWCC	MWCC
CHC's	ug/kg	a-BHC	< 0.32			< 0.26					< 0.07			< 0.07		
	ug/kg	b-BHC	< 0.64			< 0.53					< 0.15			< 0.14		
	ug/kg	BHC									< 0.22			< 0.21		
	ug/kg	g-BHC (lindane)	< 0.32			< 0.26					< 0.1			< 0.1		
	ug/kg	Heptachlor	< 0.32			< 0.26					< 0.07			< 0.07		
	ug/kg	Aldrin									< 0.1			< 0.1		
	ug/kg	Heptachlorepoxide									< 0.12			< 0.12		
	ug/kg	Endosulfan I									< 0.12			< 0.12		
	ug/kg	Dieldrin	< 0.96			< 0.79					< 0.12	< 0.1	< 0.1	< 0.12		
	ug/kg	4,4'-DDE	< 0.96			< 0.79					< 0.1	< 0.1	< 0.1	< 0.1		
	ug/kg	Endrin	< 1.3			< 1.1					< 0.22	< 0.1	< 0.1	< 0.21		
	ug/kg	Endosulfan II									< 0.25			< 0.24		
	ug/kg	4,4'-DDD	< 1.9			< 1.6					< 0.27	< 0.1	< 0.1	< 0.26		
	ug/kg	Endrinaldehyde									< 0.27			< 0.26		
	ug/kg	Sulfan sulfate									< 0.27			< 0.26		
	ug/kg	4,4'-DDT	< 2.5			< 2.1					< 0.32	< 0.1	< 0.1	< 0.31		
	ug/kg	Methoxychlor									< 0.54			< 0.52		
	ug/kg	Endrinketone									< 0.27			< 0.26		
	ug/kg	Chlorodane	< 6.4			< 5.3					< 1.48	< 1	< 1	< 1.43		
	ug/kg	Toxaphene									< 1.48			< 1.43		
METALS	mg/kg	Ag (silver)	0.021	0.011	0.023		0.013	0.063	0.078						0.712	0.28
	mg/kg	Al (aluminum)														
	mg/kg	As (arsenic)	2.59	3.67	3.43		4.54	6.59	12.52		< 1.06	1.5	1.7	1.6	8.6	4.5
	mg/kg	B (boron)														
	mg/kg	Ba (barium)														
	mg/kg	Be (beryllium)	0.187	0.181	0.215		0.16	0.266	0.439						0.5	0.25
	mg/kg	Cd (cadmium)	0.189	0.111	0.156		0.117	0.174	0.299		< 1.16	< 0.17	< 0.19	< 1.03	0.523	0.255
	mg/kg	Cr (chromium)	14	12.3	16.1		10.6	23.5	33.4		6.3	4.4	8.4	4.8	43.4	23.6
	mg/kg	Cu (copper)	7.8	5.3	20.2		4.1	12.2	18.5		< 1.52	2.6	7.5	< 1.35	27	10
	mg/kg	Fe (iron)										5100	7600			
	mg/kg	Hg (mercury)	0.05	0.05	0.05		0.06	0.05	0.07		< 0.01	0.023	0.034	< 0.01	0.45	0.11
	mg/kg	Mg (magnesium)														
	mg/kg	Mn (manganese)	258.9	191	261.8		222.6	508.9	831.5		277			322	1085	878
	mg/kg	Mo (molybdenum)														
	mg/kg	Ni (nickel)	8.2	8	9.4		4.8	10.1	17.7		< 5.8	4	8	< 5.14	16.4	9.1
	mg/kg	Pb (lead)	77.7	115	177.9		3.2	7.2	12.1		2.3	2	2	1.2	80.8	41.4
	mg/kg	Sb (antimony)					5.1	7.5	10.4							
	mg/kg	Se (selenium)	0.12	0.12	0.12		0.12	0.13	0.17		< 0.89			< 0.79	0.08	0.07
	mg/kg	Sn (tin)														
	mg/kg	Sr (strontium)														
	mg/kg	Ti (titanium)	0.6	0.6	0.6		1.8	2.7	4						1	0.9
	mg/kg	Zn (zinc)	37.9	41.5	62.1		22.3	37.8	54		< 0.61	10	15	8.9	151.3	48.5
	mg/kg	V (vanadium)														
PCB's	ug/kg	Aroclor-1006	14			27.30					< 1.48			< 1.43		
	ug/kg	Aroclor-1221									< 1.48			< 1.43		
	ug/kg	Aroclor-1232									< 1.48			< 1.43		
	ug/kg	Aroclor-1242									< 1.48			< 1.43		
	ug/kg	Aroclor-1248									< 1.48			< 1.43		
	ug/kg	Aroclor-1254	19			< 5.3					< 3.08			< 2.98		
	ug/kg	Aroclor-1260	< 3.2			48.8					< 3.08			< 2.98		
	ug/kg	Total PCB's														
PARTICLE SIZE %FINER		3 in														
	SAND coarse	1 1/2										100	100			
		3/4										100	100			
		3/8										100	100			
		4								96.5	99.5	100	98	99.8		
		8										98	87			
		10								93.7	98.8			98.3		
	SAND medium	16								84.5	96.5	94.0	70.0	88.9		
		20														
		30								42.6	86.4	67.0	35.0	49.8		
		40										39.0	16.0			
		50								42.6	86.4	14.0	6.0	49.8		
	SAND fine	70										6.0	3.0			
		80								2.9	56.0			5.3		
		100								0.3	0.5	4.0	2.0	0.1		
		140								0.2	0.6					
	SILT CLAY	200								0.1	0.5	4.0	2.0			
		270									0.5	3.0	2.0			
		0.20 mm									0.4	1.0	1.0			
		0.05 mm									0.3	0.0	0.0			
MISC	%	Total Organic Carb								0.008	0.18			0.033		
	mg/kg	Chem Oxy Demand										965	930			
	mg/kg	Kjedahl Nitrogen										41	48			
	mg/kg	Total Phosph										180	220			
	mg/kg	Oil and Grease														
	mg/kg	Cyanide, Total									< 0.6			< 0.61		
	mg/kg	Ammonia									3.30			< 0.24		
	mg/l	Ammonia Elutriate														
	%	Moisture									16.6			17.5		
	%	Total Solids									83.4			82.5		
	%	Volatile Solids									1			0.6		

Table 15. Contaminant Data for St. Croix River

		Record #	1564	1558	1580	1576	1584	1585	1585	528	527	313	314	1640	1635	1639
		River Mile	16.0	16.0	16.0	16.0	16.0	16.0	16.0	6.5	6.1	6.0	6.0	1	1	1.0
		Location	Hudson - mean	Hudson - west	Hudson - mid	Hudson - east	Hudson - west	Hudson - mean -dup	Hudson - mean	KINNICK. BAR	KINNICK. BAR	KINNICK. BAR	KINNICK. BAR	Prescott - mean	Prescott - mid	Prescott - west
		Year	1982	1982	1983	1983	1983	1983	1983	1989	1989	1980	1980	1983	1983	1983
		System	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		Habitat Type	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Pool	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
		Sam. Gear	3	3	3	3	3	3	3	1	1	1	1	3	3	3
		Sam. Depth	10	10	10	10	10	10	10	10	10	10	10	10	10	10
		Data Clt.	MWCC	MWCC	MWCC	MWCC	MWCC	MWCC	MWCC	COE	COE	COE	COE	MWCC	MWCC	MWCC
CHC'S	ug/kg	a-BHC	< 5					< 0.53	< 0.53	< 0.07	< 0.08			< 0.53		
	ug/kg	b-BHC	< 10					< 1.1	< 1.1	< 0.14	< 0.15			< 1.1		
	ug/kg	BHC								< 0.21	< 0.23					
	ug/kg	g-BHC (lindane)	< 7					< 0.53	< 0.53	< 0.1	< 0.1			< 0.53		
	ug/kg	Heptachlor	< 5					< 0.53	< 0.53	< 0.07	< 0.08			< 0.53		
	ug/kg	Aldrin								< 0.1	< 0.1					
	ug/kg	Heptachlorepoxide								< 0.12	< 0.13					
	ug/kg	Endosulfan I								< 0.12	< 0.13					
	ug/kg	Dieldrin	< 20					< 1.6	< 1.6	< 0.12	< 0.13	< 0.02	< 0.02	< 1.6		
	ug/kg	4,4'-DDE	< 7					< 1.6	< 1.6	< 0.1	< 0.1	< 0.02	< 0.01	< 1.6		
	ug/kg	Endrin	< 10					< 2.1	< 2.1	< 0.21	< 0.23	< 0.04	< 0.04	< 2.1		
	ug/kg	Endosulfan II								< 0.24	< 0.25					
	ug/kg	4,4'-DDD	< 14					< 3.2	< 3.2	< 0.26	< 0.28	< 0.02	< 0	< 3.2		
	ug/kg	Endrinaldehyde								< 0.26	< 0.28					
	ug/kg	Sulfan sulfate								< 0.26	< 0.28					
	ug/kg	4,4'-DDT	< 20					< 4.2	< 4.2	< 0.31	< 0.33	< 0.06	< 0.06	< 4.2		
	ug/kg	Methoxychlor								< 0.52	< 0.56					
	ug/kg	Endriniketone								< 0.26	< 0.28					
	ug/kg	Chlorodane	< 2					< 11	< 11	< 1.43	< 1.52	< 0.05	< 0.1	< 11		
	ug/kg	Toxaphene								< 1.43	< 1.52					
METALS	mg/kg	Ag (silver)		0.103	0.003	0.021	0.001								0.024	0.015
	mg/kg	Al (aluminum)														
	mg/kg	As (arsenic)		1.3	1.44	1.18	2.07			1.2	< 1	< 4.4	< 4.8		1.24	1.21
	mg/kg	B (boron)														
	mg/kg	Ba (barium)										6.6	7.2			
	mg/kg	Be (beryllium)		0.14	0.134	0.106	0.131								0.131	0.129
	mg/kg	Cd (cadmium)		0.082	0.027	0.055	0.215			< 1.1	< 1.1	< 0.1	< 0.1		0.053	0.052
	mg/kg	Cr (chromium)		10.8	37.7	13.7	34.9			3.6	3.6	3.1	4.8		37.9	40.3
	mg/kg	Cu (copper)		6	5.6	3.3	9.2			18.5	27.9	1.8	2.9		2.9	2.8
	mg/kg	Fe (iron)										3500	4400			
	mg/kg	Hg (mercury)		0.05	0.05	0.05	0.05			< 0.02	< 0.01	0.03	0.02		0.05	0.05
	mg/kg	Mg (magnesium)														
	mg/kg	Mn (manganese)		538						127	108	71	140			
	mg/kg	Mo (molybdenum)														
	mg/kg	Ni (nickel)		6.6	10.3	8.7	15.8			< 5.3	< 5.7	2.6	3.4		10.8	12.1
	mg/kg	Pb (lead)		2	2.6	4.3	3.7			1	2.1	1.8	1.9		4.4	3.4
	mg/kg	Sb (antimony)														
	mg/kg	Se (selenium)		0.05	0.05	0.05	0.11			< 0.81	< 0.89				0.1	0.06
	mg/kg	Sn (tin)														
	mg/kg	Sr (strontium)														
	mg/kg	Ti (titanium)		0.7	0.6	0.6	0.6								0.6	0.6
	mg/kg	Zn (zinc)		16.9	15.3	16.1	17.8			9.4	1250	7.6	8.6		14.4	14.3
	mg/kg	V (vanadium)														
PCB'S	ug/kg	Aroclor-1006	20					< 5.3	< 5.3	< 1.43	< 1.52			< 5.3		
	ug/kg	Aroclor-1221								< 1.43	< 1.52					
	ug/kg	Aroclor-1232								< 1.43	< 1.52					
	ug/kg	Aroclor-1242								< 1.43	< 1.52					
	ug/kg	Aroclor-1248								< 1.43	< 1.52					
	ug/kg	Aroclor-1254	20					< 5.3	< 5.3	< 2.98	< 3.18			7.9		
	ug/kg	Aroclor-1260	< 20					< 5.3	< 5.3	< 2.98	< 3.18			< 5.3		
	ug/kg	Total PCB's														
PARTICLE SIZE %FINER	SAND coarse	3 in										100				
		1 1/2										100				
		3/4										100				
		3/8										100				
		4									100	100	97			
		8										100	94			
		10									99.9	99	93			
	SAND medium	16									99.5	96.0	89.0			
		20										92.0	84.0			
		30									97.9	80.0	73.0			
		40										48.0	51.0			
		50									97.9	28.0	28.0			
	SAND fine	70										13.0	9.0			
		80									83.8	10.0	7.0			
		100									5.3	0.0	1.0			
		140									4.2					
	SILT CLAY	200									2.8	0.0	0.0			
		270									1.8	0.0	0.0			
		0.20 mm									1.2	0.0	0.0			
		0.05 mm									0.9	0.0	0.0			
MISC	%	Total Organic Carb									0.39					
	mg/kg	Chem Oxy Demand										520	600			
	mg/kg	Kjedahl Nitrogen										< 0.02	< 0.02			
	mg/kg	Total Phosph										14	17			
	mg/kg	Oil and Grease														
	mg/kg	Cyanide, Total								< 0.59	< 0.65					
	mg/kg	Ammonia								< 0.23	5.6					
	mg/l	Ammonia Elutriate														
	%	Moisture								14.8	23.5					
	%	Total Solids								85.2	76.5					
	%	Volatile Solids								0.6	1.4					

Table 15. Contaminant Data for St. Croix River

		Record #	1631	1648	1651	1644	1652	1660	1664	1656	1665
		River Mile	1	1	1	1	1	1	1	1	1.0
		Location	Prescott - east	Prescott - mid	Prescott - west	Prescott - east	Prescott - mean	Prescott - mid	Prescott - west	Prescott - east	Prescott - mean
		Year	1983	1984	1984	1984	1984	1985	1985	1985	1985
		System	3	3	3	3	3	3	3	3	3
		Habitat Type	1	1	1	1	1	1	1	1	1
		Pool	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
		Sam. Gear	3	3	3	3	3	3	3	3	3
		Sam. Depth	10	10	10	10	10	10	10	10	10
		Data Clt.	MWCC	MWCC	MWCC	MWCC	MWCC	MWCC	MWCC	MWCC	MWCC
CHC'S	ug/kg	a-BHC					< 0.32				< 0.26
	ug/kg	b-BHC					< 0.64				< 0.53
	ug/kg	BHC									
	ug/kg	g-BHC (lindane)					< 0.32				< 0.26
	ug/kg	Heptachlor					< 0.32				< 0.26
	ug/kg	Aldrin									
	ug/kg	Heptachlorepoxide									
	ug/kg	Endosulfan I									
	ug/kg	Dieldrin					< 0.96				< 0.79
	ug/kg	4,4'-DDE					< 0.96				< 0.79
	ug/kg	Endrin					< 1.3				< 1.1
	ug/kg	Endosulfan II									
	ug/kg	4,4'-DDD					< 1.9				< 1.6
	ug/kg	Endrinaldehyde									
	ug/kg	Sulfan sulfate									
	ug/kg	4,4'-DDT					< 2.5				< 2.1
	ug/kg	Methoxychlor									
	ug/kg	Endrinketone									
	ug/kg	Chlorodane					< 6.4				< 5.3
	ug/kg	Toxaphene									
METALS	mg/kg	Ag (silver)	0.049	0.013	0.01	0.035		0.022	0.036	0.01	
	mg/kg	Al (aluminum)									
	mg/kg	As (arsenic)	3.32	1.89	1.7	3.71		12.68	2.67	4.27	
	mg/kg	B (boron)									
	mg/kg	Ba (barium)									
	mg/kg	Be (beryllium)	0.196	0.124	0.113	0.169		0.304	0.153	0.177	
	mg/kg	Cd (cadmium)	0.115	0.057	0.033	0.09		0.138	0.079	0.06	
	mg/kg	Cr (chromium)	25.2	7	6.2	11.9		19.8	9.5	14.1	
	mg/kg	Cu (copper)	9.5	1.9	1.4	4.5		3.9	5.4	4.2	
	mg/kg	Fe (iron)									
	mg/kg	Hg (mercury)	0.06	0.05	0.05	0.06		0.05	0.05	0.05	
	mg/kg	Mg (magnesium)									
	mg/kg	Mn (manganese)		234.1	232.2	734.2		1853.2	274.4	315.7	
	mg/kg	Mo (molybdenum)									
	mg/kg	Ni (nickel)	12.9	5.5	3.9	5.7		5.1	4.8	5.6	
	mg/kg	Pb (lead)	14	1.8	1.7	14.1		7.2	4.9	6	
	mg/kg	Sb (antimony)						8.6	5.2	7.7	
	mg/kg	Se (selenium)	0.14	0.12	0.12	0.12		0.13	0.12	0.12	
	mg/kg	Sn (tin)									
	mg/kg	Sr (strontium)									
	mg/kg	Ti (titanium)	0.6	0.6	0.6	0.6		2.4	2.4	3	
	mg/kg	Zn (zinc)	29.3	11.4	10	22.3		31.6	17	15.8	
	mg/kg	V (vanadium)									
PCB'S	ug/kg	Aroclor-1006					8.6				17.9
	ug/kg	Aroclor-1221									
	ug/kg	Aroclor-1232									
	ug/kg	Aroclor-1242									
	ug/kg	Aroclor-1248									
	ug/kg	Aroclor-1254					7				< 5.3
	ug/kg	Aroclor-1260					< 3.2				6.1
	ug/kg	Total PCB's									
PARTICLE SIZE %FINER	SAND coarse	3 in									
		1 1/2									
		3/4									
		3/8									
		4									
		8									
		10									
	SAND medium fine	16									
		20									
		30									
		40									
		50									
		70									
		80									
		100									
		140									
	SILT CLAY	200									
		270									
		0.20 mm									
		0.05 mm									
MISC	%	Total Organic Carb									
	mg/kg	Chem Oxy Demand									
	mg/kg	Kjedahl Nitrogen									
	mg/kg	Total Phosph									
	mg/kg	Oil and Grease									
	mg/kg	Cyanide, Total									
	mg/kg	Ammonia									
	mg/l	Ammonia Elutriate									
	%	Moisture									
	%	Total Solids									
	%	Volatile Solids									