

Table 6-1. Summary of volume calculations, removal depths and areas by subreach for all SED alternatives.

Alternative		River Reach																	Total
		5A	5B	5A/B Banks	5C (Upper Section)	5C (Lower Section)	5 Backwaters (Small)	5 Backwaters (Large)	Woods Pond (Shallow)	Woods Pond (Deep Hole)	7A, D, F, H (Reach 7 Channel)	7B (Columbia Mill Dam Imp.)	7C (Former Eagle Mill Dam Imp.)	7E (Willow Mill Dam Imp.)	7G (Glendale Dam Imp.)	Rising Pond (Shallow)	Rising Pond (Deep)	9 to 17	
SED 1	Approach	No action	No action	No action	No action	No action	No action	No action	No action	No action	No action	No action	No action	No action	No action	No action	No action	No action	
	Criteria	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Removal depth	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Removal volume (cy)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Replacement engr. cap (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Replacement backfill (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Engineered Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SED 2	Thin Layer Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MNR (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Approach	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	
	Criteria	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Removal depth	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Removal volume (cy)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Replacement engr. cap (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SED 3	Replacement backfill (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Engineered Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Thin Layer Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MNR (acres)	42	27	---	20	37	18	68	37	23	164	10	8	8	12	19	22	---	515
	Approach	Removal	MNR	Stabilization	MNR	TLC Only	MNR	MNR	TLC Only	TLC Only	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	
	Criteria	Full reach	---	Operational	---	Full reach	---	---	Full reach	Full reach	---	---	---	---	---	---	---	---	---
	Removal depth	2-ft	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SED 4	Removal volume (cy)	134,000	---	35,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Replacement engr. cap (acres)	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Replacement backfill (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Engineered Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Thin Layer Cap only area (acres)	---	---	---	---	37	---	---	37	23	---	---	---	---	---	---	---	---	
	MNR (acres)	---	27	---	20	---	18	68	37	23	164	10	8	8	12	19	22	---	
	Approach	Removal	Removal/TLC Only	Stabilization	TLC Only	EC Only	TLC Only/MNR	TLC Only/MNR	Removal	TLC Only	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	
Criteria	Full reach	Velocity/depth	Operational	Full reach	Full reach	PCBs: 15 ppm ¹	PCBs: 15 ppm ¹	Full reach	Full reach	---	---	---	---	---	---	---	---	---	
Removal depth	2-ft	2-ft	---	---	---	---	---	1.5-ft	---	---	---	---	---	---	---	---	---	---	
SED 5	Removal volume (cy)	134,000	39,000	35,000	---	---	---	89,000	---	---	---	---	---	---	---	---	---	---	
	Replacement engr. cap (acres)	42	12	---	---	---	---	37	---	---	---	---	---	---	---	---	---	---	
	Replacement backfill (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Engineered Cap only area (acres)	---	---	---	---	37	---	---	---	---	---	---	---	---	---	---	---	---	
	Thin Layer Cap only area (acres)	---	15	---	20	---	7	54	23	---	---	---	---	---	---	---	---	---	
	MNR (acres)	---	---	---	---	---	11	14	---	14	10	8	8	12	19	22	---	268	
	Approach	Removal	Removal	Stabilization	Removal	EC Only	TLC Only/MNR	TLC Only/MNR	Removal	EC Only	MNR	MNR	MNR	MNR	MNR	TLC Only	TLC Only	MNR	
Criteria	Full reach	Full reach	Operational	Full reach	Full reach	PCBs: 15 ppm ¹	PCBs: 15 ppm ¹	Full reach	Full reach	---	---	---	---	---	Full reach	Full reach	---	---	
Removal depth	2-ft	2-ft	---	2-ft	---	---	---	1.5-ft	---	---	---	---	---	---	---	---	---	---	
SED 6	Removal volume (cy)	134,000	88,000	35,000	66,000	---	---	89,000	---	---	---	---	---	---	---	---	---	---	
	Replacement engr. cap (acres)	42	27	---	20	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Replacement backfill (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Engineered Cap only area (acres)	---	---	---	---	37	---	---	---	---	---	---	---	---	---	---	---	---	
	Thin Layer Cap only area (acres)	---	---	---	---	---	7	54	23	---	---	---	---	---	19	22	---	---	
	MNR (acres)	---	---	---	---	---	11	14	---	14	10	8	8	12	19	22	---	227	
	Approach	Removal	Removal	Stabilization	Removal	Removal	Removal/TLC Only	Removal/TLC Only	Removal	EC Only	MNR	TLC Only	TLC Only	TLC Only	TLC Only	TLC Only	TLC Only	EC Only	MNR
Criteria	Full reach	Full reach	Operational	Full reach	Full reach	PCBs: 50 ppm / 1 ppm ²	PCBs: 50 ppm / 1 ppm ²	Full reach	Full reach	---	Full reach	Full reach	Full reach	Full reach	Full reach	Full reach	Full reach	---	
Removal depth	2-ft	2-ft	---	2-ft	2-ft	1-ft	1-ft	1.5-ft	---	---	---	---	---	---	---	---	---	---	
SED 7	Removal volume (cy)	134,000	88,000	35,000	66,000	120,000	1,000	23,000	89,000	---	---	---	---	---	---	---	---	---	
	Replacement engr. cap (acres)	42	27	---	20	37	1	14	37	---	---	---	---	---	---	---	---	---	
	Replacement backfill (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Engineered Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22	---	
	Thin Layer Cap only area (acres)	---	---	---	---	---	14	41	---	---	10	8	8	12	19	---	---	---	
	MNR (acres)	---	---	---	---	---	3	13	---	---	164	---	---	---	---	---	---	---	
	Approach	Removal	Removal	Stabilization	Removal	Removal	Removal/TLC Only	Removal/TLC Only	Removal	EC Only	MNR	Removal/TLC Only	Removal/TLC Only	Removal/TLC Only	Removal/TLC Only	Removal/TLC Only	Removal/TLC Only	EC Only	MNR
Criteria	Full reach	Full reach	Operational	Full reach	Full reach	PCBs: 10 ppm / 1 ppm ³	PCBs: 10 ppm / 1 ppm ³	Full reach	Full reach	---	PCBs: 3 ppm ⁴	PCBs: 3 ppm ⁴	PCBs: 3 ppm ⁴	PCBs: 3 ppm ⁴	PCBs: 3 ppm ⁴	PCBs: 3 ppm ⁴	Full reach	---	
Removal depth	3 to 3.5-ft	2.5-ft	---	2-ft	2-ft	1-ft	1-ft	2.5-ft	---	---	1.5-ft	1.5-ft	1.5-ft	1.5-ft	1.5-ft	1.5-ft	---	---	
SED 8	Removal volume (cy)	218,000	109,000	35,000	66,000	120,000	5,000	46,000	148,000	---	12,000	7,000	9,000	15,000	15,000	15,000	---	---	
	Replacement engr. cap (acres)	---	---	---	20	37	3	29	37	---	5	3	4	6	6	6	---	---	
	Replacement backfill (acres)	42	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Engineered Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22	---	
	Thin Layer Cap only area (acres)	---	---	---	---	---	12	27	---	---	5	5	4	6	13	---	---	---	
	MNR (acres)	---	---	---	---	---	3	12	---	---	164	---	---	---	---	---	---	---	
	Approach	Removal	Removal	Stabilization	Removal	Removal	Removal	Removal	Removal	Removal	MNR	Removal	Removal	Removal	Removal	Removal	Removal	MNR	
Criteria	Full reach, to 1 ppm horizon	Full reach, to 1 ppm horizon	Operational	Full reach, to 1 ppm horizon	Full reach, to 1 ppm horizon	Full reach, to 1 ppm horizon	Full reach, to 1 ppm horizon	Full reach, to 1 ppm horizon	Full reach, to 1 ppm horizon	---	Full reach, to 1 ppm horizon	Full reach, to 1 ppm horizon	Full reach, to 1 ppm horizon	Full reach, to 1 ppm horizon	Full reach, to 1 ppm horizon	Full reach, to 1 ppm horizon	Full reach, to 1 ppm horizon	---	
Removal depth	4-ft	3.5-ft	---	3-ft	3-ft	2-ft	3-ft	6-ft	2-ft	---	2-ft	2-ft	2-ft	2-ft	7-ft	7-ft	---	---	
SED 8	Removal volume (cy)	268,000	153,000	35,000	99,000	180,000	57,000	331,000	355,000	---	32,000	25,000	25,000	39,000	217,000	251,000	---	---	
	Replacement engr. cap (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Replacement backfill (acres)	42	27	---	20	37	18	68	37	23	---	10	8	8	12	19	22	---	
	Engineered Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Thin Layer Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MNR (acres)	---	---	---	---	---	---	---	---	---	164	---	---	---	---	---	---	---	164	

Table 6-1. Summary of volume calculations, removal depths and areas by subreach for all SED alternatives.

Alternative		River Reach																	Total
		5A	5B	5A/B Banks	5C (Upper Section)	5C (Lower Section)	5 Backwaters (Small)	5 Backwaters (Large)	Woods Pond (Shallow)	Woods Pond (Deep Hole)	7A, D, F, H (Reach 7 Channel)	7B (Columbia Mill Dam Imp.)	7C (Former Eagle Mill Dam Imp.)	7E (Willow Mill Dam Imp.)	7G (Glendale Dam Imp.)	Rising Pond (Shallow)	Rising Pond (Deep)	9 to 17	
SED 9	Approach	Removal	Removal	Stabilization	Removal	Removal	Removal/EC Only ⁵	Removal/EC Only ⁵	Removal ⁵	Removal ⁵	MNR	Removal ⁵	Removal ⁵	Removal ⁵	Removal ⁵	Removal ⁵	MNR		
	Criteria	Full reach	Full reach	Operational	Full reach	Full reach	PCBs: 1 ppm / water depth ⁶	PCBs: 1 ppm / water depth ⁶	Full reach	Full reach	---	Full reach / shear stress ⁷	Full reach / shear stress ⁷	Full reach / shear stress ⁷	Full reach / shear stress ⁷	Full reach / shear stress ⁷	---		
	Removal depth	2-ft	2-ft	---	2-ft	1.5-ft	1-ft	3-ft	3.5-ft	1-ft	---	1 to 1.5-ft	1 to 1.5-ft	1 to 1.5-ft	1 to 1.5-ft	1 to 1.5-ft	---		
	Removal volume (cy)	134,000	88,000	35,000	66,000	90,000	23,000	86,000	207,000	37,000	---	22,000	19,000	19,000	24,000	71,000	---	921,000	
	Replacement engr. cap (acres)	42	27	---	20	37	14	54	37	23	---	10	8	8	12	41	---	333	
	Replacement backfill (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Engineered Cap only area (acres)	---	---	---	---	---	1	2	---	---	---	---	---	---	---	---	---	3	
	Thin Layer Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MNR (acres)	---	---	---	---	---	3	12	---	---	164	---	---	---	---	---	---	179		
SED 10	Approach	Removal	MNR	Stabilization	MNR	MNR	MNR	MNR	Removal	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR		
	Criteria	Minimize ecological harm ⁸	---	Minimize ecological harm ⁸	---	---	---	---	PCBs: generally >13 ppm	---	---	---	---	---	---	---	---		
	Removal depth	2-ft	---	---	---	---	---	---	2.5-ft	---	---	---	---	---	---	---	---		
	Removal volume (cy)	66,000	---	6,700	---	---	---	---	169,000	---	---	---	---	---	---	---	---	241,700	
	Replacement engr. cap (acres)	20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	
	Replacement backfill (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Engineered Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Thin Layer Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MNR (acres)	---	27	---	20	37	18	68	---	---	164	10	8	8	12	19	22	---	413	

Notes:

- ¹ For backwaters in SED 4 and SED 5, thin layer capping occurs for entire backwaters with average PCBs > 15 ppm; delineation based on model-predicted 0-6" sediment PCBs at the end of validation.
 - ² For backwaters in SED 6, removal occurs in areas > 50 ppm, TLC only in areas <50 and >1 ppm; delineation based on 0-12" Thiessen Polygons; volumes and areas are approximate due to limited data coverage.
 - ³ For backwaters in SED 7, removal occurs in areas > 10 ppm, TLC only in areas <10 and >1 ppm; delineation based on 0-12" Thiessen Polygons; volumes and areas are approximate due to limited data coverage.
 - ⁴ For Reach 7 impoundments and Rising Pond shallow area in SED 7, removal occurs in areas > 3 ppm, with TLC only in the rest; delineation based on 0-12" Thiessen Polygons; volumes and areas are approximate due to limited data coverage.
 - ⁵ Engineered cap in backwaters and replacement cap in Woods Pond, Reach 7 impoundments, and Rising Pond for SED 9 contains an active or sorptive layer.
 - ⁶ For backwaters in SED 9, removal occurs in areas with PCBs > 1 ppm and water depth less than 4 feet, and EC only occurs in areas with PCBs > 1 ppm water depths greater than 4 feet; delineation based on 0-12" Thiessen Polygons; volumes and areas are approximate due to limited data coverage.
 - ⁷ For the Reach 7 impoundments and Reach 8 in SED 9, 1-ft removal occurs in areas of low shear stress, and 1.5-ft removal occurs in areas of high shear stress (see Appendix F for analysis and delineation of high and low shear stress areas).
 - ⁸ Criteria for selection of sediment remediation areas in Reach 5A and bank stabilization areas in Reaches 5A & 5B for SED 10 are described in Section 6.10.1 and Figure 6-29.
- Abbreviations: Monitored Natural Recovery (MNR); Thin-layer Cap (TLC); Engineered Cap (EC)

Table 6-2. Summary of predicted exceedances of freshwater chronic aquatic life criterion for SED alternatives.

Reach	Reach (Location)	Number of Predicted Exceedances in Last 3 Years of Model Projection (Rolling Average)								
		SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 9	SED 10
PSA	5A (Holmes Road)	126	2	2	2	2	10	4	2	33
	5B (New Lenox Road)	1095	0	0	0	0	3	0	0	1095
	5C (WP Headwaters)	1095	0	2	0	0	0	0	0	1069
	6 (Woods Pond Dam)	1095	0	0	0	0	0	0	0	875
Reaches 7/8	7B (Columbia Mill Dam)	1095	0	2	0	0	0	0	0	853
	7E (Willow Mill Dam)	587	0	3	0	0	0	0	0	75
	7G (Glendale Dam)	284	2	3	3	0	0	0	0	51
	8 (Rising Pond Dam)	226	5	5	4	0	0	0	0	49
CT	Bulls Bridge	0	0	0	0	0	0	0	0	0
	Lake Lillinonah	0	0	0	0	0	0	0	0	0
	Lake Zoar	0	0	0	0	0	0	0	0	0
	Lake Housatonic	0	0	0	0	0	0	0	0	0
Reach	Reach (Location)	Number of Predicted Exceedances in Last 3 Years of Model Projection (Block Average)								
		SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 9	SED 10
PSA	5A (Holmes Road)	29	0	0	0	0	2	1	0	8
	5B (New Lenox Road)	274	0	0	0	0	1	0	0	274
	5C (WP Headwaters)	274	0	1	0	0	0	0	0	266
	6 (Woods Pond Dam)	274	0	0	0	0	0	0	0	217
Reaches 7/8	7B (Columbia Mill Dam)	274	0	1	0	0	0	0	0	213
	7E (Willow Mill Dam)	150	0	1	0	0	0	0	0	18
	7G (Glendale Dam)	72	1	1	1	0	0	0	0	13
	8 (Rising Pond Dam)	60	1	1	1	0	0	0	0	11
CT	Bulls Bridge	0	0	0	0	0	0	0	0	0
	Lake Lillinonah	0	0	0	0	0	0	0	0	0
	Lake Zoar	0	0	0	0	0	0	0	0	0
	Lake Housatonic	0	0	0	0	0	0	0	0	0

Table 6-4. Sediment IMPGs for human direct contact compared to projected sediment PCBs (SED 1 / SED 2), including the time to achieve in years (*in italics*).

Risk Category	Receptor	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average 0-6" Sediment PCB Concentration (mg/kg) ¹							
					SA 1	SA 2	SA 3	SA 4	SA 5	SA 6	SA 7	SA 8
					12	16	23	3.4	4.2	1.2	7.6	3.0
Human Direct Contact	Older Child	RME	10 ⁻⁶ Cancer	4.5	> 250	> 250	243	0	0	0	220	0
			10 ⁻⁵ Cancer	45	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	453	0	0	0	0	0	0	0	0
			Non-Cancer	31	0	0	22	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	36	0	0	8	0	0	0	0	0
			10 ⁻⁵ Cancer	365	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	3645	0	0	0	0	0	0	0	0
			Non-Cancer	125	0	0	0	0	0	0	0	0
	Adult	RME	10 ⁻⁶ Cancer	1.3	> 250	> 250	> 250	> 250	> 250	34	> 250	> 250
			10 ⁻⁵ Cancer	13	35	86	120	0	0	0	0	0
			10 ⁻⁴ Cancer	135	0	0	0	0	0	0	0	0
			Non-Cancer	40	0	0	0	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	28	0	0	30	0	0	0	0	0
			10 ⁻⁵ Cancer	280	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	2800	0	0	0	0	0	0	0	0
			Non-Cancer	152	0	0	0	0	0	0	0	0

Notes

¹ Model endpoint concentrations after 52-year projection

CTE = central tendency exposure

RME = reasonable maximum exposure

IMPG = interim media protection goal

SA = EPA Risk Assessment Sediment Exposure Areas

SA 1: Confluence to New Lenox Road

SA 2: New Lenox Road to Woods Pond Headwaters

SA 3: Woods Pond (6-meters from waters edge)

SA 4: Columbia Mill Dam impoundment (6-meters from waters edge)

SA 5: Former Eagle Mill Dam impoundment (6-meters from waters edge)


SA 6: Willow Mill Dam impoundment (6-meters from waters edge)

SA 7: Glendale Dam impoundment (6-meters from waters edge)

SA 8: Rising Pond impoundment (6-meters from waters edge)

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-5. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs (SED 1 / SED 2), including the time to achieve in years (in italics).

Tissue Type	Assessment Type	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average Fish Tissue (Fillet) PCB Concentration (mg/kg) ¹																						
					Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8	BBD	LL	LZ	LH					
					7.3	9.3	7.4	9.5	8.6	6.4	5.7	6.3	5.5	4.1	3.2	3.5	2.8	3.6	0.2	0.1	0.08	0.08					
Bass Fillets	Deterministic	RME	10 ⁻⁶ Cancer	0.0019	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250				
			10 ⁻⁵ Cancer	0.019	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	230	200	170	167		
			10 ⁻⁴ Cancer	0.19	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	31	26	6	5	
			Non-Cancer -- Child	0.026	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	203	173	143	140	
		Non-Cancer -- Adult	0.062	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	128	98	68	65		
		CTE	10 ⁻⁶ Cancer	0.049	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	148	119	89	85	
			10 ⁻⁵ Cancer	0.49	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	231	> 250	214	> 250	0	0	0	0	0	0	0	
			10 ⁻⁴ Cancer	4.9	82	123	98	136	132	78	69	78	64	34	9	10	7	10	0	0	0	0	0	0	0	0	
			Non-Cancer -- Child	0.19	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	31	26	6	5	0	0	0	
		Probabilistic	RME (5th percentile)	10 ⁻⁶ Cancer	0.0064	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	
				10 ⁻⁵ Cancer	0.064	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	125	96	66	62
				10 ⁻⁴ Cancer	0.64	240	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	232	205	243	188	233	0	0	0	0	0	0	0
	Non-Cancer -- Child			0.059	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	132	103	73	69	
	Non-Cancer -- Adult		0.12	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	71	26	6	5		
	CTE (50th percentile)		10 ⁻⁶ Cancer	0.057	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	135	106	75	72	
			10 ⁻⁵ Cancer	0.57	249	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	243	216	> 250	199	246	0	0	0	0	0	0	0	
			10 ⁻⁴ Cancer	5.7	71	107	81	122	113	63	52	62	38	11	7	8	4	7	0	0	0	0	0	0	0	0	
			Non-Cancer -- Child	0.71	232	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	222	195	231	178	222	0	0	0	0	0	0	0	
	Non-Cancer -- Adult		1.5	174	> 250	226	249	> 250	192	201	202	206	149	122	145	106	141	0	0	0	0	0	0	0	0		

Notes

¹ Model endpoint concentrations after 52-year projection (autumn average); whole body concentrations divided by a factor of 5.0 to convert to fillet basis

CTE = central tendency exposure

RME = reasonable maximum exposure

BBD: Bulls Bridge Dam Impoundment

LL: Lake Lillionah

LZ: Lake Zoar

LH: Lake Housatonic

Key

- = model prediction is lower than the IMPG
- = model prediction is lower than the cancer IMPG, but is not lower than the corresponding non-cancer IMPGs
- = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-6. Sediment IMPGs for benthic invertebrates compared to projected sediment PCBs (SED 1 / SED 2), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
			Lower End of Range	Upper End of Range
			3	10
5A	R5A_01	1.9	46	1
	R5A_02	3.7	63	20
	R5A_03	6.4	67	40
	R5A_04	29	> 250	> 250
	R5A_05	13	199	78
	R5A_06	7.7	IT	12
	R5A_07	15	244	98
	R5A_08	17	> 250	133
	R5A_09	9.9	> 250	39
	R5A_10	16	> 250	> 250
	R5A_11	18	> 250	> 250
5B	R5B_01	9.6	> 250	28
	R5B_02	8.5	IT	0
	R5B_03	4.7	204	0
	R5B_04	5.7	248	0
	R5B_05	5.6	115	0
5C	R5C_01	7.2	> 250	0
	R5C_02	8.0	> 250	8
	R5C_03	4.9	120	0
	R5C_04	6.1	132	8
	R5C_05	37	> 250	> 250
	R5C_06	29	> 250	194
6	Woods Pond	16	210	97
	7A	0.43	0	0
	7B	4.2	> 250	0
	7C	4.1	> 250	0
	7D	1.4	0	0
	7E	1.2	0	0
	7F	0.74	0	0
	7G	5.1	194	0
	7H	0.40	0	0
8	Rising Pond	2.9	21	0

Notes

¹ Exposure areas in Reach 5 represent EPA spatial bins (1/4 to 1/2-mile segments as defined in EPA's Model Validation Report)

² Model endpoint concentrations after 52-year projection
 IMPG = interim media protection goal

Key

= model prediction is lower than the IMPG
 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

IT = Increasing trend in model extrapolation; no time-to-achieve estimated.

Table 6-7. Backwater sediment IMPGs for amphibians compared to projected sediment PCBs (SED 1 / SED 2), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Area (acres)	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
				Lower End of Range	Upper End of Range
				3.27	5.6
Small Backwaters (< 2 acres)	BWS_01	1.9	5.7	113	54
	BWS_02	1.8	5.9	109	57
	BWS_03	1.9	3.0	48	31
	BWS_04	0.30	23	> 250	> 250
	BWS_06	0.56	2.2	30	12
	BWS_07	0.12	5.4	> 250	4
	BWS_08	0.35	37	> 250	> 250
	BWS_09	0.28	19	> 250	> 250
	BWS_10	1.5	16	> 250	> 250
	BWS_11	0.11	2.1	10	5
	BWS_12	1.7	6.1	109	61
	BWS_13	0.37	10	> 250	> 250
	BWS_14	0.57	8.8	> 250	213
	BWS_15	0.90	8.9	167	107
	BWS_16	1.0	3.2	52	23
	BWS_17	0.58	2.4	32	6
	BWS_18	0.84	2.3	32	12
	BWS_19	0.99	20	> 250	> 250
	BWS_20	1.3	5.8	95	55
	Large Backwaters (> 2 acres)	BWL_01	2.1	11	180
BWL_02		5.5	5.7	97	54
BWL_03		2.4	3.6	58	25
BWL_04		2.1	4.4	81	32
BWL_05		12	14	200	146
BWL_07		22	20	> 250	> 250
BWL_08		4.1	13	> 250	183
BWL_09		7.0	15	> 250	228
BWL_10		6.4	13	> 250	223
BWL_11		4.6	2.3	0	0



Notes

¹ Exposure areas represent individual backwaters

² Model endpoint concentrations after 52-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG
 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-8. IMPGs for fish protection, and consumption of fish and invertebrates by ecological receptors compared to projected biota tissue PCBs (SED 1 / SED 2), including the time to achieve in years (*in italics*).

Ecological Receptor			Average Whole Body Fish Tissue PCB Concentration (mg/kg) ¹													
			Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8
Fish protection			28	36	29	36	34	25	22	24	21	16	13	14	11	14
Coldwater fish protection - trout below PSA								49	44	49	42	32	25	27	22	
Threatened and endangered species (represented by bald eagle)			25	23	24	19	18	9.2	16	11	10	6.5	5.5	7.0	4.4	7.7
Piscivorous birds (represented by osprey)			21	22	23	21	22	11	16	12	11	7.4	6.1	7.3	5.0	7.8
Ecological Receptor	Tissue Type	IMPG (mg/kg)														
Fish protection	Warmwater fish tissue (whole body)	55	5	8	0	36	7	0	0	0	0	0	0	0	0	0
	Coldwater fish tissue (whole body) - Trout Below PSA	14						173	179	181	183	130	104	123	89	
Threatened and endangered species (represented by bald eagle)	Fish tissue (whole body)	30.41	31	9	24	25	7	0	0	0	0	0	0	0	0	0
Piscivorous birds (represented by osprey)	Fish tissue (whole body)	3.2	211	> 250	> 250	244	> 250	173	> 250	203	244	133	119	171	94	156

Notes

¹ Model endpoint concentrations after 52-year projection (autumn average)

IMPG = interim media protection goal

Key

- = model prediction is lower than the IMPG
- = model prediction exceeds the IMPG
- = IMPG not applicable

<value> = *time to achieve predicted by the model*

<value> = *time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report*

Table 6-9. Sediment IMPGs for insectivorous birds and piscivorous mammals compared to projected sediment PCBs (SED 1 / SED 2), including the time to achieve in years (*in italics*).

Insectivorous Birds (wood duck)

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
			1	3	5
Reach 5A	KM 1	4.3	<i>129</i>	<i>72</i>	48
	KM 2	11	<i>199</i>	<i>131</i>	<i>100</i>
	KM 3	13	> 250	> 250	> 250
	KM 4	15	> 250	> 250	> 250
	KM 5	19	> 250	> 250	> 250
Reach 5B	KM 6	9.7	> 250	> 250	<i>179</i>
	KM 7	6.3	<i>IT</i>	<i>IT</i>	<i>IT</i>
	KM 8	7.3	> 250	<i>180</i>	<i>106</i>
Reaches 5C/5D	KM 9	7.0	> 250	<i>186</i>	<i>105</i>
	KM 10	18	> 250	> 250	> 250
	KM 11	20	> 250	> 250	> 250
Reach 6	KM 12	19	> 250	<i>231</i>	<i>181</i>

Piscivorous Mammals (mink)

Exposure Area ⁴	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
		1	3	5
Reaches 5A/5B	11	> 250	> 250	<i>197</i>
Reaches 5C/5D/6	17	> 250	> 250	<i>213</i>

Notes

¹ Exposure areas for wood ducks represent approximate 1 kilometer segments of the river channel

² Model endpoint concentrations after 52-year projection

³ Sediment target levels have corresponding floodplain soil IMPGs due to mixture of aquatic and terrestrial diets for these receptors

⁴ Exposure areas represent entire river reach

IMPG = interim media protection goal

Key

= model prediction is lower than the target value

= model prediction exceeds the target value

<value> = *time to achieve predicted by the model*

<value> = *time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report*

IT = Increasing trend in model extrapolation; no time-to-achieve estimated.

Table 6-10 - 2008 Housatonic River Adult Largemouth Bass Sampling PCB and % Lipids Data

**Revised CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA**

Parameter	Sample ID: Date Collected:	5B/C-LMB-1 09/03/08	5B/C-LMB-2 09/03/08	5B/C-LMB-3 09/03/08	5B/C-LMB-4 09/03/08	5B/C-LMB-5 09/03/08	5B/C-LMB-6 09/03/08	5B/C-LMB-7 09/03/08	5B/C-LMB-8 09/03/08	5B/C-LMB-9 09/03/08	5B/C-LMB-10 09/03/08
PCB Congeners											
Total PCB Congeners-offal		63	120	110	120	34	15	14	50	63	54
Total PCB Congeners-fillet		4.2	4.5	9.5	5.3	1.2	1.3	1.5	5.1	8.9	9.3
Conventionals											
%Lipids-offal		5.6	7.0	5.6	8.8	4.9	2.3	3.9	5.6	7.6	7.3
%Lipids-fillet		0.49	0.81	1.1	0.52	1.1	0.48	1.1	0.85	1.6	2.8

Parameter	Sample ID: Date Collected:	5B/C-LMB-11 09/04/08	5B/C-LMB-12 09/04/08	5B/C-LMB-13 09/04/08	5B/C-LMB-14 09/04/08	5B/C-LMB-15 09/04/08	WP-LMB-1 09/04/08	WP-LMB-2 09/04/08	WP-LMB-3 09/04/08	WP-LMB-4 09/04/08	WP-LMB-5 09/04/08
PCB Congeners											
Total PCB Congeners-offal		73	74	48	30	110	79	59	54	54	79
Total PCB Congeners-fillet		3.2	8.0	1.8	3.1	9.5	4.7	1.2	1.3	0.56	2.3
Conventionals											
%Lipids-offal		4.6	3.3	3.8	5.6	6.3	4.5	3.3	3.0	2.8	4.2
%Lipids-fillet		0.46	0.70	0.29	1.6	0.93	0.37	0.12	0.097	0.050	0.14

Parameter	Sample ID: Date Collected:	WP-LMB-6 09/04/08	WP-LMB-7 09/04/08	WP-LMB-8 09/04/08	WP-LMB-9 09/04/08	WP-LMB-10 09/04/08	WP-LMB-11 09/04/08	WP-LMB-12 09/04/08	WP-LMB-13 09/04/08	WP-LMB-14 09/04/08	WP-LMB-15 09/04/08
PCB Congeners											
Total PCB Congeners-offal		53	65	62	35	67	63	39	150	74	39
Total PCB Congeners-fillet		1.5	0.52	0.53	2.5 J	0.78	0.89	0.39	1.5	1.5	0.76
Conventionals											
%Lipids-offal		4.1	1.8	4.8	2.8	3.4	2.3	2.5	3.9	4.6	3.5
%Lipids-fillet		0.12	0.069	0.092	0.44	0.16	0.10	0.098	0.095	0.25	0.11

Parameter	Sample ID: Date Collected:	RP-LMB-1 09/04/08	RP-LMB-2 09/04/08	RP-LMB-3 09/04/08	RP-LMB-4 09/04/08	RP-LMB-5 09/04/08	RP-LMB-6 09/04/08	RP-LMB-7 09/04/08	RP-LMB-8 09/04/08	RP-LMB-9 09/04/08	RP-LMB-10 09/05/08
PCB Congeners											
Total PCB Congeners-offal		26	34	31	46	37	56	49	23	52	70
Total PCB Congeners-fillet		5.4	2.3	1.9	1.2	2.7	3.0	9.3	4.0	1.1	2.2
Conventionals											
%Lipids-offal		4.1	4.6	3.3	4.2	3.8	1.3	5.1	3.8	2.6	3.4
%Lipids-fillet		0.91	0.37	0.41	0.26	0.23	0.26	0.16	1.1	0.26	0.24

Notes:

1. Samples were collected by ARCADIS, and submitted to Northeast Analytical, Inc. for analysis of PCBs and % Lipids.
2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS (approved March 15, 2007 and re-submitted March 30, 2007).
3. Total PCB Congeners results are presented in parts per million, ppm.
4. Sample ID prefix represents associated river reach (5B/C - reach 5B/C; WP - Woods Pond; RP - Rising Pond).

Data Qualifiers:

J - Indicates that the associated numerical value is an estimated concentration.

Table 6-11 - 2008 Housatonic River YOY Sample Results

Revised CMS Report, Housatonic River - Rest of River
 General Electric Company - Pittsfield, MA

Sample ID	Date Collected	Fish Species	1016 -1221, -1232 - 1242, -1248 (mg/kg)	Aroclor-1254 (mg/kg)	Aroclor-1260 (mg/kg)	Total PCB (mg/kg)	Percent Lipid (%)
HR2							
HR2-LB-183	9/29/2008	LB	ND(5.0)	6.8	12	18.8	2.6
HR2-LB-184	9/29/2008	LB	ND(2.5)	3.7	7.3	11	2.4
HR2-LB-185	9/29/2008	LB	ND(5.0)	6.8	13	19.8	2.7
HR2-LB-186	9/29/2008	LB	ND(5.0)	6.5	12	18.5	2.8
HR2-LB-187	9/29/2008	LB	ND(5.0)	5.8	11	16.8	2.7
HR2-LB-188	9/29/2008	LB	ND(5.0)	5.4	10	15.4	2.5
HR2-LB-189	9/29/2008	LB	ND(5.0)	5.8	11	16.8	2.9
HR2-YP-190	9/29/2008	YP	ND(5.0)	5.9	11	16.9	2.8
HR2-YP-191	9/29/2008	YP	ND(6.7)	8.0	18	26	2.0
HR2-YP-192	9/29/2008	YP	ND(3.3)	5.5	9.7	15.2	2.4
HR2-YP-193	9/29/2008	YP	ND(3.3)	4.7	8.7	13.4	2.1
HR2-YP-194	9/29/2008	YP	ND(3.3)	4.8	9.0	13.8	1.7
HR2-YP-195	9/29/2008	YP	ND(5.0)	6.0	11	17	2.1
HR2-YP-196	9/29/2008	YP	ND(5.0)	ND(5.0)	9.0	9	1.8
HR2-BG-197	9/29/2008	BG	ND(2.0)	3.0	4.5	7.5	3.0
HR2-BG-198	9/29/2008	BG	ND(2.0)	3.3	5.3	8.6	3.0
HR2-BG-199	9/29/2008	BG	ND(2.0)	3.4	5.3	8.7	2.8
HR2-BG-200	9/30/2008	BG	ND(2.0)	2.9	4.6	7.5	2.6
HR2-BG-264	10/2/2008	BG	ND(1.8)	3.4	5.6	9	3.6
HR2-BG-265	10/2/2008	BG	ND(2.0)	3.2	5.5	8.7	3.3
HR2-BG-266	10/2/2008	BG	ND(1.7)	2.8	4.6	7.4	3.3
Woods Pond							
WP-LB-201	9/30/2008	LB	ND(5.0)	8.1	13	21.1	1.8
WP-LB-202	9/30/2008	LB	ND(5.0)	5.8	9.8	15.6	2.3
WP-LB-203	9/30/2008	LB	ND(5.0)	7.8	13	20.8	2.1
WP-LB-204	9/30/2008	LB	ND(5.0)	6.3	10	16.3	1.9
WP-LB-205	9/30/2008	LB	ND(5.0)	9.2	16	25.2	2.0
WP-LB-206	9/30/2008	LB	ND(5.0)	9.3	16	25.3	1.8
WP-LB-207	9/30/2008	LB	ND(5.0)	9.1	14	23.1	2.0
WP-YP-208	9/30/2008	YP	ND(2.5)	4.6	7.6	12.2	1.9
WP-YP-209	9/30/2008	YP	ND(5.0)	6.4	11	17.4	2.5
WP-YP-210	9/30/2008	YP	ND(5.0)	14	23	37	2.8
WP-YP-211	9/30/2008	YP	ND(5.0)	7.3	12	19.3	2.7
WP-YP-212	9/30/2008	YP	ND(5.0)	6.7	11	17.7	2.6
WP-YP-213	9/30/2008	YP	ND(5.0)	7.2	12	19.2	2.8
WP-YP-214	9/30/2008	YP	ND(5.0)	6.2	9.8	16	2.6
WP-BG-215	9/30/2008	BG	ND(3.3)	4.9	7.6	12.5	2.8
WP-BG-216	9/30/2008	BG	ND(2.5)	4.9	7.7	12.6	2.8
WP-BG-217	9/30/2008	BG	ND(3.3)	5.0	7.5	12.5	2.8
WP-BG-218	9/30/2008	BG	ND(3.3)	6.1	9.5	15.6	3.7
WP-BG-219	9/30/2008	BG	ND(1.3)	3.7	5.7	9.4	2.3
WP-BG-220	9/30/2008	BG	ND(1.3)	3.9	6.0	9.9	2.0
WP-BG-221	9/30/2008	BG	ND(3.3)	5.3	8.1	13.4	2.8

Table 6-11 - 2008 Housatonic River YOY Sample Results

**Revised CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA**

Sample ID	Date Collected	Fish Species	1016 -1221, -1232 - 1242, -1248 (mg/kg)	Aroclor-1254 (mg/kg)	Aroclor-1260 (mg/kg)	Total PCB (mg/kg)	Percent Lipid (%)
Glendale Dam							
GD-LB-243	10/1/2008	LB	ND(1.5)	2.2	4.4	6.6	2.5
GD-LB-244	10/1/2008	LB	ND(1.5)	2.3	4.1	6.4	2.3
GD-LB-245	10/1/2008	LB	ND(1.5)	2.0	3.4	5.4	2.6
GD-LB-246	10/1/2008	LB	ND(1.5)	1.7	3.0	4.7	2.3
GD-LB-247	10/1/2008	LB	ND(1.5)	1.7	2.8	4.5	2.5
GD-LB-248	10/1/2008	LB	ND(1.5)	1.9	3.2	5.1	2.5
GD-LB-249	10/1/2008	LB	ND(1.5)	2.5	4.8	7.3	2.6
GD-YP-250	10/1/2008	YP	ND(1.5)	2.4	4.2	6.6	2.1
GD-YP-251	10/1/2008	YP	ND(1.5)	2.8	4.5	7.3	2.4
GD-YP-252	10/1/2008	YP	ND(1.5)	2.3	3.9	6.2	2.4
GD-YP-253	10/1/2008	YP	ND(1.5)	1.9	3.4	5.3	1.7
GD-YP-254	10/1/2008	YP	ND(1.5)	2.3	3.8	6.1	2.4
GD-YP-255	10/1/2008	YP	R	4.3J	6.9J	11.2J	3.0
GD-YP-256	10/1/2008	YP	ND(1.5)	2.7	4.7	7.4	3.2
GD-BG-257	10/1/2008	BG	ND(1.0)	1.4	1.7	3.1	2.7
GD-BG-258	10/1/2008	BG	ND(1.0)	1.5	1.6	3.1	2.9
GD-BG-259	10/1/2008	BG	ND(1.4)	1.6	1.8	3.4	2.8
GD-BG-260	10/1/2008	BG	ND(1.0)	1.5	1.6	3.1	3.2
GD-BG-261	10/1/2008	BG	ND(1.1)	1.6	1.7	3.3	2.8
GD-BG-262	10/1/2008	BG	ND(1.0)	1.3	1.3	2.6	2.4
GD-BG-263	10/1/2008	BG	ND(1.0)	1.5	1.6	3.1	2.6
HR6							
HR6-LB-222	9/30/2008	LB	ND(0.33)	0.40	0.74	1.14	1.0
HR6-LB-223	9/30/2008	LB	ND(0.51)	0.84	1.7	2.54	2.6
HR6-LB-224	9/30/2008	LB	ND(1.1)	ND(1.1)	2.1	2.1	3.0
HR6-LB-225	9/30/2008	LB	ND(0.50)	0.74	1.3	2.04	2.4
HR6-LB-226	9/30/2008	LB	ND(0.52)	0.74	1.3	2.04	3.2
HR6-LB-227	9/30/2008	LB	ND(0.50)	0.80	1.4	2.2	3.0
HR6-LB-228	9/30/2008	LB	ND(0.37)	0.79	1.6	2.39	2.9
HR6-YP-229	9/30/2008	YP	ND(0.66)	1.1	2.1	3.2	2.3
HR6-YP-230	9/30/2008	YP	ND(1.0)	ND(1.0)	1.9	1.9	1.9
HR6-YP-231	9/30/2008	YP	ND(1.0)	ND(1.0)	1.9	1.9	2.0
HR6-YP-232	9/30/2008	YP	ND(1.0)	1.1	2.0	3.1	2.0
HR6-YP-233	9/30/2008	YP	ND(1.0)	ND(1.0)	1.9	1.9	2.1
HR6-YP-234	9/30/2008	YP	ND(1.0)	1.2	2.2	3.4	2.3
HR6-YP-235	9/30/2008	YP	ND(1.0)	1.0	1.9	2.9	2.3
HR6-BG-236	9/30/2008	BG	ND(0.68)	1.0	1.9	2.9	4.4
HR6-BG-237	9/30/2008	BG	ND(0.39)	0.78	1.4	2.18	3.4
HR6-BG-238	9/30/2008	BG	ND(0.40)	0.84	1.5	2.34	3.6
HR6-BG-239	9/30/2008	BG	ND(0.32)	0.69	1.2	1.89	3.7
HR6-BG-240	9/30/2008	BG	ND(0.34)	0.89	1.6	2.49	3.9
HR6-BG-241	9/30/2008	BG	ND(0.33)	0.82	1.5	2.32	3.3
HR6-BG-242	9/30/2008	BG	ND(0.31)	0.81	1.4	2.21	3.5

Notes:

1. Samples were collected by ARCADIS and submitted to Pace Analytical Services, Inc. for analysis of PCBs and % Lipids.
2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS (approved March 15, 2007 and resubmitted March 30, 2007).
3. ND - Analyte was not detected. The number in parentheses is the associated detection limit.

Data Qualifiers:

- J - Indicates that the associated numerical value is an estimated concentration.
- R - Data was rejected due to a deficiency in the data generation process.

Units:

mg/kg - milligram per kilogram (ppm - parts per million)

Species:

- LB - Largemouth bass
- YP - Yellow perch
- BG - Bluegill

Table 6-12 - Comparison of Mean Total and Mean Lipid-Normalized PCB Concentrations in YOY Fish Tissue [1]

**Revised CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA**

Location					
Species	n	Lipid (%)	Total PCB [2,3,4] (mg/kg)	Lipid-Normalized PCB [3] (mg/kg-lipid)	
Year					
HR2					
Largemouth Bass [5]					
1994	7	2.8 (0.2)	32 (3.6)	1158 (108)	
1996	7	2.9 (0.3)	28 (5.4)	956 (152)	
1998	7	3.0 (0.2)	19 (1.1)	651 (72)	
2000	7	3.0 (1.0)	32 (6.2)	1168 (389)	
2002	7	3.6 (0.2)	21 (1.6)	594 (64)	
2004	7	3.2 (0.3)	20 (5.3)	615 (185)	
2006	5	2.5 (0.5)	21 (2.6)	869 (138)	
2008	7	2.7 (0.2)	17 (2.9)	628 (94)	
Yellow Perch					
1994	7	2.5 (0.1)	25 (1.6)	999 (88)	
1996	7	3.2 (0.2)	27 (4.0)	848 (83)	
1998	7	2.8 (0.2)	26 (4.2)	939 (217)	
2000	7	2.8 (0.3)	33 (3.1)	1193 (66)	
2002	4	2.3 (0.5)	25 (1.8)	1118 (177)	
2004	7	2.6 (0.2)	31 (3.7)	1189 (88)	
2006	0	---- ----	---- ----	---- ----	
2008	7	2.1 (0.4)	16 (5.2)	757 (264)	
Bluegill/Pumpkinseed [6]					
1994	7	3.8 (0.5)	25 (1.4)	665 (77)	
1996	7	3.5 (0.2)	29 (1.3)	839 (63)	
1998	7	3.1 (0.2)	21 (8.6)	698 (309)	
2000	7	4.2 (0.3)	33 (4.6)	792 (106)	
2002	7	3.0 (0.4)	13 (3.6)	442 (75)	
2004	7	4.0 (0.3)	19 (2.7)	464 (61)	
2006	7	2.9 (0.2)	13 (1.4)	443 (31)	
2008	7	3.1 (0.3)	8.2 (0.7)	268 (29)	
WOODS POND					
Largemouth Bass					
1994	7	2.1 (0.5)	23 (8.1)	1178 (444)	
1996	7	3.2 (0.2)	22 (2.0)	690 (63)	
1998	7	2.5 (0.3)	32 (4.6)	1323 (200)	
2000	7	2.6 (0.2)	24 (2.4)	910 (73)	
2002	7	2.7 (0.2)	17 (1.3)	626 (37)	
2004	7	3.3 (0.4)	31 (3.9)	928 (75)	
2006	7	2.5 (0.3)	32 (2.7)	1295 (252)	
2008	7	2.0 (0.2)	21 (3.9)	1074 (249)	
Yellow Perch					
1994	7	2.6 (0.7)	38 (9.3)	1836 (1574)	
1996	7	4.4 (0.4)	29 (3.1)	662 (23)	
1998	7	2.4 (0.2)	29 (4.4)	1235 (226)	
2000	7	3.3 (0.3)	30 (2.0)	934 (104)	
2002	2	2.3 (0.1)	14 (2.8)	598 (98)	
2004	7	3.4 (0.1)	29 (2.8)	842 (67)	
2006	7	2.8 (0.3)	25 (2.4)	903 (106)	
2008	7	2.6 (0.3)	20 (7.9)	765 (248)	
Bluegill/Pumpkinseed [6]					
1994	7	2.8 (1.0)	17 (6.4)	601 (37)	
1996	7	3.9 (0.4)	22 (2.3)	563 (79)	
1998	7	2.8 (0.4)	17 (2.1)	622 (178)	
2000	7	4.6 (0.2)	28 (3.3)	601 (64)	
2002	7	4.5 (0.3)	15 (1.5)	329 (43)	
2004	7	3.4 (0.2)	17 (1.0)	497 (20)	
2006	7	3.7 (0.2)	18 (1.4)	499 (46)	
2008	7	2.7 (0.5)	12 (2.1)	450 (30)	

Table 6-12 - Comparison of Mean Total and Mean Lipid-Normalized PCB Concentrations in YOY Fish Tissue [1]

Revised CMS Report, Housatonic River - Rest of River
 General Electric Company - Pittsfield, MA

Location					
Species		Lipid	Total PCB [2,3,4]	Lipid-Normalized PCB [3]	
Year	n	(%)	(mg/kg)	(mg/kg-lipid)	
GLENDALE DAM [7]					
Largemouth Bass					
1996	7	3.0 (0.2)	7.9 (0.9)	265 (29)	
1998	7	2.7 (0.2)	5.2 (1.3)	198 (58)	
2000	7	3.9 (0.2)	16 (1.0)	402 (36)	
2002	7	2.9 (0.3)	3.5 (0.3)	121 (8)	
2004	7	3.4 (0.1)	6.8 (0.7)	198 (25)	
2006	7	2.6 (0.2)	6.1 (0.8)	234 (26)	
2008	7	2.5 (0.1)	5.7 (1.1)	231 (42)	
Yellow Perch					
1996	7	3.4 (0.3)	11 (1.7)	323 (37)	
1998	7	2.8 (0.3)	11 (1.4)	382 (43)	
2000	7	3.2 (0.2)	15 (1.0)	461 (25)	
2002	0	----	----	----	
2004	7	3.3 (0.5)	14 (4.7)	403 (112)	
2006	0	----	----	----	
2008	7	2.5 (0.5)	7.2 (1.9)	292 (48)	
Bluegill/Pumpkinseed [6]					
1996	7	4.1 (0.2)	8.4 (1.2)	205 (23)	
1998	8	2.7 (1.0)	2.5 (0.3)	115 (79)	
2000	7	4.9 (0.5)	16 (2.1)	317 (36)	
2002	7	3.8 (0.4)	3.2 (0.7)	83 (13)	
2004	7	4.7 (0.4)	6.0 (0.2)	128 (8)	
2006	7	3.7 (1.2)	5.6 (2.3)	149 (16)	
2008	7	2.8 (0.2)	3.1 (0.3)	112 (9)	
HR6					
Largemouth Bass					
1994	7	3.2 (0.2)	4.3 (0.5)	136 (20)	
1996	7	3.6 (0.3)	3.4 (0.3)	95 (8)	
1998	7	3.0 (0.3)	2.5 (0.4)	83 (17)	
2000	7	3.2 (0.3)	3.4 (0.6)	108 (24)	
2002	7	2.9 (0.1)	1.9 (0.1)	66 (5)	
2004	7	3.1 (0.3)	2.6 (0.8)	84 (32)	
2006	7	3.2 (1.2)	2.8 (1.2)	85 (22)	
2008	7	2.6 (0.7)	2.1 (0.4)	84 (17)	
Yellow Perch					
1994	7	2.9 (0.2)	4.5 (0.2)	158 (13)	
1996	7	2.6 (0.2)	3.3 (0.2)	128 (20)	
1998	7	2.5 (0.2)	3.2 (0.7)	131 (34)	
2000	7	2.7 (0.2)	4.1 (0.6)	153 (18)	
2002	4	2.4 (0.4)	2.5 (0.2)	102 (14)	
2004	7	2.5 (0.2)	4.4 (0.7)	179 (29)	
2006	7	2.7 (0.4)	3.1 (1.4)	115 (46)	
2008	7	2.1 (0.2)	2.6 (0.7)	122 (27)	
Bluegill/Pumpkinseed [6]					
1994	7	4.2 (0.4)	3.5 (0.5)	83 (10)	
1996	7	3.7 (0.2)	1.5 (0.6)	41 (15)	
1998	5	3.8 (0.6)	2.1 (0.7)	55 (11)	
2000	8	3.9 (0.3)	3.9 (0.6)	106 (19)	
2002	7	3.0 (0.6)	1.9 (0.2)	66 (14)	
2004	7	3.7 (0.3)	2.9 (0.9)	77 (21)	
2006	7	3.4 (0.2)	3.0 (0.6)	89 (15)	
2008	7	3.7 (0.4)	2.3 (0.3)	63 (6)	

Table 6-12 - Comparison of Mean Total and Mean Lipid-Normalized PCB Concentrations in YOY Fish Tissue [1]

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General Electric Company - Pittsfield, MA**

Notes:

- [1] Arithmetic mean concentrations (and standard deviation) for whole-body composite samples. Means (and standard deviations) were calculated from sample results. Most samples were comprised of 5 to 15 fish.
- [2] Total PCBs represented by Aroclors 1254 and 1260.
- [3] Mean total PCB and lipid-normalized PCB concentrations reported on a wet-weight basis.
- [4] Data have been reviewed and qualified following protocols contained in the Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS (approved March 15, 2007 and resubmitted March 30, 2007).
- [5] Seven largemouth bass samples from HR2 were submitted for analysis in 2006, but two of the samples were rejected during data validation, and as such, only five sample results are reported.
- [6] Pumpkinseed were collected as a substitute species for bluegill when bluegill were not available.
- [7] Glendale Dam was not sampled in 1994.

n = number of samples

mg/kg = milligram per kilogram (ppm - parts per million)

mg/kg - lipid = Total PCB divided by percent lipid times 100 (ppm - parts per million).

---- = no fish collected (the fish species was not available at the time of collection).

Table 6-15. Sediment IMPGs for human direct contact compared to projected sediment PCBs (SED 3), including the time to achieve in years (*in italics*).

Risk Category	Receptor	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average 0-6" Sediment PCB Concentration (mg/kg) ¹								
					SA 1	SA 2	SA 3	SA 4	SA 5	SA 6	SA 7	SA 8	
					1.6	8.7	1.7	3.2	4.1	1.2	7.0	2.9	
Human Direct Contact	Older Child	RME	10 ⁻⁶ Cancer	4.5	7	<i>129</i>	<i>10</i>	0	0	0	0	<i>> 250</i>	0
			10 ⁻⁵ Cancer	45	0	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	453	0	0	0	0	0	0	0	0	0
			Non-Cancer	31	0	0	9	0	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	36	0	0	7	0	0	0	0	0	0
			10 ⁻⁵ Cancer	365	0	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	3645	0	0	0	0	0	0	0	0	0
			Non-Cancer	125	0	0	0	0	0	0	0	0	0
	Adult	RME	10 ⁻⁶ Cancer	1.3	96	<i>> 250</i>	92	<i>> 250</i>	<i>> 250</i>	34	<i>> 250</i>	<i>> 250</i>	
			10 ⁻⁵ Cancer	13	2	<i>11</i>	10	0	0	0	0	0	
			10 ⁻⁴ Cancer	135	0	0	0	0	0	0	0	0	
			Non-Cancer	40	0	0	0	0	0	0	0	0	
		CTE	10 ⁻⁶ Cancer	28	0	0	9	0	0	0	0	0	
			10 ⁻⁵ Cancer	280	0	0	0	0	0	0	0	0	
			10 ⁻⁴ Cancer	2800	0	0	0	0	0	0	0	0	
			Non-Cancer	152	0	0	0	0	0	0	0	0	

Notes

¹ Model endpoint concentrations after 52-year projection

CTE = central tendency exposure

RME = reasonable maximum exposure

IMPG = interim media protection goal

SA = EPA Risk Assessment Sediment Exposure Areas

SA 1: Confluence to New Lenox Road

SA 2: New Lenox Road to Woods Pond Headwaters

SA 3: Woods Pond (6-meters from waters edge)

SA 4: Columbia Mill Dam impoundment (6-meters from waters edge)


SA 5: Former Eagle Mill Dam impoundment (6-meters from waters edge)


SA 6: Willow Mill Dam impoundment (6-meters from waters edge)

SA 7: Glendale Dam impoundment (6-meters from waters edge)

SA 8: Rising Pond impoundment (6-meters from waters edge)

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-16. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs (SED 3), including the time to achieve in years (*in italics*).

Tissue Type	Assessment Type	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average Fish Tissue (Fillet) PCB Concentration (mg/kg) ¹																	
					Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8	BBD	LL	LZ	LH
					0.25	3.0	1.8	6.3	0.71	1.3	2.1	1.8	1.4	1.0	0.82	1.3	0.72	1.6	0.04	0.03	0.02	0.02
Bass Fillets	Deterministic	RME	10 ⁻⁶ Cancer	0.0019	237	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	244	222	199	197	
			10 ⁻⁵ Cancer	0.019	149	> 250	> 250	195	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	94	72	49	46
			10 ⁻⁴ Cancer	0.19	62	> 250	207	138	> 250	233	> 250	> 250	> 250	154	195	> 250	219	> 250	11	9	6	5
			Non-Cancer -- Child	0.026	137	> 250	> 250	187	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	74	52	34	27
			Non-Cancer -- Adult	0.062	105	> 250	> 250	165	> 250	> 250	> 250	> 250	> 250	224	> 250	> 250	> 250	> 250	22	17	12	12
		CTE	10 ⁻⁶ Cancer	0.049	113	> 250	> 250	171	> 250	> 250	> 250	> 250	> 250	239	> 250	> 250	> 250	> 250	37	23	17	17
			10 ⁻⁵ Cancer	0.49	22	241	142	115	134	142	> 250	234	174	96	102	196	99	231	0	0	0	0
			10 ⁻⁴ Cancer	4.9	8	12	10	58	11	9	9	10	9	9	8	8	7	8	0	0	0	0
			Non-Cancer -- Child	0.19	62	> 250	207	138	> 250	233	> 250	> 250	> 250	154	195	> 250	219	> 250	11	9	6	5
			Non-Cancer -- Adult	0.43	26	> 250	151	118	161	155	> 250	> 250	189	104	114	216	116	> 250	0	0	0	0
	Probabilistic	RME (5th percentile)	10 ⁻⁶ Cancer	0.0064	191	> 250	> 250	221	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	165	143	120	117
			10 ⁻⁵ Cancer	0.064	103	> 250	> 250	165	> 250	> 250	> 250	> 250	> 250	222	> 250	> 250	> 250	> 250	22	17	12	12
			10 ⁻⁴ Cancer	0.64	15	213	123	108	79	117	232	197	142	79	75	156	66	190	0	0	0	0
			Non-Cancer -- Child	0.059	106	> 250	> 250	167	> 250	> 250	> 250	> 250	> 250	227	> 250	> 250	> 250	> 250	26	19	14	13
			Non-Cancer -- Adult	0.12	80	> 250	239	149	> 250	> 250	> 250	> 250	> 250	183	240	> 250	> 250	> 250	11	9	6	5
		CTE (50th percentile)	10 ⁻⁶ Cancer	0.057	108	> 250	> 250	167	> 250	> 250	> 250	> 250	> 250	229	> 250	> 250	> 250	> 250	26	19	14	13
			10 ⁻⁵ Cancer	0.57	18	225	131	111	103	128	250	213	155	86	87	173	80	208	0	0	0	0
			10 ⁻⁴ Cancer	5.7	7	11	10	54	11	9	9	9	8	8	7	7	5	7	0	0	0	0
			Non-Cancer -- Child	0.71	14	202	116	105	53	107	217	182	129	73	65	140	52	174	0	0	0	0
			Non-Cancer -- Adult	1.5	11	124	65	87	14	26	103	76	38	23	19	34	15	58	0	0	0	0

Notes

¹ Model endpoint concentrations after 52-year projection (autumn average); whole body concentrations divided by a factor of 5.0 to convert to fillet basis
 CTE = central tendency exposure
 RME = reasonable maximum exposure
 BBD: Bulls Bridge Dam Impoundment
 LL: Lake Lillionah
 LZ: Lake Zoar
 LH: Lake Housatonic

Key




 = model prediction is lower than the IMPG
 = model prediction is lower than the cancer IMPG, but is not lower than the corresponding non-cancer IMPGs
 = model prediction exceeds the IMPG
<value> = time to achieve predicted by the model
<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-17. Sediment IMPGs for benthic invertebrates compared to projected sediment PCBs (SED 3), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
			Lower End of Range	Upper End of Range
			3	10
5A	R5A_01	0.33	1	1
	R5A_02	0.18	1	1
	R5A_03	0.12	2	2
	R5A_04	0.071	2	2
	R5A_05	0.032	2	2
	R5A_06	0.043	3	2
	R5A_07	0.062	3	3
	R5A_08	0.028	4	4
	R5A_09	0.022	4	4
	R5A_10	0.020	6	5
	R5A_11	0.023	7	7
5B	R5B_01	9.1	> 250	21
	R5B_02	5.3	125	0
	R5B_03	3.2	61	0
	R5B_04	4.4	112	0
	R5B_05	3.9	80	0
5C	R5C_01	5.8	118	0
	R5C_02	6.4	148	6
	R5C_03	3.2	58	0
	R5C_04	4.4	79	6
	R5C_05	1.8	8	8
	R5C_06	1.5	9	9
6	Woods Pond	1.5	10	10
	7A	0.41	0	0
	7B	3.9	174	0
	7C	4.0	> 250	0
	7D	0.92	0	0
	7E	1.2	0	0
	7F	0.61	0	0
	7G	4.7	190	0
	7H	0.39	0	0
8	Rising Pond	2.7	25	0

Notes

¹ Exposure areas in Reach 5 represent EPA spatial bins (1/4 to 1/2-mile segments as defined in EPA's Model Validation Report)

² Model endpoint concentrations after 52-year projection
 IMPG = interim media protection goal

Key

= model prediction is lower than the IMPG
 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-18. Backwater sediment IMPGs for amphibians compared to projected sediment PCBs (SED 3), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Area (acres)	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
				Lower End of Range	Upper End of Range
				3.27	5.6
Small Backwaters (< 2 acres)	BWS_01	1.9	4.2	72	32
	BWS_02	1.8	5.0	99	38
	BWS_03	1.9	1.8	38	28
	BWS_04	0.30	22	> 250	> 250
	BWS_06	0.56	0.26	17	10
	BWS_07	0.12	5.4	> 250	4
	BWS_08	0.35	37	> 250	> 250
	BWS_09	0.28	19	> 250	> 250
	BWS_10	1.5	15	> 250	> 250
	BWS_11	0.11	0.14	7	5
	BWS_12	1.7	4.7	76	42
	BWS_13	0.37	9.2	> 250	> 250
	BWS_14	0.57	8.1	> 250	143
	BWS_15	0.90	6.7	116	69
	BWS_16	1.0	1.2	30	17
	BWS_17	0.58	0.44	14	5
	BWS_18	0.84	0.29	19	11
	BWS_19	0.99	20	> 250	> 250
	BWS_20	1.3	4.4	74	36
	Large Backwaters (> 2 acres)	BWL_01	2.1	11	166
BWL_02		5.5	4.2	66	35
BWL_03		2.4	2.2	37	16
BWL_04		2.1	2.4	38	26
BWL_05		12	12	147	108
BWL_07		22	19	> 250	225
BWL_08		4.1	11	207	140
BWL_09		7.0	14	239	170
BWL_10		6.4	12	> 250	189
BWL_11		4.6	2.3	0	0



Notes

¹ Exposure areas represent individual backwaters

² Model endpoint concentrations after 52-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG
 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-19. IMPGs for fish protection, and consumption of fish and invertebrates by ecological receptors compared to projected biota tissue PCBs (SED 3), including the time to achieve in years (*in italics*).

Ecological Receptor			Average Whole Body Fish Tissue PCB Concentration (mg/kg) ¹													
			Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8
Fish protection			0.98	12	7.0	24	2.8	4.8	8.2	6.7	5.2	3.9	3.1	4.8	2.8	6.0
Coldwater fish protection - trout below PSA								9.6	16	13	10	7.7	6.3	9.7	5.5	
Threatened and endangered species (represented by bald eagle)			0.45	13	7.7	15	1.6	2.3	9.5	4.7	3.6	2.2	1.9	3.8	1.5	4.9
Piscivorous birds (represented by osprey)			0.55	11	7.0	15	1.9	2.4	8.4	4.4	3.4	2.2	1.9	3.5	1.5	4.4
Ecological Receptor	Tissue Type	IMPG (mg/kg)	Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8
Fish protection	Warmwater fish tissue (whole body)	55	3	5	0	11	5	0	0	0	0	0	0	0	0	0
	Coldwater fish tissue (whole body) - Trout Below PSA	14						18	77	51	22	18	14	21	12	
Threatened and endangered species (represented by bald eagle)	Fish tissue (whole body)	30.41	3	5	7	10	5	0	0	0	0	0	0	0	0	0
Piscivorous birds (represented by osprey)	Fish tissue (whole body)	3.2	10	202	114	96	13	18	> 250	130	64	22	17	68	12	115

Notes

¹ Model endpoint concentrations after 52-year projection (autumn average)

IMPG = interim media protection goal

Key

- = model prediction is lower than the IMPG
- = model prediction exceeds the IMPG
- = IMPG not applicable

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-20. Sediment IMPGs for insectivorous birds and piscivorous mammals compared to projected sediment PCBs (SED 3), including the time to achieve in years (*in italics*).

Insectivorous Birds (wood duck)

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
			1	3	5
Reach 5A	KM 1	0.20	2	2	1
	KM 2	1.8	110	26	6
	KM 3	1.7	130	4	4
	KM 4	0.020	6	6	6
	KM 5	0.023	7	7	7
Reach 5B	KM 6	7.4	> 250	203	117
	KM 7	4.2	244	96	28
	KM 8	5.8	242	123	68
Reaches 5C/5D	KM 9	5.4	222	112	61
	KM 10	7.2	222	128	84
	KM 11	12	> 250	244	173
Reach 6	KM 12	1.8	190	10	10

Piscivorous Mammals (mink)

Exposure Area ⁴	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
		1	3	5
Reaches 5A/5B	2.9	188	45	8
Reaches 5C/5D/6	6.2	> 250	141	79

Notes

¹ Exposure areas for wood ducks represent approximate 1 kilometer segments of the river channel

² Model endpoint concentrations after 52-year projection

³ Sediment target levels have corresponding floodplain soil IMPGs due to mixture of aquatic and terrestrial diets for these receptors

⁴ Exposure areas represent entire river reach

IMPG = interim media protection goal

Key

= model prediction is lower than the target value

= model prediction exceeds the target value

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-23. Sediment IMPGs for human direct contact compared to projected sediment PCBs (SED 4), including the time to achieve in years (*in italics*).

Risk Category	Receptor	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average 0-6" Sediment PCB Concentration (mg/kg) ¹							
					SA 1	SA 2	SA 3	SA 4	SA 5	SA 6	SA 7	SA 8
					0.071	0.45	0.22	3.2	4.1	1.3	7.6	2.9
Human Direct Contact	Older Child	RME	10 ⁻⁶ Cancer	4.5	7	12	15	0	0	0	241	0
			10 ⁻⁵ Cancer	45	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	453	0	0	0	0	0	0	0	0
			Non-Cancer	31	0	0	12	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	36	0	0	7	0	0	0	0	0
			10 ⁻⁵ Cancer	365	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	3645	0	0	0	0	0	0	0	0
			Non-Cancer	125	0	0	0	0	0	0	0	0
	Adult	RME	10 ⁻⁶ Cancer	1.3	9	12	15	> 250	> 250	26	> 250	> 250
			10 ⁻⁵ Cancer	13	2	11	14	0	0	0	0	0
			10 ⁻⁴ Cancer	135	0	0	0	0	0	0	0	0
			Non-Cancer	40	0	0	0	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	28	0	0	12	0	0	0	0	0
			10 ⁻⁵ Cancer	280	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	2800	0	0	0	0	0	0	0	0
			Non-Cancer	152	0	0	0	0	0	0	0	0

Notes

¹ Model endpoint concentrations after 52-year projection

CTE = central tendency exposure

RME = reasonable maximum exposure

IMPG = interim media protection goal

SA = EPA Risk Assessment Sediment Exposure Areas

SA 1: Confluence to New Lenox Road

SA 2: New Lenox Road to Woods Pond Headwaters

SA 3: Woods Pond (6-meters from waters edge)

SA 4: Columbia Mill Dam impoundment (6-meters from waters edge)


SA 5: Former Eagle Mill Dam impoundment (6-meters from waters edge)


SA 6: Willow Mill Dam impoundment (6-meters from waters edge)

SA 7: Glendale Dam impoundment (6-meters from waters edge)

SA 8: Rising Pond impoundment (6-meters from waters edge)

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-24. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs (SED 4), including the time to achieve in years (*in italics*).

Tissue Type	Assessment Type	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average Fish Tissue (Fillet) PCB Concentration (mg/kg) ¹																		
					Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8	BBD	LL	LZ	LH	
					0.26	0.39	0.42	0.40	0.23	0.50	1.6	1.1	0.84	0.62	0.52	1.1	0.46	1.3	0.02	0.01	0.01	0.01	
Bass Fillets	Deterministic	RME	10 ⁻⁶ Cancer	0.0019	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	188	169	149	146	
			10 ⁻⁵ Cancer	0.019	158	> 250	> 250	> 250	206	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	57	51	34	33
			10 ⁻⁴ Cancer	0.19	64	101	121	187	61	200	> 250	> 250	> 250	206	193	> 250	213	> 250	> 250	11	8	4	4
			Non-Cancer -- Child	0.026	146	239	> 250	> 250	186	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	37	26	21	21
			Non-Cancer -- Adult	0.062	110	179	218	> 250	132	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	19	17	11	11
		CTE	10 ⁻⁶ Cancer	0.049	120	195	238	> 250	147	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	22	19	17	17
			10 ⁻⁵ Cancer	0.49	22	18	17	19	20	57	> 250	> 250	158	83	61	218	37	> 250	> 250	0	0	0	0
			10 ⁻⁴ Cancer	4.9	8	10	11	14	15	10	10	9	7	6	6	5	6	6	6	0	0	0	0
			Non-Cancer -- Child	0.19	64	101	121	187	61	200	> 250	> 250	> 250	206	193	> 250	213	> 250	> 250	11	8	4	4
			Non-Cancer -- Adult	0.43	26	22	17	22	20	77	> 250	> 250	184	100	79	246	65	> 250	> 250	0	0	0	0
	Probabilistic	RME (5th percentile)	10 ⁻⁶ Cancer	0.0064	203	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	119	100	80	77
			10 ⁻⁵ Cancer	0.064	109	176	215	> 250	130	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	19	17	11	11
			10 ⁻⁴ Cancer	0.64	15	16	16	18	19	22	> 250	226	107	50	25	160	21	198	> 250	0	0	0	0
			Non-Cancer -- Child	0.059	112	182	222	> 250	135	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	20	18	16	16
			Non-Cancer -- Adult	0.12	83	133	161	> 250	90	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	11	8	4	4
		CTE (50th percentile)	10 ⁻⁶ Cancer	0.057	113	184	225	> 250	137	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	20	18	16	16
			10 ⁻⁵ Cancer	0.57	18	16	16	18	19	24	> 250	> 250	129	63	38	185	22	222	> 250	0	0	0	0
			10 ⁻⁴ Cancer	5.7	7	10	11	14	14	9	9	8	6	5	5	3	5	5	5	0	0	0	0
			Non-Cancer -- Child	0.71	14	15	16	17	19	21	> 250	194	86	36	21	138	20	177	> 250	0	0	0	0
			Non-Cancer -- Adult	1.5	11	13	14	16	17	18	18	74	20	19	18	17	19	17	33	0	0	0	0

Notes

¹ Model endpoint concentrations after 52-year projection (autumn average); whole body concentrations divided by a factor of 5.0 to convert to fillet basis
 CTE = central tendency exposure
 RME = reasonable maximum exposure
 BBD: Bulls Bridge Dam Impoundment
 LL: Lake Lillionah
 LZ: Lake Zoar
 LH: Lake Housatonic

Key

= model prediction is lower than the IMPG
 = model prediction is lower than the cancer IMPG, but is not lower than the corresponding non-cancer IMPGs
 = model prediction exceeds the IMPG
<value> = time to achieve predicted by the model
<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-25. Sediment IMPGs for benthic invertebrates compared to projected sediment PCBs (SED 4), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
			Lower End of Range	Upper End of Range
			3	10
5A	R5A_01	0.33	1	1
	R5A_02	0.17	1	1
	R5A_03	0.14	2	2
	R5A_04	0.072	2	2
	R5A_05	0.033	2	2
	R5A_06	0.048	3	2
	R5A_07	0.075	3	3
	R5A_08	0.023	4	4
	R5A_09	0.022	4	4
	R5A_10	0.020	6	5
	R5A_11	0.026	7	7
5B	R5B_01	0.044	9	8
	R5B_02	0.061	10	0
	R5B_03	1.1	10	0
	R5B_04	0.35	10	0
	R5B_05	0.54	10	0
5C	R5C_01	1.5	11	0
	R5C_02	0.11	11	6
	R5C_03	1.1	11	0
	R5C_04	0.11	11	6
	R5C_05	0.14	12	11
	R5C_06	0.16	13	12
6	Woods Pond	0.25	15	14
7A		0.41	0	0
7B		4.0	188	0
7C		4.0	> 250	0
7D		0.94	0	0
7E		1.3	0	0
7F		0.61	0	0
7G		5.0	204	0
7H		0.40	0	0
8	Rising Pond	2.7	17	0

Notes


¹ Exposure areas in Reach 5 represent EPA spatial bins (1/4 to 1/2-mile segments as defined in EPA's Model Validation Report)

² Model endpoint concentrations after 52-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-26. Backwater sediment IMPGs for amphibians compared to projected sediment PCBs (SED 4), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Area (acres)	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
				Lower End of Range	Upper End of Range
				3.27	5.6
Small Backwaters (< 2 acres)	BWS_01	1.9	4.1	<i>70</i>	32
	BWS_02	1.8	0.14	3	3
	BWS_03	1.9	0.20	3	3
	BWS_04	0.30	0.087	3	3
	BWS_06	0.56	0.22	16	10
	BWS_07	0.12	5.4	> 250	4
	BWS_08	0.35	0.064	11	11
	BWS_09	0.28	0.11	11	11
	BWS_10	1.5	0.094	11	11
	BWS_11	0.11	0.18	7	5
	BWS_12	1.7	4.1	65	37
	BWS_13	0.37	8.9	> 250	> 250
	BWS_14	0.57	7.9	> 250	140
	BWS_15	0.90	5.5	86	51
	BWS_16	1.0	0.76	26	17
	BWS_17	0.58	0.35	14	5
	BWS_18	0.84	0.21	20	10
	BWS_19	0.99	0.089	11	11
	BWS_20	1.3	4.0	65	35
	Large Backwaters (> 2 acres)	BWL_01	2.1	0.11	8
BWL_02		5.5	3.7	57	32
BWL_03		2.4	1.9	33	16
BWL_04		2.1	1.8	32	25
BWL_05		12	0.23	11	11
BWL_07		22	0.20	12	12
BWL_08		4.1	1.4	12	12
BWL_09		7.0	0.20	12	12
BWL_10		6.4	0.15	12	12
BWL_11		4.6	0.024	0	0



Notes

¹ Exposure areas represent individual backwaters

² Model endpoint concentrations after 52-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG
 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-27. IMPGs for fish protection, and consumption of fish and invertebrates by ecological receptors compared to projected biota tissue PCBs (SED 4), including the time to achieve in years (*in italics*).

Ecological Receptor			Average Whole Body Fish Tissue PCB Concentration (mg/kg) ¹													
			Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8
Fish protection			0.99	1.5	1.6	1.6	0.89	1.9	6.3	4.2	3.2	2.3	2.0	4.0	1.8	5.0
Coldwater fish protection - trout below PSA								3.8	13	8.5	6.5	4.7	4.0	8.0	3.5	
Threatened and endangered species (represented by bald eagle)			0.45	1.1	1.6	0.76	0.42	1.3	8.9	3.8	3.0	1.7	1.5	3.6	1.2	4.4
Piscivorous birds (represented by osprey)			0.55	1.0	1.5	0.89	0.56	1.2	7.6	3.3	2.6	1.6	1.4	3.2	1.1	3.9
Ecological Receptor	Tissue Type	IMPG (mg/kg)														
Fish protection	Warmwater fish tissue (whole body)	55	3	5	0	11	5	0	0	0	0	0	0	0	0	0
	Coldwater fish tissue (whole body) - Trout Below PSA	14						17	36	19	18	17	16	17	11	
Threatened and endangered species (represented by bald eagle)	Fish tissue (whole body)	30.41	3	5	7	11	5	0	0	0	0	0	0	0	0	0
Piscivorous birds (represented by osprey)	Fish tissue (whole body)	3.2	10	12	14	15	17	17	> 250	75	19	17	16	21	11	105

Notes

¹ Model endpoint concentrations after 52-year projection (autumn average)

IMPG = interim media protection goal

Key

	= model prediction is lower than the IMPG
	= model prediction exceeds the IMPG
	= IMPG not applicable

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-28. Sediment IMPGs for insectivorous birds and piscivorous mammals compared to projected sediment PCBs (SED 4), including the time to achieve in years (*in italics*).

Insectivorous Birds (wood duck)

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
			1	3	5
Reach 5A	KM 1	0.21	2	1	1
	KM 2	0.80	32	3	3
	KM 3	0.059	4	4	4
	KM 4	0.020	6	6	6
	KM 5	0.024	7	7	7
Reach 5B	KM 6	0.054	9	9	8
	KM 7	0.56	10	10	10
	KM 8	1.8	89	13	11
Reaches 5C/5D	KM 9	1.7	86	17	11
	KM 10	0.17	12	11	11
	KM 11	0.42	12	12	12
Reach 6	KM 12	0.23	15	15	14

Piscivorous Mammals (mink)

Exposure Area ⁴	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
		1	3	5
Reaches 5A/5B	0.49	11	9	7
Reaches 5C/5D/6	0.54	15	14	14

Notes

¹ Exposure areas for wood ducks represent approximate 1 kilometer segments of the river channel


² Model endpoint concentrations after 52-year projection


³ Sediment target levels have corresponding floodplain soil IMPGs due to mixture of aquatic and terrestrial diets for these receptors

⁴ Exposure areas represent entire river reach

IMPG = interim media protection goal

Key

 = model prediction is lower than the target value

 = model prediction exceeds the target value

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-31. Sediment IMPGs for human direct contact compared to projected sediment PCBs (SED 5), including the time to achieve in years (*in italics*).

Risk Category	Receptor	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average 0-6" Sediment PCB Concentration (mg/kg) ¹							
					SA 1	SA 2	SA 3	SA 4	SA 5	SA 6	SA 7	SA 8
					0.057	0.20	0.21	3.2	4.1	1.3	7.5	0.29
Human Direct Contact	Older Child	RME	10 ⁻⁶ Cancer	4.5	7	15	18	0	0	0	234	0
			10 ⁻⁵ Cancer	45	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	453	0	0	0	0	0	0	0	0
			Non-Cancer	31	0	0	15	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	36	0	0	7	0	0	0	0	0
			10 ⁻⁵ Cancer	365	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	3645	0	0	0	0	0	0	0	0
			Non-Cancer	125	0	0	0	0	0	0	0	0
	Adult	RME	10 ⁻⁶ Cancer	1.3	9	15	18	> 250	> 250	26	> 250	18
			10 ⁻⁵ Cancer	13	2	14	17	0	0	0	0	0
			10 ⁻⁴ Cancer	135	0	0	0	0	0	0	0	0
			Non-Cancer	40	0	0	0	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	28	0	0	15	0	0	0	0	0
			10 ⁻⁵ Cancer	280	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	2800	0	0	0	0	0	0	0	0
			Non-Cancer	152	0	0	0	0	0	0	0	0

Notes

¹ Model endpoint concentrations after 52-year projection

CTE = central tendency exposure

RME = reasonable maximum exposure

IMPG = interim media protection goal

SA = EPA Risk Assessment Sediment Exposure Areas

SA 1: Confluence to New Lenox Road

SA 2: New Lenox Road to Woods Pond Headwaters

SA 3: Woods Pond (6-meters from waters edge)

SA 4: Columbia Mill Dam impoundment (6-meters from waters edge)


SA 5: Former Eagle Mill Dam impoundment (6-meters from waters edge)


SA 6: Willow Mill Dam impoundment (6-meters from waters edge)

SA 7: Glendale Dam impoundment (6-meters from waters edge)

SA 8: Rising Pond impoundment (6-meters from waters edge)

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-32. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs (SED 5), including the time to achieve in years (*in italics*).

Tissue Type	Assessment Type	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average Fish Tissue (Fillet) PCB Concentration (mg/kg) ¹																			
					Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8	BBD	LL	LZ	LH		
					0.26	0.23	0.17	0.36	0.18	0.42	1.6	1.0	0.79	0.57	0.49	1.0	0.43	0.34	0.01	0.009	0.006	0.006		
Bass Fillets	Deterministic	RME	10 ⁻⁶ Cancer	0.0019	249	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	126	113	99	97		
			10 ⁻⁵ Cancer	0.019	156	159	159	> 250	187	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	40	33	25	25	
			10 ⁻⁴ Cancer	0.19	64	59	44	> 250	50	138	> 250	> 250	> 250	173	165	> 250	174	> 250	> 250	11	8	4	4	
			Non-Cancer -- Child	0.026	144	146	143	> 250	168	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	27	24	22	22	
		Non-Cancer -- Adult	0.062	109	108	100	> 250	116	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	21	19	15	11		
		CTE	10 ⁻⁶ Cancer	0.049	118	118	111	> 250	130	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	22	21	19	19	
			10 ⁻⁵ Cancer	0.49	22	18	20	21	22	36	> 250	227	124	69	51	193	34	23	0	0	0	0		
			10 ⁻⁴ Cancer	4.9	8	10	14	17	18	10	10	10	9	7	6	6	5	6	0	0	0	0		
			Non-Cancer -- Child	0.19	64	59	44	> 250	50	138	> 250	> 250	> 250	173	165	> 250	174	> 250	> 250	11	8	4	4	
		Non-Cancer -- Adult	0.43	26	21	20	22	23	48	> 250	> 250	144	84	68	218	51	24	0	0	0	0			
			Probabilistic	RME (5th percentile)	10 ⁻⁶ Cancer	0.0064	200	207	213	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	64	51	50
					10 ⁻⁵ Cancer	0.064	108	106	98	> 250	114	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	21	19	15	11
	10 ⁻⁴ Cancer				0.64	15	16	19	21	22	24	> 250	166	83	38	25	142	23	22	0	0	0	0	
	Non-Cancer -- Child	0.059			111	110	102	> 250	119	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	21	20	18	18		
	Non-Cancer -- Adult	0.12	82	79	67	> 250	75	188	> 250	> 250	> 250	223	219	> 250	242	> 250	> 250	11	8	4	4			
		CTE (50th percentile)	10 ⁻⁶ Cancer	0.057	112	111	104	> 250	121	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	21	20	18	18		
			10 ⁻⁵ Cancer	0.57	18	17	19	21	22	25	> 250	192	101	52	36	164	24	23	0	0	0	0		
			10 ⁻⁴ Cancer	5.7	7	10	11	17	17	9	9	8	6	5	5	3	5	0	0	0	0			
	Non-Cancer -- Child		0.71	14	16	19	20	22	24	238	141	68	27	24	122	22	22	0	0	0	0			
	Non-Cancer -- Adult	1.5	11	14	18	19	20	21	63	23	22	21	20	21	19	20	0	0	0	0				

Notes

¹ Model endpoint concentrations after 52-year projection (autumn average); whole body concentrations divided by a factor of 5.0 to convert to fillet basis
 CTE = central tendency exposure
 RME = reasonable maximum exposure
 BBD: Bulls Bridge Dam Impoundment
 LL: Lake Lillionah
 LZ: Lake Zoar
 LH: Lake Housatonic

Key




 = model prediction is lower than the IMPG
 = model prediction is lower than the cancer IMPG, but is not lower than the corresponding non-cancer IMPGs
 = model prediction exceeds the IMPG
<value> = time to achieve predicted by the model
<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-33. Sediment IMPGs for benthic invertebrates compared to projected sediment PCBs (SED 5), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
			Lower End of Range	Upper End of Range
			3	10
5A	R5A_01	0.33	1	1
	R5A_02	0.17	1	1
	R5A_03	0.13	2	2
	R5A_04	0.071	2	2
	R5A_05	0.033	2	2
	R5A_06	0.044	3	2
	R5A_07	0.075	3	3
	R5A_08	0.024	4	4
	R5A_09	0.021	4	4
	R5A_10	0.020	6	5
	R5A_11	0.026	7	7
5B	R5B_01	0.043	9	8
	R5B_02	0.055	10	0
	R5B_03	0.058	10	0
	R5B_04	0.089	11	0
	R5B_05	0.075	12	0
5C	R5C_01	0.083	13	0
	R5C_02	0.12	13	6
	R5C_03	0.098	14	0
	R5C_04	0.11	14	6
	R5C_05	0.13	14	14
	R5C_06	0.17	15	15
6	Woods Pond	0.24	18	17
7A		0.41	0	0
7B		4.0	190	0
7C		4.0	> 250	0
7D		0.94	0	0
7E		1.3	0	0
7F		0.61	0	0
7G		5.0	200	0
7H		0.40	0	0
8	Rising Pond	0.35	17	0

Notes


¹ Exposure areas in Reach 5 represent EPA spatial bins (1/4 to 1/2-mile segments as defined in EPA's Model Validation Report)

² Model endpoint concentrations after 52-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-34. Backwater sediment IMPGs for amphibians compared to projected sediment PCBs (SED 5), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Area (acres)	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
				Lower End of Range	Upper End of Range
				3.27	5.6
Small Backwaters (< 2 acres)	BWS_01	1.9	4.1	<i>70</i>	32
	BWS_02	1.8	0.14	3	3
	BWS_03	1.9	0.20	3	3
	BWS_04	0.30	0.087	3	3
	BWS_06	0.56	0.24	<i>17</i>	10
	BWS_07	0.12	5.4	> 250	4
	BWS_08	0.35	0.060	12	12
	BWS_09	0.28	0.098	13	13
	BWS_10	1.5	0.078	13	13
	BWS_11	0.11	0.12	7	5
	BWS_12	1.7	4.2	<i>67</i>	38
	BWS_13	0.37	8.9	> 250	> 250
	BWS_14	0.57	7.8	> 250	130
	BWS_15	0.90	5.6	86	52
	BWS_16	1.0	0.77	27	17
	BWS_17	0.58	0.27	15	5
	BWS_18	0.84	0.24	20	10
	BWS_19	0.99	0.074	14	14
	BWS_20	1.3	4.1	<i>67</i>	36
	Large Backwaters (> 2 acres)	BWL_01	2.1	0.11	8
BWL_02		5.5	3.9	<i>60</i>	32
BWL_03		2.4	1.8	33	16
BWL_04		2.1	1.9	34	26
BWL_05		12	0.22	14	14
BWL_07		22	0.17	15	15
BWL_08		4.1	1.3	15	15
BWL_09		7.0	0.16	15	15
BWL_10		6.4	0.13	15	15
BWL_11		4.6	0.024	0	0



Notes

¹ Exposure areas represent individual backwaters

² Model endpoint concentrations after 52-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG
 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-35. IMPGs for fish protection, and consumption of fish and invertebrates by ecological receptors compared to projected biota tissue PCBs (SED 5), including the time to achieve in years (*in italics*).

Ecological Receptor			Average Whole Body Fish Tissue PCB Concentration (mg/kg) ¹													
			Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8
Fish protection			1.0	0.89	0.65	1.4	0.70	1.6	6.1	4.0	3.0	2.2	1.9	3.9	1.6	1.3
Coldwater fish protection - trout below PSA								3.2	12	7.9	6.0	4.4	3.7	7.8	3.3	
Threatened and endangered species (represented by bald eagle)			0.46	0.40	0.37	0.67	0.34	1.2	8.8	3.7	2.9	1.7	1.4	3.6	1.1	0.79
Piscivorous birds (represented by osprey)			0.56	0.44	0.41	0.79	0.45	1.1	7.5	3.2	2.5	1.5	1.3	3.1	1.1	0.78
Ecological Receptor	Tissue Type	IMPG (mg/kg)														
Fish protection	Warmwater fish tissue (whole body)	55	3	5	0	14	5	0	0	0	0	0	0	0	0	0
	Coldwater fish tissue (whole body) - Trout Below PSA	14						20	30	21	20	20	19	19	11	
Threatened and endangered species (represented by bald eagle)	Fish tissue (whole body)	30.41	3	5	7	14	5	0	0	0	0	0	0	0	0	0
Piscivorous birds (represented by osprey)	Fish tissue (whole body)	3.2	10	12	17	18	19	20	> 250	41	22	19	18	22	11	19

Notes

¹ Model endpoint concentrations after 52-year projection (autumn average)

IMPG = interim media protection goal

Key

	= model prediction is lower than the IMPG
	= model prediction exceeds the IMPG
	= IMPG not applicable

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-36. Sediment IMPGs for insectivorous birds and piscivorous mammals compared to projected sediment PCBs (SED 5), including the time to achieve in years (*in italics*).

Insectivorous Birds (wood duck)

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
			1	3	5
Reach 5A	KM 1	0.20	2	1	1
	KM 2	0.80	32	3	3
	KM 3	0.058	4	4	4
	KM 4	0.020	6	6	6
	KM 5	0.024	7	7	7
Reach 5B	KM 6	0.053	9	9	8
	KM 7	0.16	11	10	10
	KM 8	1.2	61	13	13
Reaches 5C/5D	KM 9	1.4	70	18	14
	KM 10	0.17	14	14	14
	KM 11	0.40	15	15	15
Reach 6	KM 12	0.21	18	17	17

Piscivorous Mammals (mink)

Exposure Area ⁴	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
		1	3	5
Reaches 5A/5B	0.40	12	9	7
Reaches 5C/5D/6	0.42	18	17	16

Notes

¹ Exposure areas for wood ducks represent approximate 1 kilometer segments of the river channel

² Model endpoint concentrations after 52-year projection

³ Sediment target levels have corresponding floodplain soil IMPGs due to mixture of aquatic and terrestrial diets for these receptors

⁴ Exposure areas represent entire river reach

IMPG = interim media protection goal

Key

= model prediction is lower than the target value

= model prediction exceeds the target value

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-39. Sediment IMPGs for human direct contact compared to projected sediment PCBs (SED 6), including the time to achieve in years (*in italics*).

Risk Category	Receptor	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average 0-6" Sediment PCB Concentration (mg/kg) ¹							
					SA 1	SA 2	SA 3	SA 4	SA 5	SA 6	SA 7	SA 8
					0.054	0.17	0.24	1.2	0.10	0.44	2.1	0.095
Human Direct Contact	Older Child	RME	10 ⁻⁶ Cancer	4.5	7	15	18	0	0	0	20	0
			10 ⁻⁵ Cancer	45	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	453	0	0	0	0	0	0	0	0
			Non-Cancer	31	0	0	16	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	36	0	0	7	0	0	0	0	0
			10 ⁻⁵ Cancer	365	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	3645	0	0	0	0	0	0	0	0
			Non-Cancer	125	0	0	0	0	0	0	0	0
	Adult	RME	10 ⁻⁶ Cancer	1.3	9	16	19	19	19	20	> 250	21
			10 ⁻⁵ Cancer	13	2	14	17	0	0	0	0	0
			10 ⁻⁴ Cancer	135	0	0	0	0	0	0	0	0
			Non-Cancer	40	0	0	0	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	28	0	0	16	0	0	0	0	0
			10 ⁻⁵ Cancer	280	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	2800	0	0	0	0	0	0	0	0
			Non-Cancer	152	0	0	0	0	0	0	0	0

Notes

¹ Model endpoint concentrations after 52-year projection

CTE = central tendency exposure

RME = reasonable maximum exposure

IMPG = interim media protection goal

SA = EPA Risk Assessment Sediment Exposure Areas

SA 1: Confluence to New Lenox Road

SA 2: New Lenox Road to Woods Pond Headwaters

SA 3: Woods Pond (6-meters from waters edge)

SA 4: Columbia Mill Dam impoundment (6-meters from waters edge)


SA 5: Former Eagle Mill Dam impoundment (6-meters from waters edge)


SA 6: Willow Mill Dam impoundment (6-meters from waters edge)

SA 7: Glendale Dam impoundment (6-meters from waters edge)

SA 8: Rising Pond impoundment (6-meters from waters edge)

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-40. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs (SED 6), including the time to achieve in years (*in italics*).

Tissue Type	Assessment Type	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average Fish Tissue (Fillet) PCB Concentration (mg/kg) ¹																	
					Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8	BBD	LL	LZ	LH
					0.26	0.22	0.16	0.35	0.17	0.40	0.41	0.20	0.70	0.34	0.45	0.40	0.39	0.22	0.009	0.006	0.005	0.004
Bass Fillets	Deterministic	RME	10 ⁻⁶ Cancer	0.0019	230	235	242	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	91	82	73	72	
			10 ⁻⁵ Cancer	0.019	146	145	143	> 250	170	> 250	> 250	181	> 250	213	> 250	> 250	> 250	> 250	36	31	26	26
			10 ⁻⁴ Cancer	0.19	62	56	44	> 250	48	112	> 250	53	210	83	128	154	139	65	18	9	6	5
			Non-Cancer -- Child	0.026	134	133	129	> 250	153	> 250	> 250	164	> 250	195	> 250	> 250	> 250	> 250	28	25	23	23
			Non-Cancer -- Adult	0.062	103	99	92	> 250	106	207	> 250	116	> 250	146	228	> 250	> 250	177	22	20	19	19
		CTE	10 ⁻⁶ Cancer	0.049	111	109	102	> 250	119	227	> 250	129	> 250	159	249	> 250	> 250	200	23	22	20	20
			10 ⁻⁵ Cancer	0.49	22	18	20	21	23	33	23	24	94	24	41	24	26	25	0	0	0	0
			10 ⁻⁴ Cancer	4.9	8	10	14	17	19	10	10	10	10	9	8	8	7	8	0	0	0	0
			Non-Cancer -- Child	0.19	62	56	44	> 250	48	112	> 250	53	210	83	128	154	139	65	18	9	6	5
			Non-Cancer -- Adult	0.43	26	20	21	22	24	41	23	24	110	24	55	24	37	25	0	0	0	0
	Probabilistic	RME (5th percentile)	10 ⁻⁶ Cancer	0.0064	186	188	190	> 250	229	> 250	> 250	242	> 250	> 250	> 250	> 250	> 250	> 250	59	51	38	37
			10 ⁻⁵ Cancer	0.064	102	98	91	> 250	105	205	> 250	114	> 250	144	225	> 250	> 250	173	22	20	19	19
			10 ⁻⁴ Cancer	0.64	15	16	20	21	23	24	23	23	62	23	26	23	23	24	0	0	0	0
			Non-Cancer -- Child	0.059	105	101	94	> 250	109	211	> 250	118	> 250	149	232	> 250	> 250	181	22	21	20	19
			Non-Cancer -- Adult	0.12	79	74	63	> 250	71	151	> 250	79	> 250	109	169	169	196	111	18	9	6	5
		CTE (50th percentile)	10 ⁻⁶ Cancer	0.057	106	103	96	> 250	111	214	> 250	120	> 250	151	235	> 250	> 250	185	22	21	20	19
			10 ⁻⁵ Cancer	0.57	18	17	20	21	23	25	23	24	76	23	32	24	24	24	0	0	0	0
			10 ⁻⁴ Cancer	5.7	7	10	11	17	19	9	9	9	9	8	7	7	5	7	0	0	0	0
			Non-Cancer -- Child	0.71	14	16	19	21	23	24	22	23	51	23	24	23	23	24	0	0	0	0
			Non-Cancer -- Adult	1.5	11	14	18	19	21	22	21	22	22	21	21	21	20	22	0	0	0	0

Notes

¹ Model endpoint concentrations after 52-year projection (autumn average); whole body concentrations divided by a factor of 5.0 to convert to fillet basis
 CTE = central tendency exposure
 RME = reasonable maximum exposure
 BBD: Bulls Bridge Dam Impoundment
 LL: Lake Lillionah
 LZ: Lake Zoar
 LH: Lake Housatonic

Key

= model prediction is lower than the IMPG
 = model prediction is lower than the cancer IMPG, but is not lower than the corresponding non-cancer IMPGs
 = model prediction exceeds the IMPG
<value> = time to achieve predicted by the model
<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-41. Sediment IMPGs for benthic invertebrates compared to projected sediment PCBs (SED 6), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
			Lower End of Range	Upper End of Range
			3	10
5A	R5A_01	0.33	1	1
	R5A_02	0.17	1	1
	R5A_03	0.14	2	2
	R5A_04	0.070	2	2
	R5A_05	0.032	2	2
	R5A_06	0.045	3	2
	R5A_07	0.063	3	3
	R5A_08	0.023	4	4
	R5A_09	0.021	4	4
	R5A_10	0.020	6	5
	R5A_11	0.022	7	7
5B	R5B_01	0.035	9	8
	R5B_02	0.042	10	0
	R5B_03	0.060	10	0
	R5B_04	0.090	11	0
	R5B_05	0.072	12	0
5C	R5C_01	0.081	13	0
	R5C_02	0.12	13	6
	R5C_03	0.10	13	0
	R5C_04	0.12	14	6
	R5C_05	0.19	14	14
	R5C_06	0.25	16	16
6	Woods Pond	0.21	18	18
	7A	0.41	0	0
	7B	0.92	19	0
	7C	0.092	19	0
	7D	0.90	0	0
	7E	0.44	0	0
	7F	0.59	0	0
	7G	1.4	20	0
	7H	0.40	0	0
8	Rising Pond	0.13	20	0

Notes


¹ Exposure areas in Reach 5 represent EPA spatial bins (1/4 to 1/2-mile segments as defined in EPA's Model Validation Report)

² Model endpoint concentrations after 52-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-42. Backwater sediment IMPGs for amphibians compared to projected sediment PCBs (SED 6), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Area (acres)	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
				Lower End of Range	Upper End of Range
				3.27	5.6
Small Backwaters (< 2 acres)	BWS_01	1.9	0.18	2	2
	BWS_02	1.8	0.14	3	3
	BWS_03	1.9	0.20	3	3
	BWS_04	0.30	0.12	3	3
	BWS_06	0.56	0.18	10	10
	BWS_07	0.12	0.030	10	4
	BWS_08	0.35	0.061	12	12
	BWS_09	0.28	0.098	13	13
	BWS_10	1.5	0.080	13	13
	BWS_11	0.11	0.13	7	5
	BWS_12	1.7	0.11	13	13
	BWS_13	0.37	0.11	13	13
	BWS_14	0.57	0.049	13	13
	BWS_15	0.90	0.10	13	13
	BWS_16	1.0	0.094	14	14
	BWS_17	0.58	0.11	14	5
	BWS_18	0.84	0.10	14	10
	BWS_19	0.99	0.072	14	14
	BWS_20	1.3	0.11	15	15
	Large Backwaters (> 2 acres)	BWL_01	2.1	1.5	8
BWL_02		5.5	0.11	12	12
BWL_03		2.4	0.096	13	13
BWL_04		2.1	0.12	14	14
BWL_05		12	0.25	14	14
BWL_07		22	0.18	15	15
BWL_08		4.1	0.19	15	15
BWL_09		7.0	0.24	16	15
BWL_10		6.4	0.18	16	16
BWL_11		4.6	0.024	0	0



Notes

¹ Exposure areas represent individual backwaters

² Model endpoint concentrations after 52-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG
 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-43. IMPGs for fish protection, and consumption of fish and invertebrates by ecological receptors compared to projected biota tissue PCBs (SED 6), including the time to achieve in years (*in italics*).

Ecological Receptor			Average Whole Body Fish Tissue PCB Concentration (mg/kg) ¹													
			Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8
Fish protection			0.99	0.86	0.63	1.4	0.68	1.5	1.6	0.77	2.7	1.3	1.7	1.5	1.5	0.84
Coldwater fish protection - trout below PSA								3.0	3.2	1.5	5.4	2.6	3.4	3.0	3.0	
Threatened and endangered species (represented by bald eagle)			0.45	0.38	0.38	0.62	0.32	1.1	1.9	0.32	2.7	0.81	1.4	1.1	1.1	0.41
Piscivorous birds (represented by osprey)			0.55	0.42	0.41	0.77	0.43	1.1	1.7	0.36	2.3	0.79	1.2	1.1	1.0	0.43
Ecological Receptor	Tissue Type	IMPG (mg/kg)														
Fish protection	Warmwater fish tissue (whole body)	55	3	5	0	15	5	0	0	0	0	0	0	0	0	0
	Coldwater fish tissue (whole body) - Trout Below PSA	14						21	20	21	21	20	20	20	19	
Threatened and endangered species (represented by bald eagle)	Fish tissue (whole body)	30.41	4	5	7	14	5	0	0	0	0	0	0	0	0	0
Piscivorous birds (represented by osprey)	Fish tissue (whole body)	3.2	10	12	17	18	20	20	20	20	21	19	20	20	19	21

Notes

¹ Model endpoint concentrations after 52-year projection (autumn average)

IMPG = interim media protection goal

Key

	= model prediction is lower than the IMPG
	= model prediction exceeds the IMPG
	= IMPG not applicable

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-44. Sediment IMPGs for insectivorous birds and piscivorous mammals compared to projected sediment PCBs (SED 6), including the time to achieve in years (*in italics*).

Insectivorous Birds (wood duck)

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
			1	3	5
Reach 5A	KM 1	0.21	2	1	1
	KM 2	0.093	3	3	2
	KM 3	0.058	4	4	4
	KM 4	0.020	6	6	6
	KM 5	0.023	7	7	7
Reach 5B	KM 6	0.31	9	9	8
	KM 7	0.065	11	10	10
	KM 8	0.085	13	12	12
Reaches 5C/5D	KM 9	0.10	14	13	13
	KM 10	0.19	14	14	14
	KM 11	0.20	16	16	15
Reach 6	KM 12	0.22	19	18	18

Piscivorous Mammals (mink)

Exposure Area ⁴	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
		1	3	5
Reaches 5A/5B	0.11	12	9	7
Reaches 5C/5D/6	0.19	18	18	17

Notes

¹ Exposure areas for wood ducks represent approximate 1 kilometer segments of the river channel


² Model endpoint concentrations after 52-year projection


³ Sediment target levels have corresponding floodplain soil IMPGs due to mixture of aquatic and terrestrial diets for these receptors

⁴ Exposure areas represent entire river reach

IMPG = interim media protection goal

Key

 = model prediction is lower than the target value

 = model prediction exceeds the target value

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-47. Sediment IMPGs for human direct contact compared to projected sediment PCBs (SED 7), including the time to achieve in years (*in italics*).

Risk Category	Receptor	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average 0-6" Sediment PCB Concentration (mg/kg) ¹							
					SA 1	SA 2	SA 3	SA 4	SA 5	SA 6	SA 7	SA 8
					0.084	0.16	0.23	0.24	0.052	0.29	1.8	0.032
Human Direct Contact	Older Child	RME	10 ⁻⁶ Cancer	4.5	8	18	22	0	0	0	25	0
			10 ⁻⁵ Cancer	45	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	453	0	0	0	0	0	0	0	0
			Non-Cancer	31	0	0	19	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	36	0	0	8	0	0	0	0	0
			10 ⁻⁵ Cancer	365	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	3645	0	0	0	0	0	0	0	0
			Non-Cancer	125	0	0	0	0	0	0	0	0
	Adult	RME	10 ⁻⁶ Cancer	1.3	11	19	23	23	24	23	IT	26
			10 ⁻⁵ Cancer	13	3	17	21	0	0	0	0	0
			10 ⁻⁴ Cancer	135	0	0	0	0	0	0	0	0
			Non-Cancer	40	0	0	0	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	28	0	0	19	0	0	0	0	0
			10 ⁻⁵ Cancer	280	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	2800	0	0	0	0	0	0	0	0
			Non-Cancer	152	0	0	0	0	0	0	0	0

Notes

¹ Model endpoint concentrations after 55-year projection

CTE = central tendency exposure

RME = reasonable maximum exposure

IMPG = interim media protection goal

SA = EPA Risk Assessment Sediment Exposure Areas

SA 1: Confluence to New Lenox Road

SA 2: New Lenox Road to Woods Pond Headwaters

SA 3: Woods Pond (6-meters from waters edge)

SA 4: Columbia Mill Dam impoundment (6-meters from waters edge)


SA 5: Former Eagle Mill Dam impoundment (6-meters from waters edge)


SA 6: Willow Mill Dam impoundment (6-meters from waters edge)

SA 7: Glendale Dam impoundment (6-meters from waters edge)

SA 8: Rising Pond impoundment (6-meters from waters edge)

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

IT = Increasing trend in model extrapolation; no time-to-achieve estimated.

Table 6-48. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs (SED 7), including the time to achieve in years (*in italics*).

Tissue Type	Assessment Type	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average Fish Tissue (Fillet) PCB Concentration (mg/kg) ¹																	
					Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8	BBD	LL	LZ	LH
					0.29	0.25	0.18	0.39	0.19	0.42	0.23	0.20	0.75	0.33	0.46	0.35	0.40	0.20	0.009	0.006	0.005	0.004
Bass Fillets	Deterministic	RME	10 ⁻⁶ Cancer	0.0019	205	220	233	>250	>250	>250	>250	>250	>250	>250	>250	>250	>250	98	88	78	77	
			10 ⁻⁵ Cancer	0.019	136	141	142	>250	182	>250	186	157	>250	>250	>250	>250	>250	247	38	34	31	31
			10 ⁻⁴ Cancer	0.19	66	63	52	154	53	113	63	56	233	99	143	125	159	55	11	9	5	4
			Non-Cancer -- Child	0.026	126	131	130	>250	165	>250	169	143	>250	>250	>250	>250	>250	221	33	30	28	27
			Non-Cancer -- Adult	0.062	100	101	95	>250	116	197	123	105	>250	204	>250	>250	>250	149	26	24	13	12
			10 ⁻⁶ Cancer	0.049	107	109	104	>250	129	215	135	115	>250	226	>250	>250	>250	168	28	26	24	24
		10 ⁻⁵ Cancer	0.49	23	20	23	25	27	39	31	32	108	32	46	31	33	30	0	0	0	0	
		10 ⁻⁴ Cancer	4.9	12	12	15	20	23	11	11	10	8	7	7	5	7	0	0	0	0		
		Non-Cancer -- Child	0.19	66	63	52	154	53	113	63	56	233	99	143	125	159	55	11	9	5	4	
		Non-Cancer -- Adult	0.43	39	21	24	26	27	51	32	33	125	34	60	33	38	31	0	0	0	0	
		Probabilistic	RME (5th percentile)	10 ⁻⁶ Cancer	0.0064	169	179	185	>250	243	>250	243	205	>250	>250	>250	>250	>250	63	52	41	40
				10 ⁻⁵ Cancer	0.064	99	100	94	>250	114	195	121	104	>250	201	>250	>250	>250	146	26	24	13
	10 ⁻⁴ Cancer			0.64	15	18	23	24	26	34	27	30	73	30	32	29	30	29	0	0	0	0
	Non-Cancer -- Child			0.059	101	103	97	>250	119	201	126	107	>250	209	>250	>250	>250	153	27	25	15	14
	Non-Cancer -- Adult			0.12	80	78	69	217	79	148	88	76	>250	142	190	188	226	94	11	9	5	4
	10 ⁻⁶ Cancer			0.057	102	104	98	>250	121	204	127	109	>250	212	>250	>250	>250	156	27	25	15	14
	CTE (50th percentile)		10 ⁻⁵ Cancer	0.57	18	19	23	24	27	35	30	31	88	31	35	30	31	30	0	0	0	0
			10 ⁻⁴ Cancer	5.7	8	11	12	20	22	10	10	10	9	7	5	6	3	5	0	0	0	0
			Non-Cancer -- Child	0.71	14	18	22	24	26	33	27	30	59	29	30	29	29	29	0	0	0	0
			Non-Cancer -- Adult	1.5	12	16	21	23	25	25	25	26	27	26	25	26	25	27	0	0	0	0

Notes
¹ Model endpoint concentrations after 55-year projection (autumn average); whole body concentrations divided by a factor of 5.0 to convert to fillet basis
 CTE = central tendency exposure
 RME = reasonable maximum exposure
 BBD: Bulls Bridge Dam Impoundment
 LL: Lake Lillinonah
 LZ: Lake Zoar
 LH: Lake Housatonic


Key

 = model prediction is lower than the IMPG
 = model prediction is lower than the cancer IMPG, but is not lower than the corresponding non-cancer IMPGs
 = model prediction exceeds the IMPG
<value> = time to achieve predicted by the model
<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-49. Sediment IMPGs for benthic invertebrates compared to projected sediment PCBs (SED 7), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
			Lower End of Range	Upper End of Range
			3	10
5A	R5A_01	0.17	1	1
	R5A_02	0.11	1	1
	R5A_03	0.37	27	2
	R5A_04	0.83	3	2
	R5A_05	0.14	3	3
	R5A_06	0.067	4	3
	R5A_07	0.055	5	4
	R5A_08	0.026	5	5
	R5A_09	0.046	6	6
	R5A_10	0.028	7	7
	R5A_11	0.029	9	8
5B	R5B_01	0.034	11	10
	R5B_02	0.041	12	0
	R5B_03	0.066	12	0
	R5B_04	0.092	13	0
	R5B_05	0.069	14	0
5C	R5C_01	0.082	16	0
	R5C_02	0.12	16	6
	R5C_03	0.10	16	0
	R5C_04	0.12	17	7
	R5C_05	0.19	17	17
	R5C_06	0.21	19	19
6	Woods Pond	0.22	22	21
	7A	0.41	0	0
	7B	0.22	23	0
	7C	0.062	24	0
	7D	0.93	0	0
	7E	0.29	0	0
	7F	0.60	0	0
	7G	1.1	25	0
	7H	0.40	0	0
8	Rising Pond	0.031	17	0


Notes


¹ Exposure areas in Reach 5 represent EPA spatial bins (1/4 to 1/2-mile segments as defined in EPA's Model Validation Report)

² Model endpoint concentrations after 55-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-50. Backwater sediment IMPGs for amphibians compared to projected sediment PCBs (SED 7), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Area (acres)	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
				Lower End of Range	Upper End of Range
				3.27	5.6
Small Backwaters (< 2 acres)	BWS_01	1.9	0.36	2	2
	BWS_02	1.8	0.29	3	3
	BWS_03	1.9	0.25	4	4
	BWS_04	0.30	0.24	4	4
	BWS_06	0.56	0.19	12	10
	BWS_07	0.12	0.027	12	4
	BWS_08	0.35	0.26	15	15
	BWS_09	0.28	0.17	16	16
	BWS_10	1.5	0.33	16	16
	BWS_11	0.11	0.13	7	5
	BWS_12	1.7	0.13	16	16
	BWS_13	0.37	0.17	16	16
	BWS_14	0.57	0.13	16	16
	BWS_15	0.90	0.14	16	16
	BWS_16	1.0	0.098	17	17
	BWS_17	0.58	0.11	16	5
	BWS_18	0.84	0.10	17	11
	BWS_19	0.99	0.15	17	17
	BWS_20	1.3	0.12	18	17
	Large Backwaters (> 2 acres)	BWL_01	2.1	1.6	10
BWL_02		5.5	0.16	15	15
BWL_03		2.4	0.11	16	16
BWL_04		2.1	0.19	16	16
BWL_05		12	0.19	17	17
BWL_07		22	0.21	18	18
BWL_08		4.1	0.22	18	18
BWL_09		7.0	0.19	19	19
BWL_10		6.4	0.20	19	19
BWL_11		4.6	0.024	0	0



Notes

¹ Exposure areas represent individual backwaters

² Model endpoint concentrations after 55-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG
 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-51. IMPGs for fish protection, and consumption of fish and invertebrates by ecological receptors compared to projected biota tissue PCBs (SED 7), including the time to achieve in years (*in italics*).

Ecological Receptor			Average Whole Body Fish Tissue PCB Concentration (mg/kg) ¹													
			Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8
Fish protection			1.1	0.96	0.70	1.5	0.77	1.6	0.90	0.78	2.9	1.3	1.8	1.4	1.5	0.78
Coldwater fish protection - trout below PSA								3.2	1.8	1.6	5.8	2.6	3.6	2.7	3.1	
Threatened and endangered species (represented by bald eagle)			0.51	0.42	0.40	0.67	0.36	1.2	0.77	0.32	2.9	0.72	1.4	0.98	1.1	0.32
Piscivorous birds (represented by osprey)			0.63	0.47	0.44	0.84	0.49	1.1	0.74	0.37	2.5	0.73	1.3	0.92	1.0	0.36
Ecological Receptor	Tissue Type	IMPG (mg/kg)														
Fish protection	Warmwater fish tissue (whole body)	55	3	5	0	18	5	0	0	0	0	0	0	0	0	0
	Coldwater fish tissue (whole body) - Trout Below PSA	14						24	24	25	26	25	14	25	12	
Threatened and endangered species (represented by bald eagle)	Fish tissue (whole body)	30.41	4	6	8	17	5	0	0	0	0	0	0	0	0	0
Piscivorous birds (represented by osprey)	Fish tissue (whole body)	3.2	11	14	20	21	24	23	24	25	29	24	24	25	12	26

Notes

¹ Model endpoint concentrations after 55-year projection (autumn average)

IMPG = interim media protection goal

Key

- = model prediction is lower than the IMPG
- = model prediction exceeds the IMPG
- = IMPG not applicable

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-52. Sediment IMPGs for insectivorous birds and piscivorous mammals compared to projected sediment PCBs (SED 7), including the time to achieve in years (*in italics*).

Insectivorous Birds (wood duck)

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
			1	3	5
Reach 5A	KM 1	0.12	2	2	2
	KM 2	0.42	34	3	3
	KM 3	0.071	5	5	5
	KM 4	0.033	8	7	7
	KM 5	0.032	9	9	9
Reach 5B	KM 6	0.32	11	11	11
	KM 7	0.067	13	12	12
	KM 8	0.11	16	15	15
Reaches 5C/5D	KM 9	0.13	16	16	16
	KM 10	0.17	17	17	17
	KM 11	0.19	19	19	19
Reach 6	KM 12	0.22	22	22	22

Piscivorous Mammals (mink)

Exposure Area ⁴	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
		1	3	5
Reaches 5A/5B	0.14	14	11	9
Reaches 5C/5D/6	0.19	22	21	20

Notes

¹ Exposure areas for wood ducks represent approximate 1 kilometer segments of the river channel

² Model endpoint concentrations after 55-year projection

³ Sediment target levels have corresponding floodplain soil IMPGs due to mixture of aquatic and terrestrial diets for these receptors

⁴ Exposure areas represent entire river reach

IMPG = interim media protection goal

Key

= model prediction is lower than the target value

= model prediction exceeds the target value

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-55. Sediment IMPGs for human direct contact compared to projected sediment PCBs (SED 8), including the time to achieve in years (*in italics*).

Risk Category	Receptor	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average 0-6" Sediment PCB Concentration (mg/kg) ¹								
					SA 1	SA 2	SA 3	SA 4	SA 5	SA 6	SA 7	SA 8	
					0.076	0.10	0.17	0.038	0.044	0.014	0.055	0.072	
Human Direct Contact	Older Child	RME	10 ⁻⁶ Cancer	4.5	<i>10</i>	<i>25</i>	<i>37</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>42</i>	<i>0</i>	
			10 ⁻⁵ Cancer	45	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
			10 ⁻⁴ Cancer	453	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
			Non-Cancer	31	<i>0</i>	<i>0</i>	<i>21</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
		CTE	10 ⁻⁶ Cancer	36	<i>0</i>	<i>0</i>	<i>8</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
			10 ⁻⁵ Cancer	365	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
			10 ⁻⁴ Cancer	3645	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
			Non-Cancer	125	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
	Adult	RME	10 ⁻⁶ Cancer	1.3	<i>13</i>	<i>27</i>	<i>38</i>	<i>40</i>	<i>41</i>	<i>34</i>	<i>42</i>	<i>48</i>	
			10 ⁻⁵ Cancer	13	<i>3</i>	<i>23</i>	<i>29</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	
			10 ⁻⁴ Cancer	135	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	
			Non-Cancer	40	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	
		CTE	10 ⁻⁶ Cancer	28	<i>0</i>	<i>0</i>	<i>27</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
			10 ⁻⁵ Cancer	280	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
			10 ⁻⁴ Cancer	2800	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
			Non-Cancer	152	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

Notes

¹ Model endpoint concentrations after 81-year projection

CTE = central tendency exposure

RME = reasonable maximum exposure

IMPG = interim media protection goal

SA = EPA Risk Assessment Sediment Exposure Areas

SA 1: Confluence to New Lenox Road

SA 2: New Lenox Road to Woods Pond Headwaters

SA 3: Woods Pond (6-meters from waters edge)

SA 4: Columbia Mill Dam impoundment (6-meters from waters edge)


SA 5: Former Eagle Mill Dam impoundment (6-meters from waters edge)


SA 6: Willow Mill Dam impoundment (6-meters from waters edge)

SA 7: Glendale Dam impoundment (6-meters from waters edge)

SA 8: Rising Pond impoundment (6-meters from waters edge)

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-56. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs (SED 8), including the time to achieve in years (*in italics*).

Tissue Type	Assessment Type	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average Fish Tissue (Fillet) PCB Concentration (mg/kg) ¹																			
					Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8	BBD	LL	LZ	LH		
					0.17	0.15	0.11	0.29	0.13	0.34	0.10	0.12	0.63	0.18	0.38	0.15	0.35	0.17	0.006	0.005	0.004	0.003		
Bass Fillets	Deterministic	RME	10 ⁻⁶ Cancer	0.0019	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	116	106	96	94	
			10 ⁻⁵ Cancer	0.019	188	186	179	> 250	193	> 250	205	200	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	60	57	56	56
			10 ⁻⁴ Cancer	0.19	74	70	48	117	51	166	46	52	> 250	64	182	52	226	63	15	11	7	7	6	6
			Non-Cancer -- Child	0.026	172	170	161	> 250	174	> 250	181	180	> 250	> 250	> 250	> 250	> 250	> 250	56	55	54	41	41	
			Non-Cancer -- Adult	0.062	129	125	111	> 250	122	> 250	116	123	> 250	174	> 250	176	> 250	204	34	31	17	17	17	
			10 ⁻⁶ Cancer	0.049	141	137	125	> 250	136	> 250	134	138	> 250	197	> 250	203	> 250	234	54	36	31	31	31	
		10 ⁻⁵ Cancer	0.49	23	21	32	31	42	44	43	45	127	45	48	46	47	53	0	0	0	0	0		
		10 ⁻⁴ Cancer	4.9	10	14	17	27	37	12	12	13	12	11	10	11	8	11	0	0	0	0	0		
		Non-Cancer -- Child	0.19	74	70	48	117	51	166	46	52	> 250	64	182	52	226	63	15	11	7	7	6		
		Non-Cancer -- Adult	0.43	39	23	32	32	42	48	43	45	153	45	61	47	48	54	0	0	0	0	0		
		Probabilistic	RME (5th percentile)	10 ⁻⁶ Cancer	0.0064	242	242	241	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	79	68	62	62
				10 ⁻⁵ Cancer	0.064	127	123	110	> 250	120	> 250	114	121	> 250	171	> 250	172	> 250	200	34	31	17	17	
	10 ⁻⁴ Cancer			0.64	17	20	31	31	41	43	43	44	76	44	45	45	46	53	0	0	0	0		
	Non-Cancer -- Child			0.059	131	128	114	> 250	125	> 250	120	126	> 250	179	> 250	182	> 250	210	39	32	26	22		
	Non-Cancer -- Adult			0.12	96	91	76	173	82	234	70	82	> 250	110	> 250	101	> 250	120	15	11	7	6		
	10 ⁻⁶ Cancer			0.057	133	129	116	> 250	127	> 250	122	128	> 250	182	> 250	186	> 250	215	39	32	26	22		
	CTE (50th percentile)		10 ⁻⁵ Cancer	0.57	18	21	31	31	41	43	43	44	98	44	46	46	46	53	0	0	0	0		
			10 ⁻⁴ Cancer	5.7	9	13	14	27	37	11	11	12	11	10	8	9	7	9	0	0	0	0		
			Non-Cancer -- Child	0.71	16	20	31	31	41	42	42	44	60	44	44	45	45	52	0	0	0	0		
			Non-Cancer -- Adult	1.5	13	18	28	29	40	39	41	42	42	40	33	42	32	50	0	0	0	0		

Notes
¹ Model endpoint concentrations after 81-year projection (autumn average); whole body concentrations divided by a factor of 5.0 to convert to fillet basis
 CTE = central tendency exposure
 RME = reasonable maximum exposure
 BBD: Bulls Bridge Dam Impoundment
 LL: Lake Lillinonah
 LZ: Lake Zoar
 LH: Lake Housatonic




Key
 = model prediction is lower than the IMPG
 = model prediction is lower than the cancer IMPG, but is not lower than the corresponding non-cancer IMPGs
 = model prediction exceeds the IMPG
<value> = time to achieve predicted by the model
<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-57. Sediment IMPGs for benthic invertebrates compared to projected sediment PCBs (SED 8), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
			Lower End of Range	Upper End of Range
			3	10
5A	R5A_01	0.11	1	1
	R5A_02	0.084	1	1
	R5A_03	0.23	2	2
	R5A_04	0.37	3	3
	R5A_05	0.067	3	3
	R5A_06	0.28	4	3
	R5A_07	0.070	6	5
	R5A_08	0.021	6	6
	R5A_09	0.027	7	7
	R5A_10	0.022	9	8
	R5A_11	0.026	11	10
5B	R5B_01	0.030	13	12
	R5B_02	0.038	14	0
	R5B_03	0.050	15	0
	R5B_04	0.11	15	0
	R5B_05	0.057	16	0
5C	R5C_01	0.077	19	0
	R5C_02	0.090	20	7
	R5C_03	0.086	21	0
	R5C_04	0.088	22	7
	R5C_05	0.14	24	23
	R5C_06	0.15	28	27
6	Woods Pond	0.16	37	33
	7A	0.41	0	0
	7B	0.044	39	0
	7C	0.048	40	0
	7D	0.87	0	0
	7E	0.014	0	0
	7F	0.55	0	0
	7G	0.044	42	0
	7H	0.39	0	0
8	Rising Pond	0.070	26	0

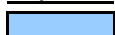
Notes


¹ Exposure areas in Reach 5 represent EPA spatial bins (1/4 to 1/2-mile segments as defined in EPA's Model Validation Report)

² Model endpoint concentrations after 81-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-58. Backwater sediment IMPGs for amphibians compared to projected sediment PCBs (SED 8), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Area (acres)	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
				Lower End of Range	Upper End of Range
				3.27	5.6
Small Backwaters (< 2 acres)	BWS_01	1.9	0.20	3	3
	BWS_02	1.8	0.16	4	4
	BWS_03	1.9	0.18	5	5
	BWS_04	0.30	0.19	5	5
	BWS_06	0.56	0.13	14	11
	BWS_07	0.12	0.11	14	14
	BWS_08	0.35	0.29	18	18
	BWS_09	0.28	0.21	18	18
	BWS_10	1.5	0.27	19	19
	BWS_11	0.11	0.093	8	5
	BWS_12	1.7	0.10	20	20
	BWS_13	0.37	0.10	20	20
	BWS_14	0.57	0.20	20	20
	BWS_15	0.90	0.12	21	21
	BWS_16	1.0	0.12	21	18
	BWS_17	0.58	0.088	16	6
	BWS_18	0.84	0.074	19	11
	BWS_19	0.99	0.11	23	23
	BWS_20	1.3	0.12	24	24
	Large Backwaters (> 2 acres)	BWL_01	2.1	0.15	12
BWL_02		5.5	0.14	17	17
BWL_03		2.4	0.10	19	18
BWL_04		2.1	0.14	21	21
BWL_05		12	0.11	23	23
BWL_07		22	0.11	25	25
BWL_08		4.1	0.10	26	26
BWL_09		7.0	0.10	26	26
BWL_10		6.4	0.16	27	27
BWL_11		4.6	0.022	0	0



Notes

¹ Exposure areas represent individual backwaters

² Model endpoint concentrations after 81-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG
 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-59. IMPGs for fish protection, and consumption of fish and invertebrates by ecological receptors compared to projected biota tissue PCBs (SED 8), including the time to achieve in years (*in italics*).

Ecological Receptor			Average Whole Body Fish Tissue PCB Concentration (mg/kg) ¹													
			Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8
Fish protection			0.68	0.58	0.43	1.1	0.50	1.3	0.40	0.47	2.5	0.71	1.5	0.60	1.3	0.67
Coldwater fish protection - trout below PSA								2.6	0.81	0.95	4.9	1.4	3.0	1.2	2.7	
Threatened and endangered species (represented by bald eagle)			0.31	0.28	0.26	0.49	0.24	1.1	0.24	0.20	2.5	0.27	1.2	0.24	1.0	0.32
Piscivorous birds (represented by osprey)			0.38	0.30	0.28	0.62	0.32	0.97	0.26	0.23	2.2	0.32	1.1	0.28	0.95	0.34
Ecological Receptor	Tissue Type	IMPG (mg/kg)														
Fish protection	Warmwater fish tissue (whole body)	55	3	6	0	24	5	0	0	0	0	0	0	0	0	0
	Coldwater fish tissue (whole body) - Trout Below PSA	14						34	40	41	41	33	31	33	30	
Threatened and endangered species (represented by bald eagle)	Fish tissue (whole body)	30.41	5	6	8	21	5	0	0	0	0	0	0	0	0	0
Piscivorous birds (represented by osprey)	Fish tissue (whole body)	3.2	12	17	28	28	39	34	40	41	42	36	31	42	29	49

Notes

¹ Model endpoint concentrations after 81-year projection (autumn average)

IMPG = interim media protection goal

Key

- = model prediction is lower than the IMPG
- = model prediction exceeds the IMPG
- = IMPG not applicable

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-60. Sediment IMPGs for insectivorous birds and piscivorous mammals compared to projected sediment PCBs (SED 8), including the time to achieve in years (*in italics*).

Insectivorous Birds (wood duck)

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
			1	3	5
Reach 5A	KM 1	0.089	2	2	2
	KM 2	0.36	36	4	3
	KM 3	0.063	6	6	6
	KM 4	0.024	9	9	9
	KM 5	0.028	11	11	11
Reach 5B	KM 6	0.051	13	13	13
	KM 7	0.062	15	15	14
	KM 8	0.095	19	18	17
Reaches 5C/5D	KM 9	0.11	21	20	20
	KM 10	0.11	24	24	23
	KM 11	0.11	27	26	26
Reach 6	KM 12	0.16	38	36	35

Piscivorous Mammals (mink)

Exposure Area ⁴	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
		1	3	5
Reaches 5A/5B	0.087	17	13	11
Reaches 5C/5D/6	0.13	37	33	29

Notes

¹ Exposure areas for wood ducks represent approximate 1 kilometer segments of the river channel


² Model endpoint concentrations after 81-year projection


³ Sediment target levels have corresponding floodplain soil IMPGs due to mixture of aquatic and terrestrial diets for these receptors

⁴ Exposure areas represent entire river reach

IMPG = interim media protection goal

Key

 = model prediction is lower than the target value

 = model prediction exceeds the target value

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-63. Sediment IMPGs for human direct contact compared to projected sediment PCBs (SED 9), including the time to achieve in years (*in italics*).

Risk Category	Receptor	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average 0-6" Sediment PCB Concentration (mg/kg) ¹							
					SA 1	SA 2	SA 3	SA 4	SA 5	SA 6	SA 7	SA 8
					0.16	0.16	0.15	0.18	0.021	0.013	0.35	0.17
Human Direct Contact	Older Child	RME	10 ⁻⁶ Cancer	4.5	4	9	11	11	0	0	13	14
			10 ⁻⁵ Cancer	45	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	453	0	0	0	0	0	0	0	0
			Non-Cancer	31	0	0	7	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	36	0	0	6	0	0	0	0	0
			10 ⁻⁵ Cancer	365	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	3645	0	0	0	0	0	0	0	0
			Non-Cancer	125	0	0	0	0	0	0	0	0
	Adult	RME	10 ⁻⁶ Cancer	1.3	5	10	12	12	12	13	13	14
			10 ⁻⁵ Cancer	13	2	8	10	0	0	0	0	0
			10 ⁻⁴ Cancer	135	0	0	0	0	0	0	0	0
			Non-Cancer	40	0	0	0	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	28	0	0	8	0	0	0	0	0
			10 ⁻⁵ Cancer	280	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	2800	0	0	0	0	0	0	0	0
			Non-Cancer	152	0	0	0	0	0	0	0	0

Notes

¹ Model endpoint concentrations after 52-year projection

CTE = central tendency exposure

RME = reasonable maximum exposure

IMPG = interim media protection goal

SA = EPA Risk Assessment Sediment Exposure Areas

SA 1: Confluence to New Lenox Road

SA 2: New Lenox Road to Woods Pond Headwaters

SA 3: Woods Pond (6-meters from waters edge)

SA 4: Columbia Mill Dam impoundment (6-meters from waters edge)



SA 5: Former Eagle Mill Dam impoundment (6-meters from waters edge)

SA 6: Willow Mill Dam impoundment (6-meters from waters edge)

SA 7: Glendale Dam impoundment (6-meters from waters edge)

SA 8: Rising Pond impoundment (6-meters from waters edge)

Key

 = model prediction is lower than the IMPG
 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-64. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs (SED 9), including the time to achieve in years (*in italics*).

Tissue Type	Assessment Type	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average Fish Tissue (Fillet) PCB Concentration (mg/kg) ¹																	
					Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8	BBD	LL	LZ	LH
					0.31	0.27	0.18	0.41	0.16	0.42	0.21	0.20	0.75	0.22	0.45	0.22	0.39	0.24	0.009	0.006	0.004	0.004
Bass Fillets	Deterministic	RME	10 ⁻⁶ Cancer	0.0019	<i>234</i>	<i>232</i>	<i>229</i>	<i>IT</i>	<i>231</i>	> 250	> 250	> 250	> 250	> 250	> 250	> 250	> 250	101	90	78	77	
			10 ⁻⁵ Cancer	0.019	<i>151</i>	<i>148</i>	<i>139</i>	<i>IT</i>	<i>138</i>	> 250	> 250	<i>171</i>	> 250	209	> 250	> 250	> 250	> 250	34	26	23	22
			10 ⁻⁴ Cancer	0.19	<i>68</i>	<i>63</i>	<i>51</i>	<i>IT</i>	<i>44</i>	120	60	52	> 250	61	140	63	147	72	13	11	9	8
			Non-Cancer -- Child	0.026	<i>140</i>	<i>136</i>	<i>127</i>	<i>IT</i>	<i>125</i>	> 250	245	155	> 250	189	> 250	232	> 250	> 250	25	21	18	18
			Non-Cancer -- Adult	0.062	<i>109</i>	<i>104</i>	<i>93</i>	<i>IT</i>	<i>89</i>	219	164	110	> 250	133	> 250	158	> 250	182	16	15	13	13
			10 ⁻⁶ Cancer	0.049	<i>117</i>	<i>113</i>	<i>102</i>	<i>IT</i>	<i>99</i>	240	186	122	> 250	148	> 250	178	> 250	205	19	17	15	15
		CTE	10 ⁻⁵ Cancer	0.49	<i>35</i>	<i>22</i>	<i>15</i>	<i>16</i>	<i>16</i>	<i>37</i>	<i>16</i>	<i>17</i>	<i>114</i>	<i>17</i>	<i>39</i>	<i>17</i>	<i>22</i>	<i>19</i>	0	0	0	0
			10 ⁻⁴ Cancer	4.9	<i>8</i>	<i>9</i>	<i>10</i>	<i>12</i>	<i>12</i>	<i>11</i>	<i>11</i>	<i>12</i>	<i>11</i>	<i>11</i>	<i>10</i>	<i>10</i>	<i>9</i>	<i>11</i>	0	0	0	0
			Non-Cancer -- Child	0.19	<i>68</i>	<i>63</i>	<i>51</i>	<i>IT</i>	<i>44</i>	120	60	52	> 250	61	140	63	147	72	13	11	9	8
			Non-Cancer -- Adult	0.43	<i>38</i>	<i>34</i>	<i>16</i>	<i>24</i>	<i>17</i>	<i>48</i>	<i>16</i>	<i>18</i>	<i>134</i>	<i>17</i>	<i>56</i>	<i>18</i>	<i>35</i>	<i>19</i>	0	0	0	0
			10 ⁻⁶ Cancer	0.0064	<i>190</i>	<i>188</i>	<i>181</i>	<i>IT</i>	<i>182</i>	> 250	> 250	228	> 250	> 250	> 250	> 250	> 250	> 250	60	50	36	35
			10 ⁻⁵ Cancer	0.064	<i>108</i>	<i>103</i>	<i>91</i>	<i>IT</i>	<i>88</i>	216	162	108	> 250	131	251	155	> 250	179	16	15	13	13
	Probabilistic	(5th percentile)	10 ⁻⁴ Cancer	0.64	<i>19</i>	<i>15</i>	<i>14</i>	<i>15</i>	<i>16</i>	<i>120</i>	<i>15</i>	<i>16</i>	<i>74</i>	<i>16</i>	<i>21</i>	<i>16</i>	<i>16</i>	<i>18</i>	0	0	0	0
			Non-Cancer -- Child	0.059	<i>111</i>	<i>106</i>	<i>94</i>	<i>IT</i>	<i>91</i>	223	169	112	> 250	136	> 250	162	> 250	187	17	16	14	14
			Non-Cancer -- Adult	0.12	<i>85</i>	<i>80</i>	<i>67</i>	<i>IT</i>	<i>62</i>	161	103	76	> 250	91	187	102	210	117	13	11	9	8
			10 ⁻⁶ Cancer	0.057	<i>112</i>	<i>107</i>	<i>96</i>	<i>IT</i>	<i>93</i>	226	172	114	> 250	138	> 250	165	> 250	190	17	16	14	14
			10 ⁻⁵ Cancer	0.57	<i>23</i>	<i>18</i>	<i>14</i>	<i>15</i>	<i>16</i>	<i>25</i>	<i>16</i>	<i>17</i>	<i>91</i>	<i>16</i>	<i>30</i>	<i>17</i>	<i>17</i>	<i>18</i>	0	0	0	0
			10 ⁻⁴ Cancer	5.7	<i>7</i>	<i>9</i>	<i>9</i>	<i>11</i>	<i>11</i>	<i>11</i>	<i>11</i>	<i>11</i>	<i>11</i>	<i>11</i>	<i>10</i>	<i>9</i>	<i>9</i>	<i>8</i>	10	0	0	0
		CTE (50th percentile)	Non-Cancer -- Child	0.71	<i>16</i>	<i>14</i>	<i>14</i>	<i>15</i>	<i>15</i>	<i>17</i>	<i>15</i>	<i>16</i>	<i>58</i>	<i>15</i>	<i>17</i>	<i>16</i>	<i>16</i>	<i>18</i>	0	0	0	0
			Non-Cancer -- Adult	1.5	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>	<i>14</i>	<i>14</i>	<i>14</i>	<i>14</i>	<i>15</i>	<i>14</i>	<i>14</i>	<i>14</i>	<i>13</i>	<i>16</i>	0	0	0	0

Notes
¹ Model endpoint concentrations after 52-year projection (autumn average); whole body concentrations divided by a factor of 5.0 to convert to fillet basis
 CTE = central tendency exposure
 RME = reasonable maximum exposure
 BBD: Bulls Bridge Dam Impoundment
 LL: Lake Lillionah
 LZ: Lake Zoar
 LH: Lake Housatonic


Key

 = model prediction is lower than the IMPG
 = model prediction is lower than the cancer IMPG, but is not lower than the corresponding non-cancer IMPGs
 = model prediction exceeds the IMPG
<value> = time to achieve predicted by the model
<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-65. Sediment IMPGs for benthic invertebrates compared to projected sediment PCBs (SED 9), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
			Lower End of Range	Upper End of Range
			3	10
5A	R5A_01	0.31	<i>1</i>	<i>1</i>
	R5A_02	0.20	<i>1</i>	<i>1</i>
	R5A_03	0.21	<i>1</i>	<i>1</i>
	R5A_04	0.29	<i>1</i>	<i>1</i>
	R5A_05	0.26	<i>1</i>	<i>1</i>
	R5A_06	0.13	2	1
	R5A_07	0.22	2	2
	R5A_08	0.18	2	2
	R5A_09	0.11	3	2
	R5A_10	0.19	3	3
	R5A_11	0.15	4	4
5B	R5B_01	0.083	5	4
	R5B_02	0.073	5	0
	R5B_03	0.077	5	0
	R5B_04	0.13	6	0
	R5B_05	0.10	6	0
5C	R5C_01	0.085	7	2
	R5C_02	0.13	7	7
	R5C_03	0.11	8	0
	R5C_04	0.13	8	8
	R5C_05	0.18	8	8
	R5C_06	0.19	10	10
6	Woods Pond	0.13	11	11
	7A	0.41	0	0
	7B	0.17	12	0
	7C	0.027	12	0
	7D	0.95	0	0
	7E	0.0134	0	0
	7F	0.60	0	0
	7G	0.233	13	0
	7H	0.39	0	0
8	Rising Pond	0.20	14	0

Notes


¹ Exposure areas in Reach 5 represent EPA spatial bins (1/4 to 1/2-mile segments as defined in EPA's Model Validation Report)

² Model endpoint concentrations after 52-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-66. Backwater sediment IMPGs for amphibians compared to projected sediment PCBs (SED 9), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Area (acres)	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
				Lower End of Range	Upper End of Range
				3.27	5.6
Small Backwaters (< 2 acres)	BWS_01	1.9	0.21	<i>1</i>	<i>1</i>
	BWS_02	1.8	0.21	<i>2</i>	<i>2</i>
	BWS_03	1.9	0.24	<i>2</i>	<i>2</i>
	BWS_04	0.30	0.22	<i>2</i>	<i>2</i>
	BWS_06	0.56	0.19	<i>5</i>	<i>5</i>
	BWS_07	0.12	0.11	<i>5</i>	<i>5</i>
	BWS_08	0.35	0.26	<i>7</i>	<i>7</i>
	BWS_09	0.28	0.23	<i>7</i>	<i>7</i>
	BWS_10	1.5	0.38	<i>7</i>	<i>7</i>
	BWS_11	0.11	0.13	<i>7</i>	<i>5</i>
	BWS_12	1.7	0.14	<i>7</i>	<i>7</i>
	BWS_13	0.37	0.098	<i>7</i>	<i>7</i>
	BWS_14	0.57	0.14	<i>7</i>	<i>7</i>
	BWS_15	0.90	0.16	<i>7</i>	<i>7</i>
	BWS_16	1.0	0.14	<i>8</i>	<i>8</i>
	BWS_17	0.58	0.13	<i>8</i>	<i>6</i>
	BWS_18	0.84	0.11	<i>8</i>	<i>8</i>
	BWS_19	0.99	0.15	<i>8</i>	<i>8</i>
	BWS_20	1.3	0.14	<i>8</i>	<i>8</i>
	Large Backwaters (> 2 acres)	BWL_01	2.1	0.18	<i>4</i>
BWL_02		5.5	0.17	<i>6</i>	<i>6</i>
BWL_03		2.4	0.14	<i>7</i>	<i>7</i>
BWL_04		2.1	0.15	<i>8</i>	<i>8</i>
BWL_05		12	0.19	<i>8</i>	<i>8</i>
BWL_07		22	0.22	<i>9</i>	<i>9</i>
BWL_08		4.1	0.18	<i>9</i>	<i>9</i>
BWL_09		7.0	0.18	<i>10</i>	<i>9</i>
BWL_10		6.4	0.21	<i>10</i>	<i>10</i>
BWL_11		4.6	0.023	<i>0</i>	<i>0</i>



Notes

¹ Exposure areas represent individual backwaters

² Model endpoint concentrations after 52-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG
 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-67. IMPGs for fish protection, and consumption of fish and invertebrates by ecological receptors compared to projected biota tissue PCBs (SED 9), including the time to achieve in years (*in italics*).

Ecological Receptor			Average Whole Body Fish Tissue PCB Concentration (mg/kg) ¹													
			Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8
Warmwater fish protection			1.2	1.1	0.71	1.6	0.64	1.6	0.82	0.75	2.9	0.84	1.7	0.84	1.5	0.91
Coldwater fish protection - trout below PSA								3.2	1.6	1.5	5.7	1.7	3.5	1.7	2.9	
Threatened and endangered species (represented by bald eagle)			0.65	0.49	0.40	0.66	0.28	1.2	0.63	0.28	2.9	0.31	1.4	0.39	1.1	0.47
Piscivorous birds (represented by osprey)			0.71	0.54	0.44	0.83	0.40	1.1	0.63	0.33	2.4	0.36	1.2	0.42	1.0	0.49
Ecological Receptor	Tissue Type	IMPG (mg/kg)														
Fish protection	Warmwater fish tissue (whole body)	55	<i>4</i>	<i>6</i>	<i>6</i>	<i>9</i>	<i>7</i>	<i>6</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
	Coldwater fish tissue (whole body) - Trout Below PSA	14						<i>13</i>	<i>13</i>	<i>14</i>	<i>14</i>	<i>13</i>	<i>13</i>	<i>13</i>	<i>12</i>	
Threatened and endangered species (represented by bald eagle)	Fish tissue (whole body)	30.41	<i>3</i>	<i>5</i>	<i>7</i>	<i>8</i>	<i>7</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Piscivorous birds (represented by osprey)	Fish tissue (whole body)	3.2	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>	<i>13</i>	<i>13</i>	<i>13</i>	<i>15</i>	<i>12</i>	<i>12</i>	<i>13</i>	<i>12</i>	<i>15</i>

Notes

¹ Model endpoint concentrations after 52-year projection (autumn average)

IMPG = interim media protection goal

Key

- = model prediction is lower than the IMPG
- = model prediction exceeds the IMPG
- = IMPG not applicable

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-68. Sediment IMPGs for insectivorous birds and piscivorous mammals compared to projected sediment PCBs (SED 9), including the time to achieve in years (*in italics*).

Insectivorous Birds (wood duck)

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
			1	3	5
Reach 5A	KM 1	0.24	<i>1</i>	<i>1</i>	<i>1</i>
	KM 2	0.22	2	2	1
	KM 3	0.17	2	2	2
	KM 4	0.17	3	3	3
	KM 5	0.16	4	4	4
Reach 5B	KM 6	0.11	5	5	5
	KM 7	0.092	6	5	5
	KM 8	0.12	7	7	7
Reaches 5C/5D	KM 9	0.14	8	7	7
	KM 10	0.17	8	8	8
	KM 11	0.18	10	10	9
Reach 6	KM 12	0.16	12	11	11

Piscivorous Mammals (mink)

Exposure Area ⁴	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
		1	3	5
Reaches 5A/5B	0.16	6	5	4
Reaches 5C/5D/6	0.16	11	11	10

Notes

¹ Exposure areas for wood ducks represent approximate 1 kilometer segments of the river channel

² Model endpoint concentrations after 52-year projection

³ Sediment target levels have corresponding floodplain soil IMPGs due to mixture of aquatic and terrestrial diets for these receptors

⁴ Exposure areas represent entire river reach

IMPG = interim media protection goal

Key

= model prediction is lower than the target value

= model prediction exceeds the target value

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-71. Sediment IMPGs for human direct contact compared to projected sediment PCBs (SED 10), including the time to achieve in years (*in italics*).

Risk Category	Receptor	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Average 0-6" Sediment PCB Concentration (mg/kg) ¹							
					SA 1	SA 2	SA 3	SA 4	SA 5	SA 6	SA 7	SA 8
					7.0	16	11	3.4	4.1	1.2	7.6	3.0
Human Direct Contact	Older Child	RME	10 ⁻⁶ Cancer	4.5	<i>153</i>	> 250	<i>140</i>	0	0	0	52	0
			10 ⁻⁵ Cancer	45	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	453	0	0	0	0	0	0	0	0
			Non-Cancer	31	0	0	5	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	36	0	0	4	0	0	0	0	0
			10 ⁻⁵ Cancer	365	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	3645	0	0	0	0	0	0	0	0
			Non-Cancer	125	0	0	0	0	0	0	0	0
	Adult	RME	10 ⁻⁶ Cancer	1.3	> 250	> 250	> 250	> 250	> 250	37	> 250	> 250
			10 ⁻⁵ Cancer	13	2	83	37	0	0	0	0	0
			10 ⁻⁴ Cancer	135	0	0	0	0	0	0	0	0
			Non-Cancer	40	0	0	0	0	0	0	0	0
		CTE	10 ⁻⁶ Cancer	28	0	0	5	0	0	0	0	0
			10 ⁻⁵ Cancer	280	0	0	0	0	0	0	0	0
			10 ⁻⁴ Cancer	2800	0	0	0	0	0	0	0	0
			Non-Cancer	152	0	0	0	0	0	0	0	0

Notes

¹ Model endpoint concentrations after 52-year projection

CTE = central tendency exposure

RME = reasonable maximum exposure

IMPG = interim media protection goal

SA = EPA Risk Assessment Sediment Exposure Areas

SA 1: Confluence to New Lenox Road

SA 2: New Lenox Road to Woods Pond Headwaters

SA 3: Woods Pond (6-meters from waters edge)

SA 4: Columbia Mill Dam impoundment (6-meters from waters edge)


SA 5: Former Eagle Mill Dam impoundment (6-meters from waters edge)


SA 6: Willow Mill Dam impoundment (6-meters from waters edge)

SA 7: Glendale Dam impoundment (6-meters from waters edge)

SA 8: Rising Pond impoundment (6-meters from waters edge)

Key

 = model prediction is lower than the IMPG

 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-73. Sediment IMPGs for benthic invertebrates compared to projected sediment PCBs (SED 10), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
			Lower End of Range	Upper End of Range
			3	10
5A	R5A_01	3.3	<i>IT</i>	2
	R5A_02	0.92	1	1
	R5A_03	4.8	59	36
	R5A_04	27	>250	>250
	R5A_05	1.1	1	1
	R5A_06	2.3	2	1
	R5A_07	0.77	2	2
	R5A_08	14	245	98
	R5A_09	9.9	>250	51
	R5A_10	17	<i>IT</i>	<i>IT</i>
	R5A_11	0.95	4	3
5B	R5B_01	9.8	>250	45
	R5B_02	6.9	<i>IT</i>	0
	R5B_03	4.4	244	0
	R5B_04	5.3	245	0
	R5B_05	5.2	105	0
5C	R5C_01	7.1	>250	1
	R5C_02	7.8	>250	10
	R5C_03	4.4	103	0
	R5C_04	5.7	123	9
	R5C_05	37	>250	>250
	R5C_06	27	>250	171
6	Woods Pond	3.7	73	5
	7A	0.42	0	0
	7B	4.1	>250	0
	7C	4.1	>250	0
	7D	1.2	0	0
	7E	1.2	0	0
	7F	0.69	0	0
	7G	5.1	192	0
	7H	0.40	0	0
8	Rising Pond	2.8	26	0

Notes

¹ Exposure areas in Reach 5 represent EPA spatial bins (1/4 to 1/2-mile segments as defined in EPA's Model Validation Report)

² Model endpoint concentrations after 52-year projection
 IMPG = interim media protection goal

Key

= model prediction is lower than the IMPG

= model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

IT = Increasing trend in model extrapolation; no time-to-achieve estimated.

Table 6-74. Backwater sediment IMPGs for amphibians compared to projected sediment PCBs (SED 10), including the time to achieve in years (*in italics*).

Reach	Exposure Area ¹	Area (acres)	Average 0-6" Sediment PCB Concentration (mg/kg) ²	IMPG (mg/kg)	
				Lower End of Range	Upper End of Range
				3.27	5.6
Small Backwaters (< 2 acres)	BWS_01	1.9	5.6	<i>114</i>	52
	BWS_02	1.8	5.6	<i>124</i>	52
	BWS_03	1.9	2.4	41	30
	BWS_04	0.30	22	> 250	> 250
	BWS_06	0.56	1.3	20	11
	BWS_07	0.12	5.4	> 250	13
	BWS_08	0.35	37	> 250	> 250
	BWS_09	0.28	20	> 250	> 250
	BWS_10	1.5	16	> 250	> 250
	BWS_11	0.11	1.3	8	5
	BWS_12	1.7	6.0	<i>107</i>	59
	BWS_13	0.37	10	> 250	> 250
	BWS_14	0.57	9.0	> 250	> 250
	BWS_15	0.90	9.2	<i>201</i>	<i>124</i>
	BWS_16	1.0	2.8	46	22
	BWS_17	0.58	1.6	19	6
	BWS_18	0.84	1.4	22	11
	BWS_19	0.99	21	> 250	> 250
	BWS_20	1.3	6.4	<i>130</i>	68
	Large Backwaters (> 2 acres)	BWL_01	2.1	11	<i>177</i>
BWL_02		5.5	5.2	87	48
BWL_03		2.4	3.3	53	22
BWL_04		2.1	3.8	66	31
BWL_05		12	14	202	147
BWL_07		22	20	> 250	> 250
BWL_08		4.1	14	> 250	> 250
BWL_09		7.0	15	> 250	227
BWL_10		6.4	13	> 250	226
BWL_11		4.6	2.3	0	0



Notes

¹ Exposure areas represent individual backwaters

² Model endpoint concentrations after 52-year projection

IMPG = interim media protection goal

Key

 = model prediction is lower than the IMPG
 = model prediction exceeds the IMPG

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

Table 6-75. IMPGs for fish protection, and consumption of fish and invertebrates by ecological receptors compared to projected biota tissue PCBs (SED 10), including the time to achieve in years (*in italics*).

Ecological Receptor			Average Whole Body Fish Tissue PCB Concentration (mg/kg) ¹													
			Reach 5A	Reach 5B	Reach 5C	Reach 5D	Reach 6	Reach 7A	Reach 7B	Reach 7C	Reach 7D	Reach 7E	Reach 7F	Reach 7G	Reach 7H	Reach 8
Warmwater fish protection			16	25	22	41	14	16	16	17	14	11	8.5	9.9	7.4	10
Coldwater fish protection - trout below PSA								32	32	33	29	22	17	20	15	
Threatened and endangered species (represented by bald eagle)			13	19	21	21	6.8	6.2	13	8.2	7.4	4.6	3.9	5.7	3.2	6.4
Piscivorous birds (represented by osprey)			11	17	20	24	9.1	7.2	13	8.6	7.7	5.1	4.2	5.7	3.5	6.3
Ecological Receptor	Tissue Type	IMPG (mg/kg)														
Fish protection	Warmwater fish tissue (whole body)	55	3	4	0	36	4	0	0	0	0	0	0	0	0	0
	Coldwater fish tissue (whole body) - Trout Below PSA	14						137	174	159	159	104	83	122	61	
Threatened and endangered species (represented by bald eagle)	Fish tissue (whole body)	30.41	3	4	7	35	4	0	0	0	0	0	0	0	0	0
Piscivorous birds (represented by osprey)	Fish tissue (whole body)	3.2	173	> 250	> 250	199	146	150	> 250	210	248	112	103	189	78	243

Notes

¹ Model endpoint concentrations after 52-year projection (autumn average)

IMPG = interim media protection goal

Key

- = model prediction is lower than the IMPG
- = model prediction exceeds the IMPG
- = IMPG not applicable

<value> = *time to achieve predicted by the model*

<value> = *time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report*

Table 6-76. Sediment IMPGs for insectivorous birds and piscivorous mammals compared to projected sediment PCBs (SED 10), including the time to achieve in years (*in italics*).

Insectivorous Birds (wood duck)

Reach	Exposure Area ¹	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
			1	3	5
Reach 5A	KM 1	2.8	<i>165</i>	49	26
	KM 2	7.1	<i>140</i>	91	68
	KM 3	7.9	> 250	> 250	206
	KM 4	15	<i>IT</i>	<i>IT</i>	<i>IT</i>
	KM 5	0.74	4	3	3
Reach 5B	KM 6	8.3	> 250	> 250	159
	KM 7	5.5	> 250	> 250	134
	KM 8	7.0	> 250	169	98
Reaches 5C/5D	KM 9	6.7	> 250	183	101
	KM 10	18	> 250	> 250	> 250
	KM 11	20	> 250	> 250	> 250
Reach 6	KM 12	8.5	> 250	156	105

Piscivorous Mammals (mink)

Exposure Area ⁴	Average 0-6" Sediment PCB Concentration (mg/kg) ²	Sediment Target Level (mg/kg) ³		
		1	3	5
Reaches 5A/5B	6.9	> 250	199	109
Reaches 5C/5D/6	13	> 250	> 250	195

Notes

¹ Exposure areas for wood ducks represent approximate 1 kilometer segments of the river channel

² Model endpoint concentrations after 52-year projection

³ Sediment target levels have corresponding floodplain soil IMPGs due to mixture of aquatic and terrestrial diets for these receptors

⁴ Exposure areas represent entire river reach

IMPG = interim media protection goal

Key

= model prediction is lower than the target value

= model prediction exceeds the target value

<value> = time to achieve predicted by the model

<value> = time to achieve based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the Revised CMS Report

IT = Increasing trend in model extrapolation; no time-to-achieve estimated.