Table GC10-1: Ecological Inventory Parameters

Response to EPA's Interim Comments on CMS Report, Housatonic River – Rest of River
General Electric Company – Pittsfield, MA

General Data/Landscape Variables	
	1. Size of Area 2. Landscape Context/Connectivity/Juxtaposition 3. Regional Scarcity/Uniqueness 4. Watershed Land Use Conditions 5. Rosgen Level I Classification 6. Topographic Data
Community Cover Types (List all that apply, plus aerial extent)	
Uplands	1. Agricultural fields 2. Cultural Grasslands 3. Northern Hardwoods-Hemlock-White Pine Forest 4. Red Oak-Sugar Maple Transition Forest 5. Rich Mesic Forest 6. Successional Northern Hardwood Forest
Wetlands	1. Wet Meadow 2. Shallow Emergent Marsh 3. Deep Emergent Marsh/Backwater 4. Shrub Swamp 5. Calcareous Seepage Swamp 6. Transitional Floodplain Forest 7. Red Maple Swamp High Terrace Floodplain Forest 8. High Gradient Stream 9. Medium Gradient Stream 10. Low Gradient Stream 11. Moderately Alkaline Pond (or Impoundment) 12. Riverine Point Bar/Beach 13. Other: e.g., Vernal Pools
Predominant Riverine and Streambank Conditions	
	1. Rosgen Level II Data Collection 2. River Width and Depth: average and range 3. Flow Velocity: average and range 4. % Pools, % Riffles, %Runs, % Embeddedness of Cobble 5. Sediment Type: dominant and subordinate 6. Boulder abundance, size, dispersal 7. Woody Debris: abundance, size, emergent vs submergent, 8. Bank Physical Status: stability, slope, sediment types, undercutting, etc 9. Bank Habitat: burrows, nesting sites, vegetative cover, overhanging trees, woody debris, rocks 10. Aquatic plants: species, relative abundance and cover 11. Fisheries and Shellfish: species, relative abundance 12. Aquatic Macroinvertebrates: species, relative abundance 13. Water Quality Characterization 14. Special Habitats: mud flats; beaches; point bars

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Riparian/Floodplain Zone Conditions (Data for Each Community Type	
Hydrology	1. Water Regime: Cowardin classification 2. Frequency of Overbank Flooding: return interval 3. Water Level Conditions: Fluctuation and Mean Level 4. Piezometer Data 5. Relationship of Surface Elevation to Regional Piezometric Surface Elevation 6. Ratio of Wetland Area to Watershed Area 7. Evidence of Seeps and Springs 8. Inlet/Outlet Conditions/Controls
Soils	1. Soil Profile Description 2. Classification 3. Microrelief 4. Engineering characteristics, erodibility, etc
Plant Community	1. Species by Community Type and Strata 2. Vegetative Density/Relative Dominance by Strata 3. Vegetative Interspersion 4. Tree Foliage % Cover and Size/Density of Trees 5. Proportion of Wildlife Food Plants 6. Standing Dead Trees/Wolf Trees 7. Tree Cavities
Special Habitat Considerations	1. Rare Species: assess habitat suitability, records, etc. 2. Vernal Pools: size, hydrology, flora & fauna, soils, surrounding habitat, relationship to other pools, etc. 3. Other
Wildlife	1. Species habitat suitability 2. Species observed

Table GC10-3: BMP Summary Table

Response to EPA's Interim Comments on CMS Report, Housatonic River – Rest of River
General Electric Company – Pittsfield, MA

BMP Type	Application(s)	Description	Limitations/Notes
Minimization of access road width	Avoid/minimize overall impacts	Construction access roads in cross-country settings can create significant disturbances. Keeping the width of such roads to 15-20 feet will generally allow for safe passage of heavy equipment while minimizing physical impacts to soils and vegetation.	Uneven topography can provide challenges that require additional material. Pull-offs need to be provided at regular intervals to allow construction vehicles to travel in opposite directions, which will effectively double the width of roads in certain areas.
Swamp/timber mats, plywood sheets, AlturnaMATS®	Wetland/stream crossings	Timber mats are typically 12" x12" timbers bolted connected together to form single mats; usually 6-8 feet wide and 16-20 feet long; used for wetland crossings in order to minimize rutting caused by heavy machinery. Plywood sheets can be lain down in succession to allow for small vehicles with rubber tires or rubberized tracks to pass through wetlands with minimal damage. AlturnaMats are light-weight, easy to handle, half-inch thick polyethylene slip-resistant ground protection devices. They are available in dimensions up to 4 feet by 8 feet and generally weigh less than 100 pounds, therefore can be moved without heavy machinery.	Timber mats need to be installed using heavy machinery and their availability can be limited for large projects. Plywood sheets are only to be used for very small vehicles. AlturnaMats will only work for smaller to moderately-sized mechanical equipment.
Poled fords	Stream crossings	Used for perpendicular crossings with shallow water depths, stable stream bottoms, and if an historic access road exists or the crossing is at a narrow reach of the stream/wetland.	Poled fords should not be used to cross previously undisturbed streams and banks.
Rubberized tracks, wide tires, lightweight equipment, low ground pressure equipment	Minimize rutting and soil compaction	Equipment with rubberized tracks spreads the weight of vehicle equipment over a much larger surface, reducing ground pressure and enabling the vehicle to move more freely through wet, unstable substrates. Reduces rutting, soil scarification, and soil compaction in sensitive areas. For work within sensitive areas, such as wetlands, increasing the width of tires will increase traveling surface area and therefore reduce the amount of ground pressure exerted by the equipment. Reduces rutting and soil compaction as improves maneuvering of the vehicle. Impacts can be lessened by reducing the size of equipment used. This will reduce the amount of pressure to the travel surface as well as the necessary width of access ways and staging areas. Smaller, lighter equipment will minimize soil compaction, rutting, and overall disturbance. Using equipment that reduces the pressure it exerts on the ground can minimize impacts to sensitive areas. Equipment with a ground pressure of less than 3 pounds per square inch (psi) for work in wetlands/sensitive areas can help minimize soil compaction and rutting.	Rubberized tracks are not compatible with certain pieces of machinery. Wide tires may be costly and will require a wider travel surface area. Lightweight vehicles may only work for select elements of construction that don't require larger, heavy equipment.
Long-reach excavators	Minimization of bank and aquatic habitat disturbance	These have buckets attached to a long arm, increasing the reaching ability of the equipment, allowing the equipment to be situated farther away from work, minimizing travel distance through undisturbed or unstable soils. Long-reach excavators can preclude the need to drive into a sensitive area to perform work if a stable staging area can be provided close by.	These vehicles generally require very long swing radii for the arms, which could necessitate additional and significant tree clearing in non-target remedial areas.
Straw-based materials for erosion control (e.g. hay bales, straw bales, straw wattles)	Erosion control; mulch for exposed soils	Hay bales are generally used for erosion control purposes. When used to protect areas from erosion, they are intended to slow the velocity of flows and trap sediments behind them, preventing siltation of sensitive areas; most specifically downgradient areas with open and/or flowing water. Straw bales are often favored over hay bales for use as erosion control barriers and mulch because they are composed of the dried stalks left over after a grain is harvested and they do not contain the plant's seeds. Therefore, they will not spread growth of unwanted species. Straw wattles are constructed from a biodegradable netting sock stuffed with straw and are used as an erosion control device at unstable sites. Since they are biodegradable, they may also be left in place once construction is complete.	Hay bales can be difficult to install under frozen conditions, and can generally only be used for 6-12 months before needing replacement. Straw bales are generally more expensive than hay bales and availability can be limited in the Northeast. Straw wattles are not generally intended for steep slopes, but rather, to stabilize low to moderate grades where there is a broad area of disturbance – they are not recommended for slopes greater than 3%. All these materials may be a hindrance to small animal movement.

Table GC10-3: BMP Summary Table

Response to EPA's Interim Comments on CMS Report, Housatonic River – Rest of River
General Electric Company – Pittsfield, MA

BMP Type	Application(s)	Description	Limitations/Notes
Silt fencing	Erosion control	Silt fencing is constructed of a permeable geotextile fabric secured by wooden stakes driven into the ground. It is installed as a temporary barrier to mark the limits of work and to prevent sediments from flowing into an unprotected and/or sensitive area from a disturbed site. Silt fence can also be used as a temporary barrier to keep small wildlife out of a work area. Once work is complete and soils are stabilized, silt fence materials (i.e., geotextile fabric and wooden stakes) should be removed and properly disposed off-site.	Silt fences pose a serious long-term obstacle to movement of smaller, more sensitive wildlife, as the material degrades very slowly. Frozen or rocky ground makes installation difficult.
Sheet piling, coffer dams, port-a-dams, silt curtains	In-water activities; siltation control; trench wall/bank stabilization	In-water activities require protection against sediments and debris from entering the water body. This is best achieved by installing in-water barriers surrounding the work area. Sheet piling, coffer dams (often sand-filled sacks), or silt curtains can provide a means of filtering sediments out of the water and can also serve as the limits of work, prohibiting aquatic organisms from entering the area. All barriers should be removed as soon as work activities are complete, as they can impede flows and limit aquatic animal movement.	All these devices fare poorly in waters with substantial velocity, unless they can be installed parallel to the flow. Port-a Dams are not usable in greater than 8' of water, and sand bag coffer dams do not work well in water greater than 2-4' in depth.
Erosion control blankets	Soil stabilization	Erosion control blankets are generally composed of biodegradable or synthetic materials. These blankets are used as a temporary or permanent aid to prevent erosion, stabilize soils, and protect seeds from foragers while vegetation is re-colonizing.	Erosion control blankets are not recommended for very steep (i.e. greater than 15%) slopes or on rocky soils.
Temporary swales and sediment basins	Stormwater management	Used to control stormwater and/or to dewater excavation areas. Swales usually consist of a ditch lined with rip rap, trap rock, erosion control blankets, or other materials and are used to intercept, redirect, and convey surface flows in order to prevent erosion prior to discharge. Temporary sediment basins allow sediment in runoff to be filtered out before water is released into wetlands or other unprotected and/or sensitive areas.	Adequate bottom stabilization of swales is needed to prevent scouring. Sediment basins need to be adequately sized based on expected rain events and contributing drainage area.
Coffer dams	Stream flow diversion	Coffer dams placed in a stream channel parallel to flows allow for diversion of flows such that one portion of the channel can be dewatered so stream bottom sediments may be removed.	Usually need to be used in conjunction with pumps to keep groundwater from discharging into the dried portion of the streambed/work area.
Water bars and check dams	Stormwater management	These measures control water velocities into and within temporary stormwater swales. Water bars are linear features constructed across an access way to redirect water flow off of the road surface to prevent erosion. They consist of a shallow trench just upgradient of a short berm and are installed at a downward sloping angle across the road. Check dams are typically constructed of rip rap or other stone material, while short-term check dams can be constructed of staked hay bales. These structures are placed across a swale to reduce velocities.	Water bars can impede vehicular movement and must be routinely maintained. Temporary check dams should be inspected at least once per week and within 24 hours of the end of heavy precipitation events.

Table GC12-1 - Sediment Alternatives Revised OMM Program Components

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

Monitoring Programs/Components	Sediment Alternatives							
	SED 1	SED 2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
100-year OMM								
Visual Inspection of Channel/Impoundment Cap/Backfill	NA	NA	Once in each of the following years in affected areas: Yrs 1, 2, 3, 4, 5, 10, 15, 25, 50, 75, 100					
Water Column	NA	Quarterly sampling at 12 locations along the Housatonic River in MA and CT (Yr 1, 2, 3, 4, 5, 10, 15, 25, 50, 75, 100)						
Fish	NA	Adult sampling at 8 locations (4 locations each in MA and CT) (Yr 1, 2, 3, 4, 5, 10, 15, 25, 50, 75, 100)						
Sediment	Sampling as specified below (Yr 5, 10, 15, 25, 50, 75, 100)							
MNR and Removal/Backfill Areas	NA	100 surface sediment samples	75 surface sediment samples	50 surface sediment samples	50 surface sediment samples	50 surface sediment samples	50 surface sediment samples	100 surface sediment samples
Removal/Cap Areas	NA	NA	1 core/4-5 acres 3 samples/core	1 core/4-5 acres 3 samples/core	1 core/4-5 acres 3 samples/core	1 core/4-5 acres 3 samples/core	1 core/4-5 acres 3 samples/core	NA
Cap Areas	NA	NA	NA	1 core/4-5 acres 3 samples/core	1 core/4-5 acres 3 samples/core	1 core/4-5 acres 3 samples/core	1 core/4-5 acres 3 samples/core	NA
Thin-Layer Cap Areas	NA	NA	1 core/4-5 acres 1 sample/core	1 core/4-5 acres 1 sample/core	1 core/4-5 acres 1 sample/core	1 core/4-5 acres 1 sample/core	1 core/4-5 acres 1 sample/core	NA
Total Cores (Per Year Sampled)[1]	0	100	110	110	120	130	110	100
Total Samples (Per Year Sampled)	0	100	130	180	210	240	210	100
Biota Consumption Advisories	NA	Maintain signs and conduct other outreach efforts in MA and CT every other year for up to 100 years as necessary						

Notes:
1. Total number of sediment cores and samples estimated based on 4 cores/acre, with numbers rounded to the nearest ten.
NA = not applicable

Table GC13-1. Summary of removal volumes, areas, costs, and PCB load reductions under all SED alternatives.

Category		SED 1	SED 2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Remediation Summary[1]	Total Sediment Removal Volume (cy)	0	0	134,000	262,000	377,000	521,000	770,000	2,252,000
	Total Bank Removal Volume (cy)	0	0	33,000	33,000	33,000	33,000	33,000	33,000
	Total Removal Volume for Alternative (cy)	0	0	167,000	295,000	410,000	554,000	803,000	2,285,000
	Total Sediment Removal Area (acres)	0	0	42	91	126	178	219	351
	Total Thin-layer Cap Area (acres)	0	0	97	119	102	112	72	0
	Total Engineered Cap Only Area (acres)	0	0	0	37	60	45	45	0
	Years to Implement	0	0	10	15	19	21	26	52
Cost (M)[2]	Total Capital Cost	$0	$0	$137 M	$213 M	$257 M	$314 M	$377 M	$676 M
	OMM Cost	$0	$7.8 M	$10.9 M	$11.1 M	$11.3 M	$11.6 M	$11.4 M	$10.9 M
	Total Cost of Alternative	$0	$7.8 M	$148 M	$224 M	$268 M	$325 M	$389 M	$687 M
Percent Reduction in Current Annual PCB Load	Woods Pond Dam	37%	37%	94%	96%	97%	97%	97%	98%
	Rising Pond Dam	41%	41%	87%	89%	93%	95%	95%	97%
	Reach 5/6 Floodplain	50%	50%	97%	97%	98%	98%	98%	99%

Notes:

[1] *Values presented in this table for SED 6, SED 7, and SED 8 reflect additional remediation in Reaches 7B and 7C, as discussed in Response to Specific Comment 44.*

[2] *Cost estimates presented in this table have been updated from those presented in CMS Report based on EPA's comments on the prior cost estimates.*

Table GC13-2a. Summary of reach-specific metrics for evaluating all SED alternatives (remediation summary).

Reach	Remediation Summary[1]																										
	Sediment Removal Volume (cy)							Sediment Removal Area (acres)							Thin-Layer Cap Area (acres)							Engineered Cap Area Only (acres)						
	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
5A	0	134,000	134,000	134,000	134,000	218,000	268,000	0	42	42	42	42	42	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5B	0	0	39,000	88,000	88,000	109,000	153,000	0	0	12	27	27	27	27	0	0	15	0	0	0	0	0	0	0	0	0	0	0
5C	0	0	0	66,000	186,000	186,000	279,000	0	0	0	20	57	57	57	0	0	20	0	0	0	0	0	0	37	37	0	0	0
5D	0	0	0	0	24,000	51,000	388,000	0	0	0	0	15	32	86	0	37	61	61	55	39	0	0	0	0	0	0	0	0
6 (WP)	0	0	89,000	89,000	89,000	148,000	575,000	0	0	37	37	37	37	60	0	60	23	0	0	0	0	0	0	0	23	23	23	0
7A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7B	0	0	0	0	0	12,000	32,000	0	0	0	0	0	5	10	0	0	0	0	10	5	0	0	0	0	0	0	0	0
7C	0	0	0	0	0	7,000	25,000	0	0	0	0	0	3	8	0	0	0	0	8	5	0	0	0	0	0	0	0	0
7D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7E	0	0	0	0	0	9,000	25,000	0	0	0	0	0	4	8	0	0	0	0	8	4	0	0	0	0	0	0	0	0
7F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7G	0	0	0	0	0	15,000	39,000	0	0	0	0	0	6	12	0	0	0	0	12	6	0	0	0	0	0	0	0	0
7H	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 (RP)	0	0	0	0	0	15,000	468,000	0	0	0	0	0	6	41	0	0	0	41	19	13	0	0	0	0	0	22	22	0
BBD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LZ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note:

[1] *Values presented in this table for SED 6, SED 7, and SED 8 reflect additional remediation in Reaches 7B and 7C, as discussed in Response to Specific Comment 44.*

Table GC13-2b. Summary of reach-specific metrics for evaluating all SED alternatives (model-predicted endpoint PCB concentrations).

Reach	Model-Predicted Endpoint PCB Concentrations[1]																								
	Average Surface Water (ng/L)							Average Surface Sediment (0-6") (mg/kg)							Average Fish (whole body) (mg/kg)							Average Fish (fillet) (mg/kg)						
	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
5A	9.0	2.6	2.5	2.5	2.5	2.9	1.8	13	0.058	0.061	0.060	0.058	0.096	0.087	36	1.3	1.3	1.3	1.3	1.5	0.86	7.3	0.25	0.26	0.26	0.26	0.29	0.17
5B	44	3.0	1.8	1.8	1.9	1.9	1.2	7.0	5.5	0.39	0.062	0.057	0.056	0.050	47	15	1.9	1.2	1.1	1.2	0.75	9.3	3.0	0.39	0.23	0.22	0.25	0.15
5C	34	4.0	1.6	1.2	1.3	1.5	0.93	20	3.0	0.44	0.14	0.18	0.16	0.12	37	9.1	2.1	0.84	0.82	0.89	0.55	7.4	1.8	0.42	0.17	0.16	0.18	0.11
5D	---							17	15	0.34	0.31	0.21	0.20	0.11	48	31	2.0	1.8	1.8	1.9	1.4	9.5	6.3	0.40	0.36	0.35	0.39	0.29
6 (WP)	33	4.4	1.5	1.2	1.2	1.4	0.86	16	1.5	0.25	0.24	0.21	0.22	0.16	43	3.6	1.1	0.89	0.87	1.0	0.63	8.6	0.71	0.23	0.18	0.17	0.19	0.13
7A	---							0.43	0.41	0.41	0.41	0.41	0.41	0.41	32	6.3	2.5	2.1	2.0	2.1	1.7	6.4	1.3	0.50	0.42	0.40	0.42	0.34
7B	28	4.0	1.5	1.2	1.1	1.2	0.75	4.2	3.9	4.0	4.0	0.92	0.22	0.044	29	11	8.2	7.9	2.1	1.1	0.51	5.7	2.1	1.6	1.6	0.41	0.23	0.10
7C	---							4.1	4.0	4.0	4.0	0.092	0.062	0.048	32	8.9	5.6	5.2	1.0	1.0	0.61	6.3	1.8	1.1	1.0	0.20	0.20	0.12
7D	---							1.4	0.92	0.94	0.94	0.91	0.93	0.87	27	6.8	4.2	3.9	3.5	3.7	3.2	5.5	1.4	0.84	0.79	0.70	0.75	0.63
7E	15	2.2	1.0	0.92	0.82	1.0	0.75	1.2	1.2	1.3	1.3	0.44	0.29	0.014	21	5.1	3.1	2.9	1.7	1.7	0.89	4.1	1.0	0.62	0.57	0.34	0.33	0.18
7F	---							0.7	0.61	0.61	0.61	0.59	0.60	0.55	16	4.1	2.6	2.4	2.3	2.3	1.9	3.2	0.82	0.52	0.49	0.45	0.46	0.39
7G	14	2.1	1.1	1.0	0.88	1.1	0.82	5.1	4.7	5.0	5.0	1.4	1.1	0.044	18	6.4	5.3	5.1	2.0	1.7	0.77	3.5	1.3	1.1	1.0	0.40	0.35	0.15
7H	---							0.40	0.40	0.40	0.40	0.40	0.40	0.39	14	3.6	2.3	2.2	2.0	2.0	1.7	2.8	0.72	0.46	0.43	0.39	0.40	0.35
8 (RP)	13	2.3	1.4	1.0	0.87	1.1	0.81	2.9	2.7	2.7	0.35	0.13	0.031	0.070	18	7.9	6.5	1.7	1.1	1.0	0.86	3.6	1.6	1.3	0.34	0.22	0.20	0.17
BBD	1.3	0.2	0.1	0.1	0.09	0.1	0.08	0.08	0.02	0.01	0.008	0.006	0.006	0.005	0.8	0.2	0.1	0.07	0.05	0.05	0.04	0.2	0.04	0.02	0.01	0.009	0.009	0.007
LL	1.0	0.2	0.1	0.07	0.06	0.08	0.06	0.06	0.01	0.008	0.006	0.004	0.004	0.003	0.6	0.1	0.08	0.05	0.03	0.04	0.03	0.1	0.03	0.02	0.009	0.006	0.007	0.005
LZ	0.7	0.1	0.07	0.05	0.04	0.06	0.04	0.04	0.009	0.006	0.004	0.003	0.003	0.002	0.4	0.10	0.06	0.03	0.03	0.03	0.02	0.08	0.02	0.01	0.006	0.005	0.005	0.004
LH	0.6	0.1	0.07	0.05	0.04	0.05	0.04	0.04	0.009	0.005	0.004	0.003	0.003	0.002	0.4	0.09	0.05	0.03	0.02	0.02	0.02	0.08	0.02	0.01	0.006	0.004	0.004	0.003

Notes:

[1] *Results presented in this table for SED 6, SED 7, and SED 8 reflect new downstream model simulations which have been revised from those presented in the CMS Report to assume remediation of more grid cells in Reaches 7B and 7C, as discussed in Response to Specific Comment 44.*

[2] *Results for CT impoundments are highly uncertain as they were estimated from the CT 1-D Analysis.*

Table GC13-2c. Summary of reach-specific metrics for evaluating all SED alternatives (attainment of ambient water quality criteria at end of model projections).

Reach (Location)	Attainment of Ambient Water Quality Criteria at End of Model Projections[1]																			
	# Exceedances of Freshwater Chronic Aquatic Life Criterion (0.014 µg/L)[2, 3]							Exceeds Federal and MA human health Consumption Criterion (0.064 ng/L)[3]							Exceeds Connecticut Consumption Criterion (0.17 ng/L)[3]						
	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
5A (Holmes Road)	29	0	0	0	0	2	1	X	X	X	X	X	X	X				---			
5B (New Lenox Road)	274	0	0	0	0	1	0	X	X	X	X	X	X	X				---			
5C (WP Headwaters)	274	0	1	0	0	0	0	X	X	X	X	X	X	X				---			
6 (Woods Pond Dam)	274	0	0	0	0	0	0	X	X	X	X	X	X	X				---			
7B (Columbia Mill Dam)	274	0	1	0	0	0	0	X	X	X	X	X	X	X				---			
7E (Willow Mill Dam)	150	0	1	0	0	0	0	X	X	X	X	X	X	X				---			
7G (Glendale Dam)	72	1	1	1	0	0	0	X	X	X	X	X	X	X				---			
8 (Rising Pond Dam)	60	1	1	1	0	0	0	X	X	X	X	X	X	X				---			
Bulls Bridge	0	0	0	0	0	0	0	X	X	X	X	X	X	X	X	X					
Lake Lillinonah	0	0	0	0	0	0	0	X	X	X	X		X		X	X					
Lake Zoar	0	0	0	0	0	0	0	X	X	X					X						
Lake Housatonic	0	0	0	0	0	0	0	X	X	X					X						

Notes:

[1] *Daily average water column PCB concentrations are not included in the timeseries output generated by the EPA model for Reaches 5D, 7A, 7C, 7D, 7F, and 7H; therefore no comparison of model-predicted water column PCB levels to the relevant water quality criteria has been performed in these reaches. Also, results presented in this table for SED 6, SED 7, and SED 8 reflect new downstream model simulations which have been revised from those presented in the CMS Report to assume remediation of more grid cells in Reaches 7B and 7C, as discussed in Response to Specific Comment 44.*

[2] *This criterion is a 4-day average not to be exceeded more than once every three years. Number of exceedances shown is the number of values exceeding 0.014 µg/L predicted to occur in the last three years of the model projection, based on use of 4-day block average concentrations. As discussed in Response to Specific Comment 62, GE believes that use of block averages is more appropriate than use of running average concentrations for assessing achievement of this criterion, given the dominant influence of individual high-flow events on the four-day averages and the fact that the criterion permits one allowable exceedance. However, the numbers of exceedances using the rolling average method are also presented in that response.*

[3] *Results for CT impoundments are highly uncertain as they were estimated from the CT 1-D Analysis.*

Table GC13-2d. Summary of reach-specific metrics for evaluating all SED alternatives (percent reduction in fish PCB concentration at the end of model projections and PCB mass removed).

Reach	Other Metrics[1]													
	Percent Redution in Fish Tissue PCB Concentration at End of Model Projections[2]							PCB Mass Removed (pounds)						
	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
5A	60%	99%	99%	99%	99%	98%	99%	0	10,300	10,300	10,300	10,300	14,400	19,000
5B	47%	83%	98%	99%	99%	99%	99%	0	0	700	1,300	1,300	1,700	2,200
5C	48%	87%	97%	99%	99%	99%	99%	0	0	0	1,700	5,700	5,600	7,600
5D	57%	72%	98%	98%	98%	98%	99%	0	0	0	0	100	2,900	5,700
6 (WP)	44%	95%	99%	99%	99%	99%	99%	0	0	4,000	3,900	3,800	5,200	13,300
7A	52%	91%	96%	97%	97%	97%	97%	0	0	0	0	0	0	0
7B	48%	81%	85%	86%	96%	98%	99%	0	0	0	0	0	180	270
7C	50%	86%	91%	92%	98%	98%	99%	0	0	0	0	0	180	200
7D	51%	88%	93%	93%	94%	93%	94%	0	0	0	0	0	0	0
7E	54%	89%	93%	94%	96%	96%	98%	0	0	0	0	0	20	60
7F	63%	91%	94%	94%	95%	95%	96%	0	0	0	0	0	0	0
7G	45%	80%	83%	84%	94%	95%	98%	0	0	0	0	0	140	360
7H	60%	90%	93%	94%	94%	94%	95%	0	0	0	0	0	0	0
8 (RP)	43%	75%	79%	95%	97%	97%	97%	0	0	0	0	0	260	4,900
BBD	60%	91%	95%	97%	98%	98%	98%	0	0	0	0	0	0	0
LL	60%	90%	95%	97%	98%	97%	98%	0	0	0	0	0	0	0
LZ	60%	90%	94%	97%	97%	97%	98%	0	0	0	0	0	0	0
LH	60%	90%	95%	97%	98%	98%	98%	0	0	0	0	0	0	0

Notes:

[1] *Results presented in this table for SED 6, SED 7, and SED 8 reflect new downstream model simulations which have been revised from those presented in the CMS Report to assume remediation of more grid cells in Reaches 7B and 7C, as discussed in Response to Specific Comment 44.*

[2] *Results for CT impoundments are highly uncertain as they were estimated from the CT 1-D Analysis.*

Table GC13-3a. Summary of adverse impacts on habitat for all SED alternatives.

Category			SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Number of State-listed Rare Species that would be "Taken"			0	18	19	19	19	19	19
Number of State-listed Rare Species where Alternative Would Impact Significant Portion of Local Population			0	13	16	16	16	16	16
Total Acres of Impacted NHESP Priority Habitat of Rare Species[1]			0	213	329	333	336	337	352
Total Acres of Impacted NHESP Estimated Habitat of Rare Wildlife[1]			0	199	316	320	323	324	339
Summary of Affected Habitat Area (acres) from Sediment Remediation		Riverine	0	139	186	227	265	265	265
		Backwater	0	0	61	61	70	71	86
		Total	***0***	***139***	***247***	***288***	***335***	***336***	***351***
Summary of Affected Floodplain Habitat Area (acres) from Construction of Staging Areas and Access Roads[2]	Upland	Open Field	0	9	9	9	9	9	9
		Upland Forest	0	4	5	5	3	3	3
		Total	***0***	***14***	***14***	***14***	***12***	***12***	***12***
	Wetland	Wetland Forest	0	26	30	30	30	30	30
		Emergant Wetland	0	3	4	4	3	3	3
		Shrub Swamp	0	4	5	5	4	4	4
		Vernal Pool	0	7	7	7	7	7	7
		Total	***0***	***39***	***46***	***46***	***44***	***44***	***44***

Notes:

[1] *Acres of impacted NHESP habitat includes impacts resulting from both remediation and construction of staging areas and access roads. Area calculations assume a road width of 20 ft.*

[2] *This detailed breakdown of removal areas and volumes by habitat type was conducted using the ecological characterization of the Housatonic River between the Confluence and Woods Pond Dam performed by Woodlot Alternatives, Inc. on behalf of EPA (Woodlot, 2002). The Woodlot habitat community mapping is absent in some small portions of the PSA floodplain and in all of Reaches 7 and 8, and is therefore not included in this summary.*

Table GC13-3b. Summary of adverse impacts on habitat of State-listed rare species for all SED alternatives.

Category		SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	Riverbank Remediation (linear feet)
Area (acres, except where otherwise noted) of State-listed Rare Species Habitat Impacted by Sediment Remediation and Construction of Staging Areas and Access Roads	Wood turtle	0	125	186	188	196	196	200	83,636
	Jefferson salamander	0	0	<1	<1	<1	<1	<1	0
	American bittern	0	118	225	229	225	225	241	46,205
	Bald eagle	0	22	75	75	62	62	72	0
	Common moorhen	0	77	151	153	145	145	158	1,665
	Water shrew	0	4	7	7	7	7	7	0
	American clam shrimp	0	0	0	0	0	0	0	0
	Arrow clubtail	0	128	240	243	238	238	252	83,636
	Brook snaketail	0	17	17	17	17	17	17	13,602
	Mustard white	0	93	128	129	134	134	137	69,905
	Riffle snaketail	0	33	36	36	36	36	36	23,059
	Triangle floater	0	39	41	41	41	41	41	28,237
	Zebra clubtail	0	126	235	239	231	231	245	83,636
	Bristly buttercup	0	15	15	15	16	16	16	9,340
	Bur oak	0	68	143	143	140	140	151	2,685
	Crooked-stem aster	0	3	4	4	7	7	7	1,401
	Culver's root	0	0	0	0	0	0	0	0
	Fen cuckoo flower	0	0	0	0	0	0	0	0
	Foxtail sedge	0	14	27	27	28	28	28	14,267
	Gray's sedge	0	9	37	37	34	34	42	0
	Hairy wild rye	0	19	19	19	19	19	19	10,058
	Hemlock parsley	0	0	0	0	0	0	0	0
	Intermediate spike-rush	0	66	98	99	100	100	103	55,235
	Long-styled sanicle	0	0	0	0	0	0	0	0
	Narrow-leaved spring beauty	0	5	11	11	11	11	11	6,110
	Straight-leaved pondweed	0	0	0	0	0	0	0	0
	Wapato	0	146	253	257	254	254	269	74,536
	White adder's-mouth	0	0	0	0	2	2	0	0

Table GC13-4. Sediment IMPGs for human direct contact compared to projected sediment PCBs for all SED alternatives, including the time to achieve in years (in italics).

Risk Category	Sediment Exposure Area	Projected Sediment Concentrations (mg/kg)[1]							Cancer @ 10^{-6}							Cancer @ 10^{-5}							Cancer @ 10^{-4}							Non-Cancer							
		SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	IMPG (mg/kg)	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	IMPG (mg/kg)	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	IMPG (mg/kg)	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	IMPG (mg/kg)	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Human Direct Contact (Older Child -- RME)	SA 1	12	1.6	0.071	0.057	0.054	0.084	0.076	4.5	*> 250*	*7*	*7*	*7*	*7*	*8*	*10*	45	*0*	*0*	*0*	*0*	*0*	*0*	*0*	453	*0*	*0*	*0*	*0*	*0*	*0*	*0*	31	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 2	16	8.7	0.45	0.20	0.17	0.16	0.10		*> 250*	*129*	*12*	*15*	*15*	*18*	*25*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 3	23	1.7	0.22	0.21	0.24	0.23	0.17		*243*	*10*	*15*	*18*	*18*	*22*	*37*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*22*	*9*	*12*	*15*	*16*	*19*	*21*
	SA 4	3.4	3.2	3.2	3.2	1.2	0.24	0.038		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 5	4.2	4.1	4.1	4.1	0.10	0.05	0.044		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 6	1.2	1.2	1.3	1.3	0.44	0.29	0.014		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 7	7.6	7.0	7.6	7.5	2.1	1.8	0.055		*220*	*> 250*	*241*	*234*	*20*	*25*	*42*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 8	3.0	2.9	2.9	0.29	0.10	0.032	0.072		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
Human Direct Contact (Adult -- RME)	SA 1	12	1.6	0.071	0.057	0.054	0.084	0.076	*1.3*	*> 250*	*96*	*9*	*9*	*9*	*11*	*13*	13	*35*	*2*	*2*	*2*	*2*	*3*	*3*	135	*0*	*0*	*0*	*0*	*0*	*0*	*0*	40	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 2	16	8.7	0.45	0.20	0.17	0.16	0.10		*> 250*	*> 250*	*12*	*15*	*16*	*19*	*27*		*86*	*11*	*11*	*14*	*14*	*17*	*23*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 3	23	1.7	0.22	0.21	0.24	0.23	0.17		*> 250*	*92*	*15*	*18*	*19*	*23*	*38*		*120*	*10*	*14*	*17*	*17*	*21*	*29*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 4	3.4	3.2	3.2	3.2	1.2	0.24	0.038		*> 250*	*> 250*	*> 250*	*> 250*	*19*	*23*	*40*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 5	4.2	4.1	4.1	4.1	0.10	0.05	0.044		*> 250*	*> 250*	*> 250*	*> 250*	*19*	*24*	*41*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 6	1.2	1.2	1.3	1.3	0.44	0.29	0.014		*34*	*34*	*26*	*26*	*20*	*23*	*34*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 7	7.6	7.0	7.6	7.5	2.1	1.8	0.055		*> 250*	*> 250*	*> 250*	*> 250*	*> 250*	*IT*	*42*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 8	3.0	2.9	2.9	0.29	0.10	0.032	0.072		*> 250*	*> 250*	*> 250*	*18*	*21*	*26*	*48*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
Human Direct Contact (Older Child -- CTE)	SA 1	12	1.6	0.071	0.057	0.054	0.084	0.076	*36*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	365	*0*	*0*	*0*	*0*	*0*	*0*	*0*	3645	*0*	*0*	*0*	*0*	*0*	*0*	*0*	125	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 2	16	8.7	0.45	0.20	0.17	0.16	0.10		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 3	23	1.7	0.22	0.21	0.24	0.23	0.17		*8*	*7*	*7*	*7*	*7*	*8*	*8*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 4	3.4	3.2	3.2	3.2	1.2	0.24	0.038		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 5	4.2	4.1	4.1	4.1	0.10	0.05	0.044		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 6	1.2	1.2	1.3	1.3	0.44	0.29	0.014		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 7	7.6	7.0	7.6	7.5	2.1	1.8	0.055		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 8	3.0	2.9	2.9	0.29	0.10	0.032	0.072		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
Human Direct Contact (Adult -- CTE)	SA 1	12	1.6	0.071	0.057	0.054	0.084	0.076	28	*0*	*0*	*0*	*0*	*0*	*0*	*0*	280	*0*	*0*	*0*	*0*	*0*	*0*	*0*	2800	*0*	*0*	*0*	*0*	*0*	*0*	*0*	152	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 2	16	8.7	0.45	0.20	0.17	0.16	0.10		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 3	23	1.7	0.22	0.21	0.24	0.23	0.17		*30*	*9*	*12*	*15*	*16*	*19*	*27*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 4	3.4	3.2	3.2	3.2	1.2	0.24	0.038		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 5	4.2	4.1	4.1	4.1	0.10	0.05	0.044		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 6	1.2	1.2	1.3	1.3	0.44	0.29	0.014		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 7	7.6	7.0	7.6	7.5	2.1	1.8	0.055		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	SA 8	3.0	2.9	2.9	0.29	0.10	0.032	0.072		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*

Notes

[1] Model endpoint concentrations after projection
CTE = central tendency exposure
RME = reasonable maximum exposure
IMPG = interim media protection goal
IT = Increasing trend in model extrapolation; no time-to-achieve estimated.
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 the IMPG (years), as predicted by the model
<value> = Time to achieve the IMPG (years), based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the CMS Report

Table GC13-5. IMPGs for human consumption of fish compared to projected fillet-based fish PCBs for all SED alternatives, including the time to achieve in years (*in italics*).[2]

Average Fish (fillet) Concentrations (mg/kg)[1,3]

Risk Category	Reach	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Bass Fillets, Deterministic RME	5A	7.3	0.25	0.26	0.26	0.26	0.29	0.17
	5B	9.3	3.0	0.39	0.23	0.22	0.25	0.15
	5C	7.4	1.8	0.42	0.17	0.16	0.18	0.11
	5D	9.5	6.3	0.40	0.36	0.35	0.39	0.29
	6 (WP)	8.6	0.71	0.23	0.18	0.17	0.19	0.13
	7A	6.4	1.3	0.50	0.42	0.40	0.42	0.34
	7B	5.7	2.1	1.6	1.6	0.41	0.23	0.10
	7C	6.3	1.8	1.1	1.0	0.20	0.20	0.12
	7D	5.5	1.4	0.84	0.79	0.70	0.75	0.63
	7E	4.1	1.0	0.62	0.57	0.34	0.33	0.18
	7F	3.2	0.82	0.52	0.49	0.45	0.46	0.38
	7G	3.5	1.3	1.1	1.0	0.40	0.35	0.15
	7H	2.8	0.72	0.46	0.43	0.39	0.40	0.35
	8 (RP)	3.6	1.6	1.3	0.34	0.22	0.20	0.17
	BBD	0.2	0.04	0.02	0.01	0.009	0.009	0.006
	LL	0.1	0.03	0.01	0.009	0.006	0.006	0.005
	LZ	0.08	0.02	0.01	0.006	0.005	0.005	0.004
	LH	0.08	0.02	0.01	0.006	0.004	0.004	0.003
Bass Fillets, Probabilistic RME (5th percentile)	5A	7.3	0.25	0.26	0.26	0.26	0.29	0.17
	5B	9.3	3.0	0.39	0.23	0.22	0.25	0.15
	5C	7.4	1.8	0.42	0.17	0.16	0.18	0.11
	5D	9.5	6.3	0.40	0.36	0.35	0.39	0.29
	6 (WP)	8.6	0.71	0.23	0.18	0.17	0.19	0.13
	7A	6.4	1.3	0.50	0.42	0.40	0.42	0.34
	7B	5.7	2.1	1.6	1.6	0.41	0.23	0.10
	7C	6.3	1.8	1.1	1.0	0.20	0.20	0.12
	7D	5.5	1.4	0.84	0.79	0.70	0.75	0.63
	7E	4.1	1.0	0.62	0.57	0.34	0.33	0.18
	7F	3.2	0.82	0.52	0.49	0.45	0.46	0.38
	7G	3.5	1.3	1.1	1.0	0.40	0.35	0.15
	7H	2.8	0.72	0.46	0.43	0.39	0.40	0.35
	8 (RP)	3.6	1.6	1.3	0.34	0.22	0.20	0.17
	BBD	0.2	0.04	0.02	0.01	0.009	0.009	0.006
	LL	0.1	0.03	0.01	0.009	0.006	0.006	0.005
	LZ	0.08	0.02	0.01	0.006	0.005	0.005	0.004
	LH	0.08	0.02	0.01	0.006	0.004	0.004	0.003
Bass Fillets, Deterministic CTE	5A	7.3	0.25	0.26	0.26	0.26	0.29	0.17
	5B	9.3	3.0	0.39	0.23	0.22	0.25	0.15
	5C	7.4	1.8	0.42	0.17	0.16	0.18	0.11
	5D	9.5	6.3	0.40	0.36	0.35	0.39	0.29
	6 (WP)	8.6	0.71	0.23	0.18	0.17	0.19	0.13
	7A	6.4	1.3	0.50	0.42	0.40	0.42	0.34
	7B	5.7	2.1	1.6	1.6	0.41	0.23	0.10
	7C	6.3	1.8	1.1	1.0	0.20	0.20	0.12
	7D	5.5	1.4	0.84	0.79	0.70	0.75	0.63
	7E	4.1	1.0	0.62	0.57	0.34	0.33	0.18
	7F	3.2	0.82	0.52	0.49	0.45	0.46	0.38
	7G	3.5	1.3	1.1	1.0	0.40	0.35	0.15
	7H	2.8	0.72	0.46	0.43	0.39	0.40	0.35
	8 (RP)	3.6	1.6	1.3	0.34	0.22	0.20	0.17
	BBD	0.2	0.04	0.02	0.01	0.009	0.009	0.006
	LL	0.1	0.03	0.01	0.009	0.006	0.006	0.005
	LZ	0.08	0.02	0.01	0.006	0.005	0.005	0.004
	LH	0.08	0.02	0.01	0.006	0.004	0.004	0.003
Bass Fillets, Probabilistic CTE (50th percentile)	5A	7.3	0.25	0.26	0.26	0.26	0.29	0.17
	5B	9.3	3.0	0.39	0.23	0.22	0.25	0.15
	5C	7.4	1.8	0.42	0.17	0.16	0.18	0.11
	5D	9.5	6.3	0.40	0.36	0.35	0.39	0.29
	6 (WP)	8.6	0.71	0.23	0.18	0.17	0.19	0.13
	7A	6.4	1.3	0.50	0.42	0.40	0.42	0.34
	7B	5.7	2.1	1.6	1.6	0.41	0.23	0.10
	7C	6.3	1.8	1.1	1.0	0.20	0.20	0.12
	7D	5.5	1.4	0.84	0.79	0.70	0.75	0.63
	7E	4.1	1.0	0.62	0.57	0.34	0.33	0.18
	7F	3.2	0.82	0.52	0.49	0.45	0.46	0.38
	7G	3.5	1.3	1.1	1.0	0.40	0.35	0.15
	7H	2.8	0.72	0.46	0.43	0.39	0.40	0.35
	8 (RP)	3.6	1.6	1.3	0.34	0.22	0.20	0.17
	BBD	0.2	0.04	0.02	0.01	0.009	0.009	0.006
	LL	0.1	0.03	0.01	0.009	0.006	0.006	0.005
	LZ	0.08	0.02	0.01	0.006	0.005	0.005	0.004
	LH	0.08	0.02	0.01	0.006	0.004	0.004	0.003

Cancer @ 10^{-6}

Risk Category	Reach	IMPG (mg/kg)	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Bass Fillets, Deterministic RME	5A	0.0019	> 250	237	> 250	249	230	205	> 250
	5B		> 250	> 250	> 250	> 250	235	220	> 250
	5C		> 250	> 250	> 250	> 250	242	233	> 250
	5D		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	6 (WP)		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7A		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7B		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7C		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7D		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7E		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7F		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7G		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7H		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	8 (RP)		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	BBD		> 250	244	188	126	91	98	116
	LL		> 250	222	169	113	82	88	106
	LZ		> 250	199	149	99	73	78	96
	LH		> 250	197	146	97	72	77	94
Bass Fillets, Probabilistic RME (5th percentile)	5A	0.0064	> 250	191	203	200	186	169	242
	5B		> 250	> 250	> 250	207	188	179	242
	5C		> 250	> 250	> 250	213	190	185	241
	5D		> 250	221	> 250	> 250	> 250	> 250	> 250
	6 (WP)		> 250	> 250	> 250	> 250	229	243	> 250
	7A		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7B		> 250	> 250	> 250	> 250	> 250	243	> 250
	7C		> 250	> 250	> 250	> 250	242	205	> 250
	7D		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7E		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7F		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7G		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7H		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	8 (RP)		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	BBD		> 250	165	119	> 250	59	63	79
	LL		> 250	143	100	64	51	52	68
	LZ		> 250	120	80	51	38	41	62
	LH		> 250	117	77	50	37	40	62
Bass Fillets, Deterministic CTE	5A	0.049	> 250	113	120	118	111	107	141
	5B		> 250	> 250	195	118	109	109	137
	5C		> 250	> 250	238	111	102	104	125
	5D		> 250	171	> 250	> 250	> 250	> 250	> 250
	6 (WP)		> 250	> 250	147	130	119	129	136
	7A		> 250	> 250	> 250	> 250	227	215	> 250
	7B		> 250	> 250	> 250	> 250	> 250	135	134
	7C		> 250	> 250	> 250	> 250	129	115	138
	7D		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7E		> 250	239	> 250	> 250	159	226	197
	7F		> 250	> 250	> 250	> 250	249	> 250	> 250
	7G		> 250	> 250	> 250	> 250	> 250	> 250	203
	7H		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	8 (RP)		> 250	> 250	> 250	> 250	200	168	234
	BBD		148	37	22	22	23	28	54
	LL		119	23	19	21	22	26	36
	LZ		89	17	17	19	20	24	31
	LH		85	17	17	19	20	24	31
Bass Fillets, Probabilistic CTE (50th percentile)	5A	0.057	> 250	108	113	112	106	102	133
	5B		> 250	> 250	184	111	103	104	129
	5C		> 250	> 250	225	104	96	98	116
	5D		> 250	167	> 250	> 250	> 250	> 250	> 250
	6 (WP)		> 250	> 250	137	121	111	121	127
	7A		> 250	> 250	> 250	> 250	214	204	> 250
	7B		> 250	> 250	> 250	> 250	> 250	127	122
	7C		> 250	> 250	> 250	> 250	120	109	128
	7D		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7E		> 250	229	> 250	> 250	151	212	182
	7F		> 250	> 250	> 250	> 250	235	> 250	> 250
	7G		> 250	> 250	> 250	> 250	> 250	> 250	186
	7H		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	8 (RP)		> 250	> 250	> 250	> 250	185	156	215
	BBD		135	26	20	21	22	27	39
	LL		106	19	18	20	21	25	32
	LZ		75	14	16	18	20	15	26
	LH		72	13	16	18	19	14	22

Cancer @ 10^{-5}

Risk Category	Reach	IMPG (mg/kg)	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Bass Fillets, Deterministic RME	5A	0.019	> 250	149	158	156	146	136	188
	5B		> 250	> 250	> 250	159	145	141	186
	5C		> 250	> 250	> 250	159	143	142	179
	5D		> 250	195	> 250	> 250	> 250	> 250	> 250
	6 (WP)		> 250	> 250	206	187	170	182	193
	7A		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7B		> 250	> 250	> 250	> 250	> 250	186	205
	7C		> 250	> 250	> 250	> 250	181	157	200
	7D		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7E		> 250	> 250	> 250	> 250	213	> 250	> 250
	7F		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7G		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7H		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	8 (RP)		> 250	> 250	> 250	> 250	> 250	247	> 250
	BBD		230	94	57	40	36	38	60
	LL		200	72	51	33	31	34	57
	LZ		170	49	34	25	26	31	56
	LH		167	46	33	25	26	31	56
Bass Fillets, Probabilistic RME (5th percentile)	5A	0.064	> 250	103	109	108	102	99	127
	5B		> 250	> 250	176	106	98	100	123
	5C		> 250	> 250	215	98	91	94	110
	5D		> 250	165	> 250	> 250	> 250	> 250	> 250
	6 (WP)		> 250	> 250	130	114	105	114	120
	7A		> 250	> 250	> 250	> 250	205	195	> 250
	7B		> 250	> 250	> 250	> 250	> 250	121	114
	7C		> 250	> 250	> 250	> 250	114	104	121
	7D		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7E		> 250	222	> 250	> 250	144	201	171
	7F		> 250	> 250	> 250	> 250	225	> 250	> 250
	7G		> 250	> 250	> 250	> 250	> 250	> 250	172
	7H		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	8 (RP)		> 250	> 250	> 250	> 250	173	146	200
	BBD		125	22	19	21	22	26	34
	LL		96	17	17	19	20	24	31
	LZ		66	12	11	15	19	13	17
	LH		62	12	11	11	19	12	17
Bass Fillets, Deterministic CTE	5A	0.49	> 250	22	22	22	22	23	23
	5B		> 250	241	18	18	18	20	21
	5C		> 250	142	17	20	20	23	32
	5D		> 250	115	19	21	21	25	31
	6 (WP)		> 250	134	20	22	23	27	42
	7A		> 250	142	57	36	33	39	44
	7B		> 250	> 250	> 250	> 250	23	31	43
	7C		> 250	234	> 250	227	24	32	45
	7D		> 250	174	158	124	94	108	127
	7E		> 250	96	83	69	24	32	45
	7F		231	102	61	51	41	46	48
	7G		> 250	196	218	193	24	31	46
	7H		214	99	37	34	26	33	47
	8 (RP)		> 250	231	> 250	23	25	30	53
	BBD		0	0	0	0	0	0	0
	LL		0	0	0	0	0	0	0
	LZ		0	0	0	0	0	0	0
	LH		0	0	0	0	0	0	0
Bass Fillets, Probabilistic CTE (50th percentile)	5A	0.57	249	18	18	18	18	18	18
	5B		> 250	225	16	17	17	19	21
	5C		> 250	131	16	19	20	23	31
	5D		> 250	111	18	21	21	24	31
	6 (WP)		> 250	103	19	22	23	27	41
	7A		> 250	128	24	25	25	35	43
	7B		> 250	250	> 250	> 250	23	30	43
	7C		> 250	213	> 250	192	24	31	44
	7D		> 250	155	129	101	76	88	98
	7E		243	86	63	52	23	31	44
	7F		216	87	38	36	32	35	46
	7G		> 250	173	185	164	24	30	46
	7H		199	80	22	24	24	31	46
	8 (RP)		246	208	222	23	24	30	53
	BBD		0	0	0	0	0	0	0
	LL		0	0	0	0	0	0	0
	LZ		0	0	0	0	0	0	0
	LH		0	0	0	0	0	0	0

Cancer @ 10^{-4}

Risk Category	Reach	IMPG (mg/kg)	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Bass Fillets, Deterministic RME	5A	0.19	> 250	62	64	64	62	66	74
	5B		> 250	> 250	101	59	56	63	70
	5C		> 250	207	121	44	44	52	48
	5D		> 250	138	187	> 250	> 250	154	117
	6 (WP)		> 250	> 250	61	50	48	53	51
	7A		> 250	233	200	138	112	113	166
	7B		> 250	> 250	> 250	> 250	> 250	63	46
	7C		> 250	> 250	> 250	> 250	53	56	52
	7D		> 250	> 250	> 250	> 250	210	233	> 250
	7E		> 250	154	206	173	83	99	64
	7F		> 250	195	193	165	128	143	182
	7G		> 250	> 250	> 250	> 250	154	125	52
	7H		> 250	219	213	174	139	159	226
	8 (RP)		> 250	> 250	> 250	> 250	65	57	63
	BBD		31	11	11	11	18	11	15
	LL		26	9	8	8	9	9	11
	LZ		6	6	4	4	6	5	7
	LH		5	5	4	4	5	4	6
Bass Fillets, Probabilistic RME (5th percentile)	5A	0.64	240	15	15	15	15	15	17
	5B		> 250	213	16	16	16	18	20
	5C		> 250	123	16	19	20	23	31
	5D		> 250	108	18	21	21	24	31
	6 (WP)		> 250	79	19	22	23	26	41
	7A		> 250	117	22	24	24	34	43
	7B		> 250	232	> 250	> 250	23	27	43
	7C		> 250	197	226	166	23	30	44
	7D		> 250	142	107	83	62	73	76
	7E		232	79	50	38	23	30	44
	7F		205	75	25	25	26	32	45
	7G		243	156	160	142	23	29	45
	7H		188	66	21	23	23	30	46
	8 (RP)		233	190	198	22	24	29	53
	BBD		0	0	0	0	0	0	0
	LL		0	0	0	0	0	0	0
	LZ		0	0	0	0	0	0	0
	LH		0	0	0	0	0	0	0
Bass Fillets, Deterministic CTE	5A	4.9	82	8	8	8	8	9	10
	5B		123	12	10	10	10	12	14
	5C		98	10	11	14	14	15	17
	5D		136	58	14	17	17	20	27
	6 (WP)		132	11	15	18	19	23	37
	7A		78	9	10	10	10	11	12
	7B		69	9	10	10	10	11	12
	7C		78	10	10	10	10	11	13
	7D		64	9	9	9	10	10	12
	7E		34	9	7	7	9	8	11
	7F		9	8	6	6	8	7	10
	7G		10	8	6	6	8	7	11
	7H		7	7	5	5	7	5	8
	8 (RP)		10	8	6	6	8	7	11
	BBD		0	0	0	0	0	0	0
	LL		0	0	0	0	0	0	0
	LZ		0	0	0	0	0	0	0
	LH		0	0	0	0	0	0	0
Bass Fillets, Probabilistic CTE (50th percentile)	5A	5.7	71	7	7	7	7	8	9
	5B		107	11	10	10	10	11	13
	5C		81	10	11	11	11	12	14
	5D		122	54	14	17	17	20	27
	6 (WP)		113	11	14	17	19	22	37
	7A		63	9	9	9	9	10	11
	7B		52	9	9	9	9	10	11
	7C		62	9	9	9	9	10	12
	7D		38	9	8	8	9	9	11
	7E		11	8	6	6	8	7	10
	7F		7	7	5	5	7	5	8
	7G		8	7	5	5	7	6	9
	7H		4	5	3	3	5	3	7
	8 (RP)		7	7	5	5	7	5	9
	BBD		0	0	0	0	0	0	0
	LL		0	0	0	0	0	0	0
	LZ		0	0	0	0	0	0	0
	LH		0	0	0	0	0	0	0

Non-Cancer -- Child

Risk Category	Reach	IMPG (mg/kg)	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Bass Fillets, Deterministic RME	5A	0.026	> 250	137	146	144	134	126	172
	5B		> 250	> 250	239	146	133	131	170
	5C		> 250	> 250	> 250	143	129	130	161
	5D		> 250	187	> 250	> 250	> 250	> 250	> 250
	6 (WP)		> 250	> 250	186	168	153	165	174
	7A		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7B		> 250	> 250	> 250	> 250	> 250	169	181
	7C		> 250	> 250	> 250	> 250	164	143	180
	7D		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7E		> 250	> 250	> 250	> 250	195	> 250	> 250
	7F		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7G		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7H		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	8 (RP)		> 250	> 250	> 250	> 250	> 250	221	> 250
	BBD		203	74	37	27	28	33	56
	LL		173	52	26	24	25	30	55
	LZ		143	34	21	22	23	28	54
	LH		140	27	21	22	23	27	41
Bass Fillets, Probabilistic RME (5th percentile)	5A	0.059	> 250	106	112	111	105	101	131
	5B		> 250	> 250	182	110	101	103	128
	5C		> 250	> 250	222	102	94	97	114
	5D		> 250	167	> 250	> 250	> 250	> 250	> 250
	6 (WP)		> 250	> 250	135	119	109	119	125
	7A		> 250	> 250	> 250	> 250	211	201	> 250
	7B		> 250	> 250	> 250	> 250	> 250	126	120
	7C		> 250	> 250	> 250	> 250	118	107	126
	7D		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7E		> 250	227	> 250	> 250	149	209	179
	7F		> 250	> 250	> 250	> 250	232	> 250	> 250
	7G		> 250	> 250	> 250	> 250	> 250	> 250	182
	7H		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	8 (RP)		> 250	> 250	> 250	> 250	181	153	210
	BBD		132	26	20	21	22	27	39
	LL		103	19	18	20	21	25	32
	LZ		73	14	16	18	20	15	26
	LH		69	13	16	18	19	14	22
Bass Fillets, Deterministic CTE	5A	0.19	> 250	62	64	64	62	66	74
	5B		> 250	> 250	101	59	56	63	70
	5C		> 250	207	121	44	44	52	48
	5D		> 250	138	187	> 250	> 250	154	117
	6 (WP)		> 250	> 250	61	50	48	53	51
	7A		> 250	233	200	138	112	113	166
	7B		> 250	> 250	> 250	> 250	> 250	63	46
	7C		> 250	> 250	> 250	> 250	53	56	52
	7D		> 250	> 250	> 250	> 250	210	233	> 250
	7E		> 250	154	206	173	83	99	64
	7F		> 250	195	193	165	128	143	182
	7G		> 250	> 250	> 250	> 250	154	125	52
	7H		> 250	219	213	174	139	159	226
	8 (RP)		> 250	> 250	> 250	> 250	65	57	63
	BBD		31	11	11	11	18	11	15
	LL		26	9	8	8	9	9	11
	LZ		6	6	4	4	6	5	7
	LH		5	5	4	4	5	4	6
Bass Fillets, Probabilistic CTE (50th percentile)	5A	0.71	232	14	14	14	14	14	16
	5B		> 250	202	15	16	16	18	20
	5C		> 250	116	16	19	19	22	31
	5D		> 250	105	17	20	21	24	31
	6 (WP)		> 250	52	19	22	23	26	41
	7A		> 250	107	21	24	24	33	42
	7B		> 250	217	> 250	238	22	27	42
	7C		> 250	182	194	141	23	30	44
	7D		> 250	129	86	68	51	59	60
	7E		222	73	36	27	23	29	44
	7F		195	65	21	24	24	30	44
	7G		231	140	138	122	23	29	45
	7H		178	52	20	22	23	29	45
	8 (RP)		222	174	177	22	24	29	52
	BBD		0	0	0	0	0	0	0
	LL		0	0	0	0	0	0	0
	LZ		0	0	0	0	0	0	0
	LH		0	0	0	0	0	0	0

Non-Cancer -- Adult

Risk Category	Reach	IMPG (mg/kg)	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Bass Fillets, Deterministic RME	5A	0.062	> 250	105	110	109	103	100	129
	5B		> 250	> 250	179	108	99	101	125
	5C		> 250	> 250	218	100	92	95	111
	5D		> 250	165	> 250	> 250	> 250	> 250	> 250
	6 (WP)		> 250	> 250	132	116	106	116	122
	7A		> 250	> 250	> 250	> 250	207	197	> 250
	7B		> 250	> 250	> 250	> 250	> 250	123	116
	7C		> 250	> 250	> 250	> 250	116	105	123
	7D		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7E		> 250	224	> 250	> 250	146	204	174
	7F		> 250	> 250	> 250	> 250	228	> 250	> 250
	7G		> 250	> 250	> 250	> 250	> 250	> 250	176
	7H		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	8 (RP)		> 250	> 250	> 250	> 250	177	149	204
	BBD		128	22	19	21	22	26	34
	LL		98	17	17	19	20	24	31
	LZ		68	12	11	15	19	13	17
	LH		65	12	11	11	19	12	17
Bass Fillets, Probabilistic RME (5th percentile)	5A	0.12	> 250	80	83	82	79	80	96
	5B		> 250	> 250	133	79	74	78	91
	5C		> 250	239	161	67	63	69	76
	5D		> 250	149	> 250	> 250	> 250	217	173
	6 (WP)		> 250	> 250	90	75	71	79	82
	7A		> 250	> 250	> 250	188	151	148	234
	7B		> 250	> 250	> 250	> 250	> 250	88	70
	7C		> 250	> 250	> 250	> 250	79	76	82
	7D		> 250	> 250	> 250	> 250	> 250	> 250	> 250
	7E		> 250	183	> 250	223	109	142	110
	7F		> 250	240	> 250	219	169	190	> 250
	7G		> 250	> 250	> 250	> 250	218	188	101
	7H		> 250	> 250	> 250	242	196	226	> 250
	8 (RP)		> 250	> 250	> 250	> 250	111	94	120
	BBD		71	11	11	11	18	11	15
	LL		26	9	8	8	9	9	11
	LZ		6	6	4	4	6	5	7
	LH		5	5	4	4	5	4	6
Bass Fillets, Deterministic CTE	5A	0.43	> 250	26	26	26	26	39	39
	5B		> 250	> 250	22	21	20	21	23
	5C		> 250	151	17	20	21	24	32
	5D		> 250	118	22	22	22	26	32
	6 (WP)		> 250	161	20	23	24	27	42
	7A		> 250	155	77	48	41	51	48
	7B		> 250	> 250	> 250	> 250	23	32	43
	7C		> 250	> 250	> 250	> 250	24	33	45
	7D		> 250	189	184	144	110	125	153
	7E		> 250	104	100	84	24	34	45
	7F		244	114	79	68	55	60	61
	7G		> 250	216	246	218	24	33	47
	7H		226	116	65	51	37	38	48
	8 (RP)		> 250	> 250	> 250	24	25	31	54
	BBD		0	0	0	0	0	0	0
	LL		0	0	0	0	0	0	0
	LZ		0	0	0	0	0	0	0
	LH		0	0	0	0	0	0	0
Bass Fillets, Probabilistic CTE (50th percentile)	5A	1.5	174	11	11	11	11	12	13
	5B		> 250	124	13	14	14	16	17
	5C		226	65	14	18	18	21	28
	5D		249	87	16	19	19	22	29
	6 (WP)		> 250	14	17	20	21	25	40
	7A		192	26	18	21	22	25	39
	7B		201	103	74	63	21	25	41
	7C		202	76	20	23	22	26	42
	7D		206	38	19	21	22	27	42
	7E		149	23	18	21	21	26	40
	7F		122	19	17	20	21	25	33
	7G		145	34	18	21	21	26	42
	7H		106	15	12	19	20	25	32
	8 (RP)		141	58	24	20	22	27	50
	BBD		0	0	0	0	0	0	0
	LL		0	0	0	0	0	0	0
	LZ		0	0	0	0	0	0	0
	LH		0	0	0	0	0	0	0

Notes

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

[2] Results presented in this table for SED 6, SED 7, and SED 8 reflect new downstream model simulations which have been revised from those presented in the CMS Report to assume remediation of more grid cells in Reaches 7B and 7C, as discussed in Response to Specific Comment 44.

[3] Results for CT impoundments are highly uncertain as they were estimated from the CT 1-D Analysis.

CTE = central tendency exposure
RME = reasonable maximum exposure
BBD: Bulls Bridge Dam Impoundment; LL: Lake Lillinonah; LZ: Lake Zoar; LH: Lake Housatonic
IT = Increasing trend in model extrapolation; no time-to-achieve estimated.

Key

(blue) = model prediction is lower than the IMPG
(grey) = model prediction is lower than the cancer IMPG, but is not lower than the corresponding non-cancer IMPGs
(white) = model prediction exceeds the IMPG
<value> = Time to achieve the IMPG (years), as predicted by the model
<value> = Time to achieve the IMPG (years), based on extrapolation of the model results as described in Section 3.2.1 of the CMS Report

Table GC13-6. Backwater sediment IMPGs for amphibians compared to projected sediment PCBs for all SED alternatives, 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 Attainment							
			SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	Lower Bound IMPG (mg/kg)	Upper Bound IMPG (mg/kg)	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Small Backwaters (< 2 acres)	BWS_01	1.9	5.7	4.2	4.1	4.1	0.18	0.36	0.20	3.27	5.6	*113 / 54*	*72 / 32*	*70 / 32*	*70 / 32*	*2 / 2*	*2 / 2*	*3 / 3*
	BWS_02	1.8	5.9	5	0.14	0.14	0.14	0.29	0.16	3.27	5.6	*109 / 57*	*99 / 38*	*3 / 3*	*3 / 3*	*3 / 3*	*3 / 3*	*4 / 4*
	BWS_03	1.9	3.0	1.8	0.20	0.20	0.20	0.25	0.18	3.27	5.6	*48 / 31*	*38 / 28*	*3 / 3*	*3 / 3*	*3 / 3*	*4 / 4*	*5 / 5*
	BWS_04	0.30	23	22	0.087	0.087	0.12	0.24	0.19	3.27	5.6	*> 250 / > 250*	*> 250 / > 250*	*3 / 3*	*3 / 3*	*3 / 3*	*4 / 4*	*5 / 5*
	BWS_06	0.56	2.2	0.26	0.22	0.24	0.18	0.19	0.13	3.27	5.6	*30 / 12*	*17 / 10*	*16 / 10*	*17 / 10*	*10 / 10*	*12 / 10*	*14 / 11*
	BWS_07	0.12	5.4	5.4	5.4	5.4	0.030	0.027	0.11	3.27	5.6	*> 250 / 4*	*> 250 / 4*	*> 250 / 4*	*> 250 / 4*	*10 / 4*	*12 / 4*	*14 / 14*
	BWS_08	0.35	37	37	0.064	0.060	0.061	0.26	0.29	3.27	5.6	*> 250 / > 250*	*> 250 / > 250*	*11 / 11*	*12 / 12*	*12 / 12*	*15 / 15*	*18 / 18*
	BWS_09	0.28	19	19	0.11	0.098	0.098	0.17	0.21	3.27	5.6	*> 250 / > 250*	*> 250 / > 250*	*11 / 11*	*13 / 13*	*13 / 13*	*16 / 16*	*18 / 18*
	BWS_10	1.5	16	15	0.094	0.078	0.080	0.33	0.27	3.27	5.6	*> 250 / > 250*	*> 250 / > 250*	*11 / 11*	*13 / 13*	*13 / 13*	*16 / 16*	*19 / 19*
	BWS_11	0.11	2.1	0.14	0.18	0.12	0.13	0.13	0.093	3.27	5.6	*10 / 5*	*7 / 5*	*7 / 5*	*7 / 5*	*7 / 5*	*7 / 5*	*8 / 5*
	BWS_12	1.7	6.1	4.7	4.1	4.2	0.11	0.13	0.10	3.27	5.6	*109 / 61*	*76 / 42*	*65 / 37*	*67 / 38*	*13 / 13*	*16 / 16*	*20 / 20*
	BWS_13	0.37	10	9.2	8.9	8.9	0.11	0.17	0.10	3.27	5.6	*> 250 / > 250*	*> 250 / > 250*	*> 250 / > 250*	*> 250 / > 250*	*13 / 13*	*16 / 16*	*20 / 20*
	BWS_14	0.57	8.8	8.1	7.9	7.8	0.049	0.13	0.20	3.27	5.6	*> 250 / 213*	*> 250 / 143*	*> 250 / 140*	*> 250 / 130*	*13 / 13*	*16 / 16*	*20 / 20*
	BWS_15	0.90	8.9	6.7	5.5	5.6	0.10	0.14	0.12	3.27	5.6	*167 / 107*	*116 / 69*	*86 / 51*	*86 / 52*	*13 / 13*	*16 / 16*	*21 / 21*
	BWS_16	1.0	3.2	1.2	0.76	0.77	0.094	0.098	0.12	3.27	5.6	*52 / 23*	*30 / 17*	*26 / 17*	*27 / 17*	*14 / 14*	*17 / 17*	*21 / 18*
	BWS_17	0.58	2.4	0.44	0.35	0.27	0.11	0.11	0.088	3.27	5.6	*32 / 6*	*14 / 5*	*14 / 5*	*15 / 5*	*14 / 5*	*16 / 5*	*16 / 6*
	BWS_18	0.84	2.3	0.29	0.21	0.24	0.10	0.10	0.074	3.27	5.6	*32 / 12*	*19 / 11*	*20 / 10*	*20 / 10*	*14 / 10*	*17 / 11*	*19 / 11*
	BWS_19	0.99	20	20	0.089	0.074	0.072	0.15	0.11	3.27	5.6	*> 250 / > 250*	*> 250 / > 250*	*11 / 11*	*14 / 14*	*14 / 14*	*17 / 17*	*23 / 23*
	BWS_20	1.3	5.8	4.4	4.0	4.1	0.11	0.12	0.12	3.27	5.6	*95 / 55*	*74 / 36*	*65 / 35*	*67 / 36*	*15 / 15*	*18 / 17*	*24 / 24*
Large Backwaters (> 2 acres)	BWL_01	2.1	11	11	0.11	0.11	1.5	1.6	0.15	3.27	5.6	*180 / 124*	*166 / 115*	*8 / 8*	*8 / 8*	*8 / 8*	*10 / 10*	*12 / 12*
	BWL_02	5.5	5.7	4.2	3.7	3.9	0.11	0.16	0.14	3.27	5.6	*97 / 54*	*66 / 35*	*57 / 32*	*60 / 32*	*12 / 12*	*15 / 15*	*17 / 17*
	BWL_03	2.4	3.6	2.2	1.9	1.8	0.096	0.11	0.10	3.27	5.6	*58 / 25*	*37 / 16*	*33 / 16*	*33 / 16*	*13 / 13*	*16 / 16*	*19 / 18*
	BWL_04	2.1	4.4	2.4	1.8	1.9	0.12	0.19	0.14	3.27	5.6	*81 / 32*	*38 / 26*	*32 / 25*	*34 / 26*	*14 / 14*	*16 / 16*	*21 / 21*
	BWL_05	12	14	12	0.23	0.22	0.25	0.19	0.11	3.27	5.6	*200 / 146*	*147 / 108*	*11 / 11*	*14 / 14*	*14 / 14*	*17 / 17*	*23 / 23*
	BWL_07	22	20	19	0.20	0.17	0.18	0.21	0.11	3.27	5.6	*> 250 / > 250*	*> 250 / 225*	*12 / 12*	*15 / 15*	*15 / 15*	*18 / 18*	*25 / 25*
	BWL_08	4.1	13	11	1.4	1.3	0.19	0.22	0.10	3.27	5.6	*> 250 / 183*	*207 / 140*	*12 / 12*	*15 / 15*	*15 / 15*	*18 / 18*	*26 / 26*
	BWL_09	7.0	15	14	0.20	0.16	0.24	0.19	0.10	3.27	5.6	*> 250 / 228*	*239 / 170*	*12 / 12*	*15 / 15*	*16 / 15*	*19 / 19*	*26 / 26*
	BWL_10	6.4	13	12	0.15	0.13	0.18	0.20	0.16	3.27	5.6	*> 250 / 223*	*> 250 / 189*	*12 / 12*	*15 / 15*	*16 / 16*	*19 / 19*	*27 / 27*
	BWL_11	4.6	2.3	2.3	0.024	0.024	0.024	0.024	0.022	3.27	5.6	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*

Notes:

[1] Exposure areas represent individual backwaters

[2] Model endpoint concentrations after projection

IMPG = interim media protection goal

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

Key:

= *post-remediation EPC is higher than Upper Bound IMPG*

= *post-remediation EPC is between Lower and Upper Bound IMPGs*

= *post-remediation EPC is below Lower Bound IMPG*

<value>/<value> = *Time to achieve the lower bound and upper bound IMPG, respectively (years)*

<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 CMS Report

Table GC13-7. Sediment IMPGs for benthic invertebrates compared to projected sediment PCBs for all SED alternatives, including the time to achieve in years (in italics).

Reach	Exposure Area[1]	Average 0-6" Sediment PCB Concentration (mg/kg)[2,3]							IMPG Attainment							
		SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	Lower Bound IMPG (mg/kg)	Upper Bound IMPG (mg/kg)	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
5A	R5A_01	1.9	0.33	0.33	0.33	0.33	0.17	0.11	3	10	*46 / 1*	*1 / 1*	*1 / 1*	*1 / 1*	*1 / 1*	*1 / 1*	*1 / 1*
	R5A_02	3.7	0.18	0.17	0.17	0.17	0.11	0.084	3	10	*63 / 20*	*1 / 1*	*1 / 1*	*1 / 1*	*1 / 1*	*1 / 1*	*1 / 1*
	R5A_03	6.4	0.12	0.14	0.13	0.14	0.37	0.23	3	10	*67 / 40*	*2 / 2*	*2 / 2*	*2 / 2*	*2 / 2*	*27 / 2*	*2 / 2*
	R5A_04	29	0.071	0.072	0.071	0.070	0.83	0.37	3	10	*> 250 / > 250*	*2 / 2*	*2 / 2*	*2 / 2*	*2 / 2*	*3 / 2*	*3 / 3*
	R5A_05	13	0.032	0.033	0.033	0.032	0.14	0.067	3	10	*199 / 78*	*2 / 2*	*2 / 2*	*2 / 2*	*2 / 2*	*3 / 3*	*3 / 3*
	R5A_06	7.7	0.043	0.048	0.044	0.045	0.067	0.28	3	10	*IT / 12*	*3 / 2*	*3 / 2*	*3 / 2*	*3 / 2*	*4 / 3*	*4 / 3*
	R5A_07	15	0.062	0.075	0.075	0.063	0.055	0.070	3	10	*244 / 98*	*3 / 3*	*3 / 3*	*3 / 3*	*3 / 3*	*5 / 4*	*6 / 5*
	R5A_08	17	0.028	0.023	0.024	0.023	0.026	0.021	3	10	*> 250 / 133*	*4 / 4*	*4 / 4*	*4 / 4*	*4 / 4*	*5 / 5*	*6 / 6*
	R5A_09	9.9	0.022	0.022	0.021	0.021	0.046	0.027	3	10	*> 250 / 39*	*4 / 4*	*4 / 4*	*4 / 4*	*4 / 4*	*6 / 6*	*7 / 7*
	R5A_10	16	0.020	0.020	0.020	0.020	0.028	0.022	3	10	*> 250 / > 250*	*6 / 5*	*6 / 5*	*6 / 5*	*6 / 5*	*7 / 7*	*9 / 8*
	R5A_11	18	0.023	0.026	0.026	0.022	0.029	0.026	3	10	*> 250 / > 250*	*7 / 7*	*7 / 7*	*7 / 7*	*7 / 7*	*9 / 8*	*11 / 10*
5B	R5B_01	9.6	9.1	0.044	0.043	0.035	0.034	0.030	3	10	*> 250 / 28*	*> 250 / 21*	*9 / 8*	*9 / 8*	*9 / 8*	*11 / 10*	*13 / 12*
	R5B_02	8.5	5.3	0.061	0.055	0.042	0.041	0.038	3	10	*IT / 0*	*125 / 0*	*10 / 0*	*10 / 0*	*10 / 0*	*12 / 0*	*14 / 0*
	R5B_03	4.7	3.2	1.1	0.058	0.060	0.066	0.050	3	10	*204 / 0*	*61 / 0*	*10 / 0*	*10 / 0*	*10 / 0*	*12 / 0*	*15 / 0*
	R5B_04	5.7	4.4	0.35	0.089	0.090	0.092	0.11	3	10	*248 / 0*	*112 / 0*	*10 / 0*	*11 / 0*	*11 / 0*	*13 / 0*	*15 / 0*
	R5B_05	5.6	3.9	0.54	0.075	0.072	0.069	0.057	3	10	*115 / 0*	*80 / 0*	*10 / 0*	*12 / 0*	*12 / 0*	*14 / 0*	*16 / 0*
5C	R5C_01	7.2	5.8	1.5	0.083	0.081	0.082	0.077	3	10	*> 250 / 0*	*118 / 0*	*11 / 0*	*13 / 0*	*13 / 0*	*16 / 0*	*19 / 0*
	R5C_02	8.0	6.4	0.11	0.12	0.12	0.12	0.090	3	10	*> 250 / 8*	*148 / 6*	*11 / 6*	*13 / 6*	*13 / 6*	*16 / 6*	*20 / 7*
	R5C_03	4.9	3.2	1.1	0.10	0.10	0.10	0.086	3	10	*120 / 0*	*58 / 0*	*11 / 0*	*14 / 0*	*13 / 0*	*16 / 0*	*21 / 0*
	R5C_04	6.1	4.4	0.10	0.11	0.12	0.12	0.088	3	10	*132 / 8*	*79 / 6*	*11 / 6*	*14 / 6*	*14 / 6*	*17 / 7*	*22 / 7*
	R5C_05	37	1.8	0.14	0.13	0.19	0.19	0.14	3	10	*> 250 / > 250*	*8 / 8*	*12 / 11*	*14 / 14*	*14 / 14*	*17 / 17*	*24 / 23*
	R5C_06	29	1.5	0.16	0.17	0.25	0.21	0.15	3	10	*> 250 / 194*	*9 / 9*	*13 / 12*	*15 / 15*	*16 / 16*	*19 / 19*	*28 / 27*
6	Woods Pond	16	1.5	0.25	0.24	0.21	0.22	0.16	3	10	*210 / 97*	*10 / 10*	*15 / 14*	*18 / 17*	*18 / 18*	*22 / 21*	*37 / 33*
7A		0.43	0.41	0.41	0.41	0.41	0.41	0.41	3	10	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*
7B		4.2	3.9	4.0	4.0	0.92	0.22	0.04	3	10	*> 250 / 0*	*174 / 0*	*188 / 0*	*190 / 0*	*19 / 0*	*23 / 0*	*39 / 0*
7C		4.1	4.0	4.0	4.0	0.092	0.062	0.048	3	10	*> 250 / 0*	*> 250 / 0*	*> 250 / 0*	*> 250 / 0*	*19 / 0*	*24 / 0*	*40 / 0*
7D		1.4	0.92	0.94	0.94	0.90	0.93	0.87	3	10	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*
7E		1.2	1.2	1.3	1.3	0.44	0.29	0.01	3	10	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*
7F		0.74	0.61	0.61	0.61	0.59	0.60	0.55	3	10	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*
7G		5.1	4.7	5.0	5.0	1.4	1.1	0.044	3	10	*194 / 0*	*190 / 0*	*204 / 0*	*200 / 0*	*20 / 0*	*25 / 0*	*42 / 0*
7H		0.40	0.39	0.40	0.40	0.40	0.40	0.39	3	10	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*	*0 / 0*
8	Rising Pond	2.9	2.7	2.7	0.35	0.13	0.031	0.070	3	10	*21 / 0*	*25 / 0*	*17 / 0*	*17 / 0*	*20 / 0*	*17 / 0*	*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 projection

[3] Results presented in this table for SED 6, SED 7, and SED 8 reflect new downstream model simulations which have been revised from those presented in the CMS Report to assume remediation of more grid cells in Reaches 7B and 7C, as discussed in Response to Specific Comment 44.

IMPG = interim media protection goal
IT = Increasing trend in model extrapolation; no time-to-achieve estimated.

Key:

= *post-remediation EPC is higher than Upper Bound IMPG*

= *post-remediation EPC is between Lower and Upper Bound IMPGs*

= *post-remediation EPC is below Lower Bound IMPG*

<value>/<value> = *Time to achieve the lower bound and upper bound IMPG, respectively (years)*

<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 CMS Report

Table GC13-8. IMPGs for fish protection, and consumption of fish by ecological receptors compared to projected biota tissue PCBs for all SED alternatives, including the time to achieve in years (in italics).

Ecological Receptor	Reach	Projected Fish Concentrations (mg/kg)[1,2]							IMPG Attainment							
		SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	IMPG (mg/kg)	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Fish protection	Warmwater fish tissue (whole body)															
	5A	28	0.98	0.99	1.0	0.99	1.1	0.68	55	*5*	*3*	*3*	*3*	*3*	*3*	*3*
	5B	36	12	1.5	0.89	0.86	0.96	0.58		*8*	*5*	*5*	*5*	*5*	*5*	*5*
	5C	29	7.0	1.6	0.65	0.63	0.70	0.43		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	5D	36	24	1.6	1.4	1.4	1.5	1.1		*36*	*11*	*11*	*14*	*15*	*18*	*24*
	6 (WP)	34	2.8	0.89	0.70	0.68	0.77	0.50		*7*	*5*	*5*	*5*	*5*	*5*	*5*
	7A	25	4.8	1.9	1.6	1.5	1.6	1.3		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7B	22	8.2	6.3	6.1	1.6	0.90	0.40		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7C	24	6.7	4.2	4.0	0.80	0.78	0.47		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7D	21	5.2	3.2	3.0	2.7	2.9	2.5		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7E	16	3.9	2.3	2.2	1.3	1.3	0.71		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7F	13	3.1	2.0	1.9	1.7	1.8	1.5		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7G	14	4.8	4.0	3.9	1.5	1.4	0.60		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7H	11	2.8	1.8	1.6	1.5	1.5	1.3		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	8 (RP)	14	6.0	5.0	1.3	0.84	0.78	0.67		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Coldwater fish tissue (whole body) - Trout Below PSA															
	7A	25	4.8	1.9	1.6	1.5	1.6	1.3	14	*107*	*10*	*11*	*11*	*19*	*13*	*15*
	7B	22	8.2	6.3	6.1	1.6	0.90	0.40		*103*	*11*	*11*	*18*	*19*	*23*	*31*
	7C	24	6.7	4.2	4.0	0.80	0.78	0.47		*109*	*11*	*11*	*18*	*19*	*23*	*31*
	7D	21	5.2	3.2	3.0	2.7	2.9	2.5		*100*	*10*	*10*	*10*	*18*	*12*	*15*
	7E	16	3.9	2.3	2.2	1.3	1.3	0.71		*63*	*10*	*9*	*9*	*11*	*10*	*14*
	7F	13	3.1	2.0	1.9	1.7	1.8	1.5		*35*	*9*	*8*	*8*	*10*	*9*	*13*
	7G	14	4.8	4.0	3.9	1.5	1.4	0.60		*41*	*10*	*8*	*8*	*11*	*9*	*14*
	7H	11	2.8	1.8	1.6	1.5	1.5	1.34		*27*	*9*	*7*	*7*	*9*	*8*	*11*
Threatened and endangered species (represented by bald eagle)	Fish tissue (whole body)															
	5A	25	0.45	0.45	0.46	0.45	0.51	0.31	30.41	*31*	*3*	*3*	*3*	*4*	*4*	*5*
	5B	23	13	1.1	0.40	0.38	0.42	0.28		*9*	*5*	*5*	*5*	*5*	*6*	*6*
	5C	24	7.7	1.6	0.37	0.38	0.40	0.26		*24*	*7*	*7*	*7*	*7*	*8*	*8*
	5D	19	15	0.76	0.67	0.62	0.67	0.49		*25*	*10*	*11*	*14*	*14*	*17*	*21*
	6 (WP)	18	1.6	0.42	0.34	0.32	0.36	0.24		*7*	*5*	*5*	*5*	*5*	*5*	*5*
	7A	9.2	2.3	1.3	1.2	1.1	1.2	1.1		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7B	16	9.5	8.9	8.8	1.9	0.8	0.24		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7C	11	4.7	3.8	3.7	0.30	0.3	0.20		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7D	10	3.6	3.0	2.9	2.7	2.9	2.5		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7E	6.5	2.2	1.7	1.7	0.81	0.72	0.27		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7F	5.5	1.9	1.5	1.4	1.4	1.4	1.2		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7G	7.0	3.8	3.6	3.6	1.1	0.98	0.24		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	7H	4.4	1.5	1.2	1.1	1.1	1.1	1.0		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	8 (RP)	7.7	4.9	4.4	0.79	0.41	0.32	0.32		*0*	*0*	*0*	*0*	*0*	*0*	*0*
Piscivorous birds (represented by osprey)	Fish tissue (whole body)															
	5A	21	0.55	0.55	0.56	0.55	0.63	0.38	3.2	*211*	*10*	*10*	*10*	*10*	*11*	*12*
	5B	22	11	1.0	0.44	0.42	0.47	0.30		*> 250*	*202*	*12*	*12*	*12*	*14*	*17*
	5C	23	7.0	1.5	0.41	0.41	0.44	0.28		*> 250*	*114*	*14*	*17*	*17*	*20*	*28*
	5D	21	15	0.89	0.79	0.77	0.84	0.62		*244*	*96*	*15*	*18*	*18*	*21*	*28*
	6 (WP)	22	1.9	0.56	0.45	0.43	0.49	0.32		*> 250*	*13*	*17*	*19*	*20*	*24*	*39*
	7A	11	2.4	1.2	1.1	1.1	1.1	0.97		*173*	*18*	*17*	*20*	*20*	*23*	*34*
	7B	16	8.4	7.6	7.5	1.7	0.74	0.26		*> 250*	*> 250*	*> 250*	*> 250*	*20*	*24*	*40*
	7C	12	4.4	3.3	3.2	0.40	0.37	0.23		*203*	*130*	*75*	*41*	*20*	*25*	*41*
	7D	11	3.4	2.6	2.5	2.3	2.5	2.2		*244*	*64*	*19*	*22*	*21*	*29*	*42*
	7E	7.4	2.2	1.6	1.5	0.79	0.73	0.32		*133*	*22*	*17*	*19*	*19*	*24*	*36*
	7F	6.1	1.9	1.4	1.3	1.2	1.3	1.1		*119*	*17*	*16*	*18*	*20*	*24*	*31*
	7G	7.3	3.5	3.2	3.1	1.1	0.92	0.28		*171*	*68*	*21*	*22*	*20*	*25*	*42*
	7H	5.0	1.5	1.1	1.1	1.0	1.0	0.95		*94*	*12*	*11*	*11*	*19*	*12*	*29*
	8 (RP)	7.8	4.4	3.9	0.78	0.43	0.36	0.34		*156*	*115*	*105*	*19*	*21*	*26*	*49*

Notes

[1] Model endpoint concentrations after projection (autumn average)

[2] Results presented in this table for SED 6, SED 7, and SED 8 reflect new downstream model simulations which have been revised from those presented in the CMS Report to assume remediation of more grid cells in Reaches 7B and 7C, as discussed in Response to Specific Comment 44.

IMPG = interim media protection goal

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

Key

= model prediction exceeds the IMPG

= model prediction is lower than the IMPG

<value> = Time to achieve the IMPG (years), as predicted by the model

<value> = Time to achieve the IMPG (years), based on highly uncertain extrapolation of the model results as described in Section 3.2.1 of the CMS Report

Table GC13-9. Summary of percent of averaging areas attaining IMPGs.

Risk Assessment	Exposure	Assessment Type	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Percent of Averaging Areas Attaining IMPGs[1]						
						SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Human Health	Sediment Direct Contact	Older Child	RME	Cancer @ 10^{-6}	4.5	50%	75%	88%	88%	100%	100%	100%
				Cancer @ 10^{-5}	45	100%	100%	100%	100%	100%	100%	100%
				Cancer @ 10^{-4}	453	100%	100%	100%	100%	100%	100%	100%
				Non-Cancer	31	100%	100%	100%	100%	100%	100%	100%
			CTE	Cancer @ 10^{-6}	36	100%	100%	100%	100%	100%	100%	100%
				Cancer @ 10^{-5}	365	100%	100%	100%	100%	100%	100%	100%
				Cancer @ 10^{-4}	3,645	100%	100%	100%	100%	100%	100%	100%
				Non-Cancer	125	100%	100%	100%	100%	100%	100%	100%
		Adult	RME	Cancer @ 10^{-6}	1.3	13%	13%	50%	63%	88%	88%	100%
				Cancer @ 10^{-5}	13	75%	100%	100%	100%	100%	100%	100%
				Cancer @ 10^{-4}	135	100%	100%	100%	100%	100%	100%	100%
				Non-Cancer	40	100%	100%	100%	100%	100%	100%	100%
			CTE	Cancer @ 10^{-6}	28	100%	100%	100%	100%	100%	100%	100%
				Cancer @ 10^{-5}	280	100%	100%	100%	100%	100%	100%	100%
				Cancer @ 10^{-4}	2,800	100%	100%	100%	100%	100%	100%	100%
				Non-Cancer	152	100%	100%	100%	100%	100%	100%	100%
	Fish Consumption (Bass Fillets) **Reach 5/6**	Deterministic	RME	Cancer @ 10^{-6}	0.0019	0%	0%	0%	0%	0%	0%	0%
				Cancer @ 10^{-5}	0.019	0%	0%	0%	0%	0%	0%	0%
				Cancer @ 10^{-4}	0.19	0%	0%	0%	40%	40%	40%	80%
				Non-Cancer -- Child	0.026	0%	0%	0%	0%	0%	0%	0%
				Non-Cancer -- Adult	0.062	0%	0%	0%	0%	0%	0%	0%
			CTE	Cancer @ 10^{-6}	0.049	0%	0%	0%	0%	0%	0%	0%
				Cancer @ 10^{-5}	0.49	0%	20%	100%	100%	100%	100%	100%
				Cancer @ 10^{-4}	4.9	0%	80%	100%	100%	100%	100%	100%
				Non-Cancer -- Child	0.19	0%	0%	0%	40%	40%	40%	80%
				Non-Cancer -- Adult	0.43	0%	20%	100%	100%	100%	100%	100%
		Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064	0%	0%	0%	0%	0%	0%	0%
				Cancer @ 10^{-5}	0.064	0%	0%	0%	0%	0%	0%	0%
				Cancer @ 10^{-4}	0.64	0%	20%	100%	100%	100%	100%	100%
				Non-Cancer -- Child	0.059	0%	0%	0%	0%	0%	0%	0%
				Non-Cancer -- Adult	0.12	0%	0%	0%	0%	0%	0%	20%
			CTE (50th percentile)	Cancer @ 10^{-6}	0.057	0%	0%	0%	0%	0%	0%	0%
				Cancer @ 10^{-5}	0.57	0%	20%	100%	100%	100%	100%	100%
				Cancer @ 10^{-4}	5.7	0%	80%	100%	100%	100%	100%	100%
				Non-Cancer -- Child	0.71	0%	40%	100%	100%	100%	100%	100%
				Non-Cancer -- Adult	1.5	0%	40%	100%	100%	100%	100%	100%

Table GC13-9. Summary of percent of averaging areas attaining IMPGs.

Risk Assessment	Exposure	Assessment Type	Exposure Assumptions	Risk Level	IMPG (mg/kg)	Percent of Averaging Areas Attaining IMPGs[1]						
						SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Human Health	Fish Consumption (Bass Fillets) **Reach 7/8**	Deterministic	RME	Cancer @ 10^{-6}	0.0019	0%	0%	0%	0%	0%	0%	0%
				Cancer @ 10^{-5}	0.019	0%	0%	0%	0%	0%	0%	0%
				Cancer @ 10^{-4}	0.19	0%	0%	0%	0%	0%	0%	56%
				Non-Cancer -- Child	0.026	0%	0%	0%	0%	0%	0%	0%
				Non-Cancer -- Adult	0.062	0%	0%	0%	0%	0%	0%	0%
			CTE	Cancer @ 10^{-6}	0.049	0%	0%	0%	0%	0%	0%	0%
				Cancer @ 10^{-5}	0.49	0%	0%	11%	44%	89%	89%	89%
				Cancer @ 10^{-4}	4.9	56%	100%	100%	100%	100%	100%	100%
				Non-Cancer -- Child	0.19	0%	0%	0%	0%	0%	0%	56%
				Non-Cancer -- Adult	0.43	0%	0%	0%	33%	78%	78%	89%
		Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064	0%	0%	0%	0%	0%	0%	0%
				Cancer @ 10^{-5}	0.064	0%	0%	0%	0%	0%	0%	0%
				Cancer @ 10^{-4}	0.64	0%	0%	44%	56%	89%	89%	100%
				Non-Cancer -- Child	0.059	0%	0%	0%	0%	0%	0%	0%
				Non-Cancer -- Adult	0.12	0%	0%	0%	0%	0%	0%	22%
			CTE (50th percentile)	Cancer @ 10^{-6}	0.057	0%	0%	0%	0%	0%	0%	0%
				Cancer @ 10^{-5}	0.57	0%	0%	33%	56%	89%	89%	89%
				Cancer @ 10^{-4}	5.7	78%	100%	100%	100%	100%	100%	100%
				Non-Cancer -- Child	0.71	0%	0%	44%	56%	100%	89%	100%
				Non-Cancer -- Adult	1.5	0%	67%	89%	89%	100%	100%	100%
	Fish Consumption (Bass Fillets) **CT**[2]	Deterministic	RME	Cancer @ 10^{-6}	0.0019	0%	0%	0%	0%	0%	0%	0%
				Cancer @ 10^{-5}	0.019	0%	0%	75%	100%	100%	100%	100%
				Cancer @ 10^{-4}	0.19	75%	100%	100%	100%	100%	100%	100%
				Non-Cancer -- Child	0.026	0%	50%	100%	100%	100%	100%	100%
				Non-Cancer -- Adult	0.062	0%	100%	100%	100%	100%	100%	100%
			CTE	Cancer @ 10^{-6}	0.049	0%	100%	100%	100%	100%	100%	100%
				Cancer @ 10^{-5}	0.49	100%	100%	100%	100%	100%	100%	100%
				Cancer @ 10^{-4}	4.9	100%	100%	100%	100%	100%	100%	100%
				Non-Cancer -- Child	0.19	75%	100%	100%	100%	100%	100%	100%
				Non-Cancer -- Adult	0.43	100%	100%	100%	100%	100%	100%	100%
		Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064	0%	0%	0%	50%	75%	75%	100%
				Cancer @ 10^{-5}	0.064	0%	100%	100%	100%	100%	100%	100%
				Cancer @ 10^{-4}	0.64	100%	100%	100%	100%	100%	100%	100%
				Non-Cancer -- Child	0.059	0%	100%	100%	100%	100%	100%	100%
				Non-Cancer -- Adult	0.12	75%	100%	100%	100%	100%	100%	100%
			CTE (50th percentile)	Cancer @ 10^{-6}	0.057	0%	100%	100%	100%	100%	100%	100%
				Cancer @ 10^{-5}	0.57	100%	100%	100%	100%	100%	100%	100%
				Cancer @ 10^{-4}	5.7	100%	100%	100%	100%	100%	100%	100%
				Non-Cancer -- Child	0.71	100%	100%	100%	100%	100%	100%	100%
				Non-Cancer -- Adult	1.5	100%	100%	100%	100%	100%	100%	100%

Table GC13-9. Summary of percent of averaging areas attaining IMPGs.

Risk Assessment	Ecological Receptor	Medium Subject to IMPG	IMPG Type	IMPG (mg/kg)	Percent of Averaging Areas Attaining IMPGs[1]						
					SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Ecological Receptors	Benthic Invertebrates	Sediment	Lower Bound	3	22%	63%	91%	91%	100%	100%	100%
			Upper Bound	10	72%	100%	100%	100%	100%	100%	100%
	Amphibians (represented by wood frog)	Backwater sediment	Lower Bound	3.27	24%	31%	72%	72%	100%	100%	100%
			Upper Bound	5.6	34%	52%	93%	93%	100%	100%	100%
	Warmwater fish	Warmwater fish tissue (whole body)	Single value	55	100%	100%	100%	100%	100%	100%	100%
	Coldwater fish – trout below PSA	Coldwater fish tissue (whole body)	Single value	14	38%	100%	100%	100%	100%	100%	100%
	Piscivorous birds (represented by osprey)	Fish tissue (whole body)	Single value	3.2	0%	43%	79%	93%	100%	100%	100%
	Threatened and endangered species (represented by bald eagle)	Fish tissue (whole body)	Single value	30.41	100%	100%	100%	100%	100%	100%	100%

Notes:

[1] *Results presented in this table for SED 6, SED 7, and SED 8 reflect new downstream model simulations which have been revised from those presented in the CMS Report to assume remediation of more grid cells in Reaches 7B and 7C, as discussed in Response to Specific Comment 44.*

[2] *Results for CT impoundments are highly uncertain as they were estimated from the CT 1-D Analysis.*

Table GC13-10. Adverse impacts of remediation on workers and local communities from SED alternatives[1].

Category		SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Truck Trips and Vehicle Miles Traveled for Importation of Cap/Backfill/Stabilization Material	Total Number of Truck Trips[2]	---	22,700	46,300	61,900	70,900	92,000	223,400
	Number of Truck Trips (per year)[2]	---	2,400	3,200	3,400	3,500	3,700	4,400
	Number of Vehicle Miles Traveled[3]	---	1,135,000	2,315,000	3,095,000	3,545,000	4,600,000	11,170,000
Worker Non-fatal Injuries	Total Estimated Non-fatal Injuries[4]	---	3.68	6.30	7.51	7.48	9.57	16.23
	Estimated Non-fatal Injuries (per year)[4]	---	0.38	0.43	0.41	0.37	0.38	0.32
	Probability of at Least One Non-fatal Injury[5]	---	97%	100%	100%	100%	100%	100%
Worker Fatalities	Total Estimated Fatalities[6]	---	0.03	0.05	0.07	0.08	0.12	0.26
	Estimated Fatalities (per year)[6]	---	0.003	0.003	0.004	0.004	0.005	0.005
	Probability of at Least One Fatality[5]	---	3%	5%	7%	8%	11%	23%
Fatalities and Non-fatal Injuries Related to Truck Transportation of Imported Materials	Fatality Estimate[7]	---	0.03	0.06	0.07	0.09	0.11	0.27
	Fatality Estimate (per year)[7]	---	0.003	0.004	0.004	0.004	0.004	0.005
	Probability of at Least One Fatality	---	3%	5%	7%	8%	10%	24%
	Injury Estimate[8]	---	0.65	1.32	1.76	2.02	2.62	6.37
	Injury Estimate (per year)[8]	---	0.07	0.09	0.10	0.10	0.10	0.13
	Probability of at Least One Injury	---	48%	73%	83%	87%	93%	100%

Notes:

[1] *As discussed in Response to Specific Comment 83, the numbers presented in this table are based on the estimates presented in the CMS Report; they have not been revised to take account of revised information on total removal volumes or implementation durations for the sediment alternatives. These estimates are presented for general illustrative and comparative purposes.*

[2] *Assumes 16-ton trucks with a capacity of 12 cy for importation of cap, backfill, and bank stabilization materials.*

[3] *Assumes a 50 mile round trip.*

[4] *Sum of the estimated number of non-fatal injuries in each labor category.*

[5] *Assuming a Poisson probability distribution.*

[6] *Sum of the estimated number of fatal injuries in each labor category.*

[7] *Assumes a fatality rate of 2.4×10^{-8} fatalities per vehicle mile traveled.*

[8] *Assumes a non-fatal injury rate of 5.7×10^{-7} injuries per vehicle mile traveled.*

Table GC13-11. Summary of removal volumes, areas, and costs for all FP alternatives.

Category			FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
Remediation Summary[1]	Total Removal Volume (cy)		0	22,000	74,000	121,000	104,000	320,000	631,000
	Total Removal Area (acres)		0	13	44	72	63	197	387
	Years to Implement[2]		0	0.8	3	5	4	13	24
	Cost (M)[3]	Total Capital Cost	0	$10.3 M	$28.9 M	$44.5 M	$36.9 M	$106 M	$189 M
		OMM Cost	0	$0.43 M	$0.80 M	$1.2 M	$1.1 M	$3.3 M	$6.1 M
		Total Cost of Alternative	0	$10.7 M	$29.7 M	$45.7 M	$38.1 M	$109 M	$195 M

Notes:

[1] *Removal volumes and areas have been updated from those presented in the CMS Report due to changes made in response to EPA's Specific Comments 95, 98, 112, 113, and 115.*

[2] *The implementation durations listed in this table assume that the floodplain remedial alternatives would be implemented independently from the sediment alternatives. In fact, implementation of the selected floodplain alternative would likely be implemented in coordination with the selected sediment alternative, in which case the implementation times could be different from those listed in this table.*

[3] *Cost estimates presented in this table have been updated from those presented in CMS Report based on EPA's comments on the prior cost estimates.*

Table GC13-12a. Summary of adverse impacts on habitat for all FP alternatives.

Category			FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
Number of State-listed Rare Species that would be "Taken"			0	13	19	19	19	21	21
Number of State-listed Rare Species where Alternative Would Impact Significant Portion of Local Population			0	0	3	4	3	18	18
Total Acres of Impacted NHESP Priority Habitat of Rare Species[1]			0	23	68	106	89	229	384
Total Acres of Impacted NHESP Estimated Habitat of Rare Wildlife[1]			0	22	66	104	88	228	379
Summary of Affected Floodplain Habitat Area (acres) from Floodplain Remediation[2]	Upland	Open Field	0	3	3	4	< 1	6	16
		Upland Forest	0	0	< 1	1	< 1	3	4
		Total	***0***	***3***	***4***	***5***	***1***	***9***	***20***
	Wetland	Wetland Forest	0	6	14	40	31	96	172
		Emergent Wetland	0	1	7	9	17	51	53
		Shrub swamp	0	< 1	1	< 1	7	27	16
		Vernal Pools	0	0	15	15	3	10	17
		Backwater	0	0	0	0	0	0	15
		Total	***0***	***8***	***37***	***64***	***59***	***184***	***273***
Summary of Affected Floodplain Habitat Area (acres) from Construction of Staging Areas and Access Roads[2]	Upland	Open Field	0	< 1	2	4	1	4	2
		Upland Forest	0	< 1	1	2	2	2	2
		Total	***0***	***< 1***	***4***	***6***	***3***	***6***	***4***
	Wetland	Wetland Forest	0	5	7	9	10	9	8
		Emergent Wetland	0	< 1	3	4	2	3	2
		Shrub swamp	0	< 1	4	5	4	4	4
		Vernal Pools	0	< 1	< 1	< 1	< 1	< 1	< 1
		Total	***0***	***7***	***14***	***18***	***16***	***16***	***14***

Notes:

[1] Acres of impacted NHESP habitat includes impacts resulting from both remediation and construction of staging areas and access roads. Area calculations assume a road width of 20 ft.

[2] This detailed breakdown of removal areas and volumes by habitat type was conducted using the ecological characterization of the Housatonic River between the Confluence and Woods Pond Dam performed by Woodlot Alternatives, Inc. on behalf of EPA (Woodlot, 2002). The Woodlot habitat community mapping is absent in some small portions of the PSA floodplain and in all of Reaches 7 and 8, and is therefore not included in this summary.

Table GC13-12b. Summary of adverse impacts on State-listed rare species for all FP alternatives.

Category		FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
Area (acres) of State-listed Rare Species Habitat Impacted by Floodplain Remediation and Construction of Staging Areas and Access Roads	Wood turtle	0	22	61	96	77	199	275
	Jefferson salamander	0	2	4	5	8	9	9
	American bittern	0	17	48	71	70	165	225
	Bald eagle	0	0	5	5	9	25	39
	Common moorhen	0	<1	9	13	18	54	71
	Water shrew	0	0	3	3	4	11	8
	American clam shrimp	0	0	0	0	0	0	0
	Arrow clubtail	0	17	51	86	71	189	273
	Brook snaketail	0	1	7	11	11	21	29
	Mustard white	0	16	43	67	43	135	198
	Riffle snaketail	0	7	14	23	14	39	58
	Triangle floater	0	8	17	28	18	47	70
	Zebra clubtail	0	17	51	86	71	189	272
	Bristly buttercup	0	4	8	14	9	26	36
	Bur oak	0	4	14	22	32	65	80
	Crooked-stem aster	0	<1	3	3	2	6	6
	Culver's root	0	0	0	0	0	0	<1
	Fen cuckoo flower	0	0	0	0	0	0	0
	Foxtail sedge	0	3	9	13	11	31	40
	Gray's sedge	0	0	1	2	5	16	20
	Hairy wild rye	0	<1	3	4	<1	6	13
	Hemlock parsley	0	0	0	0	0	0	0
	Intermediate spike-rush	0	13	39	58	46	110	161
	Long-styled sanicle	0	0	0	0	0	0	0
	Narrow-leaved spring beauty	0	<1	3	7	2	14	18
	Straight-leaved pondweed	0	0	0	0	<1	<1	<1
	Wapato	0	19	56	89	75	199	276
	White adder's-mouth	0	<1	<1	<1	0	0	<1

Table GC13-13a. Summary of pre- and post-remediation EPCs and RME IMPGs for human direct contact exposure areas under all FP scenarios. [1]

Exposure Area ID [2]	Area of Exposure Area (acre) [3]	IMPG Scenario	Pre-Remediation EPC (mg/kg) [4]	Post-Remediation EPC (mg/kg)							Cancer Risk @ 10^{-6} (RME)								Cancer Risk @ 10^{-5} (RME)								Cancer Risk @ 10^{-4} (RME)								Non-cancer (RME)							
				FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5,6]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
1	15	Medium-use general recreation, adult / older child	32	32	32	23	21	6.7	3.2	1.6	2.1								21								215								40							
2	27	High-use general recreation, adult / older child	25	25	25	20	14	16	5.6	1.9	2.0								14								143								27							
2a	2.3	Low-use general recreation, older child	52	52	52	42	21	24	8.1	1.5	12								116								1165								80							
2b	2.0	High-use general recreation, older child	31	31	27	27	27	31	4.7	3.8	3.9								39								388								27							
3	0.38	High-use general recreation, adult	7.8	7.8	7.8	7.8	7.8	7.8	7.8	2.0	2.0								14								143								38							
4	3.2	High-use general recreation, adult / older child / young child (low use)	27	27	27	14	14	18	7.3	1.6	2.0								14								143								27							
5	2.5	High-use general recreation, adult / older child	58	58	27	25	14	14	7.0	2.0	2.0								14								143								27							
6	3.8	Low-use general recreation, adult	75	75	75	28	28	25	21	1.3	4.3								43								429								115							
7	5.9	High-use general recreation, adult / older child	25	25	25	25	14	17	8.0	2.0	2.0								14								143								27							
8	0.60	Recreational canoeist	40	40	28	28	12	39	20	2.0	2.0								12								121								28							
9	0.042	Low-use general recreation, older child	27	27	27	27	27	27	19	12	12								116								1165								80							
10	59	High-use general recreation, adult / young child (high use)	10	10	4.6	4.6	4.6	10	5.3	2.0	2.0								13								134								4.6							
10a	8.0	High-use general recreation, adult / young child (high use)	22	22	4.5	4.5	4.5	22	19	2.0	2.0								13								134								4.6							
11	2.5	High-use general recreation, adult	18	18	18	18	14	18	12	2.0	2.0								14								143								38							
12	4.8	High-use general recreation, adult / older child / young child (low use)	14	14	14	14	5.3	13	5.3	1.6	2.0								14								143								27							
13	5.9	High-use general recreation, adult	28	28	28	27	13	28	6.9	2.0	2.0								14								143								38							
14	4.1	High-use general recreation, adult	2.7	2.7	2.7	2.6	2.6	2.7	2.7	1.6	2.0								14								143								38							
15	0.87	High-use general recreation, adult	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.0	2.0								14								143								38							
16	2.5	High-use general recreation, adult	41	41	38	38	14	41	24	2.0	2.0								14								143								38							
17	8.5	High-use general recreation, adult	15	15	15	15	14	15	8.3	2.0	2.0								14								143								38							
18	17	Medium-use general recreation, adult	46	46	46	46	21	46	16	2.1	2.1								21								215								58							
19	36	High-use general recreation, adult	83	83	38	20	14	17	5.7	1.6	2.0								14								143								38							
20	9.1	High-use general recreation, adult	34	34	34	22	14	19	14	2.0	2.0								14								143								38							
21	2.9	High-use general recreation, adult / older child	5.7	5.7	5.6	5.1	5.1	5.1	5.1	2.0	2.0								14								143								27							
22	19	High-use general recreation, adult / older child	28	28	26	23	14	18	7.3	1.5	2.0								14								143								27							
22a	1.8	Dirt biking/ATVing	93	93	8.2	8.2	8.2	93	93	2.0	2.0								20								205								14							
23	0.28	Medium-use general recreation, older child	11	11	11	11	11	10	10	5.8	5.8								58								582								40							
24	10	High-use general recreation, adult	31	31	31	26	13	17	8.6	1.3	2.0								14								143								38							
25	0.51	High-use general recreation, older child	30	30	27	27	27	16	8.2	3.9	3.9								39								388								27							
26a	48	High-use general recreation, adult / older child	7.0	7.0	7.0	6.9	6.9	7.0	5.0	1.9	2.0								14								143								27							
26b	7.6	Agricultural use (based on direct contact by farmer)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.68	2.0								12								118								43							
26_F	55	High-use general recreation, adult / older child	6.1	6.1	6.1	6.0	6.0	6.1	4.4	1.7	2.0								14								143								27							
27	6.3	High-use general recreation, adult / older child	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.0	2.0								14								143								27							
27a	0.38	Dirt biking/ATVing	4.3	4.3	4.3	4.3	4.3	4.3	4.3	2.0	2.0								20								205								14							
28	0.21	High-use general recreation, adult / older child / young child (low use)	21	21	21	21	13	21	21	2.0	2.0								14								143								27							
28a	0.071	Dirt biking/ATVing	21	21	4.3	4.3	4.3	21	21	2.0	2.0								20								205								14							
29	0.34	Low-use general recreation, adult / older child	21	21	21	21	21	21	21	4.3	4.3								43								429								80							
30	0.19	High-use general recreation, adult / older child	18	18	18	18	14	18	18	2.0	2.0								14								143								27							
31	5.0	High-use general recreation, adult / older child	18	18	17	17	14	18	12	2.0	2.0								14								143								27							
31a	0.61	High-use general recreation, adult / older child	42	42	25	25	3.9	42	25	2.0	2.0								14								143								27							
32	6.8	High-use general recreation, adult	50	50	38	38	14	50	6.8	2.0	2.0								14								143								38							
33	30	High-use general recreation, adult	21	21	21	19	14	15	7.8	2.0	2.0								14								143								38							
34	7.8	Medium-use general recreation, adult	27	27	27	27	21	18	13	2.1	2.1								21								215								58							
35	25	High-use general recreation, adult / older child	22	22	22	22	14	19	5.2	2.0	2.0								14								143								27							
35a	1.2	High-use general recreation, adult / older child	44	44	27	13	4.4	44	2.5	2.0	2.0								14								143								27							
36a	16	Low-use commercial (groundskeeper scenario)	25	25	25	24	24	25	6.7	8.0	8.9								89								885								126							
36b	2.2	Agricultural use (based on direct contact by farmer)	15	15	15	15	12	15	3.7	2.0	2.0								12								118								43							
37	20	High-use general recreation, adult / older child	18	18	18	16	13	13	6.0	1.7	2.0								14								143								27							
37a	1.4	Bank fishing	61	61	42	42	26	50	25	2.6	2.6								26								256								42							
37b	2.3	High-use general recreation, adult / older child	27	27	24	4.3	6.7	10	2.7	2.0	2.0								14								143								27							

Table GC13-13a. Summary of pre- and post-remediation EPCs and RME IMPGs for human direct contact exposure areas under all FP scenarios. [1]

Exposure Area ID [2]	Area of Exposure Area (acre) [3]	IMPG Scenario	Pre-Remediation EPC (mg/kg) [4]	Post-Remediation EPC (mg/kg)							Cancer Risk @ 10^{-6} (RME)								Cancer Risk @ 10^{-5} (RME)								Cancer Risk @ 10^{-4} (RME)								Non-cancer (RME)							
				FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5,6]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
38	13	High-use general recreation, adult	23	23	22	22	14	19	7.0	1.6	2.0								14								143								38							
38a	1.4	Bank fishing	71	71	42	42	18	41	14	2.6	2.6								26								256								42							
39	3.5	Marathon canoeist	30	30	13	6.8	6.8	9.1	4.8	2.0	2.0								7.8								78								13							
40	98	High-use general recreation, adult / young child (low use)	19	19	19	13	13	5.2	2.5	1.5	2.0								14								143								27							
40a	4.6	Bank fishing	120	120	42	42	25	23	9.2	2.6	2.6								26								256								42							
40b	1.1	High-use general recreation, adult / young child (low use)	11	11	11	11	11	11	11	2.0	2.0								14								143								27							
41	20	Medium-use general recreation, adult	27	27	26	24	21	21	6.3	1.8	2.1								21								215								58							
41a	2.4	Bank fishing	53	53	42	39	26	34	27	2.6	2.6								26								256								42							
42	14	Medium-use general recreation, adult	32	32	32	32	21	32	12	2.1	2.1								21								215								58							
42a	0.94	Bank fishing	25	25	25	25	25	25	25	2.6	2.6								26								256								42							
43	1.5	Medium-use general recreation, adult	27	27	27	27	14	6.3	0.19	2.1	2.1								21								215								58							
43a	0.24	Bank fishing	69	69	32	32	25	6.7	0.25	2.6	2.6								26								256								42							
44	2.2	High-use general recreation, adult	27	27	27	27	14	27	7.7	2.0	2.0								14								143								38							
45	17	High-use general recreation, adult	40	40	38	38	14	11	7.3	2.0	2.0								14								143								38							
46	7.2	High-use general recreation, adult	9.2	9.2	9.2	9.1	9.1	8.8	4.2	2.0	2.0								14								143								38							
47	1.0	Recreational canoeist	18	18	18	12	12	18	18	2.0	2.0								12								121								28							
47_F	0.12	Recreational canoeist	8.0	8.0	8.0	8.0	8.0	8.0	8.0	2.0	2.0								12								121								28							
48	6.5	High-use general recreation, adult	3.4	3.4	3.4	3.4	3.4	3.4	2.3	2.0	2.0								14								143								38							
49	7.7	Low-use general recreation, adult	63	63	63	63	43	33	16	4.3	4.3								43								429								115							
50	69	Low-use general recreation, adult	7.4	7.4	7.4	7.4	7.4	5.8	4.3	4.3	4.3								43								429								115							
50a	11	Waterfowl hunting	15	15	15	15	15	10	5.2	9.0	9.0								90								904								140							
51	87	Low-use general recreation, adult	7.1	7.1	7.1	7.0	7.0	6.7	4.6	4.3	4.3								43								429								115							
51a	32	Waterfowl hunting	12	12	12	12	12	9.9	4.5	9.0	9.0								90								904								140							
52	0.9	Recreational canoeist	6.5	6.5	6.5	5.9	5.9	6.3	3.3	2.0	2.0								12								121								28							
53	0.7	Recreational canoeist	18	18	18	11	11	17	11	2.0	2.0								12								121								28							
54	13	High-use general recreation, adult	6.5	6.5	6.5	6.3	6.3	5.6	5.6	1.9	2.0								14								143								38							
55	18	High-use general recreation, adult / young child (low use)	11	11	11	11	11	11	6.8	2.0	2.0								14								143								27							
55a	5.0	Waterfowl hunting	47	47	47	47	47	47	14	9.0	9.0								90								904								140							
56	32	Medium-use general recreation, adult / older child	37	37	37	37	21	22	4.3	2.1	2.1								21								215								40							
56a	10	Waterfowl hunting	76	76	76	76	40	49	22	9.0	9.0								90								904								140							
57	13	High-use general recreation, adult / young child (low use)	5.8	5.8	5.8	5.7	5.7	5.6	4.6	2.0	2.0								14								143								27							
58	1.3	High-use general recreation, adult	65	65	37	12	12	3.6	3.6	2.0	2.0								14								143								38							
59	1.9	High-use general recreation, adult / young child (low use)	18	18	18	14	14	18	15	2.0	2.0								14								143								27							
59a	0.83	Bank fishing	23	23	23	18	18	23	15	2.6	2.6								26								256								42							
60	0.84	High-use general recreation, adult / young child (low use)	7.4	7.4	7.4	7.4	7.4	7.4	7.4	2.0	2.0								14								143								27							
60a	0.16	Recreational canoeist	13	13	13	12	12	13	13	0.95	2.0								12								121								28							
61	3.3	Utility worker	42	42	41	27	23	26	17	0.77	17								169								1694								242							
62	1.6	Utility worker	280	280	68	68	37	49	22	5.4	17								169								1694								242							
63	0.67	Utility worker	84	84	84	65	24	47	24	8.6	17								169								1694								242							
64	0.61	Utility worker	42	42	25	25	3.9	42	25	1.5	17								169								1694								242							
65	3.9	Utility worker	18	18	18	17	17	18	9.2	17	17								169								1694								242							
66	1.7	Utility worker	25	25	24	12	11	19	6.4	5.6	17								169								1694								242							
67	0.31	High-use general recreation, adult	11	11	11	11	11	11	11	2.0	2.0								14								143								38							
68	0.090	High-use general recreation, adult	9.1	9.1	9.1	9.1	9.1	9.1	9.1	2.0	2.0								14								143								38							
69	1.9	High-use general recreation, adult	9.9	9.9	9.9	9.9	9.9	9.9	9.9	2.0	2.0								14								143								38							
70	19	High-use general recreation, adult / young child (high use)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.0	2.0								13								134								4.6							
70a	1.2	Bank fishing	5.8	5.8	5.8	5.8	5.8	5.8	5.8	2.6	2.6								26								256								42							
71	1.8	Bank fishing	5.5	5.5	5.5	5.1	5.5	5.5	5.5	2.6	2.6								26								256								42							
72	2.3	Bank fishing	11	11	11	11	11	11	11	2.6	2.6								26								256								42							
73	3.9	High-use general recreation, adult	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	2.0								14								143								38							

Table GC13-13a. Summary of pre- and post-remediation EPCs and RME IMPGs for human direct contact exposure areas under all FP scenarios. [1]

Exposure Area ID [2]	Area of Exposure Area (acre) [3]	IMPG Scenario	Pre-Remediation EPC (mg/kg) [4]	Post-Remediation EPC (mg/kg)							Cancer Risk @ 10^{-6} (RME)								Cancer Risk @ 10^{-5} (RME)								Cancer Risk @ 10^{-4} (RME)								Non-cancer (RME)							
				FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5,6]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
74	5.3	High-use general recreation, adult	5.4	5.4	5.4	5.4	5.4	5.4	5.4	2.0	2.0								14								143								38							
75	3.4	High-use general recreation, adult	15	15	15	14	14	15	15	2.0	2.0								14								143								38							
76	1.1	High-use general recreation, adult	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	2.0								14								143								38							
77	4.2	High-use general recreation, adult	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.0								14								143								38							
78	6.2	High-use general recreation, older child	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.8	3.9								39								388								27							
79	17	High-use general recreation, adult	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.0	2.0								14								143								38							
80a	9.5	Low-use general recreation, adult	7.7	7.7	7.7	7.7	7.7	7.7	7.7	3.9	4.3								43								429								115							
80b	20	Agricultural use (based on direct contact by farmer)	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.12	2.0								12								118								43							
81	33	Low-use general recreation, adult	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	4.3								43								429								115							
82	15	Low-use general recreation, adult	7.7	7.7	7.7	7.7	7.7	7.7	7.7	4.3	4.3								43								429								115							
83	22	High-use commercial (groundskeeper scenario)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	2.0	2.0								18								177								25							
84	8.5	Low-use general recreation, adult	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.3	4.3								43								429								115							
85a	0.25	Recreational canoeist	8.5	8.5	8.5	8.5	8.5	8.5	8.5	2.0	2.0								12								121								28							
85b	10	High-use general recreation, older child	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.9								39								388								27							
86	118	High-use commercial (groundskeeper scenario)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.0	2.0								18								177								25							
87	10	High-use general recreation, adult / young child (high use)	15	15	4.6	4.6	4.6	15	15	2.0	2.0								13								134								4.6							
87a	0.88	Bank fishing	9.1	9.1	6.6	6.6	6.6	9.1	9.1	2.6	2.6								26								256								42							
88	1.1	Medium-use general recreation, older child	13	13	13	13	13	13	13	5.8	5.8								58								582								40							
89	4.3	High-use general recreation, adult	6.3	6.3	6.3	6.3	6.3	6.3	6.3	2.0	2.0								14								143								38							
90	8.9	High-use general recreation, adult / older child	6.1	6.1	6.1	6.1	6.1	6.1	6.1	2.0	2.0								14								143								27							
Heavily Used Subareas																																									
4	0.71	High-use general recreation, adult / older child / young child (low use)	67	67	67	9.3	9.3	10	5.7	0.64	2.0								14								143								27							
12	1.5	High-use general recreation, adult / older child / young child (low use)	11	11	11	11	11	11	5.4	1.3	2.0								14								143								27							
26a	2.2	High-use general recreation, adult / older child	1.9	1.9	1.9	1.9	1.9	1.9	1.9	0.27	2.0								14								143								27							
37b	0.31	High-use general recreation, adult / older child	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	2.0								14								143								27							
39	0.15	Marathon canoeist	52	52	52	4.9	4.9	12	10	2.0	2.0								7.8								78								13							
40	5.2	High-use general recreation, adult / young child (low use)	90	90	90	3.5	3.5	56	18	1.4	2.0								14								143								27							
47	0.18	Recreational canoeist	6.4	6.4	6.4	0.62	0.62	6.4	6.4	0.62	2.0								12								121								28							
52	0.25	Recreational canoeist	6.6	6.6	6.6	4.4	4.4	6.6	6.6	2.0	2.0								12								121								28							
53	0.35	Recreational canoeist	408	408	408	5.3	5.3	300	6.8	0.80	2.0								12								121								28							
58	0.16	High-use general recreation, adult	22	22	22	0.59	0.59	0.59	0.59	0.59	2.0								14								143								38							
59	0.15	High-use general recreation, adult / young child (low use)	28	28	28	1.8	1.8	28	12	0.70	2.0								14								143								27							
60a	0.16	Recreational canoeist	7.4	7.4	7.4	7.2	7.2	7.4	7.4	0.84	2.0								12								121								28							

Key:

= *post-remediation EPC is higher than IMPG*

= *post-remediation EPC is lower than IMPG*

Notes:

[1] *The information presented in this table reflects revisions to the information presented in the CMS Report due to changes made in response to EPA's Specific Comments 95, 98, 112, 113, and 115.*

[2] *See CMS Report Figures 5-1 and 5-2 for direct contact exposure areas in Reaches 5 through 8, and Heavily Used Subareas, respectively.*

[3] *Area only includes the portion of the exposure area within the 1 mg/kg PCB isopleth (Reaches 5/6) or the 100-year floodplain (Reaches 7/8).*

[4] *EPC is calculated for top 1-ft floodplain soil, except in Heavily Used Subareas where it is calculated for top 3-ft floodplain soil.*

[5] *For scenarios that contain more than one receptor (e.g., adult plus older child and/or young child), the lowest IMPG was utilized in the comparison to the post-remediation EPC.*

[6] *IMPGs less than 2 mg/kg were set to 2 mg/kg, because that concentration is fully protective for direct contact with soil under an unrestricted use scenario.*

Table GC13-13b. Summary of pre- and post-remediation EPCs and CTE IMPGs for human direct contact exposure areas under all FP scenarios. [1]

Exposure Area ID [2]	Area of Exposure Area (acre) [3]	IMPG Scenario	Pre-Remediation EPC (mg/kg) [4]	Post-Remediation EPC (mg/kg)							Cancer Risk @ 10^{-6} (CTE)								Cancer Risk @ 10^{-5} (CTE)								Cancer Risk @ 10^{-4} (CTE)								Non-cancer (CTE)							
				FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5,6]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
1	15	Medium-use general recreation, adult / older child	32	32	32	23	21	6.7	3.2	1.6	51								514								5143								176							
2	27	High-use general recreation, adult / older child	25	25	25	20	14	16	5.6	1.9	51								514								5143								176							
2a	2.3	Low-use general recreation, older child	52	52	52	42	21	24	8.1	1.5	103								1029								10286								353							
2b	2.0	High-use general recreation, older child	31	31	27	27	27	31	4.7	3.8	51								514								5143								176							
3	0.38	High-use general recreation, adult	7.8	7.8	7.8	7.8	7.8	7.8	7.8	2.0	63								630								6305								234							
4	3.2	High-use general recreation, adult / older child / young child (low use)	27	27	27	14	14	18	7.3	1.6	37								368								3684								63							
5	2.5	High-use general recreation, adult / older child	58	58	27	25	14	14	7.0	2.0	51								514								5143								176							
6	3.8	Low-use general recreation, adult	75	75	75	28	28	25	21	1.3	126								1261								12610								468							
7	5.9	High-use general recreation, adult / older child	25	25	25	25	14	17	8.0	2.0	51								514								5143								176							
8	0.60	Recreational canoeist	40	40	28	28	12	39	20	2.0	13								129								1286								73							
9	0.042	Low-use general recreation, older child	27	27	27	27	27	27	19	12	103								1029								10286								353							
10	59	High-use general recreation, adult / young child (high use)	10	10	4.6	4.6	4.6	10	5.3	2.0	18								184								1842								32							
10a	8.0	High-use general recreation, adult / young child (high use)	22	22	4.5	4.5	4.5	22	19	2.0	18								184								1842								32							
11	2.5	High-use general recreation, adult	18	18	18	18	14	18	12	2.0	63								630								6305								234							
12	4.8	High-use general recreation, adult / older child / young child (low use)	14	14	14	14	5.3	13	5.3	1.6	37								368								3684								63							
13	5.9	High-use general recreation, adult	28	28	28	27	13	28	6.9	2.0	63								630								6305								234							
14	4.1	High-use general recreation, adult	2.7	2.7	2.7	2.6	2.6	2.7	2.7	1.6	63								630								6305								234							
15	0.87	High-use general recreation, adult	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.0	63								630								6305								234							
16	2.5	High-use general recreation, adult	41	41	38	38	14	41	24	2.0	63								630								6305								234							
17	8.5	High-use general recreation, adult	15	15	15	15	14	15	8.3	2.0	63								630								6305								234							
18	17	Medium-use general recreation, adult	46	46	46	46	21	46	16	2.1	63								630								6305								234							
19	36	High-use general recreation, adult	83	83	38	20	14	17	5.7	1.6	63								630								6305								234							
20	9.1	High-use general recreation, adult	34	34	34	22	14	19	14	2.0	63								630								6305								234							
21	2.9	High-use general recreation, adult / older child	5.7	5.7	5.6	5.1	5.1	5.1	5.1	2.0	51								514								5143								176							
22	19	High-use general recreation, adult / older child	28	28	26	23	14	18	7.3	1.5	51								514								5143								176							
22a	1.8	Dirt biking/ATVing	93	93	8.2	8.2	8.2	93	93	2.0	29								290								2901								99							
23	0.28	Medium-use general recreation, older child	11	11	11	11	11	10	10	5.8	51								514								5143								176							
24	10	High-use general recreation, adult	31	31	31	26	13	17	8.6	1.3	63								630								6305								234							
25	0.51	High-use general recreation, older child	30	30	27	27	27	16	8.2	3.9	51								514								5143								176							
26a	48	High-use general recreation, adult / older child	7.0	7.0	7.0	6.9	6.9	7.0	5.0	1.9	51								514								5143								176							
26b	7.6	Agricultural use (based on direct contact by farmer)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.68	42								419								4195								348							
26_F	55	High-use general recreation, adult / older child	6.1	6.1	6.1	6.0	6.0	6.1	4.4	1.7	51								514								5143								176							
27	6.3	High-use general recreation, adult / older child	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.0	51								514								5143								176							
27a	0.38	Dirt biking/ATVing	4.3	4.3	4.3	4.3	4.3	4.3	4.3	2.0	29								290								2901								99							
28	0.21	High-use general recreation, adult / older child / young child (low use)	21	21	21	21	13	21	21	2.0	37								368								3684								63							
28a	0.071	Dirt biking/ATVing	21	21	4.3	4.3	4.3	21	21	2.0	29								290								2901								99							
29	0.34	Low-use general recreation, adult / older child	21	21	21	21	21	21	21	4.3	103								1029								10286								353							
30	0.19	High-use general recreation, adult / older child	18	18	18	18	14	18	18	2.0	51								514								5143								176							
31	5.0	High-use general recreation, adult / older child	18	18	17	17	14	18	12	2.0	51								514								5143								176							
31a	0.61	High-use general recreation, adult / older child	42	42	25	25	3.9	42	25	2.0	51								514								5143								176							
32	6.8	High-use general recreation, adult	50	50	38	38	14	50	6.8	2.0	63								630								6305								234							
33	30	High-use general recreation, adult	21	21	21	19	14	15	7.8	2.0	63								630								6305								234							
34	7.8	Medium-use general recreation, adult	27	27	27	27	21	18	13	2.1	63								630								6305								234							
35	25	High-use general recreation, adult / older child	22	22	22	22	14	19	5.2	2.0	51								514								5143								176							
35a	1.2	High-use general recreation, adult / older child	44	44	27	13	4.4	44	2.5	2.0	51								514								5143								176							
36a	16	Low-use commercial (groundskeeper scenario)	25	25	25	24	24	25	6.7	8.0	166								1664								16642								571							
36b	2.2	Agricultural use (based on direct contact by farmer)	15	15	15	15	12	15	3.7	2.0	42								419								4195								348							
37	20	High-use general recreation, adult / older child	18	18	18	16	13	13	6.0	1.7	51								514								5143								176							
37a	1.4	Bank fishing	61	61	42	42	26	50	25	2.6	52								524								5237								180							
37b	2.3	High-use general recreation, adult / older child	27	27	24	4.3	6.7	10	2.7	2.0	51								514								5143								176							

Table GC13-13b. Summary of pre- and post-remediation EPCs and CTE IMPGs for human direct contact exposure areas under all FP scenarios. [1]

Exposure Area ID [2]	Area of Exposure Area (acre) [3]	IMPG Scenario	Pre-Remediation EPC (mg/kg) [4]	Post-Remediation EPC (mg/kg)							Cancer Risk @ 10^{-6} (CTE)								Cancer Risk @ 10^{-5} (CTE)								Cancer Risk @ 10^{-4} (CTE)								Non-cancer (CTE)							
				FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5,6]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
38	13	High-use general recreation, adult	23	23	22	22	14	19	7.0	1.6	63								630								6305								234							
38a	1.4	Bank fishing	71	71	42	42	18	41	14	2.6	52								524								5237								180							
39	3.5	Marathon canoeist	30	30	13	6.8	6.8	9.1	4.8	2.0	6								58								575								25							
40	98	High-use general recreation, adult / young child (low use)	19	19	19	13	13	5.2	2.5	1.5	37								368								3684								63							
40a	4.6	Bank fishing	120	120	42	42	25	23	9.2	2.6	52								524								5237								180							
40b	1.1	High-use general recreation, adult / young child (low use)	11	11	11	11	11	11	11	2.0	37								368								3684								63							
41	20	Medium-use general recreation, adult	27	27	26	24	21	21	6.3	1.8	63								630								6305								234							
41a	2.4	Bank fishing	53	53	42	39	26	34	27	2.6	52								524								5237								180							
42	14	Medium-use general recreation, adult	32	32	32	32	21	32	12	2.1	63								630								6305								234							
42a	0.94	Bank fishing	25	25	25	25	25	25	25	2.6	52								524								5237								180							
43	1.5	Medium-use general recreation, adult	27	27	27	27	14	6.3	0.19	2.1	63								630								6305								234							
43a	0.24	Bank fishing	69	69	32	32	25	6.7	0.25	2.6	52								524								5237								180							
44	2.2	High-use general recreation, adult	27	27	27	27	14	27	7.7	2.0	63								630								6305								234							
45	17	High-use general recreation, adult	40	40	38	38	14	11	7.3	2.0	63								630								6305								234							
46	7.2	High-use general recreation, adult	9.2	9.2	9.2	9.1	9.1	8.8	4.2	2.0	63								630								6305								234							
47	1.0	Recreational canoeist	18	18	18	12	12	18	18	2.0	13								129								1286								73							
47_F	0.12	Recreational canoeist	8.0	8.0	8.0	8.0	8.0	8.0	8.0	2.0	13								129								1286								73							
48	6.5	High-use general recreation, adult	3.4	3.4	3.4	3.4	3.4	3.4	2.3	2.0	63								630								6305								234							
49	7.7	Low-use general recreation, adult	63	63	63	63	43	33	16	4.3	126								1261								12610								468							
50	69	Low-use general recreation, adult	7.4	7.4	7.4	7.4	7.4	5.8	4.3	4.3	126								1261								12610								468							
50a	11	Waterfowl hunting	15	15	15	15	15	10	5.2	9.0	75								752								7518								399							
51	87	Low-use general recreation, adult	7.1	7.1	7.1	7.0	7.0	6.7	4.6	4.3	126								1261								12610								468							
51a	32	Waterfowl hunting	12	12	12	12	12	9.9	4.5	9.0	75								752								7518								399							
52	0.9	Recreational canoeist	6.5	6.5	6.5	5.9	5.9	6.3	3.3	2.0	13								129								1286								73							
53	0.7	Recreational canoeist	18	18	18	11	11	17	11	2.0	13								129								1286								73							
54	13	High-use general recreation, adult	6.5	6.5	6.5	6.3	6.3	5.6	5.6	1.9	63								630								6305								234							
55	18	High-use general recreation, adult / young child (low use)	11	11	11	11	11	11	6.8	2.0	37								368								3684								63							
55a	5.0	Waterfowl hunting	47	47	47	47	47	47	14	9.0	75								752								7518								399							
56	32	Medium-use general recreation, adult / older child	37	37	37	37	21	22	4.3	2.1	51								514								5143								176							
56a	10	Waterfowl hunting	76	76	76	76	40	49	22	9.0	75								752								7518								399							
57	13	High-use general recreation, adult / young child (low use)	5.8	5.8	5.8	5.7	5.7	5.6	4.6	2.0	37								368								3684								63							
58	1.3	High-use general recreation, adult	65	65	37	12	12	3.6	3.6	2.0	63								630								6305								234							
59	1.9	High-use general recreation, adult / young child (low use)	18	18	18	14	14	18	15	2.0	37								368								3684								63							
59a	0.83	Bank fishing	23	23	23	18	18	23	15	2.6	52								524								5237								180							
60	0.84	High-use general recreation, adult / young child (low use)	7.4	7.4	7.4	7.4	7.4	7.4	7.4	2.0	37								368								3684								63							
60a	0.16	Recreational canoeist	13	13	13	12	12	13	13	0.95	13								129								1286								73							
61	3.3	Utility worker	42	42	41	27	23	26	17	0.77	209								2093								20933								718							
62	1.6	Utility worker	280	280	68	68	37	49	22	5.4	209								2093								20933								718							
63	0.67	Utility worker	84	84	84	65	24	47	24	8.6	209								2093								20933								718							
64	0.61	Utility worker	42	42	25	25	3.9	42	25	1.5	209								2093								20933								718							
65	3.9	Utility worker	18	18	18	17	17	18	9.2	17	209								2093								20933								718							
66	1.7	Utility worker	25	25	24	12	11	19	6.4	5.6	209								2093								20933								718							
67	0.31	High-use general recreation, adult	11	11	11	11	11	11	11	2.0	63								630								6305								234							
68	0.090	High-use general recreation, adult	9.1	9.1	9.1	9.1	9.1	9.1	9.1	2.0	63								630								6305								234							
69	1.9	High-use general recreation, adult	9.9	9.9	9.9	9.9	9.9	9.9	9.9	2.0	63								630								6305								234							
70	19	High-use general recreation, adult / young child (high use)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.0	18								184								1842								32							
70a	1.2	Bank fishing	5.8	5.8	5.8	5.8	5.8	5.8	5.8	2.6	52								524								5237								180							
71	1.8	Bank fishing	5.5	5.5	5.5	5.1	5.5	5.5	5.5	2.6	52								524								5237								180							
72	2.3	Bank fishing	11	11	11	11	11	11	11	2.6	52								524								5237								180							
73	3.9	High-use general recreation, adult	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	63								630								6305								234							

Table GC13-13b. Summary of pre- and post-remediation EPCs and CTE IMPGs for human direct contact exposure areas under all FP scenarios. [1]

Exposure Area ID [2]	Area of Exposure Area (acre) [3]	IMPG Scenario	Pre-Remediation EPC (mg/kg) [4]	Post-Remediation EPC (mg/kg)							Cancer Risk @ 10^{-6} (CTE)								Cancer Risk @ 10^{-5} (CTE)								Cancer Risk @ 10^{-4} (CTE)								Non-cancer (CTE)							
				FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5,6]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg) [5]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
74	5.3	High-use general recreation, adult	5.4	5.4	5.4	5.4	5.4	5.4	5.4	2.0	63								630								6305								234							
75	3.4	High-use general recreation, adult	15	15	15	14	14	15	15	2.0	63								630								6305								234							
76	1.1	High-use general recreation, adult	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	63								630								6305								234							
77	4.2	High-use general recreation, adult	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	63								630								6305								234							
78	6.2	High-use general recreation, older child	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.8	51								514								5143								176							
79	17	High-use general recreation, adult	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.0	63								630								6305								234							
80a	9.5	Low-use general recreation, adult	7.7	7.7	7.7	7.7	7.7	7.7	7.7	3.9	126								1261								12610								468							
80b	20	Agricultural use (based on direct contact by farmer)	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.12	42								419								4195								348							
81	33	Low-use general recreation, adult	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	126								1261								12610								468							
82	15	Low-use general recreation, adult	7.7	7.7	7.7	7.7	7.7	7.7	7.7	4.3	126								1261								12610								468							
83	22	High-use commercial (groundskeeper scenario)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	2.0	17								166								1664								57							
84	8.5	Low-use general recreation, adult	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.3	126								1261								12610								468							
85a	0.25	Recreational canoeist	8.5	8.5	8.5	8.5	8.5	8.5	8.5	2.0	13								129								1286								73							
85b	10	High-use general recreation, older child	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	51								514								5143								176							
86	118	High-use commercial (groundskeeper scenario)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.0	17								166								1664								57							
87	10	High-use general recreation, adult / young child (high use)	15	15	4.6	4.6	4.6	15	15	2.0	18								184								1842								32							
87a	0.88	Bank fishing	9.1	9.1	6.6	6.6	6.6	9.1	9.1	2.6	52								524								5237								180							
88	1.1	Medium-use general recreation, older child	13	13	13	13	13	13	13	5.8	51								514								5143								176							
89	4.3	High-use general recreation, adult	6.3	6.3	6.3	6.3	6.3	6.3	6.3	2.0	63								630								6305								234							
90	8.9	High-use general recreation, adult / older child	6.1	6.1	6.1	6.1	6.1	6.1	6.1	2.0	51								514								5143								176							
Heavily Used Subareas																																										
4	0.71	High-use general recreation, adult / older child / young child (low use)	67	67	67	9.3	9.3	10	5.7	0.64	37								368								3684								63							
12	1.5	High-use general recreation, adult / older child / young child (low use)	11	11	11	11	11	11	5.4	1.3	37								368								3684								63							
26a	2.2	High-use general recreation, adult / older child	1.9	1.9	1.9	1.9	1.9	1.9	1.9	0.27	51								514								5143								176							
37b	0.31	High-use general recreation, adult / older child	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	51								514								5143								176							
39	0.15	Marathon canoeist	52	52	52	4.9	4.9	12	10	2.01	6								58								575								25							
40	5.2	High-use general recreation, adult / young child (low use)	90	90	90	3.5	3.5	56	18	1.4	37								368								3684								63							
47	0.18	Recreational canoeist	6.4	6.4	6.4	0.62	0.62	6.4	6.4	0.62	13								129								1286								73							
52	0.25	Recreational canoeist	6.6	6.6	6.6	4.4	4.4	6.6	6.6	2.0	13								129								1286								73							
53	0.35	Recreational canoeist	408	408	408	5.3	5.3	300	6.8	0.80	13								129								1286								73							
58	0.16	High-use general recreation, adult	22	22	22	0.59	0.59	0.59	0.59	0.59	63								630								6305								234							
59	0.15	High-use general recreation, adult / young child (low use)	28	28	28	1.8	1.8	28	12	0.70	37								368								3684								63							
60a	0.16	Recreational canoeist	7.4	7.4	7.4	7.2	7.2	7.4	7.4	0.84	13								129								1286								73							

Key:

= *post-remediation EPC is higher than IMPG*

= *post-remediation EPC is lower than IMPG*

Notes:

[1] *The information presented in this table reflects revisions to the information presented in the CMS Report due to changes made in response to EPA's Specific Comments 95, 98, 112, 113, and 115.*

[2] *See CMS Report Figures 5-1 and 5-2 for direct contact exposure areas in Reaches 5 through 8, and Heavily Used Subareas, respectively.*

[3] *Area only includes the portion of the exposure area within the 1 mg/kg PCB isopleth (Reaches 5/6) or the 100-year floodplain (Reaches 7/8).*

[4] *EPC is calculated for top 1-ft floodplain soil, except in Heavily Used Subareas where it is calculated for top 3-ft floodplain soil.*

[5] *For scenarios that contain more than one receptor (e.g., adult plus older child and/or young child), the lowest IMPG was utilized in the comparison to the post-remediation EPC.*

Table GC13-14. Summary of IMPGs, and pre- and post-remediation EPCs for agricultural products consumption areas under all FP alternatives.[1]

Farm ID[2]	Pre-Remediation EPC (mg/kg)[3]	Post-Remediation EPC (mg/kg)[3]							Cancer Risk @ 10^{-6}								Cancer Risk @ 10^{-5}								Cancer Risk @ 10^{-4}								Non-Cancer: Child								Non-Cancer: Adult							
		FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg)[4]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg)[4]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg)[4]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg)[4]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	IMPG (mg/kg)[4]	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
Commercial Dairy (RME)																																															
FA 1	0.78	0.78	0.78	0.78	0.78	0.77	0.78	0.68	0.68								6.8								68								7.7								36							
FA 2	14	14	14	14	13	13	13	2.59	2.6								26								259								29								138							
FA 3	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.29	0.29								2.9								29								3.2								15							
FA 4	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.24	0.24								2.4								24								2.7								13							
FA 5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24								2.4								24								2.7								13							
FA 6	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24								2.4								24								2.7								13							
FA 7	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24								2.4								24								2.7								13							
FA 8	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.34								3.4								34								3.8								18							
FA 9	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.31	0.31								3.1								31								3.5								17							
FA 10	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	2.1								21								206								23								110							
FA 11	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	6.1								61								610								69								325							
FA 12	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.38								3.8								38								4.3								20							
FA 13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24								2.4								24								2.7								13							
FA 14	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.55								5.5								55								6.2								29							
Commercial Dairy (CTE)																																															
FA 1	0.78	0.78	0.78	0.78	0.78	0.77	0.78	0.68	3.1								31								312								12								44							
FA 2	14	14	14	14	13	13	13	2.59	12								119								1187								46								168							
FA 3	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.29	1.3								13								132								5.2								19							
FA 4	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.24	1.1								11								110								4.3								16							
FA 5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	1.1								11								110								4.3								16							
FA 6	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	1.1								11								110								4.3								16							
FA 7	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	1.1								11								110								4.3								16							
FA 8	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	1.5								15								154								6.0								22							
FA 9	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.31	1.4								14								143								5.6								20							
FA 10	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	9.5								95								946								37								134							
FA 11	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	28								279								2794								109								396							
FA 12	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.8								18								176								6.9								25							
FA 13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	1.1								11								110								4.3								16							
FA 14	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	2.5								25								253								9.9								36							

Key:

	= *post-remediation EPC is higher than IMPG*
	= *post-remediation EPC is lower than IMPG*

Notes:

[1] *The EPCs presented in this table reflect revisions to those presented in the CMS Report due to changes made in response to EPA's Specific Comments 95, 98, 112, 113, and 115.*

[2] *See CMS Figure 5-4 for farm areas in Reaches 5 through 8.*

[3] *EPC is calculated for top 1 ft floodplain soil.*

[4] *IMPG values for agricultural products consumption include an adjustment to account for the areas outside the 1 mg/kg PCB isopleth/100-year floodplain (see CMS Report Table 5-2).*

Table GC13-15. Summary of amphibian IMPGs and pre- and post-remediation EPCs for amphibian averaging areas (vernal pools) under all FP alternatives.[1]

Vernal Pool ID[2]	Area of Vernal Pool (acre)	Pre-Remediation EPC (mg/kg)[3]	Post-Remediation EPC (mg/kg)[3]							IMPG Attainment							
			FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	Lower Bound IMPG (mg/kg)	Upper Bound IMPG (mg/kg)	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
5-VP-3	1.9	73	73	73	5.6	5.6	25	7.7	3.1	3.27	5.6							
5-VP-1	0.044	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.27	5.6							
8-VP-5	0.043	23	23	23	5.6	5.6	23	20	0.45	3.27	5.6							
8-VP-4	0.24	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.27	3.27	5.6							
8-VP-3	0.024	7.7	7.7	7.7	0.021	0.021	7.7	7.7	0.021	3.27	5.6							
8-VP-2	0.57	69	69	69	5.6	5.6	34	4.2	3.1	3.27	5.6							
18-VP-2	0.61	7.2	7.2	7.2	5.6	5.6	7.2	7.2	3.27	3.27	5.6							
18-VP-1	0.28	8.1	8.1	8.1	5.6	5.6	8.1	8.1	3.27	3.27	5.6							
19-VP-7	0.068	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	3.27	5.6							
19-VP-2	0.0080	34	34	34	0.021	0.021	34	0.021	0.021	3.27	5.6							
19-VP-1	0.18	32	32	32	5.6	5.6	32	24	3.27	3.27	5.6							
19-VP-3	0.031	10	10	10	5.6	5.6	10	10	3.27	3.27	5.6							
19-VP-4	0.094	6.0	6.0	6.0	5.6	5.6	6.0	6.0	0.021	3.27	5.6							
19-VP-8	0.057	91	91	91	0.021	0.021	0.021	0.021	0.021	3.27	5.6							
19-VP-5	0.51	45	45	45	5.6	5.6	45	11	3.27	3.27	5.6							
19-VP-6	1.2	24	24	24	5.6	5.6	24	7.8	3.27	3.27	5.6							
23-VP-2	0.18	47	47	47	5.6	3.7	37	19	3.27	3.27	5.6							
23-VP-1	0.30	75	75	75	5.6	5.3	26	7.1	0.021	3.27	5.6							
23A-VP-1	0.45	10	10	10	5.6	5.6	10	10	3.27	3.27	5.6							
23B-VP-1	0.068	7.2	7.2	7.2	5.6	5.6	7.2	7.2	3.27	3.27	5.6							
23B-VP-2	0.091	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	3.27	5.6							
27B-VP-2	0.28	11	11	11	5.6	5.6	11	11	3.27	3.27	5.6							
27B-VP-3	0.062	16	16	16	0.021	0.021	16	16	0.021	3.27	5.6							
27B-VP-1	0.072	12	12	12	5.6	5.6	12	12	3.27	3.27	5.6							
27-VP-2	0.47	21	21	21	5.6	5.6	21	21	3.27	3.27	5.6							
27A-VP-1	0.20	31	31	31	5.6	5.6	31	11	3.27	3.27	5.6							
27-VP-1	1.3	23	23	23	5.6	5.6	23	23	3.27	3.27	5.6							
26-VP-1	0.036	40	40	40	5.6	5.6	40	15	3.27	3.27	5.6							
33-VP-1	0.022	9.5	9.5	9.5	0.021	0.021	9.5	9.5	0.021	3.27	5.6							
33-VP-2	0.12	70	70	70	5.6	4.8	46	4.8	0.021	3.27	5.6							
38-VP-1	0.43	36	36	36	5.6	5.6	28	22	3.27	3.27	5.6							
38A-VP-1	0.020	5.0	5.0	5.0	5.6	5.0	5.0	5.0	0.021	3.27	5.6							
38-VP-3	0.046	28	28	28	5.6	5.6	28	5.0	0.021	3.27	5.6							
38-VP-2	0.17	46	46	46	5.6	5.1	29	9.4	3.1	3.27	5.6							
40-VP-3	0.46	67	67	67	5.6	5.6	34	12	2.7	3.27	5.6							
40-VP-2	0.36	18	18	18	5.6	5.6	18	18	3.27	3.27	5.6							
40A-VP-1	0.11	68	68	68	5.6	5.6	48	17	3.27	3.27	5.6							
40-VP-1	0.47	57	57	57	5.6	5.6	4.2	4.2	3.27	3.27	5.6							
42-VP-1	0.22	64	64	64	5.6	5.6	4.8	0.021	2.8	3.27	5.6							
42-VP-2	0.28	46	46	46	5.6	5.6	46	1.7	3.27	3.27	5.6							
42-VP-3	0.050	41	41	41	5.6	5.6	41	1.9	0.021	3.27	5.6							
42-VP-5	0.58	73	73	73	5.6	5.6	24	24	3.27	3.27	5.6							
42-VP-4	1.0	34	34	34	5.6	5.6	26	6.2	3.27	3.27	5.6							
42A-VP-1	1.5	35	35	35	5.6	5.6	21	11	3.27	3.27	5.6							
46-VP-2	7.1	140	140	140	5.6	5.6	3.0	3.0	3.0	3.27	5.6							
46-VP-1	0.52	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	3.27	5.6							
46-VP-5	0.056	125	125	120	0.021	0.021	4.5	0.021	0.021	3.27	5.6							
46-VP-3	1.4	153	153	150	3.2	3.2	35	3.2	3.27	3.27	5.6							
46-VP-4	0.011	125	125	125	0.021	0.021	0.021	0.021	0.021	3.27	5.6							
49A-VP-1	0.019	16	16	16	0.021	0.021	16	16	0.021	3.27	5.6							
49-VP-1	1.2	18	18	18	5.6	5.6	18	11	3.27	3.27	5.6							
49B-VP-1	0.0044	26	26	26	0.021	0.021	26	0.021	0.021	3.27	5.6							
66A-VP-1	0.032	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	3.27	5.6							
69-VP-1	0.0074	12	12	12	0.021	0.021	12	12	0.021	3.27	5.6							
8-VP-6	0.086	47	47	47	5.6	5.6	47	0.021	0.021	3.27	5.6							
12-VP-1	0.080	14	14	14	0.021	0.021	14	14	0.021	3.27	5.6							
39-VP-1	2.0	39	39	39	5.6	5.6	39	1.8	2.3	3.27	5.6							
54-VP-1	0.20	21	21	21	5.6	5.6	21	21	3.0	3.27	5.6							
55-VP-1	0.59	7.6	7.6	7.6	5.6	5.6	7.6	2.2	3.27	3.27	5.6							
55A-VP-1	2.0	40	40	40	5.6	5.6	34	6.5	3.2	3.27	5.6							

Table GC13-15. Summary of amphibian IMPGs and pre- and post-remediation EPCs for amphibian averaging areas (vernal pools) under all FP alternatives.[1]

Vernal Pool ID[2]	Area of Vernal Pool (acre)	Pre-Remediation EPC (mg/kg)[3]	Post-Remediation EPC (mg/kg)[3]							IMPG Attainment							
			FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	Lower Bound IMPG (mg/kg)	Upper Bound IMPG (mg/kg)	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
58A-VP-1	0.32	25	25	25	5.6	5.6	25	25	3.27	3.27	5.6							
67A-VP-1	0.12	51	51	51	5.6	5.6	11	11	3.27	3.27	5.6							
61A-VP-1	0.19	18	18	18	5.3	5.3	18	18	3.2	3.27	5.6							
61A-VP-2	1.2	19	19	19	5.5	5.5	19	6.2	3.27	3.27	5.6							
56A-VP-1	0.58	73	73	73	5.6	5.6	22	9.7	3.27	3.27	5.6							
23-VP-3	1.3	22	22	22	5.6	5.6	22	22	3.0	3.27	5.6							

Key:

= *post-remediation EPC is higher than Upper Bound IMPG*

= *post-remediation EPC is between Lower and Upper Bound IMPGs*

= *post-remediation EPC is below Lower Bound IMPG*

Notes:

[1] *The EPCs presented in this table reflect revisions to those presented in the CMS Report due to changes made in response to EPA's Specific Comments 95, 98, 112, 113, and 115.*

[2] *See CMS Report Figure 5-5 for locations of vernal pools.*

[3] *EPC is calculated for the top 1 ft of floodplain soil.*

Table GC13-16. Summary of IMPGs for omnivorous/carnivorous mammals and pre- and post-remediation EPCs for relevant averaging areas under all FP alternatives.[1]

Averaging Area ID[2]	Pre-Remediation EPC (mg/kg)[3]	Post-Remediation EPC (mg/kg)[3]							IMPG Attainment							
		FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	Lower Bound IMPG (mg/kg)	Upper Bound IMPG (mg/kg)	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
G1	20	20	19	14	12	12	5.2	3.3	21.1	34.3							
G2	51	51	23	18	14	14	6.0	2.7	21.1	34.3							
G3	19	19	18	17	14	16	7.3	3.5	21.1	34.3							
G4	27	27	27	24	21	20	6.5	5.0	21.1	34.3							
G5	28	28	28	23	19	11	6.5	6.3	21.1	34.3							
G6	12	12	12	12	12	9.3	4.5	7.1	21.1	34.3							
G7	18	18	17	17	14	12	6.6	8.3	21.1	34.3							

Key:

= *post-remediation EPC is higher than Upper Bound IMPG*

= *post-remediation EPC is between Lower and Upper Bound IMPGs*

= *post-remediation EPC is below Lower Bound IMPG*

Notes:

[1] *The EPCs presented in this table reflect revisions to those presented in the CMS Report due to changes made in response to EPA's Specific Comments 95, 98, 112, 113, and 115.*

[2] *See CMS Report Figure 5-6 for averaging areas for omnivorous/carnivorous mammals (based on short-tailed shrews).*

[3] *EPC is calculated for the top 1 ft of floodplain soil.*

Table GC13-17. Exposure / averaging area acreage attaining IMPGs for all FP alternatives. [1]

Category	Exposure Assumptions	Risk Range	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
Human Direct Contact	RME	Cancer Risk 10^{-4}	100%	100%	100%	100%	100%	100%	100%
		Cancer Risk 10^{-5}	61%	63%	72%	100%	76%	98%	100%
		Cancer Risk 10^{-6} (or 2 mg/kg)	6%	6%	7%	7%	6%	17%	100%
		Non-cancer	86%	100%	100%	100%	93%	94%	100%
	CTE	Cancer Risk 10^{-4}	100%	100%	100%	100%	100%	100%	100%
		Cancer Risk 10^{-5}	100%	100%	100%	100%	100%	100%	100%
		Cancer Risk 10^{-6}	94%	99%	99%	100%	99%	99%	100%
		Non-cancer	100%	100%	100%	100%	100%	100%	100%
Agricultural Products Consumption	RME	Cancer Risk 10^{-4}	100%	100%	100%	100%	100%	100%	100%
		Cancer Risk 10^{-5}	100%	100%	100%	100%	100%	100%	100%
		Cancer Risk 10^{-6}	12%	12%	12%	12%	12%	12%	100%
		Non-cancer (Child)	100%	100%	100%	100%	100%	100%	100%
		Non-cancer (Adult)	100%	100%	100%	100%	100%	100%	100%
	CTE	Cancer Risk 10^{-4}	100%	100%	100%	100%	100%	100%	100%
		Cancer Risk 10^{-5}	100%	100%	100%	100%	100%	100%	100%
		Cancer Risk 10^{-6}	98%	98%	98%	98%	98%	98%	100%
		Non-cancer (Child)	100%	100%	100%	100%	100%	100%	100%
		Non-cancer (Adult)	100%	100%	100%	100%	100%	100%	100%
Ecological Receptors[2]		Amphibians (upper bound)	3%	3%	100%	100%	26%	41%	100%
		Amphibians (lower bound)	2%	2%	7%	7%	23%	37%	100%
		Omnivorous/carnivorous mammals (upper bound)	85%	100%	100%	100%	100%	100%	100%
		Omnivorous/carnivorous mammals (lower bound)	56%	56%	71%	100%	100%	100%	100%

Notes:

[1] *Values represent percentage of the total acreage evaluated that achieve the specified IMPG. The total acreage evaluated consists of the total EA acreage for human direct contact (1,330 acres), total farm acreage for agricultural products consumption (175 acres), total vernal pool acreage for amphibians (34 acres), and total shrew evaluation area for omnivorous/carnivorous mammals (600 acres). The percentages presented in this table reflect revisions to those presented in the CMS Report due to changes made in response to EPA's Specific Comments 95, 98, 112, 113, and 115.*

[2] *Insectivorous birds and piscivorous mammals are not included since they are addressed separately for all combined SED and FP alternatives in the Response to General Comment 24.*

Table GC13-18. Adverse impacts of remediation on workers and local communities for all FP alternatives[1].

Category		FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
Truck Trips and Vehicle Miles Traveled for Importation of Backfill Material	Total Number of Truck Trips[2]	0	3,700	9,500	13,400	13,300	37,700	67,100
	Number of Truck Trips (per year)[2]	0	3,700	3,800	3,400	3,300	2,900	3,000
	Number of Vehicle Miles Traveled[3]	0	185,000	475,000	670,000	665,000	1,885,000	3,355,000
Worker Non-fatal Injuries	Total Estimated Non-fatal Injuries[4]	0	0.28	1.08	1.55	1.57	4.65	7.86
	Estimated Non-fatal Injuries (per year)[4]	0	0.28	0.43	0.39	0.39	0.36	0.36
	Probability of at Least One Non-fatal Injury[5]	0	25%	66%	79%	79%	99%	100%
Worker Fatalities	Total Estimated Fatalities[6]	0	0.002	0.008	0.01	0.01	0.03	0.06
	Estimated Fatalities (per year)[6]	0	0.002	0.003	0.003	0.003	0.002	0.003
	Probability of at Least One Fatality[5]	0	0.2%	0.8%	1.0%	1.0%	3.0%	6.0%
Fatalities and Non-fatal Injuries Related to Truck Transportation of Imported Materials	Fatality Estimate[7]	0	0.004	0.01	0.02	0.02	0.05	0.08
	Fatality Estimate (per year)[7]	0	0.004	0.004	0.005	0.005	0.004	0.004
	Probability of at Least One Fatality	0	0.4%	1.0%	2.0%	2.0%	4.0%	8.0%
	Injury Estimate[8]	0	0.11	0.27	0.38	0.38	1.07	1.91
	Injury Estimate (per year)[8]	0	0.11	0.11	0.10	0.10	0.08	0.09
	Probability of at Least One Injury	0	10%	24%	32%	32%	66%	85%

Notes:

[1] As discussed in Response to Specific Comment 83, the numbers presented in this table are based on the estimates presented in the CMS Report; they have not been revised to take account of revised information on total removal volumes or implementation durations for the sediment alternatives. These estimates are presented for general illustrative and comparative purposes.

[2] Assumes 16-ton trucks with a capacity of 12 cy for importation of backfill materials.

[3] Assumes a 50 mile round trip.

[4] Sum of the estimated number of non-fatal injuries in each labor category.

[5] Assuming a Poisson probability distribution.

[6] Sum of the estimated number of fatal injuries in each labor category.

[7] Assumes a fatality rate of 2.4×10^{-8} fatalities per vehicle mile traveled.

[8] Assumes a non-fatal injury rate of 5.7×10^{-7} injuries per vehicle mile traveled.

Table GC24-1. Model-predicted sediment endpoint PCB concentrations used to calculate associated target floodplain soil levels for insectivorous birds (wood duck).

Reach	Averaging Area	Model-Predicted Sediment Endpoint PCB Concentrations (mg/kg)							Calculated Target Floodplain Soil Levels (mg/kg)[1]						
		SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
5A	K1	4.3	0.20	0.21	0.20	0.21	0.12	0.089	33	54	54	54	54	54	55
	K2	11	1.8	0.80	0.80	0.093	0.42	0.36	*n/a*	46	51	51	55	53	53
	K3	13	1.7	0.059	0.058	0.058	0.071	0.063	*n/a*	46	55	55	55	55	55
	K4	15	0.020	0.020	0.020	0.020	0.033	0.024	*n/a*	55	55	55	55	55	55
	K5	19	0.023	0.024	0.024	0.023	0.032	0.028	*n/a*	55	55	55	55	55	55
5B	K6	9.7	7.4	0.054	0.053	0.31	0.32	0.051	*n/a*	0.3	55	55	53	53	55
	K7	6.3	4.2	0.56	0.16	0.065	0.067	0.062	8.4	24	51	54	55	55	55
	K8	7.3	5.8	1.8	1.2	0.085	0.11	0.095	1.0	12	42	46	54	54	54
5C/D	K9	7.0	5.4	1.7	1.4	0.10	0.13	0.11	42	45	52	52	55	55	55
	K10	18	7.2	0.17	0.17	0.19	0.17	0.11	21	41	55	55	55	55	55
	K11	20	12	0.42	0.40	0.20	0.19	0.11	17	32	54	54	55	55	55
6	K12	19	1.8	0.23	0.21	0.22	0.22	0.16	20	52	55	55	55	55	55

Notes:

(n/a) denotes IMPG values not attainable given the predicted sediment level.

[1] *Target floodplain soil levels calculated in accordance with method described in Appendix B to the CMS Report.*

Table GC24-2. Comprehensive evaluation of IMPG attainment for insectivorous birds (wood duck) for all combinations of SED and FP alternatives.[1]

Reach	Averaging Area	Post-Remediation Floodplain EPC (**FP 1**)	Target Floodplain Soil Level (mg/kg)							Post-Remediation Floodplain EPC (**FP 2**)	Target Floodplain Soil Level (mg/kg)							Post-Remediation Floodplain EPC (**FP 3**)	Target Floodplain Soil Level (mg/kg)						
			SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8		SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8		SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
5A	K1	29	33	54	54	54	54	54	55	28	33	54	54	54	54	54	55	21	33	54	54	54	54	54	55
	K2	9.8	*n/a*	46	51	51	55	53	53	7.9	*n/a*	46	51	51	55	53	53	7.9	*n/a*	46	51	51	55	53	53
	K3	53	*n/a*	46	55	55	55	55	55	26	*n/a*	46	55	55	55	55	55	19	*n/a*	46	55	55	55	55	55
	K4	16	*n/a*	55	55	55	55	55	55	16	*n/a*	55	55	55	55	55	55	15	*n/a*	55	55	55	55	55	55
	K5	22	*n/a*	55	55	55	55	55	55	21	*n/a*	55	55	55	55	55	55	18	*n/a*	55	55	55	55	55	55
5B	K6	25	*n/a*	0.3	55	55	53	53	55	25	*n/a*	0.3	55	55	53	53	55	24	*n/a*	0.3	55	55	53	53	55
	K7	30	8.4	24	51	54	55	55	55	28	8.4	24	51	54	55	55	55	22	8.4	24	51	54	55	55	55
	K8	24	1.0	12	42	46	54	54	54	23	1.0	12	42	46	54	54	54	18	1.0	12	42	46	54	54	54
5C/D	K9	25	42	45	52	52	55	55	55	25	42	45	52	52	55	55	55	23	42	45	52	52	55	55	55
	K10	13	21	41	55	55	55	55	55	13	21	41	55	55	55	55	55	12	21	41	55	55	55	55	55
	K11	14	17	32	54	54	55	55	55	14	17	32	54	54	55	55	55	14	17	32	54	54	55	55	55
6	K12	23	20	52	55	55	55	55	55	23	20	52	55	55	55	55	55	23	20	52	55	55	55	55	55

Reach	Averaging Area	Post-Remediation Floodplain EPC (**FP 4**)	Target Floodplain Soil Level (mg/kg)							Post-Remediation Floodplain EPC (**FP 5**)	Target Floodplain Soil Level (mg/kg)							Post-Remediation Floodplain EPC (**FP 6**)	Target Floodplain Soil Level (mg/kg)						
			SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8		SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8		SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
5A	K1	17	33	54	54	54	54	54	55	16	33	54	54	54	54	54	55	5.3	33	54	54	54	54	54	55
	K2	6.7	*n/a*	46	51	51	55	53	53	9.3	*n/a*	46	51	51	55	53	53	6.2	*n/a*	46	51	51	55	53	53
	K3	18	*n/a*	46	55	55	55	55	55	14	*n/a*	46	55	55	55	55	55	5.9	*n/a*	46	55	55	55	55	55
	K4	12	*n/a*	55	55	55	55	55	55	13	*n/a*	55	55	55	55	55	55	6.2	*n/a*	55	55	55	55	55	55
	K5	14	*n/a*	55	55	55	55	55	55	18	*n/a*	55	55	55	55	55	55	9.2	*n/a*	55	55	55	55	55	55
5B	K6	19	*n/a*	0.3	55	55	53	53	55	22	*n/a*	0.3	55	55	53	53	55	6.4	*n/a*	0.3	55	55	53	53	55
	K7	22	8.4	24	51	54	55	55	55	17	8.4	24	51	54	55	55	55	6.4	8.4	24	51	54	55	55	55
	K8	18	1.0	12	42	46	54	54	54	12	1.0	12	42	46	54	54	54	5.4	1.0	12	42	46	54	54	54
5C/D	K9	17	42	45	52	52	55	55	55	12	42	45	52	52	55	55	55	7.8	42	45	52	52	55	55	55
	K10	12	21	41	55	55	55	55	55	10	21	41	55	55	55	55	55	5.0	21	41	55	55	55	55	55
	K11	13	17	32	54	54	55	55	55	11	17	32	54	54	55	55	55	6.6	17	32	54	54	55	55	55
6	K12	15	20	52	55	55	55	55	55	12	20	52	55	55	55	55	55	5.0	20	52	55	55	55	55	55

Reach	Averaging Area	Post-Remediation Floodplain EPC (**FP 7**)	Target Floodplain Soil Level (mg/kg)						
			SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
5A	K1	3.4	33	54	54	54	54	54	55
	K2	4.6	*n/a*	46	51	51	55	53	53
	K3	2.7	*n/a*	46	55	55	55	55	55
	K4	4.6	*n/a*	55	55	55	55	55	55
	K5	6.0	*n/a*	55	55	55	55	55	55
5B	K6	5.7	*n/a*	0.28	55	55	53	53	55
	K7	4.5	8.4	24	51	54	55	55	55
	K8	4.7	1.0	12	42	46	54	54	54
5C/D	K9	8.3	42	45	52	52	55	55	55
	K10	7.4	21	41	55	55	55	55	55
	K11	6.1	17	32	54	54	55	55	55
6	K12	11	20	52	55	55	55	55	55

Key

= IMPG is attained

Notes:

[1] *The floodplain EPCs presented in this table reflect revisions to those presented in the CMS Report due to changes made in response to EPA's Specific Comments 95, 98, 112, 113, and 115.*

(n/a) denotes IMPG values not attainable given the predicted sediment level.

Table GC24-3. Model-predicted sediment endpoint PCB concentrations used to calculate associated target floodplain soil levels for piscivorous mammals (mink)

Averaging Area	Model-Predicted Sediment Endpoint PCB Concentrations (mg/kg)							Calculated Target Floodplain Soil Levels (mg/kg)													
								Lower Bound							Upper Bound						
	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Reaches 5A/5B	11	2.9	0.49	0.40	0.11	0.14	0.087	*n/a*	*n/a*	6.4	6.9	8.6	8.4	8.7	*n/a*	5.7	20	20	22	22	22
Reaches 5C/5D/6	17	6.2	0.54	0.42	0.19	0.19	0.13	*n/a*	*n/a*	7.8	8.0	8.4	8.4	8.6	*n/a*	9.4	20	21	21	21	21

Notes:

(n/a) denotes IMPG values not attainable given the predicted sediment level.

[1] *Target floodplain soil levels calculated in accordance with method described in Appendix C to the CMS Report.*

Table GC24-4. Comprehensive evaluation of IMPG attainment for piscivorous mammals (mink) for all combinations of SED and FP alternatives.

Floodplain Alternative	Averaging Area	Post-Remediation Floodplain EPC	Calculated Target Floodplain Soil Levels (mg/kg)														
			Lower Bound							Upper Bound							
			SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8	SED 1/2	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
FP 1	Reaches 5A/5B	22	*n/a*	*n/a*	6.4	6.9	8.6	8.4	8.7	*n/a*	5.7	20	20	22	22	22
	Reaches 5C/5D/6	17	*n/a*	*n/a*	7.8	8.0	8.4	8.4	8.6	*n/a*	9.4	20	21	21	21	21
FP 2	Reaches 5A/5B	20	*n/a*	*n/a*	6.4	6.9	8.6	8.4	8.7	*n/a*	5.7	20	20	22	22	22
	Reaches 5C/5D/6	17	*n/a*	*n/a*	7.8	8.0	8.4	8.4	8.6	*n/a*	9.4	20	21	21	21	21
FP 3	Reaches 5A/5B	17	*n/a*	*n/a*	6.4	6.9	8.6	8.4	8.7	*n/a*	5.7	20	20	22	22	22
	Reaches 5C/5D/6	15	*n/a*	*n/a*	7.8	8.0	8.4	8.4	8.6	*n/a*	9.4	20	21	21	21	21
FP 4	Reaches 5A/5B	14	*n/a*	*n/a*	6.4	6.9	8.6	8.4	8.7	*n/a*	5.7	20	20	22	22	22
	Reaches 5C/5D/6	14	*n/a*	*n/a*	7.8	8.0	8.4	8.4	8.6	*n/a*	9.4	20	21	21	21	21
FP 5	Reaches 5A/5B	14	*n/a*	*n/a*	6.4	6.9	8.6	8.4	8.7	*n/a*	5.7	20	20	22	22	22
	Reaches 5C/5D/6	10	*n/a*	*n/a*	7.8	8.0	8.4	8.4	8.6	*n/a*	9.4	20	21	21	21	21
FP 6	Reaches 5A/5B	5.8	*n/a*	*n/a*	6.4	6.9	8.6	8.4	8.7	*n/a*	5.7	20	20	22	22	22
	Reaches 5C/5D/6	5.9	*n/a*	*n/a*	7.8	8.0	8.4	8.4	8.6	*n/a*	9.4	20	21	21	21	21
FP 7	Reaches 5A/5B	3.4	*n/a*	*n/a*	6.4	6.9	8.6	8.4	8.7	*n/a*	5.7	20	20	22	22	22
	Reaches 5C/5D/6	6.7	*n/a*	*n/a*	7.8	8.0	8.4	8.4	8.6	*n/a*	9.4	20	21	21	21	21

Key

= IMPG is attained

Notes:

(n/a) denotes IMPG values not attainable given the predicted sediment level.

Table SC27-1 - 2008 Housatonic River Adult Largemouth Bass Sampling PCB and % Lipids Data

Response to EPA's Interim Comments on 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 SC27-2 - 2008 Housatonic River YOY Sample Results

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

Sample ID	Date Collected	Fish Species	Aroclor-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 SC27-2 - 2008 Housatonic River YOY Sample Results

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

Sample ID	Date Collected	Fish Species	Aroclor-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 SC27-3 - Comparison of Mean Total and Mean Lipid-Normalized PCB Concentrations in YOY Fish Tissue [1]

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

Location Species Year	n	Lipid (%)	Total PCB [2,3,4] (mg/kg)	Lipid-Normalized PCB [3] (mg/kg-lipid)
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 SC27-3 - Comparison of Mean Total and Mean Lipid-Normalized PCB Concentrations in YOY Fish Tissue [1]

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

Location Species Year	n	Lipid (%)	Total PCB [2,3,4] (mg/kg)	Lipid-Normalized PCB [3] (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 SC27-3 - Comparison of Mean Total and Mean Lipid-Normalized PCB Concentrations in YOY Fish Tissue [1]

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
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 SC38-1. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs calculated using EPA's "blended" fish method (top panel) and the sole use of largemouth bass (bottom panel) (SED1 / SED 2).

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
					7.9	9.5	8.0	9.8	8.6	6.0	6.0	6.1	5.3	3.9	3.1	3.4	2.6	3.6	0.2	0.1	0.08	0.08
Blended Fish Fillets	Deterministic	RME	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

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	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

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. Results for CT impoundment are highly uncertain as they were estimated from the CT 1-D Analysis.
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

CTE = central tendency exposure
RME = reasonable maximum exposure

Table SC38-2. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs calculated using EPA's "blended" fish method (top panel) and the sole use of largemouth bass (bottom panel) (SED 3).

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
					0.24	3.5	2.1	6.4	0.73	1.2	2.5	1.9	1.4	1.0	0.84	1.4	0.72	1.7	0.04	0.03	0.02	0.02
Blended Fish Fillets	Deterministic	RME	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

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	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

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. Results for CT impoundment are highly uncertain as they were estimated from the CT 1-D Analysis.
BBD: Bulls Bridge Dam Impoundment
LL: Lake Lillinonah
LZ: Lake Zoar
LH: Lake Housatonic

Key

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= model prediction exceeds the IMPG

CTE = central tendency exposure
RME = reasonable maximum exposure

Table SC38-3. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs calculated using EPA's "blended" fish method (top panel) and the sole use of largemouth bass (bottom panel) (SED 4).

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	0.41	0.47	0.38	0.22	0.52	2.1	1.2	0.94	0.66	0.56	1.2	0.48	1.5	0.02	0.01	0.01	0.01
Blended Fish Fillets	Deterministic	RME	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

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	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

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. Results for CT impoundment are highly uncertain as they were estimated from the CT 1-D Analysis.
BBD: Bulls Bridge Dam Impoundment
LL: Lake Lillinonah
LZ: Lake Zoar
LH: Lake Housatonic

Key

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

CTE = central tendency exposure
RME = reasonable maximum exposure

Table SC38-4. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs calculated using EPA's "blended" fish method (top panel) and the sole use of largemouth bass (bottom panel) (SED 5).

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	0.22	0.17	0.35	0.18	0.45	2.0	1.2	0.89	0.61	0.52	1.1	0.45	0.35	0.01	0.009	0.006	0.006
Blended Fish Fillets	Deterministic	RME	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

-3.858241

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	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

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. Results for CT impoundment are highly uncertain as they were estimated from the CT 1-D Analysis.

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

CTE = central tendency exposure
RME = reasonable maximum exposure

Table SC38-5. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs calculated using EPA's "blended" fish method (top panel) and the sole use of largemouth bass (bottom panel) (SED 6).

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	0.21	0.16	0.34	0.17	0.42	0.50	0.19	0.80	0.35	0.49	0.43	0.41	0.22	0.009	0.006	0.005	0.004
Blended Fish Fillets	Deterministic	RME	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

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	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

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. Results for CT impoundments are highly uncertain as they were estimated from the CT 1-D Analysis. Results for SED 6 reflect new downstream model simulations which have been revised from those presented in the CMS Report to assume remediation of more grid cells in Reaches 7B and 7C, as discussed in Response to Specific Comment 44.

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Key

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

CTE = central tendency exposure
RME = reasonable maximum exposure

Table SC38-6. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs calculated using EPA's "blended" fish method (top panel) and the sole use of largemouth bass (bottom panel) (SED 7).

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
					0.27	0.23	0.18	0.36	0.19	0.44	0.25	0.19	0.85	0.33	0.49	0.36	0.42	0.19	0.009	0.006	0.005	0.004
Blended Fish Fillets	Deterministic	RME	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

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	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

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. Results for CT impoundments are highly uncertain as they were estimated from the CT 1-D Analysis. Results for SED 7 reflect new downstream model simulations which have been revised from those presented in the CMS Report to assume remediation of more grid cells in Reaches 7B and 7C, as discussed in Response to Specific Comment 44.

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Table SC38-7. IMPGs for human consumption of fish tissue compared to projected fillet-based fish PCBs calculated using EPA's "blended" fish method (top panel) and the sole use of largemouth bass (bottom panel) (SED 8).

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
					0.16	0.14	0.11	0.26	0.12	0.37	1.0	1.1	0.76	0.19	0.44	0.16	0.38	0.18	0.006	0.005	0.004	0.003
Blended Fish Fillets	Deterministic	RME	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

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	Cancer @ 10^{-6}	0.0019																		
			Cancer @ 10^{-5}	0.019																		
			Cancer @ 10^{-4}	0.19																		
			Non-Cancer -- Child	0.026																		
			Non-Cancer -- Adult	0.062																		
		CTE	Cancer @ 10^{-6}	0.049																		
			Cancer @ 10^{-5}	0.49																		
			Cancer @ 10^{-4}	4.9																		
			Non-Cancer -- Child	0.19																		
			Non-Cancer -- Adult	0.43																		
	Probabilistic	RME (5th percentile)	Cancer @ 10^{-6}	0.0064																		
			Cancer @ 10^{-5}	0.064																		
			Cancer @ 10^{-4}	0.64																		
			Non-Cancer -- Child	0.059																		
			Non-Cancer -- Adult	0.12																		
		CTE (50th percentile)	Cancer @ 10^{-6}	0.057																		
			Cancer @ 10^{-5}	0.57																		
			Cancer @ 10^{-4}	5.7																		
			Non-Cancer -- Child	0.71																		
			Non-Cancer -- Adult	1.5																		

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. Results for CT impoundments are highly uncertain as they were estimated from the CT 1-D Analysis. Results for SED 8 reflect new downstream model simulations which have been revised from those presented in the CMS Report to assume remediation of more grid cells in Reaches 7B and 7C, as discussed in Response to Specific Comment 44.

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Table SC51-1. Summary of volume calculations, removal depths and areas by subreach for all SED alternatives.

Alternative		River Reach																	
		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.)[5]	7C (Former Eagle Mill Dam Imp.)[5]	7E (Willow Mill Dam Imp.)	7G (Glendale Dam Imp.)	Rising Pond (Shallow)	Rising Pond (Deep)	9 to 17	Total
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)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Thin Layer Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MNR (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SED 2	**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)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	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**
SED 3	**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	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	Removal volume (cy)	134,000	---	33,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**167,000**
	Replacement engr. cap (acres)	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**42**
	Replacement backfill (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Engineered Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Thin Layer Cap only area (acres)	---	---	---	---	37	---	---	37	23	---	---	---	---	---	---	---	---	**97**
	MNR (acres)	---	27	---	20	---	18	68	---	---	164	10	8	8	12	19	22	---	**376**
SED 4	**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 [4]	PCBs: 15 ppm [4]	Full reach	Full reach	---	---	---	---	---	---	---	---	
	Removal depth	2-ft	2-ft	---	---	---	---	---	1.5-ft	---	---	---	---	---	---	---	---	---	
	Removal volume (cy)	134,000	39,000	33,000	---	---	---	---	89,000	---	---	---	---	---	---	---	---	---	**295,000**
	Replacement engr. cap (acres)	42	12	---	---	---	---	---	37	---	---	---	---	---	---	---	---	---	**91**
	Replacement backfill (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Engineered Cap only area (acres)	---	---	---	---	37	---	---	---	---	---	---	---	---	---	---	---	---	**37**
	Thin Layer Cap only area (acres)	---	15	---	20	---	7	54	---	23	---	---	---	---	---	---	---	---	**119**
	MNR (acres)	---	---	---	---	---	11	14	---	---	164	10	8	8	12	19	22	---	**268**
SED 5	**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 [4]	PCBs: 15 ppm [4]	Full reach	Full reach	---	---	---	---	---	Full reach	Full reach	---	
	Removal depth	2-ft	2-ft	---	2-ft	---	---	---	1.5-ft	---	---	---	---	---	---	---	---	---	
	Removal volume (cy)	134,000	88,000	33,000	66,000	---	---	---	89,000	---	---	---	---	---	---	---	---	---	**410,000**
	Replacement engr. cap (acres)	42	27	---	20	---	---	---	37	---	---	---	---	---	---	---	---	---	**126**
	Replacement backfill (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Engineered Cap only area (acres)	---	---	---	---	37	---	---	---	23	---	---	---	---	---	---	---	---	**60**
	Thin Layer Cap only area (acres)	---	---	---	---	---	7	54	---	---	---	---	---	---	---	19	22	---	**102**
	MNR (acres)	---	---	---	---	---	11	14	---	---	164	10	8	8	12	---	---	---	**227**
SED 6	**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	EC Only	MNR	
	Criteria	Full reach	Full reach	Operational	Full reach	Full reach	PCBs: 50 ppm / 1 ppm [1]	PCBs: 50 ppm / 1 ppm [1]	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	---	---	---	---	---	---	---	---	---	
	Removal volume (cy)	134,000	88,000	33,000	66,000	120,000	1,000	23,000	89,000	---	---	---	---	---	---	---	---	---	**554,000**
	Replacement engr. cap (acres)	42	27	---	20	37	1	14	37	---	---	---	---	---	---	---	---	---	**178**
	Replacement backfill (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Engineered Cap only area (acres)	---	---	---	---	---	---	---	---	23	---	---	---	---	---	---	22	---	**45**
	Thin Layer Cap only area (acres)	---	---	---	---	---	14	41	---	---	---	10	8	8	12	19	---	---	**112**
	MNR (acres)	---	---	---	---	---	3	13	---	---	164	---	---	---	---	---	---	---	**180**
SED 7	**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	EC Only	MNR	
	Criteria	Full reach	Full reach	Operational	Full reach	Full reach	PCBs: 10 ppm / 1 ppm [2]	PCBs: 10 ppm / 1 ppm [2]	Full reach	Full reach	---	PCBs: 3 ppm [3]	PCBs: 3 ppm [3]	PCBs: 3 ppm [3]	PCBs: 3 ppm [3]	PCBs: 3 ppm [3]	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	---	---	
	Removal volume (cy)	218,000	109,000	33,000	66,000	120,000	5,000	46,000	148,000	---	---	12,000	7,000	9,000	15,000	15,000	---	---	**803,000**
	Replacement engr. cap (acres)	---	---	---	20	37	3	29	37	---	---	5	3	4	6	6	---	---	**150**
	Replacement backfill (acres)	42	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**69**
	Engineered Cap only area (acres)	---	---	---	---	---	---	---	---	23	---	---	---	---	---	---	22	---	**45**
	Thin Layer Cap only area (acres)	---	---	---	---	---	12	27	---	---	---	5	5	4	6	13	---	---	**72**
	MNR (acres)	---	---	---	---	---	3	12	---	---	164	---	---	---	---	---	---	---	**179**
SED 8	**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	---	
	Removal depth	4-ft	3.5-ft	---	3-ft	3-ft	2-ft	3-ft	6-ft	6-ft	---	2-ft	2-ft	2-ft	2-ft	7-ft	7-ft	---	
	Removal volume (cy)	268,000	153,000	33,000	99,000	180,000	57,000	331,000	355,000	220,000	---	32,000	25,000	25,000	39,000	217,000	251,000	---	**2,285,000**
	Replacement engr. cap (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Replacement backfill (acres)	42	27	---	20	37	18	68	37	23	---	10	8	8	12	19	22	---	**351**
	Engineered Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Thin Layer Cap only area (acres)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	MNR (acres)	---	---	---	---	---	---	---	---	---	164	---	---	---	---	---	---	---	**164**

Notes:

[1] For backwaters in SED 6, removal occurs in areas > 50 ppm, TLC only in areas <50 and >1 ppm; delineation based on 0-12" Theissen Polygons; volumes and areas are approximate due to limited data coverage

[2] For backwaters in SED 7, removal occurs in areas > 10 ppm, TLC only in areas <10 and >1 ppm; delineation based on 0-12" Theissen Polygons; volumes and areas are approximate due to limited data coverage

[3] 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" Theissen Polygons; volumes and areas are approximate due to limited data coverage

[4] For backwaters in SED 6 and SED 7, removal occurs for entire backwaters with average PCBs > 15 ppm; delineation based on model-predicted 0-6" sediment PCBs at the end of validation.

[5] Values presented in this table for SED 6, SED 7, and SED 8 reflect additional remediation in Reaches 7B and 7C, as discussed in Response to Specific Comment 44.

Abbreviations: Monitored Natural Recovery (MNR); Thin-layer Cap (TLC); Engineered Cap (EC)

Table SC83-1 - Estimated Volumes, Truck Trips, and Vehicle Miles Traveled for Sediment Remedial Alternatives Material Importation

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

	SED 3	SED 4	SED 5	SED 6	SED 7	SED 8
Volume of Material in[1]	226,798	462,774	618,894	708,791	919,165	2,233,391
with 20% Bulking	272,158	555,328	742,672	850,549	1,102,998	2,680,070
Number of Truck Trips[2]	22,700	46,300	61,900	70,900	92,000	223,400
Average Truck Trips Per Year[3]	2,400	3,200	3,400	3,500	3,700	4,400
Number of Vehicle Miles Traveled[4]	1,135,000	2,315,000	3,095,000	3,545,000	4,600,000	11,170,000
Average Vehicle Miles Traveled Per Year[3]	118,000	159,000	170,000	175,000	183,000	220,000

Notes:
1. Volume (cubic yards [cy]) of material "in" includes sand, stone and riprap used for backfill, capping, and stabilization.
2. Assumes 16-ton trucks with a capacity of 12-cy.
3. Based on total construction schedule for each Alternative.
4. Assumes a 50 mile round trip.

Table SC83-2 - Estimated Volumes, Truck Trips, and Vehicle Miles Traveled for Floodplain Soil Remedial Alternatives Material Importation

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7
Volume of Material in[1]	36,285	94,899	133,757	132,485	376,972	670,434
with 20% Bulking	43,542	113,879	160,508	158,982	452,366	804,521
Number of Truck Trips[2]	3,700	9,500	13,400	13,300	37,700	67,100
Average Truck Trips Per Year[3]	3,700	3,800	3,400	3,300	2,900	3,000
Number of Vehicle Miles Traveled[4]	185,000	475,000	670,000	665,000	1,885,000	3,355,000
Average Vehicle Miles Traveled Per Year[3]	185,000	191,000	170,000	166,000	147,000	152,000

Notes:
1. Volume (cubic yards [cy]) of material "in" includes common fill and topsoil used for backfill.
2. Assumes 16-ton trucks with a capacity of 12-cy.
3. Based on total construction schedule for each Alternative.
4. Assumes a 50 mile round trip.

Table SC83-3 - Estimated Export Volumes for Treatment/Disposition Alternatives

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

Waste Classification	Parameter	TD 1 Minimum (SED 3 and FP 2)	TD 1 Maximum (SED 8 and FP 7)	TD 2	TD 3	TD 4 Minimum (SED 3 and FP 2)	TD 4 Maximum (SED 8 and FP 7)	TD 5A (with reuse)[1] Minimum (SED 3 and FP 2)	TD 5A (with reuse)[1] Maximum (SED 8 and FP 7)	TD 5B (without reuse) Minimum (SED 3 and FP 2)	TD 5B (without reuse) Maximum (SED 8 and FP 7)
TSCA	In-Situ Volume (cy)	42,900	643,000	--	--	--	--	--	--	--	--
	Transport (tons)[2]	64,400	964,500	--	--	--	--	--	--	--	--
	Number of Truck Trips[3,4]	3,300	48,300	--	--	--	--	--	--	--	--
	Average Truck Trips Per Year[6]	340	950	--	--	--	--	--	--	--	--
	Number of Vehicle Miles Traveled[7]	2,376,000	34,776,000	--	--	--	--	--	--	--	--
	Average Vehicle Miles Traveled Per Year[6]	248,000	686,000	--	--	--	--	--	--	--	--
Non-TSCA	In-Situ Volume (cy)	143,500	2,179,300	--	--	186,400	2,822,300	153,900	2,112,300	167,800	2,540,100
	Transport (tons)[2]	215,200	3,268,900	--	--	279,600	4,233,400	230,900	3,168,400	251,700	3,810,100
	Number of Truck Trips[3,4]	10,800	163,500	--	--	14,100	211,800	11,600	158,500	12,600	190,600
	Average Truck Trips Per Year[6]	1,100	3,200	--	--	1,500	4,200	1,200	3,100	1,300	3,800
	Number of Vehicle Miles Traveled[7]	5,940,000	89,925,000	--	--	7,755,000	116,490,000	6,380,000	87,175,000	6,930,000	104,830,000
	Average Vehicle Miles Traveled Per Year[6]	619,000	1,774,000	--	--	808,000	2,298,000	665,000	1,719,000	722,000	2,068,000

Notes:
1. TD 5A volumes assume a 10% loss of material mass following treatment.
2. Transport weight includes a 20% bulking factor and an assumed density of 1.25 tons/cy.
3. Only the transport of non-TSCA materials was considered for alternatives TD 4 and TD 5. Treatment residuals, a limited volume component, were not included.
4. Assumes a 20-ton capacity truck will be used.
5. Assumes a 720 mile round trip for all trucks carrying TSCA materials.
6. Based on total construction schedule for the SED alternative associated with each TD alternative.
7. Assumes a 550 mile round trip for all trucks carrying non-TSCA materials.

Table SC83-4 - Estimated Import Volumes for Treatment/Disposition Alternatives

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

Parameter	TD 1	TD 2		TD 3		TD 4	TD 5
		Minimum (SED 6)	Maximum (SED 8)	Minimum (SED 3 and FP 2)	Maximum (SED 8 and FP 7)		
In-Place Volume (cy)[1]	--	111,136	228,149	13,500	131,700	--	--
with 20% Bulking	--	133,364	273,778	16,200	158,040	--	--
Number of Truck Trips[2]	--	11,200	22,900	1,400	13,200	--	--
Average Truck Trips Per Year[3]	--	550	450	150	260	--	--
Number of Vehicle Miles Traveled[4]	--	560,000	1,145,000	70,000	660,000	--	--
Average Vehicle Miles Traveled Per Year[3]	--	28,000	23,000	7,000	13,000	--	--

Notes:

1. In-place volume includes sand and stone for staging/decontamination area setup; sand, stone, common fill and topsoil used for backfill/capping; and riprap for stabilization.
2. Assumes 16-ton trucks with a capacity of 12-cy.
3. Based on total construction schedule for each Alternative.
4. Assumes a 50 mile round trip.

Table SC83-5 - Estimated Worker Fatalities and Non-Fatal Injuries for Sediment, Floodplain Soil, and Treatment/Disposition Remedial Alternatives

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

Remedial Alternative		Fatality Estimate[1]	Average Annual Fatality Estimate[2]	Probability of at Least One Fatality[3]	Non-Fatal Injury Estimate	Average Annual Non-Fatal Injury Estimate[2]	Probability of at Least One Non-Fatal Injury[3]
SED 3		0.03	0.003	0.03	3.68	0.38	0.97
SED 4		0.05	0.003	0.05	6.30	0.43	1.00
SED 5		0.07	0.004	0.07	7.51	0.41	1.00
SED 6		0.08	0.004	0.08	7.48	0.37	1.00
SED 7		0.12	0.005	0.11	9.57	0.38	1.00
SED 8		0.26	0.005	0.23	16.23	0.32	1.00
FP 2		0.002	0.002	0.002	0.28	0.28	0.25
FP 3		0.008	0.003	0.008	1.08	0.43	0.66
FP 4		0.01	0.003	0.01	1.55	0.39	0.79
FP 5		0.01	0.003	0.01	1.57	0.39	0.79
FP 6		0.03	0.002	0.03	4.65	0.36	0.99
FP 7		0.06	0.003	0.06	7.86	0.36	1.00
TD 2	Minimum	0.01	0.0005	0.01	1.08	0.05	0.66
	Maximum	0.03	0.001	0.03	3.26	0.06	0.96
TD 3	Minimum	0.05	0.005	0.05	8.26	0.86	1.00
	Maximum	0.15	0.003	0.14	22.34	0.44	1.00
TD 4	Minimum	0.008	0.0008	0.008	1.48	0.15	0.77
	Maximum	0.08	0.002	0.08	14.51	0.29	1.00
TD 5	Minimum	0.008	0.0008	0.008	1.48	0.15	0.77
	Maximum	0.09	0.002	0.08	16.17	0.32	1.00

Notes:
1. Sum of the estimated number of fatal or non-fatal injuries in each labor category.
2. Based on total construction schedule for each Alternative.
3. Assuming a Poisson probability distribution.

Table SC83-6 - Estimated Fatalities and Non-fatal Injuries Related to Truck Transportation of Imported Materials for Sediment and Floodplain Soil Remedial Alternatives and Imported and Excavated Materials for Various Combinations of Treatment/Disposition and Sediment and Floodplain Soil Remedial Alternatives

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

Remedial Alternative		Fatality Estimate[1]	Average Annual Fatality Estimate[2]	Probability of at Least One Fatality	Injury Estimate[3]	Average Annual Injury Estimate[4]	Probability of at Least One Injury
SED 3		0.03	0.003	0.03	0.65	0.07	0.48
SED 4		0.06	0.004	0.05	1.32	0.09	0.73
SED 5		0.07	0.004	0.07	1.76	0.10	0.83
SED 6		0.09	0.004	0.08	2.02	0.10	0.87
SED 7		0.11	0.004	0.10	2.62	0.10	0.93
SED 8		0.27	0.005	0.24	6.37	0.13	1.00
FP 2		0.004	0.004	0.004	0.11	0.11	0.10
FP 3		0.01	0.004	0.01	0.27	0.11	0.24
FP 4		0.02	0.005	0.02	0.38	0.10	0.32
FP 5		0.02	0.005	0.02	0.38	0.10	0.32
FP 6		0.05	0.004	0.04	1.07	0.08	0.66
FP 7		0.08	0.004	0.08	1.91	0.09	0.85
TD 1 (SED 3 and FP 2 to SED 8 and FP 7)	Minimum	0.20	0.02	0.18	4.74	0.49	0.99
	Maximum	2.99	0.06	0.95	71.08	1.40	1.00
TD 2 (SED 6 and SED 8)	Minimum	0.01	0.0005	0.01	0.32	0.02	0.27
	Maximum	0.03	0.0006	0.03	0.65	0.01	0.48
TD 3 (SED 3 and FP 2 to SED 8 and FP 7)	Minimum	0.002	0.0002	0.002	0.04	0.004	0.04
	Maximum	0.02	0.0004	0.02	0.38	0.01	0.31
TD 4 (SED 3 and FP 2 to SED 8 and FP 7)	Minimum	0.19	0.02	0.17	4.42	0.46	0.99
	Maximum	2.80	0.06	0.94	66.40	1.31	1.00
TD 5A (SED 3 and FP 2 to SED 8 and FP 7)	Minimum	0.15	0.02	0.14	3.64	0.38	0.97
	Maximum	2.09	0.04	0.88	49.69	0.98	1.00
TD 5B (SED 3 and FP 2 to SED 8 and FP 7)	Minimum	0.17	0.02	0.15	3.95	0.41	0.98
	Maximum	2.52	0.05	0.92	59.75	1.18	1.00

Notes:
1. Assumes a fatality rate of 2.4x10^-8 fatalities per vehicle mile traveled.
2. Based on total construction schedule for each Alternative.
3. Assumes a non-fatal injury rate of 5.7x10^-7 injuries per vehicle mile traveled.
4. Based on total construction schedule for each Alternative.

Table SC123-1 - TD Cost Modification Summary for SED 6

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

SED 6							
Item #	Description	Individual Costs	TD1 Modifications	TD2 Modifications	TD3 Modifications	TD4 Modifications	TD5 Modifications
1.0	Pre-Design Investigation	$9,268,954	$0	-$993,841	$0	-$1,183,870	$0
2.0	Mobilization/Demobilization	$9,268,954	$0	-$993,841	$0	-$1,183,870	$0
3.0	Construction of Staging Areas/Access Roads	$12,413,242	$0	$0	$0	$0	$0
4.0	Sheeting	$30,625,443	$0	$0	$0	$0	$0
5.0	Dewatering	$17,611,914	$0	-$10,400,000	$0	-$10,408,278	$0
6.0	Water Treatment	$20,103,973	$0	$0	$0	-$13,269,126	$0
7.0	Debris Removal	$1,011,500	$0	$0	$0	$0	$0
8.0	Excavation	$40,638,667	$0	-$7,116,794	$0	$0	$0
9.0	Backfill Material Placement	$35,353,665	$0	-$2,360,017	$0	$0	$0
10.0	Bank Stabilization	$10,061,098	$0	$0	$0	$0	$0
11.0	Site Restoration	$5,454,122	$0	$0	$0	$0	$0
12.0	Transportation and Disposal (Staging/Access)	$16,211,417	$0	$0	-$16,211,417	$0	$0
13.0	Surveys	$3,569,748	$0	$0	$0	$0	$0
14.0	Environmental Monitoring	$8,535,701	$0	$0	$0	$0	$0
	Subtotal	$220,128,398	$0	-$21,864,493	-$16,211,417	-$26,045,144	$0
	Project/Construction Management (5%)	$11,006,349	$0	-$1,093,793	-$810,571	-$1,302,104	$0
	Engineering and Administration (5%)	$11,006,349	$0	-$1,093,793	-$810,571	-$1,302,104	$0
	Contingency (25%)	$55,031,744	$0	-$5,468,966	-$4,052,853	-$6,510,528	$0
	SUBTOTAL	$297,172,840	$0	-$29,521,044	-$21,885,412	-$35,159,878	$0
15.0	Annual O & M/Long Term Monitoring Program	$1,341,340	$0	$0	$0	$0	$0
	TOTAL OMM	$14,573,780	$0	$0	$0	$0	$0

TD							
Item #	Description	Individual Costs	TD1 Costs	TD2 Costs	TD3 Costs	TD4 Costs	TD5 Costs
1.0	Off-site Transportation and Disposal - Non-TSCA		$61,072,875	$30,386,250	$0	$82,370,795	$82,370,795
2.0	Off-site Transportation and Disposal - TSCA		$64,977,000	$22,909,190	$0	$0	$0
3.0	TD Capital Costs		$0	$5,560,000	$21,900,000	$13,946,765	$14,413,619
	Subtotal		$126,049,875	$58,855,440	$21,900,000	$96,317,560	$96,784,414
	Project/Construction Management (5%)		$6,302,494	$2,942,772	$1,095,000	$4,815,878	$4,839,221
	Engineering and Administration (5%)		$6,302,494	$2,942,772	$1,095,000	$4,815,878	$4,839,221
	Contingency (25%)		$31,512,469	$14,713,860	$5,475,000	$24,079,390	$24,196,103
	SUBTOTAL		$170,167,331	$79,454,844	$29,565,000	$130,028,706	$130,658,959
4.0	TD Daily Operations		$0	$7,428,480	$10,569,345	$92,519,445	$60,451,827
5.0	TD Post-Closure O&M		$0	$6,072,000	$12,030,000	$0	$0
	TOTAL OMM		$0	$13,500,480	$22,599,345	$92,519,445	$60,451,827
	TOTAL COST OF COMBINED ALTERNATIVE (rounded)		$482,000,000	$396,000,000	$334,000,000	$499,000,000	$502,000,000

Table SC123-2 - TD Cost Modification Summary for FP 4

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

FP 4							
Item #	Description	Individual Costs	TD1 Modifications	TD3 Modifications	TD4 Modifications	TD5A Modifications	TD5B Modifications
1.0	Pre-Design Investigation	$2,159,511	$0	$0	$0	-$55,528	$0
2.0	Mobilization/Demobilization	$1,079,756	$0	$0	$0	-$27,764	$0
3.0	Construction of Staging Areas/Access Roads	$3,527,970	$0	$0	$0	$0	$0
4.0	Dewatering	$156,000	$0	$0	$0	$0	$0
5.0	Water Treatment	$576,147	$0	$0	$0	$0	$0
6.0	Excavation	$6,001,837	$0	$0	$0	$0	$0
7.0	Backfill Material Placement	$4,189,565	$0	$0	$0	-$555,277	$0
8.0	Site Restoration	$5,109,804	$0	$0	$0	$0	$0
9.0	Transportation and Disposal (Staging/Access)	$4,178,128	$0	-$4,178,128	$0	$0	$0
10.0	Topographic Surveys	$1,009,457	$0	$0	$0	$0	$0
11.0	Environmental Monitoring	$1,024,331	$0	$0	$0	$0	$0
	Subtotal	$29,012,506	$0	-$4,178,128	$0	-$638,569	$0
	Project/Construction Management (5%)	$1,450,625	$0	-$208,906	$0	-$31,928	$0
	Engineering and Administration (5%)	$1,450,625	$0	-$208,906	$0	-$31,928	$0
	Contingency (25%)	$7,253,126	$0	-$1,044,532	$0	-$159,642	$0
	SUBTOTAL	$39,166,883	$0	-$5,640,473	$0	-$862,068	$0
12.0	Annual O & M	$240,000	$0	$0	$0	$0	$0
	TOTAL O & M	$720,000	$0	$0	$0	$0	$0

TD							
Item #	Description	Individual Costs	TD1 Costs	TD3 Costs	TD4 Costs	TD5A Costs	TD5B Costs
1.0	Off-site Transportation and Disposal - Non-TSCA		$8,070,176	$0	$14,850,000	$5,940,000	$13,365,000
2.0	Off-site Transportation and Disposal - TSCA		$14,915,613	$0	$0	$0	$0
3.0	TD Capital Costs		$0	$4,632,279	$11,952,500	$3,076,728	$3,076,728
	Subtotal		$22,985,789	$4,632,279	$26,802,500	$9,016,728	$16,441,728
	Project/Construction Management (5%)		$1,149,289	$231,614	$1,340,125	$450,836	$822,086
	Engineering and Administration (5%)		$1,149,289	$231,614	$1,340,125	$450,836	$822,086
	Contingency (25%)		$5,746,447	$1,158,070	$6,700,625	$2,254,182	$4,110,432
	SUBTOTAL		$31,030,815	$6,253,576	$36,183,375	$12,172,583	$22,196,333
4.0	TD Daily Operations		$0	$1,750,456	$16,089,568	$12,736,348	$12,736,348
5.0	TD Post-Closure O&M		$0	$6,330,000	$0	$0	$0
	TOTAL OMM		$0	$8,080,456	$16,089,568	$12,736,348	$12,736,348
	TOTAL COST OF ALTERNATIVE (Rounded)		$71,000,000	$49,000,000	$92,000,000	$64,000,000	$75,000,000

Table SC124-1 - Summary of Cost Estimates for SED/TD Combinations

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

Alternative	Cost Estimates for SED/FP Combinations[1,2]				
	TD 1 Off-Site Disposal	TD 2 Confined Disposal Facility	TD 3 Upland Disposal Facility	TD 4 Chemical Extraction	TD 5 Thermal Desorption
SED 1[3]	NA	NA	NA	NA	NA
SED 2[4]	$5 M	NA	$5 M	$5 M	$5 M
SED 3	$194 M	NA	$163 M	$238 M	$240 M
SED 4	$311 M	NA	$248 M	$367 M	$382 M
SED 5	$386 M	NA	$302 M	$453 M	$489 M
SED 6	$495 M	$194 M	$365 M	$518 M	$621 M
SED 7	$642 M	$311 M	$440 M	$662 M	$813 M
SED 8	$1,298 M	$386 M	$787 M	$1,467 M	$1,873 M

Notes:

1. Costs presented represent the sum of estimated capital/labor costs of implementation and the costs of post-remediation OMM and/or long-term monitoring.

2. Costs are presented in 2008 dollars. $ M = million dollars.

3. There are no costs associated with SED 1 as that alternative would not involve remedial activities in the Rest of River.

4. There are no treatment/disposition costs for SED 2; the cost listed represents the long-term monitoring costs associated with monitored natural recovery.

Table SC124-2 - Summary of Present Worth Cost Estimates for SED/TD Combinations

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

Alternative	Present Worth Cost Estimates for SED/TD Combinations[1,2,3]				
	TD 1 Off-Site Disposal	TD 2 Confined Disposal Facility	TD 3 Upland Disposal Facility	TD 4 Chemical Extraction	TD 5 Thermal Desorption
SED 1[4]	NA	NA	NA	NA	NA
SED 2[5]	$2 M	NA	$2 M	$2 M	$2 M
SED 3	$143 M	NA	$110 M	$178 M	$179 M
SED 4	$197 M	NA	$149 M	$239 M	$251 M
SED 5	$221 M	NA	$165 M	$268 M	$296 M
SED 6	$266 M	$143 M	$187 M	$296 M	$361 M
SED 7	$303 M	$197 M	$198 M	$321 M	$428 M
SED 8	$383 M	$221 M	$210 M	$442 M	$728 M

Notes:

1. Costs presented represent the sum of estimated capital/labor costs of implementation and the costs of post-remediation OMM and/or long-term monitoring.

2. Costs are presented in 2008 dollars. $ M = million dollars.

3. Costs have been assessed for present worth, assuming a constant 7% discount factor.

4. There are no costs associated with SED 1 as that alternative would not involve remedial activities in the Rest of River.

5. There are no treatment/disposition costs for SED 2; the cost listed represents the long-term monitoring costs associated with monitored natural recovery.

Table SC124-3 - Summary of Cost Estimates for FP/TD Combinations

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

Alternative	Cost Estimates for FP/TD Combinations[1,2]					
	TD 1 Off-Site Disposal	TD 2[4] Confined Disposal Facility	TD 3 Upland Disposal Facility	TD 4 Chemical Extraction	TD 5A Thermal Desorption (w/ Reuse)	TD 5B Thermal Desorption (w/o Reuse)
FP 1[3]	NA	NA	NA	NA	NA	NA
FP 2	$17 M	NA	$25 M	$36 M	$23 M	$26 M
FP 3	$50 M	NA	$48 M	$74 M	$63 M	$70 M
FP 4	$88 M	NA	$66 M	$106 M	$96 M	$107 M
FP 5	$87 M	NA	$58 M	$93 M	$82 M	$92 M
FP 6	$209 M	NA	$142 M	$250 M	$232 M	$264 M
FP 7	$369 M	NA	$244 M	$458 M	$440 M	$498 M

Notes:

1. Costs presented represent the sum of estimated capital/labor costs of implementation and the costs of post-remediation OMM and/or long-term monitoring.
2. Costs are presented in 2008 dollars. $ M = million dollars.
3. There are no costs associated with FP 1 as that alternative would not involve remedial activities in the Rest of River.
4. Floodplain alternatives have not been combined with TD 2 as the CDF has been assumed to be available only for the placement of hydraulically dredged sediments.

Table SC124-4 - Summary of Present Worth Costs Estimate for FP/TD Combinations

Response to EPA's Interim Comments on CMS Report, Housatonic River - Rest of River
General Electric Company - Pittsfield, MA

Alternative	Present Worth Cost Estimates for FP/TD Combinations[1,2,3]					
	TD 1 Off-Site Disposal	TD 2[5] Confined Disposal Facility	TD 3 Upland Disposal Facility	TD 4 Chemical Extraction	TD 5A Thermal Desorption (w/ Reuse)	TD 5B Thermal Desorption (w/o Reuse)
FP 1[4]	NA	NA	NA	NA	NA	NA
FP 2	$16 M	NA	$17 M	$35 M	$23 M	$25 M
FP 3	$49 M	NA	$37 M	$67 M	$57 M	$63 M
FP 4	$73 M	NA	$51 M	$93 M	$85 M	$93 M
FP 5	$77 M	NA	$45 M	$84 M	$74 M	$82 M
FP 6	$135 M	NA	$88 M	$170 M	$162 M	$182 M
FP 7	$172 M	NA	$111 M	$229 M	$237 M	$263 M

Notes:

1. Costs presented represent the sum of estimated capital/labor costs of implementation and the costs of post-remediation OMM and/or long-term monitoring.
2. Costs are presented in 2008 dollars. $ M = million dollars.
3. Costs have been assessed for present worth assuming a constant 7% discount factor.
4. There are no costs associated with FP 1 as that alternative would not involve remedial activities in the Rest of River.
5. Floodplain alternatives have not been combined with TD 2 as the CDF has been assumed to be available only for the placement of hydraulically dredged sediments.