

**General Electric Company
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Table 2-1 – Potential Chemical-Specific ARARs

A. PCBs

Authority/Regulation	Comments
Federal ARARs	
Clean Water Act – National Ambient Water Quality Criteria for PCBs (EPA-822-R-02-047, Nov. 2002): <ul style="list-style-type: none"> ▪ Freshwater chronic aquatic life criterion (based on protection of mink): 0.014 µg/L ▪ Human health criterion based on human consumption of water and organisms: 0.000064 µg/L. 	For the reasons given in the text, GE believes that the human health criterion be should waived as technically impracticable to achieve.
State ARARs	
Numeric Massachusetts water quality criteria (314 CMR 4.05(5)(e)): Same as federal water quality criteria (unless Mass. DEP establishes site-specific criterion or determines that naturally occurring background concentrations are higher).	For the reasons given in the text, GE believes that the human health criterion be should waived as technically impracticable.
Numeric Connecticut water quality criteria (<i>Connecticut Water Quality Standards</i> , effective Dec. 17, 2002, Appendix D): <ul style="list-style-type: none"> ▪ Freshwater chronic aquatic life criterion: 0.014 µg/L. ▪ Human health criterion, based on human consumption of organisms only or water and organisms: 0.00017 µg/L. 	The CT human health criterion is based on the prior federal criterion and has not been revised since the federal criterion was revised. As such, it is not clear that this criterion would constitute an ARAR, since it is less stringent (and less up-to-date) than the comparable federal criterion (see 40 CFR 300.5). If this criterion is considered an ARAR, GE believes that it should be waived as technically impracticable for the reasons given in the text.
Guidances To Be Considered	
Cancer Slope Factors (from EPA's Integrated Risk Information System [IRIS]) – guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs	To be considered.

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Table 2-1 – Potential Chemical-Specific ARARs

Authority/Regulation	Comments
Reference Doses (from EPA's IRIS) – guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs	To be considered.
<i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA/600/P-96/001F, September 1996) – guidance describing EPA's reassessment of the carcinogenicity of PCBs – includes revised Cancer Slope Factors for PCBs	To be considered.

B. Particulate Matter

Authority/Regulation	Comments
State ARAR	
Massachusetts air pollution control requirements for activities with particulate emissions (310 CMR 7.09).	Apply to dust-generating activities and to operation of thermal desorption facility (if used) or other waste handling or ancillary facility that generates particulate emissions.

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Table 2-2 – Potential Location-Specific ARARs

A. Rivers, Streams, and Impoundments

Authority/Regulation*	Comments
Federal ARARs	
Clean Water Act – Section 404 (33 USC 1344) and EPA’s implementing regulations at 40 CFR Part 230	Apply to discharges of dredged or fill material to waters of the U.S. GE believes that one requirement of these regulations – that discharge not contribute to violation of state water quality standards – should be waived as technically impracticable, since Housatonic River does not currently meet MA water quality criteria for PCBs.
Rivers and Harbors Act of 1899, Section 10 (33 USC 403)	This section prohibits obstruction, excavation, filling, or altering any navigable water of the United States without authorization from U.S. Army Corps of Engineers. In this case, due to on-site permit exemption, no permit required.
Fish and Wildlife Coordination Act requirements (16 USC 662(a); 40 CFR 6.302(g))	Applicable to EPA; relevant and appropriate to work in river.
State ARARs	
Massachusetts Clean Water Act – water quality certification regulations (pursuant to § 401 of federal Clean Water Act) for discharges of dredged or fill material, dredging, and dredged material management (314 CMR 9.01 - 9.08); variances allowed.	Specific portions of these regulations are also listed as action-specific ARARs for certain response actions (e.g., staging/dewatering of dredged material, use of in-water Confined Disposal Facility for dredged material).
Massachusetts Wetlands Protection Act (MGL c. 131, § 40) and implementing regulations (310 CMR 10.53(3)(q), 10.54 -10.58) Also, 310 CMR 10.05(6)(b) and MDEP Stormwater Management Policy	Under 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they meet requirements specified therein. If response actions would not meet these criteria, the requirements of 10.54 -10.58 would apply. MDEP’s Stormwater Management Policy establishes standards for management and control of storm water.

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Table 2-2 – Potential Location-Specific ARARs

Authority/Regulation*	Comments
Massachusetts Dam Safety Standards (302 CMR 10.00)	Existing dams on Housatonic River in Massachusetts are subject to these standards.
Connecticut Dam Safety Inspection Regulations (Conn. Agencies Regs. Sec. 22a-409-2)	Existing dams on Housatonic River in Connecticut are subject to these regulations.
Connecticut Inland Wetlands and Watercourses Act (Conn. Gen. Stat. 22a-36 <i>et seq.</i>) and regulations (Conn. Agencies Regs. Sec. 22a-39-4)	Relates to sampling in Connecticut portion of Housatonic. Although these provisions require permit for removal of material from inland wetlands or watercourses and allow general permit for minor activities such as monitoring and sampling, no permit required in this case due to on-site permit exemption.
To Be Considered	
Massachusetts Freshwater Fish Consumption Advisory List, Housatonic River (MA Dept. of Public Health, 2007) – also includes frogs and turtles	To be considered.
Massachusetts Provisional Waterfowl Consumption Advisory (MA Dept. of Public Health, 1999)	To be considered.
Advisory for Eating Fish from Connecticut Waterbodies (CT Dept. of Public Health, 2006)	To be considered.

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Table 2-2 – Potential Location-Specific ARARs

B. Floodplains, Wetlands, and Banks

Authority/Regulation*	Comments
Federal ARARs	
Clean Water Act – Section 404 (33 USC 1344) and EPA’s implementing regulations at 40 CFR Part 230	
Executive Order 11990 for Wetlands Protection; see also 40 CFR 6.302(a), 40 CFR Part 6, App. A	Applicable to EPA; relevant and appropriate to work in wetlands.
Executive Order 11988 for Floodplain Management; see also 40 CFR 6.302(b), 40 CFR Part 6, App. A	Applicable to EPA; relevant and appropriate to work in floodplains.
Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains (40 CFR 264.1(j)(7), 264.18(b))	Apply to treatment, storage, or disposal facility(ies) for excavated sediments and/or soils that constitute RCRA hazardous waste (if any), if such facility is located in 100-year floodplain. If applicable, may not be technically practicable to meet for some temporary staging areas.
State ARARs	
Massachusetts Clean Water Act – water quality certification regulations (pursuant to § 401 of federal Clean Water Act) for discharges of dredged or fill material, dredging, and dredged material management (314 CMR 9.01 - 9.08); variances allowed.	Apply to dredging or dredged material disposal from wetlands in MA that constitute waters of U.S., and to discharge of dredged or fill material to such wetlands if certain criteria are met.
Massachusetts Wetlands Protection Act (MGL c. 131, § 40) and implementing regulations (310 CMR 10.53(3)(q), 10.54 -10.58) Also, 310 CMR 10.05(6)(b) and MDEP Stormwater Management Policy	Same as discussed for these provisions in Part A of this Table 2-2.

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Table 2-2 – Potential Location-Specific ARARs

Authority/Regulation*	Comments
Massachusetts location standards for hazardous waste management facilities in floodplains (310 CMR 30.701)	These standards would apply to treatment, storage, or disposal of excavated materials (if any) that constitute hazardous waste under state regulations and are not exempt under 310 CMR 30.104(3)(f), 310 CMR 30.501(3)(a), or 310 CMR 40.033 (described in Table 2-3, Part A). Some of these standards would not be technically practicable to meet for treatment, storage, or disposal facilities for such materials (e.g., prohibition on waste piles within 500-year floodplain).
Connecticut Inland Wetlands and Watercourses Act (Conn. Gen. Stat. 22a-36 <i>et seq.</i>) and regulations (Conn. Agencies Regs. Sec. 22a-39-4)	Same as discussed for these provisions in Part A of this Table 2-2.

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Table 2-2 – Potential Location-Specific ARARs

C. Critical Habitat for Threatened and Endangered Species

Authority/Regulation*	Comments
Federal ARARs	
Endangered Species Act (16 USC 1536(a)-(d)) and regulations (40 CFR 6.302(h), 50 CFR Part 402, Subparts A & B)	Apply to actions that are likely to jeopardize the continued existence of a federally listed threatened or endangered species or result in destruction or adverse modification of critical habitat.
State ARARs	
Massachusetts Endangered Species Act (MGL c. 131A) and regulations (321 CMR 10.00, Parts I, II, IV & V)	Apply to activities in a State-designated Priority Habitat in MA. (Would also apply to activities affecting State-designated Significant Habitat in MA; however, no such habitat has been designated.)

D. Potential Historical or Archaeological Sites

Authority/Regulation*	Comments
Federal ARARs	
National Historic Preservation Act (16 USC 470f) and regulations (36 CFR Part 800)	Apply to actions in areas where property(ies) listed or eligible for inclusion on National Register of Historic Places may be present.
State ARARs	
Massachusetts Historical Commission Act (MGL c. 9, § 27C) and regulations (950 CMR 71.07)	Apply to projects in areas in MA that have an area of potential impact on property(ies) listed in State Register of Historic Places. Certain requirements also apply to excavations or construction on state or local government lands in MA.

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Table 2-3 – Potential Action-Specific ARARs *

A. Excavation/Removal of Sediments and Soils

Authority/Regulation*	Comments
Federal ARARs	
Toxic Substances Control Act (TSCA) regulations on PCB Remediation Waste (40 CFR 761.50, 761.61)	Options for cleanup of PCB Remediation Waste include self-implementing provisions (not applicable to sediments) and risk-based approval by EPA. Risk-based approval is pursuant to 40 CFR 761.61(c) and requires demonstration that cleanup method will not pose an unreasonable risk of injury to health or the environment.
TSCA regulations on decontamination (40 CFR 761.79)	Apply to decontamination of equipment used in excavation.
RCRA regulations on identification of hazardous waste (40 CFR Part 261)	Establish criteria for determining whether excavated sediments or soils must be managed as a hazardous waste.
Clean Water Act – NPDES regulations under Section 402 of Act (40 CFR 122.26(c)(1)(ii)(C), 122.44(k))	Apply to storm water discharges during construction and excavation activities.

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Table 2-3 – Potential Action-Specific ARARs *

Authority/Regulation**	Comments
State ARARs	
Massachusetts hazardous waste regulations on identification of hazardous waste (310 CMR 30.100)	<p>Establish criteria for determining whether excavated sediments or soils must be managed as a hazardous waste under state law.</p> <p>Note that certain wastes are exempt from the state hazardous waste management regulations. These include:</p> <ul style="list-style-type: none"> ▪ Dredged material that is temporarily stored at an intermediate facility (pursuant to 314 CMR 9.07(4)) or placed in a confined disposal facility (pursuant to 314 CMR 9.07(8)) and is managed in accordance with a state water quality certification and requirements of § 404 permit under the Clean Water Act (see 310 CMR 30.104(3)(f)); ▪ Wastes that contain PCBs \geq 50 ppm (which are listed hazardous wastes) that are managed in compliance with EPA’s TSCA regulations (see 310 CMR 30.501(3)(a)); and ▪ Hazardous waste treated or disposed of (but not stored) as part of remedial actions unless MDEP determines that such action requires compliance with the hazardous waste regulations (see 310 CMR 40.0033). <p>(These wastes are referred to in this table as “exempt.”)</p>
Massachusetts air pollution control regulations (310 CMR 7.09)	Apply to excavation and construction activities generating dust.

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Table 2-3 – Potential Action-Specific ARARs *

B. Backfilling/Restoration of Excavations; Installation of Caps, Covers, and Engineered Barriers; Rechannelization; Thin-Layer Capping; and Bank Stabilization

Authority/Regulation**	Comments
Federal ARARs	
TSCA regulations on PCB Remediation Waste (40 CFR 761.61)	Same as discussed for these regulations in Part A of this Table 2-3.
TSCA regulations on decontamination (40 CFR 761.79)	Apply to decontamination of equipment used in these activities.
Clean Water Act – NPDES regulations (40 CFR 122.26(c)(1)(ii)(C), 122.44(k))	Apply to storm water discharges during construction activities.
State ARARs	
Massachusetts air pollution control regulations (310 CMR 7.09)	Apply to construction activities generating dust.

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Table 2-3 – Potential Action-Specific ARARs *

C. Temporary On-Site Accumulation and/or Storage of Excavated Sediments or Soils

Authority/Regulation**	Comments
Federal ARARs	
TSCA regulations on storage of PCB Remediation Waste (40 CFR 761.50, 761.65, 761.61(c))	These regulations include specific provisions for storage of bulk PCB Remediation Waste in piles at the cleanup site or site of generation for up to 180 days (761.65(c)(9)). They also allow for risk-based approval by EPA of alternate storage method (761.61(c)), based on determination that it will not pose an unreasonable risk of injury to health or the environment.
TSCA regulations on decontamination (40 CFR 761.79)	Apply to decontamination of equipment used in handling of PCB-containing materials.
RCRA regulations for generators of hazardous waste (40 CFR 262.30 - 262.33)	Would apply if any excavated sediments/soils at accumulation/storage facility constitute RCRA hazardous waste.

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Table 2-3 – Potential Action-Specific ARARs *

Authority/Regulation**	Comments
<p>RCRA regulations for hazardous waste management facilities, including:</p> <ul style="list-style-type: none"> ▪ Requirements for less than 90 day accumulation of hazardous waste (40 CFR 262.34); ▪ General requirements for remediation waste (40 CFR 264.1(j)) (in lieu of Part 264, Subparts B, C, and D); ▪ Requirements for storage of hazardous waste (40 CFR Part 264, Subpart J [tanks], Subpart L [waste piles outside structures], Subpart DD [containment buildings]); ▪ Groundwater protection requirements (40 CFR Part 264, Subpart F); ▪ Land disposal restrictions (40 CFR 268.50) – not applicable to: (a) on-site storage in tanks or containment buildings to facilitate recovery, treatment, or disposal; (b) staging pile under § 264.554; or (c) consolidation within Area of Contamination (EPA, 1995). 	<p>Potentially applicable to accumulation or storage of excavated sediments/soils that constitute RCRA hazardous waste (if any). Some of these requirements would not be technically practicable for temporary staging areas.</p>
<p>Clean Water Act – NPDES regulations (40 CFR 122.26(c)(1)(ii)(C), 122.44(k))</p>	<p>Apply to storm water discharges during construction activities.</p>
<p>State ARARs</p>	
<p>Massachusetts § 401 regulations on dredged material management – use of intermediate facilities (314 CMR 9.07(4)) (Note: Also included in location-specific ARARs in Table 2-2, Part A.)</p>	<p>“Intermediate facility” is area used to manage dredged material (e.g., by stockpiling, dewatering, processing, etc.) prior to disposal or reuse. These requirements apply to staging/dewatering areas for sediments excavated from water.</p>
<p>Massachusetts hazardous waste regulations for generators (310 CMR 30.321 - 30.324)</p>	<p>Would be relevant if any excavated sediments/soils at accumulation/storage facility constitute hazardous waste under state regulations.</p>

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Table 2-3 – Potential Action-Specific ARARs *

Authority/Regulation**	Comments
<p>Massachusetts hazardous waste management regulations, including:</p> <ul style="list-style-type: none"> ▪ Requirements for less than 90 day accumulation of hazardous waste (310 CMR 30.340 - 30.343); ▪ General requirements for hazardous waste management facilities (310 CMR 30.513, 30.514, 30.524, 30.560); ▪ Location standards for units used to store hazardous waste (310 CMR 30.701(2) & (6), 30.703(2), 30.704(3), 30.705(3) & (6)); ▪ Technical requirements for storage of hazardous waste (310 CMR 30.602, 30.580, 30.640 & 30.660 [waste piles], and 30.690 [tanks]) 	<p>May not apply to staging/dewatering areas for excavated sediments due to exemption from hazardous waste regulations for dredged materials temporarily stored at intermediate facility and managed in accordance with a state water quality certification and § 404 under the Clean Water Act (see 310 CMR 30.104(3)(f)). Would apply to accumulation or storage of other excavated materials (i.e., soils) that constitute non-exempt hazardous waste under state regulations (if any). Some of these requirements would not be technically practicable for temporary staging areas (e.g., prohibition on waste piles within 500-year floodplain).</p>
<p>Massachusetts air pollution control requirements (310 CMR 7.09)</p>	<p>Apply to activities generating dust.</p>

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Table 2-3 – Potential Action-Specific ARARs *

D. Ex Situ Physical or Chemical Treatment at On-Site Facility

Authority/Regulation**	Comments
Federal ARARs	
TSCA regulations on cleanup and disposal of PCB Remediation Waste (40 CFR 761.50, 761.61)	Regulations specify methods for disposal of PCB remediation waste (e.g. incineration, approved TSCA landfill). Disposal includes actions relating to destroying, degrading, or decontaminating PCB-containing materials. No specific provisions for physical or chemical treatment. Regulations allow risk-based approval by EPA of cleanup or disposal method (761.61(c)) based on determination that such method will not pose an unreasonable risk of injury to health or the environment.
TSCA regulations on decontamination (40 CFR 761.79)	Apply to decontamination of equipment used in handling of PCB-containing materials.
RCRA regulations for hazardous waste management facilities, including: <ul style="list-style-type: none"> ▪ Same requirements listed in Part C of this Table 2-3 for storage of RCRA hazardous waste; ▪ Requirements for facilities that treat hazardous waste in miscellaneous units (40 CFR Part 264, Subpart X); and ▪ Air emission standards for process vents (40 CFR Part 264, Subpart AA) 	Would apply if treatment facility is used for physical or chemical treatment of excavated sediments/soils that constitute RCRA hazardous waste (if any). Air emission standards would apply only if solvent extraction is used to treat such waste that contains total organic concentrations ≥ 10 ppm. Some of these requirements may not be technically practicable for physical or chemical treatment facility or associated storage facilities.
Clean Water Act – NPDES regulations (40 CFR 122.26(c)(1)(ii)(C), 122.44(k))	Apply to storm water discharges during construction activities.

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Table 2-3 – Potential Action-Specific ARARs *

Authority/Regulation**	Comments
State ARARs	
Massachusetts hazardous waste management regulations, including same requirements listed in Part C of this Table 2-3 for storage of hazardous waste	Could apply if treatment facility is used for physical or chemical treatment of excavated sediments/soils that constitute hazardous waste under state regulations (if any) and are not exempt. Some of these requirements may not be technically practicable for physical or chemical treatment facility or associated storage facilities.
Massachusetts air pollution control requirements (310 CMR 7.09) Same as described for this regulation in Part A of this Table 2-3.	Apply to activities generating dust.
Massachusetts requirements for storage and handling of flammable liquids, including requirements for installation of liquefied petroleum (LP) gas systems (527 CMR 6.05, 6.07) and requirements for storage and handling of flammable liquids (527 CMR 14.03, 14.04, 14.07)	Would apply to storage of LP gas or flammable liquids if used as extraction fluids in chemical treatment.
Massachusetts tank regulations (527 CMR 9.03, 9.04)	Would apply to above-ground storage of any non-water liquids in > 10,000 gallon tanks or storage of flammable liquids in ≤ 10,000 gallon tanks.

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Table 2-3 – Potential Action-Specific ARARs *

E. *Ex Situ* Thermal Desorption at On-Site Facility with Potential On-Site Reuse of Portion of Treated Materials

Authority/Regulation**	Comments
Federal ARARs	
TSCA regulations on cleanup and disposal of PCB Remediation Waste (40 CFR 761.50, 761.61(b) & (c))	Regulations specify methods for disposal of non-liquid PCB remediation waste. They include disposal in incinerator meeting requirements in 761.70 and disposal in chemical waste landfill meeting requirements in 761.75. Thermal desorption facility would not meet definition of incinerator, and on-site reuse is not explicitly authorized. Regulations allow risk-based approval by EPA of alternate disposal method (761.61(c)) based on determination that such method will not pose an unreasonable risk of injury to health or the environment.
TSCA regulations on decontamination (40 CFR 761.79)	Apply to decontamination of equipment used in handling of PCB-containing materials.
RCRA regulations for hazardous waste management facilities, including: <ul style="list-style-type: none"> ▪ Same requirements listed in Part C of this Table 2-3 for storage of RCRA hazardous waste; and ▪ Requirements for facilities that treat hazardous waste in miscellaneous units (40 CFR Part 264, Subpart X) 	Would apply if thermal desorption facility will treat excavated sediments or soils that constitute RCRA hazardous waste (if any). Some of these requirements may not be technically practicable for thermal desorption facility or associated storage facilities.
State ARARs	
Massachusetts air pollution control regulations (310 CMR 7.00), as pertinent to thermal desorption facility	Pertinent to design and operation of thermal desorption facility.

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Table 2-3 – Potential Action-Specific ARARs *

Authority/Regulation**	Comments
Massachusetts hazardous waste management regulations, including: <ul style="list-style-type: none"> ▪ Same requirements listed in Part C of this Table 2-3 for storage of hazardous waste; and ▪ Technical requirements for miscellaneous units (310 CMR 30.606) 	Could apply if thermal desorption facility will treat excavated sediments/soils that constitute hazardous waste under state regulations (if any) and are not exempt. Some of these requirements may not be technically practicable for thermal desorption facility or associated storage facilities.
Massachusetts tank regulations (527 CMR 9.03, 9.04)	Same as discussed for these regulations in Part D of this Table 2-3.
Massachusetts regulations on beneficial use of solid waste (310 CMR 19.060)	Pertinent to on-site reuse of treated material.

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Table 2-3 – Potential Action-Specific ARARs *

F. Discharge of Treated Water from Dewatering or Treatment Facility to Housatonic River

Authority/Regulation**	Comments
Federal ARARs	
Clean Water Act – NPDES regulations (under 33 USC 1342) (40 CFR 122.44, 125.1 - 125.3; see also 40 CFR 122.3(d))	Regulations require discharge to meet technology-based and water quality-based effluent limitations, but exempt discharges in compliance with instructions of On-Scene Coordinator acting pursuant to NCP (122.3(d)). GE believes that, to extent discharge is not so exempt, any requirement to meet MA water quality criteria for PCBs in the receiving waters should be waived as technically impracticable.
TSCA regulations for discharge of water containing PCBs to navigable waters (40 CFR 761.50(a)(3))	Apply to discharges of treated water to Housatonic River.

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Table 2-3 – Potential Action-Specific ARARs *

G. Local Disposal of Excavated Sediments or Soils in Upland Facility

Authority/Regulation**	Comments
Federal ARARs	
TSCA regulations on disposal of PCB Remediation Waste in landfill (40 CFR 761.50(d)(4), 761.61(b) & (c), and 761.75)	Section 761.75 establishes standards and requirements for chemical waste landfills used for disposal of PCBs. However, section 761.61(c) allows risk-based approval of alternate method of disposal of PCB Remediation Waste if EPA finds that such method will not pose an unreasonable risk of injury to health or the environment. As another alternative, dredged material with < 50 ppm may be disposed of in accordance with permit under § 404 of Clean Water Act or equivalent (761.61(b)(3)).
TSCA regulations on decontamination (40 CFR 761.79)	Apply to decontamination of equipment used in handling of PCB-containing materials.
RCRA regulations for hazardous waste management facilities, including: <ul style="list-style-type: none"> ▪ General requirements (40 CFR 264.1(j)) (in lieu of Part 264, Subparts B, C, and D); ▪ Requirements for landfills (40 CFR Part 264, Subpart N); ▪ Groundwater protection requirements (40 CFR Part 264, Subpart F). 	Potentially applicable to disposal facility for excavated sediments/soils that constitute RCRA hazardous waste (if any). Some of these requirements may be technically impracticable to achieve at upland disposal facility.
RCRA land disposal restrictions (40 CFR Part 268; see also 40 CFR 264.552)	Potentially applicable to disposal of excavated sediments/soils that constitute RCRA hazardous waste (if any) unless location of disposition is part of Corrective Action Management Unit (CAMU) under § 264.552 or part of Area of Contamination (AOC) per EPA (1995). If applicable, land disposal restrictions may be infeasible.

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Table 2-3 – Potential Action-Specific ARARs *

Authority/Regulation**	Comments
Clean Water Act – NPDES regulations (40 CFR 122.26(c)(1)(ii)(C), 122.44(k))	Apply to storm water discharges during construction activities.
State ARARs	
Massachusetts hazardous waste management regulations, including: <ul style="list-style-type: none"> ▪ General requirements (310 CMR 30.513, 30.514, 30.524, 30.560); ▪ Location standards for hazardous waste landfills (310 CMR 30.701(6), 30.703(2)-(4), 30.704, 30.705(3) & (6)) ▪ Technical requirements for hazardous waste landfills (310 CMR 30.602, 30.620, 30.660, 30.580, 30.590) 	Could apply to disposal facility for excavated sediments/soils that constitute hazardous waste under state regulations (if any) and are not exempt. Depending on selected location for upland disposal facility, some of these requirements may be technically impracticable to achieve.
Massachusetts air pollution control requirements (310 CMR 7.09)	Apply to activities generating dust.

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Table 2-3 – Potential Action-Specific ARARs *

H. Local Disposal of Sediments in In-Water Confined Disposal Facility (CDF)

Authority/Regulation**	Comments
Federal ARARs	
TSCA regulations on disposal of PCB Remediation Waste (40 CFR 761.50(d)(4), 761.61(b) & (c), 761.75)	Same as discussed for these regulations in Part G of this Table 2-3.
TSCA regulations on decontamination (40 CFR 761.79)	Apply to decontamination of equipment used in handling of PCB-containing materials.
Clean Water Act – Section 404 (33 USC 1344) and EPA’s implementing regulations at 40 CFR Part 230 (Note: Also listed as location-specific ARAR in Table 2-2, Part A.)	Apply to disposal of sediments in in-water CDF.
Rivers and Harbors Act of 1899, Section 10 (33 USC 403) (Note: Also listed as location-specific ARAR in Table 2-2, Part A.)	Same as discussed for this provision in Table 2-2, Part A.
RCRA regulations for hazardous waste management facilities, including: <ul style="list-style-type: none"> ▪ General requirements (40 CFR 264.1(j)) (in lieu of Part 264, Subparts B, C, and D); ▪ Requirements for surface impoundments (40 CFR Part 264, Subpart K) and/or landfills (40 CFR Part 264, Subpart N); ▪ Groundwater protection requirements (40 CFR Part 264, Subpart F). 	Potentially applicable to CDF for sediments that constitute RCRA hazardous waste (if any). Some of these requirements would not be technically practicable to meet for local CDF.

* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table 2-2.

** ARARs consist only of the substantive requirements of the provisions listed in this column, not any administrative requirements included therein.

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Table 2-3 – Potential Action-Specific ARARs *

Authority/Regulation**	Comments
RCRA land disposal restrictions (40 CFR Part 268; see also 40 CFR 264.552)	Potentially applicable to disposal in CDF of sediments that constitute RCRA hazardous waste (if any) unless location of disposition is part of CAMU under § 264.552 or part of AOC per EPA (1995). If applicable, land disposal restrictions may be infeasible.
Clean Water Act – NPDES regulations (40 CFR 122.26(c)(1)(ii)(C), 122.44(k))	Apply to storm water discharges during construction activities.
State ARARs	
Massachusetts § 401 regulations on dredged material management – use of confined disposal facilities (310 CMR 9.07(8)) (Note: Also included in location-specific ARARs in Table 2-2, Part A.)	Apply to in-water CDF for dredged material. Some of these requirements may not be necessary or technically practicable for local CDF.
Massachusetts hazardous waste management regulations, including: <ul style="list-style-type: none"> ▪ General requirements (310 CMR 30.513, 30.514, 30.524, 30.560); ▪ Relevant location standards for hazardous waste facilities in 310 CMR.700; ▪ Technical requirements for hazardous waste surface impoundments or landfills (310 CMR 30.602, 30.610 or 30.620, 30.660, 30.580, 30.590) 	Status as ARAR is uncertain. Potentially relevant to CDF for sediments that constitute hazardous waste under state regulations (if any) and are not exempt. Several of these requirements would not be technically practicable to meet at local CDF (e.g., prohibition on discharge of hazardous waste into waterbodies, prohibition on surface impoundments or landfills within 500-year floodplain or within wetlands).
Massachusetts air pollution control requirements (310 CMR 7.09)	Apply to activities generating dust.

* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table 2-2.

** ARARs consist only of the substantive requirements of the provisions listed in this column, not any administrative requirements included therein.

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Table 2-3 – Potential Action-Specific ARARs *

I. Sampling and Monitoring

Authority/Regulation**	Comments
Federal ARARs	
TSCA regulations on decontamination (40 CFR 761.79)	Apply to decontamination of equipment used in sampling of PCB-containing materials.
State ARARs	
Connecticut fisheries and game laws (Conn. Gen. Stat. 26-60)	Relates to biota sampling in Connecticut portion of Housatonic. This provision authorizes CT DEP to issue permits for sampling of fish, crustaceans, and wildlife for educational and scientific purposes, but no permit required in this case due to on-site permit exemption.

J. Other

Authority/Regulation**	Applicability/ Appropriateness
To Be Considered	
TSCA PCB Spill Cleanup Policy (40 CFR Part 761, Subpart G)	To be considered for any new PCB spills at concentrations \geq 50 ppm that occur during the work.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups</i> (Memorandum from EPA Office of Solid Waste and Emergency Response, March 13, 1995)	Describes EPA policy on use of Area of Contamination under RCRA.

* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table 2-2.

** ARARs consist only of the substantive requirements of the provisions listed in this column, not any administrative requirements included therein.

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Table 2-4 – IMPGs for PCBs Based on Human Direct Contact (Soil/Sediment)

Type of Area/Exposure Scenario	Receptor	RME or CTE	Assumed Frequency of Use	IMPGs (in mg/kg)			
				Cancer @ 10 ⁻⁶	Cancer @ 10 ⁻⁵	Cancer @ 10 ⁻⁴	Non-Cancer
Residential (Actual/Potential Lawn areas)	All	RME	150 d/yr	2* (per Consent Decree)			
Residential (banks, steep slopes, wet areas)	All	Both	Variable	Use IMPGs for general recreation scenarios based on appropriate exposure frequencies for parcel-specific conditions			
High-use general recreation	Young child (high use)	RME	90 d/yr	1.3*	13	134	4.6*
		CTE	30 d/yr	18	184	1,842	32
	Young child (low use)	RME	15 d/yr	8.0*	80	802	27*
		CTE	15 d/yr	37	368	3,684	63
	Older child	RME	90 d/yr	3.9*	39	388	27*
		CTE	30 d/yr	51	514	5,143	176
	Adult	RME	90 d/yr	1.4*	14	143	38*
		CTE	30 d/yr	63	630	6,305	234

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Table 2-4 – IMPGs for PCBs Based on Human Direct Contact (Soil/Sediment)

Type of Area/Exposure Scenario	Receptor	RME or CTE	Assumed Frequency of Use	IMPGs (in mg/kg)			
				Cancer @ 10 ⁻⁶	Cancer @ 10 ⁻⁵	Cancer @ 10 ⁻⁴	Non-Cancer
Medium-use general recreation	Young child	Not assessed		NA	NA	NA	NA
	Older child	RME	60 d/yr	5.8*	58	582	40*
		CTE	30 d/yr	51	514	5,143	176
	Adult	RME	60 d/yr	2.1*	21	215	58*
		CTE	30 d/yr	63	630	6,305	234
Low-use general recreation	Young child	Not assessed		NA	NA	NA	NA
	Older child	RME	30 d/yr	12*	116	1,165	80*
		CTE	15 d/yr	103	1,029	10,286	353
	Adult	RME	30 d/yr	4.3*	43	429	115*
		CTE	15 d/yr	126	1,261	12,610	468

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Table 2-4 – IMPGs for PCBs Based on Human Direct Contact (Soil/Sediment)

Type of Area/Exposure Scenario	Receptor	RME or CTE	Assumed Frequency of Use	IMPGs (in mg/kg)			
				Cancer @ 10 ⁻⁶	Cancer @ 10 ⁻⁵	Cancer @ 10 ⁻⁴	Non-Cancer
Bank fishing	Older child	RME	30 d/yr	6.2*	62	619	42*
		CTE	10 d/yr	52	524	5,237	180
	Adult	RME	30 d/yr	2.6*	26	256	56*
		CTE	10 d/yr	70	702	7,015	220
Dirt biking/ATVing	Older child	RME	90 d/yr	2.0*	20	205	14*
		CTE	30 d/yr	29	290	2,901	99
Marathon canoeist	Adult	RME	150 d/yr	0.78*	7.8	78	13*
		CTE	90 d/yr	5.8	58	575	25
Recreational canoeist	Older child	RME	30 d/yr	6.2*	62	619	42*
		CTE	15 d/yr	35	349	3,491	120
	Adult	RME	60 d/yr	1.2*	12	121	28*
		CTE	30 d/yr	13	129	1,286	73

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Table 2-4 – IMPGs for PCBs Based on Human Direct Contact (Soil/Sediment)

Type of Area/Exposure Scenario	Receptor	RME or CTE	Assumed Frequency of Use	IMPGs (in mg/kg)			
				Cancer @ 10 ⁻⁶	Cancer @ 10 ⁻⁵	Cancer @ 10 ⁻⁴	Non-Cancer
Waterfowl hunting	Older child	RME	14 d/yr	41*	408	4080	140*
		CTE	7 d/yr	233	2325	23,253	399
	Adult	RME	14 d/yr	9.0*	90	904	196*
		CTE	7 d/yr	75	752	7,518	537
Agricultural use (based on direct contact by farmer)	Adult	RME	40 d/yr	1.2*	12	118	43*
		CTE	10 d/yr	42	419	4,195	348
High-use commercial (groundskeeper scenario)	Adult	RME	150 d/yr	1.8*	18	177	25*
		CTE	150 d/yr	17	166	1,664	57
Low-use commercial (groundskeeper scenario)	Adult	RME	30 d/yr	8.9*	89	885	126*
		CTE	15 d/yr	166	1,664	16,642	571

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Table 2-4 – IMPGs for PCBs Based on Human Direct Contact (Soil/Sediment)

Type of Area/Exposure Scenario	Receptor	RME or CTE	Assumed Frequency of Use	IMPGs (in mg/kg)			
				Cancer @ 10 ⁻⁶	Cancer @ 10 ⁻⁵	Cancer @ 10 ⁻⁴	Non-Cancer
Utility worker	Adult	RME	5 d/yr	17*	169	1,694	242*
		CTE	5 d/yr	209	2,093	20,933	718
Sediments	Older child	RME	36 d/yr	4.5*	45	453	31*
		CTE	12 d/yr	36	365	3,645	125
	Adult	RME	36 d/yr	1.3*	13	135	40*
		CTE	12 d/yr	28	280	2,800	152

Notes:

1. CTE = central tendency exposure
2. d/yr = days per year
3. EPA = United States Environmental Protection Agency
4. IMPGs = interim media protection goals
5. mg/kg = milligram per kilogram
6. PCBs = polychlorinated biphenyls
7. RME = reasonable maximum exposure
8. * = Points of departure, as specified by EPA.

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Table 2-5 – IMPGs for PCBs in Fish and Waterfowl Tissue Based on Human Consumption

Tissue Type and Constituent	Assessment Type	RME or CTE	IMPGs (in mg/kg)				
			Cancer @ 10 ⁻⁶	Cancer @ 10 ⁻⁵	Cancer @ 10 ⁻⁴	Non-Cancer – Child	Non-Cancer – Adult
Bass fillets – PCBs	Deterministic	RME	0.0019*	0.019	0.19	0.026*	0.062*
		CTE	0.049	0.49	4.9	0.19	0.43
	Probabilistic	RME (5 th percentile)	0.0064*	0.064	0.64	0.059*	0.12*
		CTE (50 th percentile)	0.057	0.57	5.7	0.71	1.5
Trout fillets – PCBs	Deterministic	RME	0.0048*	0.048	0.48	0.069*	0.16*
		CTE	0.11	1.1	11	0.40	0.93
	Probabilistic	RME (5 th percentile)	0.014*	0.14	1.4	0.13*	0.27*
		CTE (50 th percentile)	0.12	1.2	12	1.5	3.1

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Table 2-5 – IMPGs for PCBs in Fish and Waterfowl Tissue Based on Human Consumption

Tissue Type and Constituent	Assessment Type	RME or CTE	IMPGs (in mg/kg)				
			Cancer @ 10 ⁻⁶	Cancer @ 10 ⁻⁵	Cancer @ 10 ⁻⁴	Non-Cancer – Child	Non-Cancer – Adult
Duck breast – PCBs	Deterministic	RME	0.0084*	0.084	0.84	0.12*	0.28*
		CTE	0.066	0.66	6.6	0.25	0.58
	Probabilistic	RME (5 th percentile)	0.0075*	0.075	0.75	0.080*	0.17*
		CTE (50 th percentile)	0.072	0.72	7.2	0.67	1.4

Notes:

1. CTE = central tendency exposure
2. EPA = United States Environmental Protection Agency
3. IMPGs = interim media protection goals
4. mg/kg = milligram per kilogram
5. PCBs = polychlorinated biphenyls
6. RME = reasonable maximum exposure
7. * = Points of departure, as specified by EPA.

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Table 2-6 – IMPGs for PCBs in Agricultural Products Based on Human Consumption

Tissue Type	Farm Type	RME or CTE	IMPGs (in mg/kg-wet weight)				
			Cancer @ 10 ⁻⁶	Cancer @ 10 ⁻⁵	Cancer @ 10 ⁻⁴	Non-Cancer Child	Non-Cancer Adult
Cow milk	Commercial dairy	RME	0.000026*	0.00026	0.0026	0.00030*	0.0014*
		CTE	0.00012	0.0012	0.012	0.00047	0.0017
	Backyard dairy	RME	0.000032*	0.00032	0.0032	0.00030*	0.0012*
		CTE	0.00016	0.0016	0.016	0.00047	0.0010
Beef tissue	Commercial beef	RME	0.00033*	0.0033	0.033	0.0077*	0.014*
		CTE	0.0015	0.015	0.15	0.010	0.017
	Backyard beef	RME	0.00047*	0.0047	0.047	0.0077*	0.013*
		CTE	0.0027	0.027	0.27	0.010	0.013
Poultry meat	Commercial poultry	RME	0.00052*	0.0052	0.052	0.015*	0.021*
		CTE	0.0030	0.030	0.30	0.019	0.034
	Backyard poultry	RME	0.0009*	0.009	0.09	0.015*	0.026*
		CTE	0.0054	0.054	0.54	0.019	0.027

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Table 2-6 – IMPGs for PCBs in Agricultural Products Based on Human Consumption

Tissue Type	Farm Type	RME or CTE	IMPGs (in mg/kg-wet weight)				
			Cancer @ 10 ⁻⁶	Cancer @ 10 ⁻⁵	Cancer @ 10 ⁻⁴	Non-Cancer Child	Non-Cancer Adult
Poultry eggs	Commercial poultry	RME	0.00055*	0.0055	0.055	0.011*	0.025*
		CTE	0.0025	0.025	0.25	0.013	0.031
	Backyard poultry	RME	0.00082*	0.0082	0.082	0.011*	0.025*
		CTE	0.0044	0.044	0.44	0.013	0.026
Exposed fruit	Commercial or backyard fruit farm	RME	NC			0.11*	NC
		CTE	NC			0.15	NC
Exposed vegetables	Commercial or backyard farm with exposed vegetables	RME	NC			0.024*	NC
		CTE	NC			0.037	NC
Root vegetables	Commercial or backyard farm with root vegetables	RME	NC			0.030*	NC
		CTE	NC			0.049	NC

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Table 2-6 – IMPGs for PCBs in Agricultural Products Based on Human Consumption

Tissue Type	Farm Type	RME or CTE	IMPGs (in mg/kg-wet weight)				
			Cancer @ 10 ⁻⁶	Cancer @ 10 ⁻⁵	Cancer @ 10 ⁻⁴	Non-Cancer Child	Non-Cancer Adult
All produce	Commercial or backyard farm with all three types of above produce	RME	NC			0.012*	NC
		CTE	NC			0.018	NC

Notes:

1. CTE = central tendency exposure
2. EPA = United States Environmental Protection Agency
3. IMPGs = interim media protection goals
4. mg/kg = milligram per kilogram
5. NC = Not calculated
6. PCBs = polychlorinated biphenyls
7. RME = reasonable maximum exposure
8. * = Points of departure, as specified by EPA.

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Table 2-7 – Summary of Media-Specific IMPGs for PCBs in Ecological Receptors

Receptor Group	Medium	IMPGs
Benthic invertebrates	Sediments	3* to 10 mg/kg
Amphibians (represented by wood frog)	Vernal pool sediments	3.27* to 5.6 mg/kg
Fish	Fish tissue in PSA (whole body)	55* mg/kg
	Fish tissue downstream of PSA (whole body)	55* mg/kg for warmwater fish 14* mg/kg for coldwater fish
Piscivorous birds (represented by osprey)	Fish tissue (whole body)	3.2* mg/kg
Insectivorous birds (represented by wood duck)	Aquatic and terrestrial invertebrate prey	4.4* mg/kg
Piscivorous mammals (mink and otter)	Prey items	0.984* to 2.43 mg/kg
Omnivorous and carnivorous mammals (represented by short-tailed shrew)	Floodplain soil	21.1* to 34.3 mg/kg
Threatened and endangered species (represented by bald eagle)	Fish tissue (whole body)	30.41* mg/kg

Notes:

1. EPA = United States Environmental Protection Agency
2. IMPGs = interim media protection goals
3. mg/kg = milligram per kilogram
4. PCBs = polychlorinated biphenyls
5. PSA = Primary Study Area
6. * = Point of departure, as specified by EPA.

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Table 2-8 – Target Floodplain Soil PCB Concentrations Associated with IMPGs for Consumption of Agricultural Products ¹

Farm Type	Tissue Type	RME or CTE	Target Soil Concentrations (mg/kg)				
			Cancer at 10 ⁻⁶	Cancer at 10 ⁻⁵	Cancer at 10 ⁻⁴	Non-Cancer Child	Non-Cancer Adult
Commercial Dairy	Milk	RME	0.24	2.4	24	2.7	12.8
		CTE	1.1	11.0	110	4.3	15.6
Commercial Poultry	Poultry Meat	RME	0.015	0.15	1.5	0.44	0.62
		CTE	0.16	1.6	16	1.0	1.8
Commercial Vegetable	Exposed Vegetable	RME	NC	NC	NC	13.3	NC
		CTE	NC	NC	NC	20.6	NC
	Root Vegetable	RME	NC	NC	NC	100	NC
		CTE	NC	NC	NC	163	NC

Notes:

1. These levels apply to farm properties where 100% of the growing or grazing land is located within the floodplain.
2. CTE = central tendency exposure
3. IMPGs = interim media protection goals
4. mg/kg = milligram per kilogram
5. NC = Not calculated
6. PCBs = polychlorinated biphenyls
7. RME = reasonable maximum exposure