

Appendix E

ARARs Tables for Sediment and
Floodplain Alternatives

Table F-1.a: Alternative FP 1 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal and State ARARs				
None				
Guidances To Be Considered				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/irisweb/p/iris/index.html	Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
Reference Doses	EPA's IRIS http://www.epa.gov/irisweb/p/iris/index.html	Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)	EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)	Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting floodplain remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting floodplain remedy for Rest of River.

Table F-1.a: Alternative FP 1 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting floodplain remedy for Rest of River.
Massachusetts consumption advisory for frogs and turtles	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Fish consumption advisory also advises that the public should not consume any frogs and turtles from the Housatonic River from Dalton to Sheffield due to PCBs.	To be considered.	Will be considered in FP 1 through continuation and maintenance of this advisory, including appropriate steps to inform the public about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	Will be considered in FP 1 through continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table F-1.b: Alternative FP 1 – Potential Location-Specific ARARs

Statute/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
None				

Table F-1.c: Alternative FP 1 – Potential Action-Specific ARARs

Statute/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
None				

Table F-2.a: Alternative FP 2 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal and State ARARs				
None				
Guidances To Be Considered				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/irisweb/p/iris/index.html	Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
Reference Doses	EPA's IRIS http://www.epa.gov/irisweb/p/iris/index.html	Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)	EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)	Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting floodplain remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting floodplain remedy for Rest of River.

Table F-2.a: Alternative FP 2 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting floodplain remedy for Rest of River.
Massachusetts consumption advisory for frogs and turtles	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Fish consumption advisory also advises that the public should not consume any frogs and turtles from the Housatonic River from Dalton to Sheffield due to PCBs.	To be considered.	FP 2 includes continuation and maintenance of this advisory, including appropriate steps to inform the public about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	FP 2 includes continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table F-2.b: Alternative FP 2 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act – Section 404 and implementing regulations issued by U.S. Army Corps of Engineers (ACOE) and by EPA	33 USC 1344 33 CFR Parts 320-323 (ACOE) 40 CFR Part 230 (EPA)	For discharge of dredge or fill material: (a) there must be no practical alternative with less adverse impact on aquatic ecosystem; (b) discharge cannot cause or contribute to violation of state water quality standard or toxic effluent standard; (c) discharge cannot jeopardize the existence of any threatened or endangered (T&E) species; (d) discharge cannot cause or contribute to significant degradation of waters of the U.S., including significant adverse effects on human health or welfare, aquatic life, aquatic ecosystem, or recreational, aesthetic, and economic values; and (e) discharger must take appropriate and practicable steps to minimize or mitigate potential adverse effects on aquatic ecosystem.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S.	(a) FP 2 would involve some soil removal in wetlands. However, apart from no action, there is no practical alternative with less adverse impact on aquatic ecosystem. (b) FP 2 would not be expected to cause or contribute to violation of state water quality or toxic effluent standards. (c) Review of available information indicates that FP 2 would not affect any federally listed T&E species. (d) FP 2 would not cause significant adverse impacts on wetlands due to relatively small amount of wetlands affected (< 4% of all wetlands in PSA; see Response to General Comment 10 in this Interim Response). (e) FP 2 would include appropriate and practicable steps to minimize or mitigate potential adverse effects on wetlands.
	33 CFR Part 332 (ACOE) 40 CFR Part 203, Subpart J (EPA)	Compensatory mitigation regulations: If project will have unavoidable adverse impacts after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation – i.e., the restoration, creation, enhancement, or (in some circumstances) preservation of aquatic resources. This requires a mitigation work plan, including detailed specifications and descriptions for compensatory mitigation. The regulations also require objective performance standards, monitoring for at least 5 years, and active long-term management and maintenance where necessary to ensure long-term sustainability.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S.	For areas where FP 2 would have unavoidable adverse impacts on wetlands after all practical steps have been taken to avoid or minimize such impacts, a compensatory mitigation plan would be necessary to address those impacts. But see Responses to General Comment 29 and Specific Comment 106 in this Interim Response.

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Table F-2.b: Alternative FP 2 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Executive Order for Wetlands Protection	Exec. Order 11990 (1977) 40 CFR 6.302(a) 40 CFR Part 6, App. A	A federal agency must avoid construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Applicable to EPA; relevant and appropriate to work in wetlands.	FP 2 would involve some soil removal in wetlands. However, apart from no action, there is no practical alternative to some such construction in wetlands. FP 2 would include practicable measures to minimize harm to wetlands, including avoiding siting access roads and staging areas in wetlands where practicable, use of erosion and sedimentation control measures, and reasonable restoration measures for affected wetlands.
Executive Order for Floodplain Management	Exec. Order 11988 (1977) 40 CFR 6.302(b) 40 CFR Part 6, App. A	A federal agency proposing action in a floodplain must consider alternatives to avoid adverse effects on the floodplain, and if there is no practicable alternative, must design or modify the action to minimize harm to or within the floodplain.	Applicable to EPA; relevant and appropriate to work in floodplains.	FP 2 would involve excavation of soils and construction of access roads and staging areas in the floodplain. However, apart from no action, there is no practical alternative that would avoid any adverse effects on floodplain. FP 2 would include practicable measures to minimize harm to floodplain, including erosion and sedimentation control measures, reasonable restoration measures for affected portions of floodplain, and maintenance of existing flood storage capacity of floodplain.
Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains	40 CFR 264.1(j)(7) 40 CFR 264.18(b)	A hazardous waste treatment, storage, or disposal facility used for remediation waste and located in the 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of such waste by a 100-year flood unless owner/operator shows that procedures are in effect to remove waste safely before flood waters can reach facility.	These requirements would not be expected to apply to any temporary staging areas because excavated soils are not expected to constitute RCRA hazardous waste. Further, even if some soils did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas within 100-year floodplain to which AOC policy does not apply (if any), these requirements would be met. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.

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Table F-2.b: Alternative FP 2 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			<p>staging areas would be located in overall area of dispersed contamination. However, if some soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.</p>	
<p>National Historic Preservation Act and regulations</p>	<p>16 USC 470f 36 CFR Part 800</p>	<p>A federal agency proposing to fund or authorize a project must take into account the project's effect on properties (including a site, building, structure, or object) included or eligible for inclusion in the National Register of Historic Places (NRHP). This requires: (a) consultation with the State and/or Tribal Historic Preservation Offices; (b) identification of the project's "area of potential effects"; (c) identification of any listed or eligible historic property within that area that could be affected by the project; (d) if there is such property, determination of whether the project would have an adverse impact on the property; (e) if so, evaluation of alternatives to avoid, minimize, or mitigate the adverse impacts; and (f) agreement on such measures or, failing agreement, implementation of such measures identified by the authorizing agency.</p>		<p>Would be attained through process described in Section 6 of GE's <i>Initial Phase IA Cultural Resources Assessment for the Housatonic River – Rest of River Project</i> (Phase IA CRA: URS Corporation, March 13, 2008).</p>

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Table F-2.b: Alternative FP 2 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Archaeological and Historic Preservation Act	16 USC 469	When a federal agency finds or is notified that a federal or federally authorized project may cause the loss or destruction of archaeological or historic data, it must notify Department of Interior (DOI). If DOI determines that the data are significant and may be irrevocably lost or destroyed, it is to conduct a survey and other investigation of the affected area and recover and preserve such data as necessary in the public interest.	Applicable to EPA; relevant and appropriate to federally authorized work in areas where archaeological or historic data may be present.	Identification of archaeological or historic data potentially affected by FP 2 would be made through process identified in Phase IA CRA. If such data are identified that could be irrevocably lost or destroyed by implementation of FP 2, it is anticipated that EPA would notify DOI as required.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act) Note: These regulations are also listed as action-specific ARARs for FP 2.	314 CMR 9.01 - 9.08	For discharge of dredged or fill material: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on bordering or isolated vegetated wetlands, including 1:1 restoration or replication of such wetlands (unless waived); (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under the Wetlands Protection Act or would be to certain designated “Outstanding Resource Waters,” including certified vernal pools, unless a variance is obtained; (d) stormwater discharges must be controlled with best management practices (BMPs); and (e) there must be no substantial adverse impacts to physical, chemical, or biological integrity of surface waters.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.	FP 2 would involve soil removal in wetlands. However, apart from no action, there is no practical alternative with less impact on wetlands. FP 2 would include appropriate and practicable steps to avoid, minimize, or mitigate potential adverse effects on wetlands. Further, under FP 2, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), stormwater discharges would be controlled through BMPs, and there would be no substantial long-term adverse impacts to the integrity of river water. However, FP 2 would have some adverse effects on areas designated by State as estimated habitat of rare wildlife species because the great majority of excavation and supporting activities would occur within such habitat (see Figure F-2). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.

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Table F-2.b: Alternative FP 2 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<p>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 310 CMR 10.59</p>	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less damaging to resource areas; and (b) avoid or minimize impacts to resource areas, including, to the maximum extent practicable, minimizing hydrological changes, using BMPs during construction (including prevention of erosion/siltation); implementing mitigating measures, providing compensatory storage for lost flood storage capacity, avoiding flow restrictions that would increase flood stage or velocity, substantially restoring disturbed vegetation, and working in resource areas only when the ground is sufficiently stable to support the equipment.</p> <p>For actions that do not qualify as a “limited project,” the requirements of 310 CMR 10.54 – 10.58 would apply.</p> <p>In either case, under 310 CMR 10.59, the action must have no adverse effect on estimated habitat of rare wildlife species.</p> <p>(Note that for areas within 100 feet of stream/pond banks or wetlands (buffer zone) or within 200 feet from river’s edge (riverfront areas), minor activities such as sampling and monitoring are exempt from these requirements. See 310 CMR 10.02(2)(b)1.g.)</p>	<p>Applicable to FP 2 response actions that take place in or within 100 feet (buffer zone) of stream/pond banks or wetlands (buffer zone) or are within floodplains or riverfront areas (extending 200 feet from river’s edge) and that will alter any such resource areas.</p>	<p>Since FP 2 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> ▪ Although FP 2 would involve some remediation in wetlands, there is no practical alternative, apart from no action, with less impact on resource areas. ▪ FP 2 would include practicable measures to avoid or minimize impacts to resource areas, including control of stormwater discharges during construction through BMPs, implementation of mitigation measures where necessary, and restoration of disturbed vegetation as required. In addition, FP 2 is not anticipated to have any significant effect on flood storage capacity of floodplain. ▪ FP 2 would have some adverse effects on estimated rare wildlife species habitat, because the great majority of excavation and supporting activities would occur within such habitat (see Figure F-2). Thus, the prohibition on projects with an adverse effect on such habitat would need to be waived as technically impracticable to meet. <p>In the event that FP 2 was considered not to constitute a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 – e.g., the prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands (10.55(4)) or impairs such wetlands within an ACEC (if designated) (10.55(4)), the prohibition on projects with an adverse effect on rare wildlife species habitat (as noted above) – which would need to be waived as technically impracticable.</p>

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Table F-2.b: Alternative FP 2 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts standards for hazardous waste management facilities in floodplains	310 CMR 30.701	Location standards for hazardous waste management facilities in floodplains, including requirements that: (a) no active portion of a waste pile may be constructed within 500-year floodplain; and (b) tanks, containers, and similar units that are used to store hazardous waste, do not receive waste from off-site sources, and are located within the 100-year floodplain must be floodproofed to prevent floodwaters from contacting the hazardous waste.	These requirements would not be expected to apply to temporary staging areas because excavated soils are not expected to constitute state hazardous waste subject to these standards (see Table F-2.c). However, if some excavated soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	If excavated soils do not constitute state hazardous waste subject to these regulations, these requirements would not apply. However, if some excavated soils were found to constitute such hazardous waste, it may not be feasible for some temporary staging areas for such waste to meet the requirement that waste piles be located outside 500-year floodplain, since, in 1 or 2 areas, this would drive the staging areas too far from the river to be practical. In such cases, that requirement should be waived as technically impracticable to attain.
Massachusetts Historical Commission Act and regulations	MGL c. 9, § 27C 950 CMR 71.07	A state body proposing to fund or authorize a project must notify the Massachusetts Historical Commission (MHC) (or the project proponent may notify MHC) if the project has an area of potential impact on a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on such a property, the state body, project proponent, and MHC must consider “prudent and feasible alternatives” that could eliminate, minimize, or mitigate the adverse effects. If there are, such alternatives will be specified in an agreement among those parties; and if there is no agreement, project cannot proceed until state body or project proponent responds to the MHC.	Applicable to State; relevant and appropriate to State-authorized work in areas where the work would have an area of potential impact on property(ies) listed in State Register.	Extent to which FP 2 would have potential impact on property(ies) listed in the State Register would be determined through the process identified in Phase IA CRA. If it would have such a potential impact, MHC would be notified and substantive provisions of these regulations would be met.

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Table F-2.b: Alternative FP 2 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	MGL c. 9, § 27C	Any person supervising any survey, excavation, or construction on state or local government lands must report to the state archaeologist any archaeological, paleontological, or historical site or object discovered, and must take all reasonable steps to secure its preservation.	Applicable to excavations or construction on state or local government lands in MA.	If any archaeological, paleontological, or historical site or object is discovered during clearing or excavation activities on state or local government land, this requirement for notification and preservation would be met.

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Table F-2.c: Alternative FP 2 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Toxic Substances Control Act (TSCA) regulations on cleanup of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61	General requirements (761.50) and specific options (761.61) for cleanup of PCB Remediation Waste, including PCB-containing soils. Options include self-implementing provisions 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.	Applicable to cleanup of PCB Remediation Waste (which includes floodplain soils with PCBs > 50 ppm).	It is anticipated that, if FP 2 is selected, these requirements would be met through an EPA determination that FP 2 meets requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on storage of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.65 40 CFR 761.61(c)	General and specific requirements for storage of PCB Remediation Waste. Regulations include specific provisions for storage of PCB Remediation waste in piles at the cleanup site or site of generation for up to 180 days (761.65(c)(9)). They also allows for risk-based approval by EPA of alternate storage method (761.61(c)), based on demonstration that it will not pose an unreasonable risk of injury to health or the environment.	Applicable to temporary storage of PCB Remediation Waste.	Temporary staging areas would meet the default conditions in 761.65(c)(9) with the following exception: While these areas would contain run-on control systems capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for a few of the staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (although they would include appropriate flood control measures). For those temporary staging areas that would not meet this condition, the TSCA requirements could be met through an EPA determination that those staging areas meet requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on discharges of PCB-containing water	40 CFR 761.50(a)(3)	Prohibits discharge of water containing PCBs to navigable waters unless PCB concentration is < 3 µg/L or discharge is in accordance with NPDES discharge limits.	Applicable to discharges of treated water from dewatering/treatment facility to Housatonic River.	If floodplain soils are saturated, they would be dewatered, and resulting water would be treated. Water treatment facilities would be designed to meet this requirement.

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

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Table F-2.c: Alternative FP 2 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
TSCA regulations on decontamination	40 CFR 761.79	Establishes decontamination standards and procedures for removing PCBs from water, organic liquids, and various types of surfaces.	Applicable to decontamination of equipment used in excavation or other handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act and NPDES regulations	33 USC 1342 40 CFR 122, including, but not limited to, 122.3(d) and 122.44(a) & (e) 40 CFR 125.1 - 125.3	Point source discharge must meet technology-based effluent limitations (including those based on best available technology for toxic and non-conventional pollutants and those based on best conventional technology for conventional pollutants) and effluent limitations and conditions necessary to meet state water quality standards, except that discharges in compliance with instructions of On-Scene Coordinator (OSC) acting pursuant to NCP are exempt from these requirements.	Applicable to point source discharges of treated water from dewatering/treatment facility to Housatonic River.	If floodplain soils are saturated, they would be dewatered, and resulting water would be treated. Discharges could not feasibly meet MA water quality criteria for PCBs (0.014 and 0.000064 µg/L) in receiving waters, since current water quality conditions in Housatonic River do not meet those criteria. In addition, it is not anticipated that those criteria would be met at the point of discharge. EPA used a standard of 0.5 µg/L for discharges from the treatment facility in the 1½ Mile Reach Removal Action, and the data from discharges in that project were generally in the range of 0.01 to 0.1 µg/L and often > 0.014 µg/L. However, this ARAR could be met through discharges in compliance with instructions from OSC.
Clean Water Act – NPDES regulations (stormwater discharges)	40 CFR 122.26(c)(1)(ii)(C) 40 CFR 122.44(k)	Best management practices (BMPs) must be employed to control pollutants in stormwater discharges during construction activities.	Applicable to stormwater discharges during construction activities, including temporary staging of excavated materials.	Would be attained through use of BMPs to control erosion from stormwater discharges during construction activities, including soil excavation, construction of access roads and temporary staging areas, and temporary staging of excavated soils at those areas.

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

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Table F-2.c: Alternative FP 2 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Endangered Species Act and regulations	16 USC 1536(a)-(d) 40 CFR 6.302(h) 50 CFR Part 402, Subparts A & B	A federal agency must ensure that any action authorized, funded, or carried out by it is not likely to jeopardize the continued existence of a listed threatened or endangered (T&E) species or result in destruction or adverse modification of critical habitat, unless an exemption is granted. If a listed species or critical habitat may be present in the action area, the key steps include a biological assessment by the authorizing agency; a biological opinion by the resource service; and if the action is likely to adversely affect a listed species or critical habitat, identification of “reasonable and prudent” measures to avoid and/or minimize such effects.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize the continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because review of available information indicates that FP 2 would not adversely affect any federally listed T&E species or their habitat.
Resource Conservation and Recovery Act (RCRA) regulations on identification of hazardous waste	40 CFR Part 261	Establishes criteria and lists for determining whether a waste is a hazardous waste under RCRA. Note that Sec. 261.24 identifies concentrations of contaminants which make waste a hazardous waste due to toxicity, as determined through the Toxicity Characteristic Leaching Procedure (TCLP).	Relevant and appropriate to determining whether excavated soils must be managed as a hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated soils would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of soils subject to removal would be conducted during design to confirm that result.
RCRA regulations for generators of hazardous waste	40 CFR 262.30 - 262.33	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated soils are not expected to constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	If excavated soils do not constitute RCRA hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table F-2.c: Alternative FP 2 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – general requirements	40 CFR 264.1(j)	General requirements for facilities used to manage remediation wastes that constitute hazardous waste (e.g., requirements for waste analysis, security, precautions to prevent accidental ignition or reaction of wastes, preventing washout of units in floodplain by 100-year flood). (These requirements are in lieu of Part 264, Subparts B, C, and D.)	These requirements would not be expected to apply to any temporary staging areas because excavated soils are not expected to constitute RCRA hazardous waste. Further, even if some soils did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be met at the temporary staging areas used for such waste.
RCRA regulations for hazardous waste management facilities – technical requirements for storage of hazardous waste	40 CFR Part 264, Subpart L	Design, operating, closure, and (if necessary) post-closure requirements for storage of hazardous waste in waste piles outside structures.	These requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the waste piles used for temporary staging of such waste would meet these requirements with the following exceptions: (a) While these waste piles would meet the single liner/leachate collection requirements of § 264.251(a), they would not meet the requirements of § 264.251(c) for a double liner/leachate collection system at “new waste pile units” (if applicable); and (b) while these areas would contain a run-on control system capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for a few of the staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (see § 264.251(g)). To the extent these requirements, which were developed for permanent hazardous waste storage units, are considered applicable, they are not practical for short-term temporary staging areas and thus should be waived as technically impracticable to attain.

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Table F-2.c: Alternative FP 2 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – groundwater protection	40 CFR Part 264, Subpart F	Groundwater protection requirements for hazardous waste contained in solid waste management units. Includes groundwater protection standards (i.e., maximum contaminant levels) for waste piles outside structures; alternate limits allowed under 40 CFR 264.94(b); and requirements for groundwater monitoring systems.	Same as above	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for short-term temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable to attain.
RCRA land disposal restrictions	40 CFR 268.50	Prohibits storage of hazardous wastes that are prohibited from land disposal under Part 268, Subpart C, with a number of exceptions, including that such waste may be stored solely for the purpose of accumulating such quantities as are necessary to facilitate proper recovery, treatment, or disposal	Same as above except that if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these provisions would apply.	If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these provisions would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would meet the exception to the storage prohibition for the accumulation of such quantities as are necessary to facilitate treatment or disposal.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (Note: These were listed as location-specific ARAR in Table F-2.b, but are	314 CMR 9.01 - 9.08	Same as described for these regulations in Table F-2.b.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.	Same as described for these regulations in Table F-2.b.

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Table F-2.c: Alternative FP 2 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
also listed here at EPA's direction.)				
Massachusetts Clean Water Act and Wetlands Protection Act – stormwater management standards	310 CMR 10.05(6)(k) 314 CMR 9.06(6)(a)	Projects subject to regulation under the Wetlands Protection Act or that involve discharge of dredged or fill material must be provided with stormwater BMPs to attenuate pollutants in stormwater discharges and provide a setback from receiving waters and wetlands in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during construction activities and at temporary staging areas.	FP 2 would include use of stormwater BMPs during construction of access roads and staging areas and at the excavation areas and temporary staging areas. These BMPs would be designed to meet the MDEP's specified stormwater management standards. These stormwater systems would include ~ 25-foot setbacks from receiving waters and wetlands to the extent practical.
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity may not result in a "take" of a State-listed endangered, threatened, or special concern species, except that such a "take" may be allowed if the applicant has adequately addressed alternatives, an insignificant portion of the local population would be impacted, and the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the species. Projects in a designated Priority Habitat for a State-listed species or other area where such a species has occurred must be reviewed in accordance with these requirements.	Applicable to activities in a State-designated Priority Habitat in MA or other areas where information indicates the occurrence of a State-listed species.	The great majority of the excavation activities, as well as access roads and temporary staging areas, in FP 2 would occur within Priority Habitat, as shown on Figure F-2. Based on the evaluations presented in Appendix B to this Interim Response, these activities and facilities would result in a "take" of approximately 13 State-listed species. However, given the limited impact areas in FP 2, it is anticipated that, in all of these cases, the take would not impact a significant portion of the local population of these species. For some of these species, it would appear to be feasible to develop a long-term Net Benefit plan, while for others it would not appear to be feasible to do so or is uncertain, as also discussed in Appendix B. For species for which a Net Benefit Plan is not feasible, the MESA requirement for such a plan would need to be waived.
	321 CMR 10.00, Part IV	Projects that will alter a designated Significant Habitat must be reviewed to ensure that they will not reduce the viability of the habitat to sustain an endangered or threatened species.	Would be applicable to activities affecting State-designated Significant Habitat in MA. However, no such habitat has been designated.	Not applicable.

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Table F-2.c: Alternative FP 2 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste regulations on identification of hazardous waste	310 CMR 30.100	<p>Establishes criteria and lists for determining whether a waste is a hazardous waste under state law.</p> <p>Note that wastes that contain PCBs \geq 50 mg/kg (which are listed wastes) are exempt from the state hazardous waste management regulations so long as they are managed in compliance with EPA's TSCA regulations (40 CFR Part 761) (see 310 CMR 30.501(3)(a)). (Materials that constitute state hazardous wastes on other grounds are referred to in this table as "non-PCB state hazardous waste.")</p>	Applicable to determining whether excavated floodplain soils must be managed as a hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated floodplain soils would constitute hazardous waste under state law on grounds other than containing PCBs \geq 50 mg/kg. However, representative TCLP testing of soils subject to removal would be conducted during design to confirm that result.
Massachusetts hazardous waste regulations for generators	310 CMR 30.321 - 30.324	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, these requirements would be met prior to any off-site transport of such waste.
Massachusetts hazardous waste management regulations – general requirements	310 CMR 30.513, 30.514, 30.524, 30.560	General requirements for hazardous waste management facilities (for waste analysis, security, emergency prevention and response, and precautions to prevent accidental ignition or reaction of wastes).	These requirements would not be expected to apply to temporary staging areas because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some excavated soils did	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, these requirements would be met at staging areas for such waste.

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Table F-2.c: Alternative FP 2 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			constitute such hazardous waste, these requirements would apply to staging areas for such waste.	
<p>Massachusetts hazardous waste management regulations – location standards for units used to store hazardous waste</p> <p>(Note: Some of these regulations were also listed as location-specific ARAR in Table F-2.b.)</p>	<p>310 CMR 30.701(6), 30.703(2), 30.704(3), 30.705(3) & (6)</p>	<p>Location standards for waste piles, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in wetlands, (c) within ½ mile of public water supply well, (d) on land overlying an actual, planned, or potential public underground drinking water source, (e) within 1000 feet of a private drinking water well, or (f) without a 200-foot buffer zone to fenceline.</p>	<p>These requirements would not be expected to apply because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply to waste piles for such waste at temporary staging areas.</p>	<p>If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be feasible to site some such staging areas outside 500-year floodplain, since in 1 or 2 locations this would drive the staging areas too far from the river to be practical; (b) while GE would try to avoid siting staging areas in wetlands where practical, this may be not practical in some cases given that the majority of the PSA consists of wetlands; (c) it is unknown whether such sites would overlie a “potential public underground drinking water source” (defined as a groundwater source capable of yielding 100 gpm or more of water and with less than 10,000 mg/L of total dissolved solids); and (d) while an effort would be made to design and construct the areas with a 200-foot buffer zone to the fenceline, it is not certain that this would be feasible in all cases. Any such requirements that could not feasibly be met would need to be waived as technically impracticable in order for this alternative to be implemented.</p>
<p>Massachusetts hazardous waste management regulations – technical</p>	<p>310 CMR 30.602 310 CMR 30.640 310 CMR 30.580</p>	<p>Requirements for design, operation, and closure of waste piles used to store hazardous waste.</p>	<p>Same as above.</p>	<p>If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas</p>

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Table F-2.c: Alternative FP 2 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
requirements for storage of hazardous waste				would meet these requirements except as follows: (a) It may not be practical for some areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); this would require investigation during design. (b) While these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have such systems capable of preventing flow onto those areas or controlling runoff during a 100-year flood (see 30.641(2 & (3)). To the extent that these requirements are considered applicable and could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.
	310 CMR 30.660	Groundwater protection requirements for waste piles outside structures, including monitoring system requirements; groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.	Same as above.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for short-term temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable.

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Table F-2.c: Alternative FP 2 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts air pollution control regulations	310 CMR 7.09	Prohibits person engaged in dust-generating activities from creating condition of air pollution, defined as air concentrations that would cause a nuisance, be injurious or potentially injurious to human or animal life, vegetation, or property, or unreasonably interfere with comfortable enjoyment of life and property or conduct of business.	Applicable to excavation and construction activities generating dust.	Would be attained through use of dust control measures during activities that could generate dust and through particulate and PCB air monitoring during excavation activities and during construction and operation of the staging areas, along with response actions if certain action levels are exceeded. These measures would be specified in design.
Guidances To Be Considered				
TSCA PCB Spill Cleanup Policy	40 CFR Part 761, Subpart G	Policy used to determine adequacy of cleanup of spills resulting from the release of materials containing PCBs at concentration of 50 ppm or greater.	To be considered.	Would be considered in the event of any new PCB spill that occurs during implementation of FP 2.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups</i> (EPA, 1995)	Memorandum from EPA Office of Solid Waste and Emergency Response, March 13, 1995	Describes EPA policy on use of Area of Contamination (AOC) approach under RCRA. Explains that an overall area that includes discrete areas of generally dispersed contamination may be considered an AOC, within which the movement of waste is not considered "placement," such that the RCRA land disposal restrictions and other RCRA requirements, including minimum technology requirements, would not be triggered.	To be considered.	Under this policy, even if excavated soils should constitute RCRA hazardous waste, the technical RCRA requirements for a hazardous waste storage facility would not apply to temporary staging areas located within the boundary of the Rest of River area, because those areas would be within the overall area of dispersed contamination.

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Table F-3.a: Alternative FP 3 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal and State ARARs				
None				
Guidances To Be Considered				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
Reference Doses	EPA's IRIS http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)	EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)	Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting floodplain remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting floodplain remedy for Rest of River.

Table F-3.a: Alternative FP 3 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting floodplain remedy for Rest of River.
Massachusetts consumption advisory for frogs and turtles	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Fish consumption advisory also advises that the public should not consume any frogs and turtles from the Housatonic River from Dalton to Sheffield due to PCBs.	To be considered.	FP 3 includes continuation and maintenance of this advisory, including appropriate steps to inform the public about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	FP 3 includes continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table F-3.b: Alternative FP 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
<p>Clean Water Act – Section 404 and implementing regulations issued by U.S. Army Corps of Engineers (ACOE) and by EPA</p>	<p>33 USC 1344 33 CFR Parts 320-323 (ACOE) 40 CFR Part 230 (EPA)</p>	<p>For discharge of dredge or fill material: (a) there must be no practical alternative with less adverse impact on aquatic ecosystem; (b) discharge cannot cause or contribute to violation of state water quality standard or toxic effluent standard; (c) discharge cannot jeopardize the existence of any threatened or endangered (T&E) species; (d) discharge cannot cause or contribute to significant degradation of waters of the U.S., including significant adverse effects on human health or welfare, aquatic life, aquatic ecosystem, or recreational, aesthetic, and economic values; and (e) discharger must take appropriate and practicable steps to minimize or mitigate potential adverse effects on aquatic ecosystem.</p>	<p>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S.</p>	<p>(a) There are practical alternatives with less adverse impact on wetlands – e.g., FP 2. Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) FP 3 would not be expected to cause or contribute to violation of state water quality or toxic effluent standards.</p> <p>(c) Review of available information indicates that FP 3 would not affect any federally listed T&E species.</p> <p>(d) FP 3 would cause significant adverse effects on wetlands, as described in CMS Report (Sections 6.3.5.3 and 6.3.8) and this Interim Response (Response to General Comment 10). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>(e) FP 3 would include appropriate and practicable steps in an effort to minimize or mitigate potential adverse effects on wetlands. Despite such steps, however, FP 3 would have substantial adverse effects on wetlands, as noted above and discussed in response to General Comment 10.</p>

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Table F-3.b: Alternative FP 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	<p>33 CFR Part 332 (ACOE)</p> <p>40 CFR Part 203, Subpart J (EPA)</p>	<p>Compensatory mitigation regulations: If project will have unavoidable adverse impacts after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation – i.e., the restoration, creation, enhancement, or (in some circumstances) preservation of aquatic resources. This requires a mitigation work plan, including detailed specifications and descriptions for compensatory mitigation. The regulations also require objective performance standards, monitoring for at least 5 years, and active long-term management and maintenance where necessary to ensure long-term sustainability.</p>	<p>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S.</p>	<p>For areas where FP 3 would have unavoidable adverse impacts on wetlands, a compensatory mitigation plan would be necessary to address those impacts. Despite such plan, however, substantial adverse impacts will remain. See Response to General Comment 10. See also Responses to General Comment 29 and Specific Comment 106.</p>
<p>Executive Order for Wetlands Protection</p>	<p>Exec. Order 11990 (1977)</p> <p>40 CFR 6.302(a)</p> <p>40 CFR Part 6, App. A</p>	<p>A federal agency must avoid construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.</p>	<p>Applicable to EPA; relevant and appropriate to work in wetlands.</p>	<p>FP 3 would involve considerable remediation in wetlands. While there may be no practical alternative (other than no action) to some work in wetlands, there are practical alternatives with less adverse impact on wetlands – e.g., FP 2. Hence, the requirement that there be no such alternative would not be met.</p> <p>FP 3 would include practicable measures to minimize harm to wetlands, including avoiding siting access roads and staging areas in wetlands where practicable, use of erosion and sedimentation control measures, and reasonable restoration measures for affected wetlands. However, restoration measures would not prevent substantial harm to wetlands, as discussed in Response to General Comment 10.</p>

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Table F-3.b: Alternative FP 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Executive Order for Floodplain Management	Exec. Order 11988 (1977) 40 CFR 6.302(b) 40 CFR Part 6, App. A	A federal agency proposing action in a floodplain must consider alternatives to avoid adverse effects on the floodplain, and if there is no practicable alternative, must design or modify the action to minimize harm to or within the floodplain.	Applicable to EPA; relevant and appropriate to work in floodplains.	<p>FP 3 would involve excavation of soils and construction of access roads and staging areas in the floodplain. While there may be no practical alternative (other than no action) that would avoid any effect on the floodplain, there are practical alternatives with fewer adverse effects on the floodplain – e.g., FP 2. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>FP 3 would include practicable measures to minimize harm to the floodplain, including erosion and sedimentation control measures, reasonable restoration measures for affected portions of the floodplain, and maintenance of existing flood storage capacity of the floodplain. However, restoration measures would not prevent substantial harm to the floodplain, as discussed in Response to General Comment 10.</p>
Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains	40 CFR 264.1(j)(7) 40 CFR 264.18(b)	A hazardous waste treatment, storage, or disposal facility used for remediation waste and located in the 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of such waste by a 100-year flood unless owner/operator shows that procedures are in effect to remove waste safely before flood waters can reach facility.	These requirements would not be expected to apply to any temporary staging areas because excavated soils are not expected to constitute RCRA hazardous waste. Further, even if some soils did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas within 100-year floodplain to which AOC policy does not apply (if any), these requirements would be met. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.

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Table F-3.b: Alternative FP 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			<p>However, if some soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.</p>	
National Historic Preservation Act and regulations	16 USC 470f 36 CFR Part 800	<p>A federal agency proposing to fund or authorize a project must take into account the project's effect on properties (including a site, building, structure, or object) included or eligible for inclusion in the National Register of Historic Places (NRHP). This requires: (a) consultation with the State and/or Tribal Historic Preservation Offices; (b) identification of the project's "area of potential effects"; (c) identification of any listed or eligible historic property within that area that could be affected by the project; (d) if there is such property, determination of whether the project would have an adverse impact on the property; (e) if so, evaluation of alternatives to avoid, minimize, or mitigate the adverse impacts; and (f) agreement on such measures or, failing agreement, implementation of such measures identified by the authorizing agency.</p>	<p>Applicable to EPA; relevant and appropriate to federally authorized work in areas where property(ies) listed or eligible for inclusion on NRHP may be present.</p>	<p>Would be attained through process described in Section 6 of GE's <i>Initial Phase IA Cultural Resources Assessment for the Housatonic River – Rest of River Project</i> (Phase IA CRA: URS Corporation, March 13, 2008).</p>

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Table F-3.b: Alternative FP 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Archaeological and Historic Preservation Act	16 USC 469	When a federal agency finds or is notified that a federal or federally authorized project may cause the loss or destruction of archaeological or historic data, it must notify Department of Interior (DOI). If DOI determines that the data are significant and may be irrevocably lost or destroyed, it is to conduct a survey and other investigation of the affected area and recover and preserve such data as necessary in the public interest.	Applicable to EPA; relevant and appropriate to federally authorized work in areas where archaeological or historic data may be present.	Identification of archaeological or historic data potentially affected by FP 3 would be made through process identified in Phase IA CRA. If such data are identified that could be irrevocably lost or destroyed by implementation of FP 3, it is anticipated that EPA would notify DOI as required.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act) Note: These regulations are also listed as action-specific ARARs for FP 3	314 CMR 9.01 - 9.08	For discharge of dredged or fill material: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on bordering or isolated vegetated wetlands, including 1:1 restoration or replication of such wetlands (unless waived); (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under the Wetlands Protection Act or would be to certain designated "Outstanding Resource Waters," including certified vernal pools, unless a variance is obtained; (d) stormwater discharges must be controlled with best management practices (BMPs); and (e) there must be no substantial adverse impacts to physical, chemical, or biological integrity of surface waters.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.	(a) FP 3 would involve considerable remediation in wetlands. As noted above, there are practical alternatives with less adverse impact on wetlands. Hence, the requirement that there be no such alternative would not be met. (b) FP 3 would include appropriate and practicable steps in an effort to avoid, minimize, or mitigate potential adverse effects on wetlands, but such steps would not prevent substantial harm to these resource areas (see Response to General Comment 10). (c) FP 3 would adversely affect estimated rare wildlife species habitat, because almost all excavation and supporting activities would occur within such habitat (see Figure F-3). Thus, the prohibition on actions with such effects would need to be waived as technically impracticable to meet. Based on current information, FP 3 would not involve discharges of dredged or fill material to Outstanding Resource Waters (including certified vernal pools). (d) Stormwater discharges would be

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Table F-3.b: Alternative FP 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				<p>controlled through BMPs.</p> <p>(e) FP 3 would not be expected to cause substantial long-term adverse impacts to the integrity of river water.</p>
<p>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 310 CMR 10.59</p>	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less damaging to resource areas; and (b) avoid or minimize impacts to resource areas, including, to the maximum extent practicable, minimizing hydrological changes, using BMPs during construction (including prevention of erosion/siltation); implementing mitigating measures, providing compensatory storage for lost flood storage capacity, avoiding flow restrictions that would increase flood stage or velocity, substantially restoring disturbed vegetation, and working in resource areas only when the ground is sufficiently stable to support the equipment.</p> <p>For actions that do not qualify as a “limited project,” the requirements of 310 CMR 10.54 – 10.58 would apply.</p> <p>In either case, under 310 CMR 10.59, the action must have no adverse effect on estimated habitat of rare wildlife species.</p> <p>(Note that for areas within 100 feet of stream/pond banks or wetlands (buffer zone) or within 200 feet from river’s edge (riverfront areas), minor activities such as sampling and monitoring are exempt from these requirements. See 310 CMR 10.02(2)(b)1.g.)</p>	<p>Applicable to FP 3 response actions that take place in or within 100 feet (buffer zone) of stream/pond banks or wetlands (buffer zone) or are within floodplains or riverfront areas (extending 200 feet from river’s edge) and that will alter any such resource areas.</p>	<p>Since FP 3 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> ▪ As noted above, there are practical alternatives that would be less damaging to resource areas. Thus, the requirement that there be no such practicable alternative would not be met and would need to be waived. ▪ FP 3 would include practicable measures to minimize impacts to resource areas, including control of stormwater discharges during construction through BMPs, implementation of mitigation measures where necessary, and restoration of disturbed vegetation as required. However, as discussed in CMS Report (Sections 6.3.5.3 and 6.3.8) and this Interim Response (Response to General Comment 10), these measures would not prevent adverse impacts on resource areas. FP 3 is not anticipated to have any significant effect on flood storage capacity of floodplain. ▪ FP 3 would affect adversely estimated rare wildlife species habitat, because almost all excavation and supporting activities would occur within such habitat (see Figure F-3). Thus, the prohibition on projects with an adverse effect on such habitat would need to be waived as technically impracticable to meet. <p>In the event that FP 3 was considered not to constitute a “limited project,” it would not meet</p>

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Table F-3.b: Alternative FP 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				<p>some of the requirements of 310 CMR 10.54 – 10.58 – e.g., prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands or impairs such wetlands within an ACEC (if designated) (10.55(4)), prohibition on projects with an adverse effect on rare wildlife species habitat (as noted above). Such requirements would thus need to be waived as technically impracticable.</p>
<p>Massachusetts standards for hazardous waste management facilities in floodplains</p>	<p>310 CMR 30.701</p>	<p>Location standards for hazardous waste management facilities in floodplains, including requirements that: (a) no active portion of a waste pile may be constructed within 500-year floodplain; and (b) tanks, containers, and similar units that are used to store hazardous waste, do not receive waste from off-site sources, and are located within the 100-year floodplain must be floodproofed to prevent floodwaters from contacting the hazardous waste.</p>	<p>These requirements would not be expected to apply to temporary staging areas because excavated soils are not expected to constitute state hazardous waste subject to these standards (see Table F-2.c). However, if some excavated soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.</p>	<p>If excavated soils do not constitute state hazardous waste subject to these regulations, these requirements would not apply. However, if some excavated soils were found to constitute such hazardous waste, it may not be feasible for some temporary staging areas for such waste to meet the requirement that waste piles be located outside 500-year floodplain, since, in some areas, this would drive the staging areas too far from the river to be practical. In such cases, that requirement should be waived as technically impracticable to attain.</p>

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Table F-3.b: Alternative FP 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts Historical Commission Act and regulations	MGL c. 9, § 27C 950 CMR 71.07	A state body proposing to fund or authorize a project must notify the Massachusetts Historical Commission (MHC) (or the project proponent may notify MHC) if the project has an area of potential impact on a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on such a property, the state body, project proponent, and MHC must consider "prudent and feasible alternatives" that could eliminate, minimize, or mitigate the adverse effects. If there are, such alternatives will be specified in an agreement among those parties; and if there is no agreement, project cannot proceed until state body or project proponent responds to the MHC.	Applicable to State; relevant and appropriate to State-authorized work in areas where the work would have an area of potential impact on property(ies) listed in State Register.	Extent to which FP 3 would have potential impact on property(ies) listed in the State Register would be determined through the process identified in Phase IA CRA. If it would have such a potential impact, MHC would be notified and substantive provisions of these regulations would be met.
	MGL c. 9, § 27C	Any person supervising any survey, excavation, or construction on state or local government lands must report to the state archaeologist any archaeological, paleontological, or historical site or object discovered, and must take all reasonable steps to secure its preservation.	Applicable to excavations or construction on state or local government lands in MA.	If any archaeological, paleontological, or historical site or object is discovered during clearing or excavation activities on state or local government land, this requirement for notification and preservation would be met.

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Table F-3.c: Alternative FP 3 – Potential Action-Specific ARARs

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Toxic Substances Control Act (TSCA) regulations on cleanup of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61	General requirements (761.50) and specific options (761.61) for cleanup of PCB Remediation Waste, including PCB-containing soils. Options include self-implementing provisions 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.	Applicable to cleanup of PCB Remediation Waste (which includes floodplain soils with PCBs > 50 ppm).	It is anticipated that, if FP 3 is selected, these requirements would be met through an EPA determination that FP 3 meets requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on storage of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.65 40 CFR 761.61(c)	General and specific requirements for storage of PCB Remediation Waste. Regulations include specific provisions for storage of PCB Remediation waste in piles at the cleanup site or site of generation for up to 180 days (761.65(c)(9)). They also allows for risk-based approval by EPA of alternate storage method (761.61(c)), based on demonstration that it will not pose an unreasonable risk of injury to health or the environment.	Applicable to temporary storage of PCB Remediation Waste.	Temporary staging areas would meet the default conditions in 761.65(c)(9) with the following exception: While these areas would contain run-on control systems capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (although they would include appropriate flood control measures). For those temporary staging areas that would not meet this condition, the TSCA requirements could be met through an EPA determination that those staging areas meet requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on discharges of PCB-containing water	40 CFR 761.50(a)(3)	Prohibits discharge of water containing PCBs to navigable waters unless PCB concentration is < 3 µg/L or discharge is in accordance with NPDES discharge limits.	Applicable to discharges of treated water from dewatering/treatment facility to Housatonic River.	If floodplain soils are saturated, they would be dewatered, and resulting water would be treated. Water treatment facilities would be designed to meet this requirement.

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Table F-3.c: Alternative FP 3 – Potential Action-Specific ARARs

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
TSCA regulations on decontamination	40 CFR 761.79	Establishes decontamination standards and procedures for removing PCBs from water, organic liquids, and various types of surfaces.	Applicable to decontamination of equipment used in excavation or other handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act and NPDES regulations	33 USC 1342 40 CFR 122, including, but not limited to, 122.3(d) and 122.44(a) & (e) 40 CFR 125.1 - 125.3	Point source discharge must meet technology-based effluent limitations (including those based on best available technology for toxic and non-conventional pollutants and those based on best conventional technology for conventional pollutants) and effluent limitations and conditions necessary to meet state water quality standards, except that discharges in compliance with instructions of On-Scene Coordinator (OSC) acting pursuant to NCP are exempt from these requirements.	Applicable to point source discharges of treated water from dewatering/treatment facility to Housatonic River.	If floodplain soils are saturated, they would be dewatered, and resulting water would be treated. Discharges could not feasibly meet MA water quality criteria for PCBs (0.014 and 0.000064 µg/L) in receiving waters, since current water quality conditions in Housatonic River do not meet those criteria. In addition, it is not anticipated that those criteria would be met at the point of discharge. EPA used a standard of 0.5 µg/L for discharges from the treatment facility in the 1½ Mile Reach Removal Action, and the data from discharges in that project were generally in the range of 0.01 to 0.1 µg/L and often > 0.014 µg/L. However, this ARAR could be met through discharges in compliance with instructions from OSC.
Clean Water Act – NPDES regulations (stormwater discharges)	40 CFR 122.26(c)(1)(ii)(C) 40 CFR 122.44(k)	Best management practices (BMPs) must be employed to control pollutants in stormwater discharges during construction activities.	Applicable to stormwater discharges during construction activities, including temporary staging of excavated materials.	Would be attained through use of BMPs to control erosion from stormwater discharges during construction activities, including soil excavation, construction of access roads and temporary staging areas, and temporary staging of excavated soils at those areas.

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Table F-3.c: Alternative FP 3 – Potential Action-Specific ARARs

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Endangered Species Act and regulations	16 USC 1536(a)-(d) 40 CFR 6.302(h) 50 CFR Part 402, Subparts A & B	A federal agency must ensure that any action authorized, funded, or carried out by it is not likely to jeopardize the continued existence of a listed threatened or endangered (T&E) species or result in destruction or adverse modification of critical habitat, unless an exemption is granted. If a listed species or critical habitat may be present in the action area, the key steps include a biological assessment by the authorizing agency; a biological opinion by the resource service; and if the action is likely to adversely affect a listed species or critical habitat, identification of “reasonable and prudent” measures to avoid and/or minimize such effects.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize the continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because review of available information indicates that FP 3 would not adversely affect any federally listed T&E species or their habitat.
Resource Conservation and Recovery Act (RCRA) regulations on identification of hazardous waste	40 CFR Part 261	Establishes criteria and lists for determining whether a waste is a hazardous waste under RCRA. Note that Sec. 261.24 identifies concentrations of contaminants which make waste a hazardous waste due to toxicity, as determined through the Toxicity Characteristic Leaching Procedure (TCLP).	Relevant and appropriate to determining whether excavated soils must be managed as a hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated soils would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of soils subject to removal would be conducted during design to confirm that result.
RCRA regulations for generators of hazardous waste	40 CFR 262.30 - 262.33	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated soils are not expected to constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	If excavated soils do not constitute RCRA hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table F-3.c: Alternative FP 3 – Potential Action-Specific ARARs

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – general requirements	40 CFR 264.1(j)	General requirements for facilities used to manage remediation wastes that constitute hazardous waste (e.g., requirements for waste analysis, security, precautions to prevent accidental ignition or reaction of wastes, preventing washout of units in floodplain by 100-year flood). (These requirements are in lieu of Part 264, Subparts B, C, and D.)	These requirements would not be expected to apply to any temporary staging areas because excavated soils are not expected to constitute RCRA hazardous waste. Further, even if some soils did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be met at the temporary staging areas used for such waste.
RCRA regulations for hazardous waste management facilities – technical requirements for storage of hazardous waste	40 CFR Part 264, Subpart L	Design, operating, closure, and (if necessary) post-closure requirements for storage of hazardous waste in waste piles outside structures.	These requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the waste piles used for temporary staging of such waste would meet these requirements with the following exceptions: (a) While these waste piles would meet the single liner/leachate collection requirements of § 264.251(a), they would not meet the requirements of § 264.251(c) for a double liner/leachate collection system at “new waste pile units” (if applicable); and (b) while these areas would contain a run-on control system capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (see § 264.251(g)). To the extent these requirements, which were developed for permanent hazardous waste storage units, are considered applicable, they are not practical for temporary staging areas and thus should be waived as technically impracticable to attain.

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Table F-3.c: Alternative FP 3 – Potential Action-Specific ARARs

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – groundwater protection	40 CFR Part 264, Subpart F	Groundwater protection requirements for hazardous waste contained in solid waste management units. Includes groundwater protection standards (i.e., maximum contaminant levels) for waste piles outside structures; alternate limits allowed under 40 CFR 264.94(b); and requirements for groundwater monitoring systems.	Same as above	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable to attain.
RCRA land disposal restrictions	40 CFR 268.50	Prohibits storage of hazardous wastes that are prohibited from land disposal under Part 268, Subpart C, with a number of exceptions, including that such waste may be stored solely for the purpose of accumulating such quantities as are necessary to facilitate proper recovery, treatment, or disposal	Same as above except that if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these provisions would apply.	If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these provisions would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would meet the exception to the storage prohibition for the accumulation of such quantities as are necessary to facilitate treatment or disposal.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (Note: Listed as location-specific ARAR in Table F-3.b, but also listed here at	314 CMR 9.01 - 9.08	Same as described for these regulations in Table F-3.b.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.	Same as described for these regulations in Table F-3.b.

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Table F-3.c: Alternative FP 3 – Potential Action-Specific ARARs

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
EPA's direction.)				
Massachusetts Clean Water Act and Wetlands Protection Act – stormwater management standards	310 CMR 10.05(6)(k) 314 CMR 9.06(6)(a)	Projects subject to regulation under the Wetlands Protection Act or that involve discharge of dredged or fill material must be provided with stormwater BMPs to attenuate pollutants in stormwater discharges and provide a setback from receiving waters and wetlands in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during construction activities and at temporary staging areas.	FP 3 would include use of stormwater BMPs during construction of access roads and staging areas and at the excavation areas and temporary staging areas. These BMPs would be designed to meet the MDEP's specified stormwater management standards. These stormwater systems would include ~ 25-foot setbacks from receiving waters and wetlands where practicable, but this would not be feasible in areas where the soil removal would take place within or adjacent to wetlands or where there is no practical alternative to siting the staging areas in or near wetlands. For such cases, the setback requirement would need to be waived as technically impracticable.
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity may not result in a "take" of a State-listed endangered, threatened, or special concern species, except that such a "take" may be allowed if the applicant has adequately addressed alternatives, an insignificant portion of the local population would be impacted, and the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the species. Projects in a designated Priority Habitat for a State-listed species or other area where such a species has occurred must be reviewed in accordance with these requirements.	Applicable to activities in a State-designated Priority Habitat in MA or other areas where information indicates the occurrence of a State-listed species.	Almost all of the excavations and the access roads and temporary staging areas in FP 3 would occur within Priority Habitat, as shown on Figure F-3. Based on the evaluations presented in Appendix B to this Interim Response, these activities and facilities would result in a "take" of at least 19 State-listed species. For about 3 of those species, the take would impact a significant portion of the local population. In these cases, the MESA requirements would need to be waived as technically impracticable to meet. For the species for which the take would not affect a significant portion of the local populations, as also discussed in Appendix B, development of a long-term Net Benefit plan appears feasible for 1 species and not feasible for about 5, and the feasibility of doing so cannot be established for the remainder. For species for which a Net Benefit plan is not feasible, the MESA requirement for such a plan would need to be waived.

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Table F-3.c: Alternative FP 3 – Potential Action-Specific ARARs

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	321 CMR 10.00, Part IV	Projects that will alter a designated Significant Habitat must be reviewed to ensure that they will not reduce the viability of the habitat to sustain an endangered or threatened species.	Would be applicable to activities affecting State-designated Significant Habitat in MA. However, no such habitat has been designated.	Not applicable.
Massachusetts hazardous waste regulations on identification of hazardous waste	310 CMR 30.100	Establishes criteria and lists for determining whether a waste is a hazardous waste under state law. Note that wastes that contain PCBs \geq 50 mg/kg (which are listed wastes) are exempt from the state hazardous waste management regulations so long as they are managed in compliance with EPA's TSCA regulations (40 CFR Part 761) (see 310 CMR 30.501(3)(a)). (Materials that constitute state hazardous wastes on other grounds are referred to in this table as "non-PCB state hazardous waste.")	Applicable to determining whether excavated floodplain soils must be managed as a hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated floodplain soils would constitute hazardous waste under state law on grounds other than containing PCBs \geq 50 mg/kg. However, representative TCLP testing of soils subject to removal would be conducted during design to confirm that result.
Massachusetts hazardous waste regulations for generators	310 CMR 30.321 - 30.324	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some soils did constitute such hazardous waste, these requirements would apply.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table F-3.c: Alternative FP 3 – Potential Action-Specific ARARs

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste management regulations – general requirements	310 CMR 30.513, 30.514, 30.524, 30.560	General requirements for hazardous waste management facilities (for waste analysis, security, emergency prevention and response, and precautions to prevent accidental ignition or reaction of wastes).	These requirements would not be expected to apply to temporary staging areas because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply to staging areas for such waste.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, these requirements would be met at staging areas for such waste.
Massachusetts hazardous waste management regulations – location standards for units used to store hazardous waste (Note: Some of these regulations were also listed as location-specific ARAR in Table F-3.b.)	310 CMR 30.701(6), 30.703(2), 30.704(3), 30.705(3) & (6)	Location standards for waste piles, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in wetlands, (c) within ½ mile of public water supply well, (d) on land overlying an actual, planned, or potential public underground drinking water source, (e) within 1000 feet of a private drinking water well, or (f) without a 200-foot buffer zone to fenceline.	These requirements would not be expected to apply because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply to waste piles for such waste at temporary staging areas.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be feasible to site some such staging areas outside 500-year floodplain, since, in some locations, this would drive the staging areas too far from the removal areas to be practical; (b) while GE would try to avoid siting staging areas in wetlands where practical, this would be not practical in some cases given that the majority of the PSA consists of wetlands; (c) it is unknown whether such sites would overlie a “potential public underground drinking water source” (defined as a groundwater source capable of yielding 100 gpm or more of water and with less than 10,000 mg/L of total dissolved solids); and (d) it is not certain whether some areas could be designed and constructed with a 200-foot buffer zone to

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Table F-3.c: Alternative FP 3 – Potential Action-Specific ARARs

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				fenceline. Any requirements that could not feasibly be met would need to be waived as technically impracticable in order for this alternative to be implemented.
Massachusetts hazardous waste management regulations – technical requirements for storage of hazardous waste	310 CMR 30.602 310 CMR 30.640 310 CMR 30.580	Requirements for design, operation, and closure of waste piles used to store hazardous waste.	Same as above.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except as follows: (a) It may not be practical for some areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); this would require investigation during design. (b) While these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have such systems capable of preventing flow onto those areas or controlling runoff during a 100-year flood (see 30.641(2 & (3)). To the extent that these requirements are considered applicable and could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.
	310 CMR 30.660	Groundwater protection requirements for waste piles outside structures, including monitoring system requirements; groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.	Same as above.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be

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Table F-3.c: Alternative FP 3 – Potential Action-Specific ARARs

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				practicable, and thus this requirement, if applicable, should be waived as technically impracticable.
Massachusetts air pollution control regulations	310 CMR 7.09	Prohibits person engaged in dust-generating activities from creating condition of air pollution, defined as air concentrations that would cause a nuisance, be injurious or potentially injurious to human or animal life, vegetation, or property, or unreasonably interfere with comfortable enjoyment of life and property or conduct of business.	Applicable to excavation and construction activities generating dust.	Would be attained through use of dust control measures during activities that could generate dust and through particulate and PCB air monitoring during excavation activities and during construction and operation of the staging areas, along with response actions if certain action levels are exceeded. These measures would be specified in design.
Guidances To Be Considered				
TSCA PCB Spill Cleanup Policy	40 CFR Part 761, Subpart G	Policy used to determine adequacy of cleanup of spills resulting from the release of materials containing PCBs at concentration of 50 ppm or greater.	To be considered.	Would be considered in the event of any new PCB spill that occurs during implementation of FP 3.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups</i> (EPA, 1995)	Memorandum from EPA Office of Solid Waste and Emergency Response, March 13, 1995	Describes EPA policy on use of Area of Contamination (AOC) approach under RCRA. Explains that an overall area that includes discrete areas of generally dispersed contamination may be considered an AOC, within which the movement of waste is not considered “placement,” such that the RCRA land disposal restrictions and other RCRA requirements, including minimum technology requirements, would not be triggered.	To be considered.	Under this policy, even if excavated soils should constitute RCRA hazardous waste, the technical RCRA requirements for a hazardous waste storage facility would not apply to temporary staging areas located within the boundary of the Rest of River area, because those areas would be within the overall area of dispersed contamination.

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Table F-4.a: Alternative FP 4 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal and State ARARs				
None				
Guidances To Be Considered				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
Reference Doses	EPA's IRIS http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)	EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)	Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting floodplain remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting floodplain remedy for Rest of River.

Table F-4.a: Alternative FP 4 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting floodplain remedy for Rest of River.
Massachusetts consumption advisory for frogs and turtles	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Fish consumption advisory also advises that the public should not consume any frogs and turtles from the Housatonic River from Dalton to Sheffield due to PCBs.	To be considered.	FP 4 includes continuation and maintenance of this advisory, including appropriate steps to inform the public about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	FP 4 includes continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table F-4.b: Alternative FP 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act – Section 404 and implementing regulations issued by U.S. Army Corps of Engineers (ACOE) and by EPA	33 USC 1344 33 CFR Parts 320-323 (ACOE) 40 CFR Part 230 (EPA)	For discharge of dredge or fill material: (a) there must be no practical alternative with less adverse impact on aquatic ecosystem; (b) discharge cannot cause or contribute to violation of state water quality standard or toxic effluent standard; (c) discharge cannot jeopardize the existence of any threatened or endangered (T&E) species; (d) discharge cannot cause or contribute to significant degradation of waters of the U.S., including significant adverse effects on human health or welfare, aquatic life, aquatic ecosystem, or recreational, aesthetic, and economic values; and (e) discharger must take appropriate and practicable steps to minimize or mitigate potential adverse effects on aquatic ecosystem.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S.	<p>(a) There are practical alternatives with less adverse impact on wetlands – e.g., FP 2. Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) FP 4 would not be expected to cause or contribute to violation of state water quality or toxic effluent standards.</p> <p>(c) Review of available information indicates that FP 4 would not affect any federally listed T&E species.</p> <p>(d) FP 4 would cause significant adverse effects on wetlands, as described in CMS Report (Sections 6.4.5.3 and 6.4.8) and this Interim Response (Response to General Comment 10). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>(e) FP 4 would include appropriate and practicable steps in an effort to minimize or mitigate potential adverse effects on wetlands. Despite such steps, however, FP 4 would have substantial adverse effects on wetlands, as noted above and discussed in response to General Comment 10.</p>

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Table F-4.b: Alternative FP 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	<p>33 CFR Part 332 (ACOE)</p> <p>40 CFR Part 203, Subpart J (EPA)</p>	<p>Compensatory mitigation regulations: If project will have unavoidable adverse impacts after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation – i.e., the restoration, creation, enhancement, or (in some circumstances) preservation of aquatic resources. This requires a mitigation work plan, including detailed specifications and descriptions for compensatory mitigation. The regulations also require objective performance standards, monitoring for at least 5 years, and active long-term management and maintenance where necessary to ensure long-term sustainability.</p>	<p>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S.</p>	<p>For areas where FP 4 would have unavoidable adverse impacts on wetlands, a compensatory mitigation plan would be necessary to address those impacts. Despite such plan, however, substantial adverse impacts will remain. See Response to General Comment 10. See also Responses to General Comment 29 and Specific Comment 106.</p>
<p>Executive Order for Wetlands Protection</p>	<p>Exec. Order 11990 (1977)</p> <p>40 CFR 6.302(a)</p> <p>40 CFR Part 6, App. A</p>	<p>A federal agency must avoid construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.</p>	<p>Applicable to EPA; relevant and appropriate to work in wetlands.</p>	<p>FP 4 would involve considerable remediation in wetlands. While there may be no practical alternative (other than no action) to some work in wetlands, there are practical alternatives with less adverse impact on wetlands – e.g., FP 2. Hence, the requirement that there be no such alternative would not be met.</p> <p>FP 4 would include practicable measures to minimize harm to wetlands, including avoiding siting access roads and staging areas in wetlands where practicable, use of erosion and sedimentation control measures, and reasonable restoration measures for affected wetlands. However, restoration measures would not prevent substantial harm to wetlands, as discussed in Response to General Comment 10.</p>

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Table F-4.b: Alternative FP 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Executive Order for Floodplain Management	Exec. Order 11988 (1977) 40 CFR 6.302(b) 40 CFR Part 6, App. A	A federal agency proposing action in a floodplain must consider alternatives to avoid adverse effects on the floodplain, and if there is no practicable alternative, must design or modify the action to minimize harm to or within the floodplain.	Applicable to EPA; relevant and appropriate to work in floodplains.	<p>FP 4 would involve excavation of soils and construction of access roads and staging areas in the floodplain. While there may be no practical alternative (other than no action) that would avoid any effect on the floodplain, there are practical alternatives with fewer adverse effects on the floodplain – e.g., FP 2. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>FP 4 would include practicable measures to minimize harm to the floodplain, including erosion and sedimentation control measures, reasonable restoration measures for affected portions of the floodplain, and maintenance of existing flood storage capacity of the floodplain. However, restoration measures would not prevent substantial harm to the floodplain, as discussed in Response to General Comment 10.</p>
Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains	40 CFR 264.1(j)(7) 40 CFR 264.18(b)	A hazardous waste treatment, storage, or disposal facility used for remediation waste and located in the 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of such waste by a 100-year flood unless owner/operator shows that procedures are in effect to remove waste safely before flood waters can reach facility.	These requirements would not be expected to apply to any temporary staging areas because excavated soils are not expected to constitute RCRA hazardous waste. Further, even if some soils did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas within 100-year floodplain to which AOC policy does not apply (if any), these requirements would be met. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.

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Table F-4.b: Alternative FP 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			<p>However, if some soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.</p>	
<p>National Historic Preservation Act and regulations</p>	<p>16 USC 470f 36 CFR Part 800</p>	<p>A federal agency proposing to fund or authorize a project must take into account the project's effect on properties (including a site, building, structure, or object) included or eligible for inclusion in the National Register of Historic Places (NRHP). This requires: (a) consultation with the State and/or Tribal Historic Preservation Offices; (b) identification of the project's "area of potential effects"; (c) identification of any listed or eligible historic property within that area that could be affected by the project; (d) if there is such property, determination of whether the project would have an adverse impact on the property; (e) if so, evaluation of alternatives to avoid, minimize, or mitigate the adverse impacts; and (f) agreement on such measures or, failing agreement, implementation of such measures identified by the authorizing agency.</p>	<p>Applicable to EPA; relevant and appropriate to federally authorized work in areas where property(ies) listed or eligible for inclusion on NRHP may be present.</p>	<p>Would be attained through process described in Section 6 of GE's <i>Initial Phase IA Cultural Resources Assessment for the Housatonic River – Rest of River Project</i> (Phase IA CRA: URS Corporation, March 13, 2008).</p>

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Table F-4.b: Alternative FP 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Archaeological and Historic Preservation Act	16 USC 469	When a federal agency finds or is notified that a federal or federally authorized project may cause the loss or destruction of archaeological or historic data, it must notify Department of Interior (DOI). If DOI determines that the data are significant and may be irrevocably lost or destroyed, it is to conduct a survey and other investigation of the affected area and recover and preserve such data as necessary in the public interest.	Applicable to EPA; relevant and appropriate to federally authorized work in areas where archaeological or historic data may be present.	Identification of archaeological or historic data potentially affected by FP 4 would be made through process identified in Phase IA CRA. If such data are identified that could be irrevocably lost or destroyed by implementation of FP 4, it is anticipated that EPA would notify DOI as required.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act) Note: These regulations are also listed as action-specific ARARs for FP 3	314 CMR 9.01 - 9.08	For discharge of dredged or fill material: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on bordering or isolated vegetated wetlands, including 1:1 restoration or replication of such wetlands (unless waived); (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under the Wetlands Protection Act or would be to certain designated "Outstanding Resource Waters," including certified vernal pools, unless a variance is obtained; (d) stormwater discharges must be controlled with best management practices (BMPs); and (e) there must be no substantial adverse impacts to physical, chemical, or biological integrity of surface waters.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.	(a) FP 4 would involve considerable remediation in wetlands. As noted above, there are practical alternatives with less adverse impact on wetlands. Hence, the requirement that there be no such alternative would not be met. (b) FP 4 would include appropriate and practicable steps in an effort to avoid, minimize, or mitigate potential adverse effects on wetlands, but such steps would not prevent substantial harm to these resource areas (see Response to General Comment 10). (c) FP 4 would adversely affect estimated rare wildlife species habitat, because almost all excavation and supporting activities would occur within such habitat (see Figure F-4). Thus, the prohibition on actions with such effects would need to be waived as technically impracticable to meet. Based on current information, FP 4 would not involve discharges of dredged or fill material to Outstanding Resource Waters (including certified vernal pools). (d) Stormwater discharges would be

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Table F-4.b: Alternative FP 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				<p>controlled through BMPs.</p> <p>(e) FP 4 would not be expected to cause substantial long-term adverse impacts to the integrity of river water.</p>
<p>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 310 CMR 10.59</p>	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less damaging to resource areas; and (b) avoid or minimize impacts to resource areas, including, to the maximum extent practicable, minimizing hydrological changes, using BMPs during construction (including prevention of erosion/siltation); implementing mitigating measures, providing compensatory storage for lost flood storage capacity, avoiding flow restrictions that would increase flood stage or velocity, substantially restoring disturbed vegetation, and working in resource areas only when the ground is sufficiently stable to support the equipment.</p> <p>For actions that do not qualify as a “limited project,” the requirements of 310 CMR 10.54 – 10.58 would apply.</p> <p>In either case, under 310 CMR 10.59, the action must have no adverse effect on estimated habitat of rare wildlife species.</p> <p>(Note that for areas within 100 feet of stream/pond banks or wetlands (buffer zone) or within 200 feet from river’s edge (riverfront areas), minor activities such as sampling and monitoring are exempt from these requirements. See 310 CMR 10.02(2)(b)1.g.)</p>	<p>Applicable to FP 4 response actions that take place in or within 100 feet (buffer zone) of stream/pond banks or wetlands (buffer zone) or are within floodplains or riverfront areas (extending 200 feet from river’s edge) and that will alter any such resource areas.</p>	<p>Since FP 4 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> ▪ As noted above, there are practical alternatives that would be less damaging to resource areas. Thus, the requirement that there be no such practicable alternative would not be met and would need to be waived. ▪ FP 4 would include practicable measures to minimize impacts to resource areas, including control of stormwater discharges during construction through BMPs, implementation of mitigation measures where necessary, and restoration of disturbed vegetation as required. However, as discussed in CMS Report (Sections 6.4.5.3 and 6.4.8) and this Interim Response (Response to General Comment 10), these measures would not prevent adverse impacts on resource areas. FP 4 is not anticipated to have any significant effect on flood storage capacity of floodplain. ▪ FP 4 would affect adversely estimated rare wildlife species habitat, because almost all excavation and supporting activities would occur within such habitat (see Figure F-4). Thus, the prohibition on projects with an adverse effect on such habitat would need to be waived as technically impracticable to meet. <p>In the event that FP 4 was considered not to constitute a “limited project,” it would not meet</p>

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Table F-4.b: Alternative FP 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				<p>some of the requirements of 310 CMR 10.54 – 10.58 – e.g., prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands or impairs such wetlands within an ACEC (if designated) (10.55(4)), prohibition on projects with an adverse effect on rare wildlife species habitat (as noted above). Such requirements would thus need to be waived as technically impracticable.</p>
<p>Massachusetts standards for hazardous waste management facilities in floodplains</p>	<p>310 CMR 30.701</p>	<p>Location standards for hazardous waste management facilities in floodplains, including requirements that: (a) no active portion of a waste pile may be constructed within 500-year floodplain; and (b) tanks, containers, and similar units that are used to store hazardous waste, do not receive waste from off-site sources, and are located within the 100-year floodplain must be floodproofed to prevent floodwaters from contacting the hazardous waste.</p>	<p>These requirements would not be expected to apply to temporary staging areas because excavated soils are not expected to constitute state hazardous waste subject to these standards (see Table F-2.c). However, if some excavated soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.</p>	<p>If excavated soils do not constitute state hazardous waste subject to these regulations, these requirements would not apply. However, if some excavated soils were found to constitute such hazardous waste, it may not be feasible for some temporary staging areas for such waste to meet the requirement that waste piles be located outside 500-year floodplain, since, in some areas, this would drive the staging areas too far from the river to be practical. In such cases, that requirement should be waived as technically impracticable to attain.</p>

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Table F-4.b: Alternative FP 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Massachusetts Historical Commission Act and regulations	MGL c. 9, § 27C 950 CMR 71.07	A state body proposing to fund or authorize a project must notify the Massachusetts Historical Commission (MHC) (or the project proponent may notify MHC) if the project has an area of potential impact on a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on such a property, the state body, project proponent, and MHC must consider "prudent and feasible alternatives" that could eliminate, minimize, or mitigate the adverse effects. If there are, such alternatives will be specified in an agreement among those parties; and if there is no agreement, project cannot proceed until state body or project proponent responds to the MHC.	Applicable to State; relevant and appropriate to State-authorized work in areas where the work would have an area of potential impact on property(ies) listed in State Register.	Extent to which FP 4 would have potential impact on property(ies) listed in the State Register would be determined through the process identified in Phase IA CRA. If it would have such a potential impact, MHC would be notified and substantive provisions of these regulations would be met.
	MGL c. 9, § 27C	Any person supervising any survey, excavation, or construction on state or local government lands must report to the state archaeologist any archaeological, paleontological, or historical site or object discovered, and must take all reasonable steps to secure its preservation.	Applicable to excavations or construction on state or local government lands in MA.	If any archaeological, paleontological, or historical site or object is discovered during clearing or excavation activities on state or local government land, this requirement for notification and preservation would be met.

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Table F-4.c: Alternative FP 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
Toxic Substances Control Act (TSCA) regulations on cleanup of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61	General requirements (761.50) and specific options (761.61) for cleanup of PCB Remediation Waste, including PCB-containing soils. Options include self-implementing provisions 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.	Applicable to cleanup of PCB Remediation Waste (which includes floodplain soils with PCBs > 50 ppm).	It is anticipated that, if FP 4 is selected, these requirements would be met through an EPA determination that FP 4 meets requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on storage of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.65 40 CFR 761.61(c)	General and specific requirements for storage of PCB Remediation Waste. Regulations include specific provisions for storage of PCB Remediation waste in piles at the cleanup site or site of generation for up to 180 days (761.65(c)(9)). They also allows for risk-based approval by EPA of alternate storage method (761.61(c)), based on demonstration that it will not pose an unreasonable risk of injury to health or the environment.	Applicable to temporary storage of PCB Remediation Waste.	Temporary staging areas would meet the default conditions in 761.65(c)(9) with the following exception: While these areas would contain run-on control systems capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (although they would include appropriate flood control measures). For those temporary staging areas that would not meet this condition, the TSCA requirements could be met through an EPA determination that those staging areas meet requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on discharges of PCB-containing water	40 CFR 761.50(a)(3)	Prohibits discharge of water containing PCBs to navigable waters unless PCB concentration is < 3 µg/L or discharge is in accordance with NPDES discharge limits.	Applicable to discharges of treated water from dewatering/treatment facility to Housatonic River.	If floodplain soils are saturated, they would be dewatered, and resulting water would be treated. Water treatment facilities would be designed to meet this requirement.

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Table F-4.c: Alternative FP 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
TSCA regulations on decontamination	40 CFR 761.79	Establishes decontamination standards and procedures for removing PCBs from water, organic liquids, and various types of surfaces.	Applicable to decontamination of equipment used in excavation or other handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act and NPDES regulations	33 USC 1342 40 CFR 122, including, but not limited to, 122.3(d) and 122.44(a) & (e) 40 CFR 125.1 - 125.3	Point source discharge must meet technology-based effluent limitations (including those based on best available technology for toxic and non-conventional pollutants and those based on best conventional technology for conventional pollutants) and effluent limitations and conditions necessary to meet state water quality standards, except that discharges in compliance with instructions of On-Scene Coordinator (OSC) acting pursuant to NCP are exempt from these requirements.	Applicable to point source discharges of treated water from dewatering/treatment facility to Housatonic River.	If floodplain soils are saturated, they would be dewatered, and resulting water would be treated. Discharges could not feasibly meet MA water quality criteria for PCBs (0.014 and 0.000064 µg/L) in receiving waters, since current water quality conditions in Housatonic River do not meet those criteria. In addition, it is not anticipated that those criteria would be met at the point of discharge. EPA used a standard of 0.5 µg/L for discharges from the treatment facility in the 1½ Mile Reach Removal Action, and the data from discharges in that project were generally in the range of 0.01 to 0.1 µg/L and often > 0.014 µg/L. However, this ARAR could be met through discharges in compliance with instructions from OSC.
Clean Water Act – NPDES regulations (stormwater discharges)	40 CFR 122.26(c)(1)(ii)(C) 40 CFR 122.44(k)	Best management practices (BMPs) must be employed to control pollutants in stormwater discharges during construction activities.	Applicable to stormwater discharges during construction activities, including temporary staging of excavated materials.	Would be attained through use of BMPs to control erosion from stormwater discharges during construction activities, including soil excavation, construction of access roads and temporary staging areas, and temporary staging of excavated soils at those areas.

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Table F-4.c: Alternative FP 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Endangered Species Act and regulations	16 USC 1536(a)-(d) 40 CFR 6.302(h) 50 CFR Part 402, Subparts A & B	A federal agency must ensure that any action authorized, funded, or carried out by it is not likely to jeopardize the continued existence of a listed threatened or endangered (T&E) species or result in destruction or adverse modification of critical habitat, unless an exemption is granted. If a listed species or critical habitat may be present in the action area, the key steps include a biological assessment by the authorizing agency; a biological opinion by the resource service; and if the action is likely to adversely affect a listed species or critical habitat, identification of “reasonable and prudent” measures to avoid and/or minimize such effects.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize the continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because review of available information indicates that FP 4 would not adversely affect any federally listed T&E species or their habitat.
Resource Conservation and Recovery Act (RCRA) regulations on identification of hazardous waste	40 CFR Part 261	Establishes criteria and lists for determining whether a waste is a hazardous waste under RCRA. Note that Sec. 261.24 identifies concentrations of contaminants which make waste a hazardous waste due to toxicity, as determined through the Toxicity Characteristic Leaching Procedure (TCLP).	Relevant and appropriate to determining whether excavated soils must be managed as a hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated soils would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of soils subject to removal would be conducted during design to confirm that result.
RCRA regulations for generators of hazardous waste	40 CFR 262.30 - 262.33	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated soils are not expected to constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	If excavated soils do not constitute RCRA hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table F-4.c: Alternative FP 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – general requirements	40 CFR 264.1(j)	General requirements for facilities used to manage remediation wastes that constitute hazardous waste (e.g., requirements for waste analysis, security, precautions to prevent accidental ignition or reaction of wastes, preventing washout of units in floodplain by 100-year flood). (These requirements are in lieu of Part 264, Subparts B, C, and D.)	These requirements would not be expected to apply to any temporary staging areas because excavated soils are not expected to constitute RCRA hazardous waste. Further, even if some soils did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be met at the temporary staging areas used for such waste.
RCRA regulations for hazardous waste management facilities – technical requirements for storage of hazardous waste	40 CFR Part 264, Subpart L	Design, operating, closure, and (if necessary) post-closure requirements for storage of hazardous waste in waste piles outside structures.	These requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the waste piles used for temporary staging of such waste would meet these requirements with the following exceptions: (a) While these waste piles would meet the single liner/leachate collection requirements of § 264.251(a), they would not meet the requirements of § 264.251(c) for a double liner/leachate collection system at “new waste pile units” (if applicable); and (b) while these areas would contain a run-on control system capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (see § 264.251(g)). To the extent these requirements, which were developed for permanent hazardous waste storage units, are considered applicable, they are not practical for temporary staging areas and thus should be waived as technically impracticable to attain.

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Table F-4.c: Alternative FP 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – groundwater protection	40 CFR Part 264, Subpart F	Groundwater protection requirements for hazardous waste contained in solid waste management units. Includes groundwater protection standards (i.e., maximum contaminant levels) for waste piles outside structures; alternate limits allowed under 40 CFR 264.94(b); and requirements for groundwater monitoring systems.	Same as above	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable to attain.
RCRA land disposal restrictions	40 CFR 268.50	Prohibits storage of hazardous wastes that are prohibited from land disposal under Part 268, Subpart C, with a number of exceptions, including that such waste may be stored solely for the purpose of accumulating such quantities as are necessary to facilitate proper recovery, treatment, or disposal	Same as above except that if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these provisions would apply.	If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these provisions would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would meet the exception to the storage prohibition for the accumulation of such quantities as are necessary to facilitate treatment or disposal.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (Note: Listed as location-specific ARAR in Table F-4.b, but also listed here at	314 CMR 9.01 - 9.08	Same as described for these regulations in Table F-4.b.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.	Same as described for these regulations in Table F-4.b.

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Table F-4.c: Alternative FP 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
EPA's direction.)				
Massachusetts Clean Water Act and Wetlands Protection Act – stormwater management standards	310 CMR 10.05(6)(k) 314 CMR 9.06(6)(a)	Projects subject to regulation under the Wetlands Protection Act or that involve discharge of dredged or fill material must be provided with stormwater BMPs to attenuate pollutants in stormwater discharges and provide a setback from receiving waters and wetlands in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during construction activities and at temporary staging areas.	FP 4 would include use of stormwater BMPs during construction of access roads and staging areas and at the excavation areas and temporary staging areas. These BMPs would be designed to meet the MDEP's specified stormwater management standards. These stormwater systems would include ~ 25-foot setbacks from receiving waters and wetlands where practicable, but this would not be feasible in areas where the soil removal would take place within or adjacent to wetlands or where there is no practical alternative to siting the staging areas in or near wetlands. For such cases, the setback requirement would need to be waived as technically impracticable.
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity may not result in a "take" of a State-listed endangered, threatened, or special concern species, except that such a "take" may be allowed if the applicant has adequately addressed alternatives, an insignificant portion of the local population would be impacted, and the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the species. Projects in a designated Priority Habitat for a State-listed species or other area where such a species has occurred must be reviewed in accordance with these requirements.	Applicable to activities in a State-designated Priority Habitat in MA or other areas where information indicates the occurrence of a State-listed species.	Almost all of the excavations and the access roads and temporary staging areas in FP 4 would occur within Priority Habitat, as shown on Figure F-4. Based on the evaluations presented in Appendix B to this Interim Response, these activities and facilities would result in a "take" of at least 19 State-listed species. For a least ~ 4 of those species, the take would impact a significant portion of the local population. In these cases, the MESA requirements would need to be waived as technically impracticable to meet. For the species for which the take would not affect a significant portion of the local population, as also discussed in Appendix B, development of a long-term Net Benefit plan appears feasible for 1 species and not feasible for about 5, and the feasibility of doing so cannot be established for the remainder. For species for which a Net Benefit plan is not feasible, the MESA requirement for such a plan would need to be waived.

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Table F-4.c: Alternative FP 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
	321 CMR 10.00, Part IV	Projects that will alter a designated Significant Habitat must be reviewed to ensure that they will not reduce the viability of the habitat to sustain an endangered or threatened species.	Would be applicable to activities affecting State-designated Significant Habitat in MA. However, no such habitat has been designated.	Not applicable.
Massachusetts hazardous waste regulations on identification of hazardous waste	310 CMR 30.100	Establishes criteria and lists for determining whether a waste is a hazardous waste under state law. Note that wastes that contain PCBs \geq 50 mg/kg (which are listed wastes) are exempt from the state hazardous waste management regulations so long as they are managed in compliance with EPA's TSCA regulations (40 CFR Part 761) (see 310 CMR 30.501(3)(a)). (Materials that constitute state hazardous wastes on other grounds are referred to in this table as "non-PCB state hazardous waste.")	Applicable to determining whether excavated floodplain soils must be managed as a hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated floodplain soils would constitute hazardous waste under state law on grounds other than containing PCBs \geq 50 mg/kg. However, representative TCLP testing of soils subject to removal would be conducted during design to confirm that result.
Massachusetts hazardous waste regulations for generators	310 CMR 30.321 - 30.324	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some soils did constitute such hazardous waste, these requirements would apply.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table F-4.c: Alternative FP 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste management regulations – general requirements	310 CMR 30.513, 30.514, 30.524, 30.560	General requirements for hazardous waste management facilities (for waste analysis, security, emergency prevention and response, and precautions to prevent accidental ignition or reaction of wastes).	These requirements would not be expected to apply to temporary staging areas because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply to staging areas for such waste.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, these requirements would be met at staging areas for such waste.
Massachusetts hazardous waste management regulations – location standards for units used to store hazardous waste (Note: Some of these regulations were also listed as location-specific ARAR in Table F-4.b.)	310 CMR 30.701(6), 30.703(2), 30.704(3), 30.705(3) & (6)	Location standards for waste piles, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in wetlands, (c) within ½ mile of public water supply well, (d) on land overlying an actual, planned, or potential public underground drinking water source, (e) within 1000 feet of a private drinking water well, or (f) without a 200-foot buffer zone to fenceline.	These requirements would not be expected to apply because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply to waste piles for such waste at temporary staging areas.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be feasible to site some such staging areas outside 500-year floodplain, since, in some locations, this would drive the staging areas too far from the removal areas to be practical; (b) while GE would try to avoid siting staging areas in wetlands where practical, this would be not practical in some cases given that the majority of the PSA consists of wetlands; (c) it is unknown whether such sites would overlie a “potential public underground drinking water source” (defined as a groundwater source capable of yielding 100 gpm or more of water and with less than 10,000 mg/L of total dissolved solids); and (d) it is not certain whether some areas could be designed and constructed with a 200-foot buffer zone to

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Table F-4.c: Alternative FP 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				fenceline. Any requirements that could not feasibly be met would need to be waived as technically impracticable in order for this alternative to be implemented.
Massachusetts hazardous waste management regulations – technical requirements for storage of hazardous waste	310 CMR 30.602 310 CMR 30.640 310 CMR 30.580	Requirements for design, operation, and closure of waste piles used to store hazardous waste.	Same as above.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except as follows: (a) It may not be practical for some areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); this would require investigation during design. (b) While these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have such systems capable of preventing flow onto those areas or controlling runoff during a 100-year flood (see 30.641(2 & (3)). To the extent that these requirements are considered applicable and could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.
	310 CMR 30.660	Groundwater protection requirements for waste piles outside structures, including monitoring system requirements; groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.	Same as above.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be

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Table F-4.c: Alternative FP 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				practicable, and thus this requirement, if applicable, should be waived as technically impracticable.
Massachusetts air pollution control regulations	310 CMR 7.09	Prohibits person engaged in dust-generating activities from creating condition of air pollution, defined as air concentrations that would cause a nuisance, be injurious or potentially injurious to human or animal life, vegetation, or property, or unreasonably interfere with comfortable enjoyment of life and property or conduct of business.	Applicable to excavation and construction activities generating dust.	Would be attained through use of dust control measures during activities that could generate dust and through particulate and PCB air monitoring during excavation activities and during construction and operation of the staging areas, along with response actions if certain action levels are exceeded. These measures would be specified in design.
Guidances To Be Considered				
TSCA PCB Spill Cleanup Policy	40 CFR Part 761, Subpart G	Policy used to determine adequacy of cleanup of spills resulting from the release of materials containing PCBs at concentration of 50 ppm or greater.	To be considered.	Would be considered in the event of any new PCB spill that occurs during implementation of FP 4.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups</i> (EPA, 1995)	Memorandum from EPA Office of Solid Waste and Emergency Response, March 13, 1995	Describes EPA policy on use of Area of Contamination (AOC) approach under RCRA. Explains that an overall area that includes discrete areas of generally dispersed contamination may be considered an AOC, within which the movement of waste is not considered "placement," such that the RCRA land disposal restrictions and other RCRA requirements, including minimum technology requirements, would not be triggered.	To be considered.	Under this policy, even if excavated soils should constitute RCRA hazardous waste, the technical RCRA requirements for a hazardous waste storage facility would not apply to temporary staging areas located within the boundary of the Rest of River area, because those areas would be within the overall area of dispersed contamination.

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Table F-5.a: Alternative FP 5 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal and State ARARs				
None				
Guidances To Be Considered				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
Reference Doses	EPA's IRIS http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)	EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)	Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting floodplain remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting floodplain remedy for Rest of River.

Table F-5.a: Alternative FP 5 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting floodplain remedy for Rest of River.
Massachusetts consumption advisory for frogs and turtles	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Fish consumption advisory also advises that the public should not consume any frogs and turtles from the Housatonic River from Dalton to Sheffield due to PCBs.	To be considered.	FP 5 includes continuation and maintenance of this advisory, including appropriate steps to inform the public about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	FP 5 includes continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table F-5.b: Alternative FP 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act – Section 404 and implementing regulations issued by U.S. Army Corps of Engineers (ACOE) and by EPA	33 USC 1344 33 CFR Parts 320-323 (ACOE) 40 CFR Part 230 (EPA)	For discharge of dredge or fill material: (a) there must be no practical alternative with less adverse impact on aquatic ecosystem; (b) discharge cannot cause or contribute to violation of state water quality standard or toxic effluent standard; (c) discharge cannot jeopardize the existence of any threatened or endangered (T&E) species; (d) discharge cannot cause or contribute to significant degradation of waters of the U.S., including significant adverse effects on human health or welfare, aquatic life, aquatic ecosystem, or recreational, aesthetic, and economic values; and (e) discharger must take appropriate and practicable steps to minimize or mitigate potential adverse effects on aquatic ecosystem.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S.	<p>(a) There are practical alternatives with less adverse impact on wetlands – e.g., FP 2. Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) FP 5 would not be expected to cause or contribute to violation of state water quality or toxic effluent standards.</p> <p>(c) Review of available information indicates that FP 5 would not affect any federally listed T&E species.</p> <p>(d) FP 5 would cause significant adverse effects on wetlands, as described in CMS Report (Sections 6.5.5.3 and 6.5.8) and this Interim Response (Response to General Comment 10). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>(e) FP 5 would include appropriate and practicable steps in an effort to minimize or mitigate potential adverse effects on wetlands. Despite such steps, however, FP 5 would have substantial adverse effects on wetlands, as noted above and discussed in Response to General Comment 10.</p>

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Table F-5.b: Alternative FP 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	<p>33 CFR Part 332 (ACOE)</p> <p>40 CFR Part 203, Subpart J (EPA)</p>	<p>Compensatory mitigation regulations: If project will have unavoidable adverse impacts after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation – i.e., the restoration, creation, enhancement, or (in some circumstances) preservation of aquatic resources. This requires a mitigation work plan, including detailed specifications and descriptions for compensatory mitigation. The regulations also require objective performance standards, monitoring for at least 5 years, and active long-term management and maintenance where necessary to ensure long-term sustainability.</p>	<p>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S.</p>	<p>For areas where FP 5 would have unavoidable adverse impacts on wetlands, a compensatory mitigation plan would be necessary to address those impacts. Despite such plan, however, substantial adverse impacts will remain. See Response to General Comment 10. See also Responses to General Comment 29 and Specific Comment 106.</p>
<p>Executive Order for Wetlands Protection</p>	<p>Exec. Order 11990 (1977)</p> <p>40 CFR 6.302(a)</p> <p>40 CFR Part 6, App. A</p>	<p>A federal agency must avoid construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.</p>	<p>Applicable to EPA; relevant and appropriate to work in wetlands.</p>	<p>FP 5 would involve considerable remediation in wetlands. While there may be no practical alternative (other than no action) to some work in wetlands, there are practical alternatives with less adverse impact on wetlands – e.g., FP 2. Hence, the requirement that there be no such alternative would not be met.</p> <p>FP 5 would include practicable measures to minimize harm to wetlands, including avoiding siting access roads and staging areas in wetlands where practicable, use of erosion and sedimentation control measures, and reasonable restoration measures for affected wetlands. However, restoration measures would not prevent substantial harm to wetlands, as discussed in Response to General Comment 10.</p>

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Table F-5.b: Alternative FP 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Executive Order for Floodplain Management	Exec. Order 11988 (1977) 40 CFR 6.302(b) 40 CFR Part 6, App. A	A federal agency proposing action in a floodplain must consider alternatives to avoid adverse effects on the floodplain, and if there is no practicable alternative, must design or modify the action to minimize harm to or within the floodplain.	Applicable to EPA; relevant and appropriate to work in floodplains.	<p>FP 5 would involve excavation of soils and construction of access roads and staging areas in the floodplain. While there may be no practical alternative (other than no action) that would avoid any effect on the floodplain, there are practical alternatives with fewer adverse effects on the floodplain – e.g., FP 2. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>FP 5 would include practicable measures to minimize harm to the floodplain, including erosion and sedimentation control measures, reasonable restoration measures for affected portions of the floodplain, and maintenance of existing flood storage capacity of the floodplain. However, restoration measures would not prevent substantial harm to the floodplain, as discussed in Response to General Comment 10.</p>
Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains	40 CFR 264.1(j)(7) 40 CFR 264.18(b)	A hazardous waste treatment, storage, or disposal facility used for remediation waste and located in the 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of such waste by a 100-year flood unless owner/operator shows that procedures are in effect to remove waste safely before flood waters can reach facility.	These requirements would not be expected to apply to any temporary staging areas because excavated soils are not expected to constitute RCRA hazardous waste. Further, even if some soils did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas within 100-year floodplain to which AOC policy does not apply (if any), these requirements would be met. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.

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Table F-5.b: Alternative FP 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			<p>However, if some soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.</p>	
<p>National Historic Preservation Act and regulations</p>	<p>16 USC 470f 36 CFR Part 800</p>	<p>A federal agency proposing to fund or authorize a project must take into account the project's effect on properties (including a site, building, structure, or object) included or eligible for inclusion in the National Register of Historic Places (NRHP). This requires: (a) consultation with the State and/or Tribal Historic Preservation Offices; (b) identification of the project's "area of potential effects"; (c) identification of any listed or eligible historic property within that area that could be affected by the project; (d) if there is such property, determination of whether the project would have an adverse impact on the property; (e) if so, evaluation of alternatives to avoid, minimize, or mitigate the adverse impacts; and (f) agreement on such measures or, failing agreement, implementation of such measures identified by the authorizing agency.</p>	<p>Applicable to EPA; relevant and appropriate to federally authorized work in areas where property(ies) listed or eligible for inclusion on NRHP may be present.</p>	<p>Would be attained through process described in Section 6 of GE's <i>Initial Phase IA Cultural Resources Assessment for the Housatonic River – Rest of River Project</i> (Phase IA CRA: URS Corporation, March 13, 2008).</p>

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Table F-5.b: Alternative FP 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Archaeological and Historic Preservation Act	16 USC 469	When a federal agency finds or is notified that a federal or federally authorized project may cause the loss or destruction of archaeological or historic data, it must notify Department of Interior (DOI). If DOI determines that the data are significant and may be irrevocably lost or destroyed, it is to conduct a survey and other investigation of the affected area and recover and preserve such data as necessary in the public interest.	Applicable to EPA; relevant and appropriate to federally authorized work in areas where archaeological or historic data may be present.	Identification of archaeological or historic data potentially affected by FP 5 would be made through process identified in Phase IA CRA. If such data are identified that could be irrevocably lost or destroyed by implementation of FP 5, it is anticipated that EPA would notify DOI as required.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act) Note: These regulations are also listed as action-specific ARARs for FP 3	314 CMR 9.01 - 9.08	For discharge of dredged or fill material: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on bordering or isolated vegetated wetlands, including 1:1 restoration or replication of such wetlands (unless waived); (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under the Wetlands Protection Act or would be to certain designated "Outstanding Resource Waters," including certified vernal pools, unless a variance is obtained; (d) stormwater discharges must be controlled with best management practices (BMPs); and (e) there must be no substantial adverse impacts to physical, chemical, or biological integrity of surface waters.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.	(a) FP 5 would involve considerable remediation in wetlands. As noted above, there are practical alternatives with less adverse impact on wetlands. Hence, the requirement that there be no such alternative would not be met. (b) FP 5 would include appropriate and practicable steps in an effort to avoid, minimize, or mitigate potential adverse effects on wetlands, but such steps would not avoid substantial harm to these resource areas (see Response to General Comment 10). (c) FP 5 would adversely affect estimated rare wildlife species habitat, because nearly all excavation and supporting activities would occur within such habitat (see Figure F-5). Thus, the prohibition on actions with such effects would need to be waived as technically impracticable to meet. Based on current information, FP 5 would not involve discharges of dredged or fill material to Outstanding Resource Waters (including certified vernal pools). (d) Stormwater discharges would be

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Table F-5.b: Alternative FP 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				<p>controlled through BMPs.</p> <p>(e) FP 5 would not be expected to cause substantial long-term adverse impacts to the integrity of river water.</p>
<p>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 310 CMR 10.59</p>	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less damaging to resource areas; and (b) avoid or minimize impacts to resource areas, including, to the maximum extent practicable, minimizing hydrological changes, using BMPs during construction (including prevention of erosion/siltation); implementing mitigating measures, providing compensatory storage for lost flood storage capacity, avoiding flow restrictions that would increase flood stage or velocity, substantially restoring disturbed vegetation, and working in resource areas only when the ground is sufficiently stable to support the equipment.</p> <p>For actions that do not qualify as a “limited project,” the requirements of 310 CMR 10.54 – 10.58 would apply.</p> <p>In either case, under 310 CMR 10.59, the action must have no adverse effect on estimated habitat of rare wildlife species.</p> <p>(Note that for areas within 100 feet of stream/pond banks or wetlands (buffer zone) or within 200 feet from river’s edge (riverfront areas), minor activities such as sampling and monitoring are exempt from these requirements. See 310 CMR 10.02(2)(b)1.g.)</p>	<p>Applicable to FP 5 response actions that take place in or within 100 feet (buffer zone) of stream/pond banks or wetlands (buffer zone) or are within floodplains or riverfront areas (extending 200 feet from river’s edge) and that will alter any such resource areas.</p>	<p>Since FP 5 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> ▪ As noted above, there are practical alternatives that would be less damaging to resource areas. Thus, the requirement that there be no such practicable alternative would not be met and would need to be waived. ▪ FP 5 would include practicable measures to minimize impacts to resource areas, including control of stormwater discharges during construction through BMPs, implementation of mitigation measures where necessary, and restoration of disturbed vegetation as required. However, as discussed in CMS Report (Sections 6.5.5.3 and 6.5.8) and this Interim Response (Response to General Comment 10), these measures would not prevent adverse impacts on resource areas. FP 5 is not anticipated to have any significant effect on flood storage capacity of floodplain. ▪ FP 5 would affect adversely estimated rare wildlife species habitat, because nearly all excavation and supporting activities would occur within such habitat (see Figure F-5). Thus, the prohibition on projects with an adverse effect on such habitat would need to be waived as technically impracticable to meet. <p>In the event that FP 5 was considered not to constitute a “limited project,” it would not meet</p>

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Table F-5.b: Alternative FP 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				<p>some of the requirements of 310 CMR 10.54 – 10.58 – e.g., prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands or impairs such wetlands within an ACEC (if designated) (10.55(4)), prohibition on projects with an adverse effect on rare wildlife species habitat (as noted above). Such requirements would thus need to be waived as technically impracticable.</p>
<p>Massachusetts standards for hazardous waste management facilities in floodplains</p>	<p>310 CMR 30.701</p>	<p>Location standards for hazardous waste management facilities in floodplains, including requirements that: (a) no active portion of a waste pile may be constructed within 500-year floodplain; and (b) tanks, containers, and similar units that are used to store hazardous waste, do not receive waste from off-site sources, and are located within the 100-year floodplain must be floodproofed to prevent floodwaters from contacting the hazardous waste.</p>	<p>These requirements would not be expected to apply to temporary staging areas because excavated soils are not expected to constitute state hazardous waste subject to these standards (see Table F-2.c). However, if some excavated soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.</p>	<p>If excavated soils do not constitute state hazardous waste subject to these regulations, these requirements would not apply. However, if some excavated soils were found to constitute such hazardous waste, it may not be feasible for some temporary staging areas for such waste to meet the requirement that waste piles be located outside 500-year floodplain, since, in some areas, this would drive the staging areas too far from the river to be practical. In such cases, that requirement should be waived as technically impracticable to attain.</p>

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Table F-5.b: Alternative FP 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Massachusetts Historical Commission Act and regulations	MGL c. 9, § 27C 950 CMR 71.07	A state body proposing to fund or authorize a project must notify the Massachusetts Historical Commission (MHC) (or the project proponent may notify MHC) if the project has an area of potential impact on a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on such a property, the state body, project proponent, and MHC must consider "prudent and feasible alternatives" that could eliminate, minimize, or mitigate the adverse effects. If there are, such alternatives will be specified in an agreement among those parties; and if there is no agreement, project cannot proceed until state body or project proponent responds to the MHC.	Applicable to State; relevant and appropriate to State-authorized work in areas where the work would have an area of potential impact on property(ies) listed in State Register.	Extent to which FP 5 would have potential impact on property(ies) listed in the State Register would be determined through the process identified in Phase IA CRA. If it would have such a potential impact, MHC would be notified and substantive provisions of these regulations would be met.
	MGL c. 9, § 27C	Any person supervising any survey, excavation, or construction on state or local government lands must report to the state archaeologist any archaeological, paleontological, or historical site or object discovered, and must take all reasonable steps to secure its preservation.	Applicable to excavations or construction on state or local government lands in MA.	If any archaeological, paleontological, or historical site or object is discovered during clearing or excavation activities on state or local government land, this requirement for notification and preservation would be met.

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Table F-5.c: Alternative FP 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Toxic Substances Control Act (TSCA) regulations on cleanup of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61	General requirements (761.50) and specific options (761.61) for cleanup of PCB Remediation Waste, including PCB-containing soils. Options include self-implementing provisions 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.	Applicable to cleanup of PCB Remediation Waste (which includes floodplain soils with PCBs > 50 ppm).	It is anticipated that, if FP 5 is selected, these requirements would be met through an EPA determination that FP 5 meets requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on storage of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.65 40 CFR 761.61(c)	General and specific requirements for storage of PCB Remediation Waste. Regulations include specific provisions for storage of PCB Remediation waste in piles at the cleanup site or site of generation for up to 180 days (761.65(c)(9)). They also allows for risk-based approval by EPA of alternate storage method (761.61(c)), based on demonstration that it will not pose an unreasonable risk of injury to health or the environment.	Applicable to temporary storage of PCB Remediation Waste.	Temporary staging areas would meet the default conditions in 761.65(c)(9) with the following exception: While these areas would contain run-on control systems capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (although they would include appropriate flood control measures). For those temporary staging areas that would not meet this condition, the TSCA requirements could be met through an EPA determination that those staging areas meet requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on discharges of PCB-containing water	40 CFR 761.50(a)(3)	Prohibits discharge of water containing PCBs to navigable waters unless PCB concentration is < 3 µg/L or discharge is in accordance with NPDES discharge limits.	Applicable to discharges of treated water from dewatering/treatment facility to Housatonic River.	If floodplain soils are saturated, they would be dewatered, and resulting water would be treated. Water treatment facilities would be designed to meet this requirement.

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Table F-5.c: Alternative FP 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
TSCA regulations on decontamination	40 CFR 761.79	Establishes decontamination standards and procedures for removing PCBs from water, organic liquids, and various types of surfaces.	Applicable to decontamination of equipment used in excavation or other handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act and NPDES regulations	33 USC 1342 40 CFR 122, including, but not limited to, 122.3(d) and 122.44(a) & (e) 40 CFR 125.1 - 125.3	Point source discharge must meet technology-based effluent limitations (including those based on best available technology for toxic and non-conventional pollutants and those based on best conventional technology for conventional pollutants) and effluent limitations and conditions necessary to meet state water quality standards, except that discharges in compliance with instructions of On-Scene Coordinator (OSC) acting pursuant to NCP are exempt from these requirements.	Applicable to point source discharges of treated water from dewatering/treatment facility to Housatonic River.	If floodplain soils are saturated, they would be dewatered, and resulting water would be treated. Discharges could not feasibly meet MA water quality criteria for PCBs (0.014 and 0.000064 µg/L) in receiving waters, since current water quality conditions in Housatonic River do not meet those criteria. In addition, it is not anticipated that those criteria would be met at the point of discharge. EPA used a standard of 0.5 µg/L for discharges from the treatment facility in the 1½ Mile Reach Removal Action, and the data from discharges in that project were generally in the range of 0.01 to 0.1 µg/L and often > 0.014 µg/L. However, this ARAR could be met through discharges in compliance with instructions from OSC.
Clean Water Act – NPDES regulations (stormwater discharges)	40 CFR 122.26(c)(1)(ii)(C) 40 CFR 122.44(k)	Best management practices (BMPs) must be employed to control pollutants in stormwater discharges during construction activities.	Applicable to stormwater discharges during construction activities, including temporary staging of excavated materials.	Would be attained through use of BMPs to control erosion from stormwater discharges during construction activities, including soil excavation, construction of access roads and temporary staging areas, and temporary staging of excavated soils at those areas.

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Table F-5.c: Alternative FP 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Endangered Species Act and regulations	16 USC 1536(a)-(d) 40 CFR 6.302(h) 50 CFR Part 402, Subparts A & B	A federal agency must ensure that any action authorized, funded, or carried out by it is not likely to jeopardize the continued existence of a listed threatened or endangered (T&E) species or result in destruction or adverse modification of critical habitat, unless an exemption is granted. If a listed species or critical habitat may be present in the action area, the key steps include a biological assessment by the authorizing agency; a biological opinion by the resource service; and if the action is likely to adversely affect a listed species or critical habitat, identification of “reasonable and prudent” measures to avoid and/or minimize such effects.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize the continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because review of available information indicates that FP 5 would not adversely affect any federally listed T&E species or their habitat.
Resource Conservation and Recovery Act (RCRA) regulations on identification of hazardous waste	40 CFR Part 261	Establishes criteria and lists for determining whether a waste is a hazardous waste under RCRA. Note that Sec. 261.24 identifies concentrations of contaminants which make waste a hazardous waste due to toxicity, as determined through the Toxicity Characteristic Leaching Procedure (TCLP).	Relevant and appropriate to determining whether excavated soils must be managed as a hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated soils would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of soils subject to removal would be conducted during design to confirm that result.
RCRA regulations for generators of hazardous waste	40 CFR 262.30 - 262.33	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated soils are not expected to constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	If excavated soils do not constitute RCRA hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table F-5.c: Alternative FP 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – general requirements	40 CFR 264.1(j)	General requirements for facilities used to manage remediation wastes that constitute hazardous waste (e.g., requirements for waste analysis, security, precautions to prevent accidental ignition or reaction of wastes, preventing washout of units in floodplain by 100-year flood). (These requirements are in lieu of Part 264, Subparts B, C, and D.)	These requirements would not be expected to apply to any temporary staging areas because excavated soils are not expected to constitute RCRA hazardous waste. Further, even if some soils did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be met at the temporary staging areas used for such waste.
RCRA regulations for hazardous waste management facilities – technical requirements for storage of hazardous waste	40 CFR Part 264, Subpart L	Design, operating, closure, and (if necessary) post-closure requirements for storage of hazardous waste in waste piles outside structures.	These requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the waste piles used for temporary staging of such waste would meet these requirements with the following exceptions: (a) While these waste piles would meet the single liner/leachate collection requirements of § 264.251(a), they would not meet the requirements of § 264.251(c) for a double liner/leachate collection system at “new waste pile units” (if applicable); and (b) while these areas would contain a run-on control system capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (see § 264.251(g)). To the extent these requirements, which were developed for permanent hazardous waste storage units, are considered applicable, they are not practical for temporary staging areas and thus should be waived as technically impracticable to attain.

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Table F-5.c: Alternative FP 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – groundwater protection	40 CFR Part 264, Subpart F	Groundwater protection requirements for hazardous waste contained in solid waste management units. Includes groundwater protection standards (i.e., maximum contaminant levels) for waste piles outside structures; alternate limits allowed under 40 CFR 264.94(b); and requirements for groundwater monitoring systems.	Same as above	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable to attain.
RCRA land disposal restrictions	40 CFR 268.50	Prohibits storage of hazardous wastes that are prohibited from land disposal under Part 268, Subpart C, with a number of exceptions, including that such waste may be stored solely for the purpose of accumulating such quantities as are necessary to facilitate proper recovery, treatment, or disposal	Same as above except that if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these provisions would apply.	If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these provisions would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would meet the exception to the storage prohibition for the accumulation of such quantities as are necessary to facilitate treatment or disposal.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (Note: Listed as location-specific ARAR in Table F-5.b, but also listed here at	314 CMR 9.01 - 9.08	Same as described for these regulations in Table F-5.b.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.	Same as described for these regulations in Table F-5.b.

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Table F-5.c: Alternative FP 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
EPA's direction.)				
Massachusetts Clean Water Act and Wetlands Protection Act – stormwater management standards	310 CMR 10.05(6)(k) 314 CMR 9.06(6)(a)	Projects subject to regulation under the Wetlands Protection Act or that involve discharge of dredged or fill material must be provided with stormwater BMPs to attenuate pollutants in stormwater discharges and provide a setback from receiving waters and wetlands in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during construction activities and at temporary staging areas.	FP 5 would include use of stormwater BMPs during construction of access roads and staging areas and at the excavation areas and temporary staging areas. These BMPs would be designed to meet the MDEP's specified stormwater management standards. These stormwater systems would include ~ 25-foot setbacks from receiving waters and wetlands where practicable, but this would not be feasible in areas where the soil removal would take place within or adjacent to wetlands or where there is no practical alternative to siting the staging areas in or near wetlands. For such cases, the setback requirement would need to be waived as technically impracticable.
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity may not result in a "take" of a State-listed endangered, threatened, or special concern species, except that such a "take" may be allowed if the applicant has adequately addressed alternatives, an insignificant portion of the local population would be impacted, and the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the species. Projects in a designated Priority Habitat for a State-listed species or other area where such a species has occurred must be reviewed in accordance with these requirements.	Applicable to activities in a State-designated Priority Habitat in MA or other areas where information indicates the occurrence of a State-listed species.	All of the excavation and virtually all of the access roads and temporary staging areas in FP 5 would occur within Priority Habitat, as shown on Figure F-5. Based on the evaluations presented in Appendix B to this Interim Response, these activities and facilities would result in a "take" of at least 19 State-listed species. For at least 3 of those species, the take would impact a significant portion of the local population. In these cases, the MESA requirements would need to be waived as technically impracticable to meet. For the species for which the take would not affect a significant portion of the local population, as also discussed in Appendix B, development of a long-term Net Benefit plan appears feasible for 1 species and not feasible for about 5, and the feasibility of doing so cannot be established for the remainder. For species for which a Net Benefit plan is not feasible, the MESA requirement for such a plan would need to be waived.

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Table F-5.c: Alternative FP 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	321 CMR 10.00, Part IV	Projects that will alter a designated Significant Habitat must be reviewed to ensure that they will not reduce the viability of the habitat to sustain an endangered or threatened species.	Would be applicable to activities affecting State-designated Significant Habitat in MA. However, no such habitat has been designated.	Not applicable.
Massachusetts hazardous waste regulations on identification of hazardous waste	310 CMR 30.100	Establishes criteria and lists for determining whether a waste is a hazardous waste under state law. Note that wastes that contain PCBs \geq 50 mg/kg (which are listed wastes) are exempt from the state hazardous waste management regulations so long as they are managed in compliance with EPA's TSCA regulations (40 CFR Part 761) (see 310 CMR 30.501(3)(a)). (Materials that constitute state hazardous wastes on other grounds are referred to in this table as "non-PCB state hazardous waste.")	Applicable to determining whether excavated floodplain soils must be managed as a hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated floodplain soils would constitute hazardous waste under state law on grounds other than containing PCBs \geq 50 mg/kg. However, representative TCLP testing of soils subject to removal would be conducted during design to confirm that result.
Massachusetts hazardous waste regulations for generators	310 CMR 30.321 - 30.324	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some soils did constitute such hazardous waste, these requirements would apply.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table F-5.c: Alternative FP 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste management regulations – general requirements	310 CMR 30.513, 30.514, 30.524, 30.560	General requirements for hazardous waste management facilities (for waste analysis, security, emergency prevention and response, and precautions to prevent accidental ignition or reaction of wastes).	These requirements would not be expected to apply to temporary staging areas because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply to staging areas for such waste.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, these requirements would be met at staging areas for such waste.
Massachusetts hazardous waste management regulations – location standards for units used to store hazardous waste (Note: Some of these regulations were also listed as location-specific ARAR in Table F-5.b.)	310 CMR 30.701(6), 30.703(2), 30.704(3), 30.705(3) & (6)	Location standards for waste piles, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in wetlands, (c) within ½ mile of public water supply well, (d) on land overlying an actual, planned, or potential public underground drinking water source, (e) within 1000 feet of a private drinking water well, or (f) without a 200-foot buffer zone to fenceline.	These requirements would not be expected to apply because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply to waste piles for such waste at temporary staging areas.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be feasible to site some such staging areas outside 500-year floodplain, since, in some locations, this would drive the staging areas too far from the removal areas to be practical; (b) while GE would try to avoid siting staging areas in wetlands where practical, this would be not practical in some cases given that the majority of the PSA consists of wetlands; (c) it is unknown whether such sites would overlie a “potential public underground drinking water source” (defined as a groundwater source capable of yielding 100 gpm or more of water and with less than 10,000 mg/L of total dissolved solids); and (d) it is not certain whether some areas could be designed and constructed with a 200-foot buffer zone to

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Table F-5.c: Alternative FP 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				fenceline. Any requirements that could not feasibly be met would need to be waived as technically impracticable in order for this alternative to be implemented.
Massachusetts hazardous waste management regulations – technical requirements for storage of hazardous waste	310 CMR 30.602 310 CMR 30.640 310 CMR 30.580	Requirements for design, operation, and closure of waste piles used to store hazardous waste.	Same as above.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except as follows: (a) It may not be practical for some areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); this would require investigation during design. (b) While these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have such systems capable of preventing flow onto those areas or controlling runoff during a 100-year flood (see 30.641(2 & (3)). To the extent that these requirements are considered applicable and could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.
	310 CMR 30.660	Groundwater protection requirements for waste piles outside structures, including monitoring system requirements; groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.	Same as above.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be

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Table F-5.c: Alternative FP 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				practicable, and thus this requirement, if applicable, should be waived as technically impracticable.
Massachusetts air pollution control regulations	310 CMR 7.09	Prohibits person engaged in dust-generating activities from creating condition of air pollution, defined as air concentrations that would cause a nuisance, be injurious or potentially injurious to human or animal life, vegetation, or property, or unreasonably interfere with comfortable enjoyment of life and property or conduct of business.	Applicable to excavation and construction activities generating dust.	Would be attained through use of dust control measures during activities that could generate dust and through particulate and PCB air monitoring during excavation activities and during construction and operation of the staging areas, along with response actions if certain action levels are exceeded. These measures would be specified in design.
Guidances To Be Considered				
TSCA PCB Spill Cleanup Policy	40 CFR Part 761, Subpart G	Policy used to determine adequacy of cleanup of spills resulting from the release of materials containing PCBs at concentration of 50 ppm or greater.	To be considered.	Would be considered in the event of any new PCB spill that occurs during implementation of FP 5.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups</i> (EPA, 1995)	Memorandum from EPA Office of Solid Waste and Emergency Response, March 13, 1995	Describes EPA policy on use of Area of Contamination (AOC) approach under RCRA. Explains that an overall area that includes discrete areas of generally dispersed contamination may be considered an AOC, within which the movement of waste is not considered "placement," such that the RCRA land disposal restrictions and other RCRA requirements, including minimum technology requirements, would not be triggered.	To be considered.	Under this policy, even if excavated soils should constitute RCRA hazardous waste, the technical RCRA requirements for a hazardous waste storage facility would not apply to temporary staging areas located within the boundary of the Rest of River area, because those areas would be within the overall area of dispersed contamination.

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Table F-6.a: Alternative FP 6 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal and State ARARs				
None				
Guidances To Be Considered				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
Reference Doses	EPA's IRIS http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)	EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)	Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting floodplain remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting floodplain remedy for Rest of River.

Table F-6.a: Alternative FP 6 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting floodplain remedy for Rest of River.
Massachusetts consumption advisory for frogs and turtles	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Fish consumption advisory also advises that the public should not consume any frogs and turtles from the Housatonic River from Dalton to Sheffield due to PCBs.	To be considered.	FP 6 includes continuation and maintenance of this advisory, including appropriate steps to inform the public about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	FP 6 includes continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table F-6.b: Alternative FP 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act – Section 404 and implementing regulations issued by U.S. Army Corps of Engineers (ACOE) and by EPA	33 USC 1344 33 CFR Parts 320-323 (ACOE) 40 CFR Part 230 (EPA)	For discharge of dredge or fill material: (a) there must be no practical alternative with less adverse impact on aquatic ecosystem; (b) discharge cannot cause or contribute to violation of state water quality standard or toxic effluent standard; (c) discharge cannot jeopardize the existence of any threatened or endangered (T&E) species; (d) discharge cannot cause or contribute to significant degradation of waters of the U.S., including significant adverse effects on human health or welfare, aquatic life, aquatic ecosystem, or recreational, aesthetic, and economic values; and (e) discharger must take appropriate and practicable steps to minimize or mitigate potential adverse effects on aquatic ecosystem.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S.	<p>(a) There are practical alternatives with less adverse impact on wetlands – e.g., FP 2. Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) FP 6 would not be expected to cause or contribute to violation of state water quality or toxic effluent standards.</p> <p>(c) Review of available information indicates that FP 6 would not affect any federally listed T&E species.</p> <p>(d) FP 6 would cause significant adverse effects on wetlands, as described in CMS Report (Sections 6.6.5.3 and 6.6.8) and this Interim Response (Response to General Comment 10). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>(e) While FP 6 would include appropriate and practicable steps in an effort to minimize or mitigate potential adverse effects on wetlands, it would be impossible to prevent substantial adverse effects on wetlands, as noted above and discussed in response to General Comment 10.</p>

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Table F-6.b: Alternative FP 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	<p>33 CFR Part 332 (ACOE)</p> <p>40 CFR Part 203, Subpart J (EPA)</p>	<p>Compensatory mitigation regulations: If project will have unavoidable adverse impacts after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation – i.e., the restoration, creation, enhancement, or (in some circumstances) preservation of aquatic resources. This requires a mitigation work plan, including detailed specifications and descriptions for compensatory mitigation. The regulations also require objective performance standards, monitoring for at least 5 years, and active long-term management and maintenance where necessary to ensure long-term sustainability.</p>	<p>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S.</p>	<p>For areas where FP 6 would have unavoidable adverse impacts on wetlands, a compensatory mitigation plan would be necessary to address those impacts. Despite such plan, however, substantial adverse impacts will remain. See Response to General Comment 10. See also Responses to General Comment 29 and Specific Comment 106.</p>
<p>Executive Order for Wetlands Protection</p>	<p>Exec. Order 11990 (1977)</p> <p>40 CFR 6.302(a)</p> <p>40 CFR Part 6, App. A</p>	<p>A federal agency must avoid construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.</p>	<p>Applicable to EPA; relevant and appropriate to work in wetlands.</p>	<p>FP 6 would involve a large amount of remediation work in wetlands. While there may be no practical alternative (other than no action) to some work in wetlands, there are practical alternatives with much less adverse impact on wetlands – e.g., FP 2. Hence, the requirement that there be no such alternative would not be met.</p> <p>FP 6 would include practicable measures to minimize harm to wetlands, including avoiding siting access roads and staging areas in wetlands where practicable, use of erosion and sedimentation control measures, and reasonable restoration measures for affected wetlands. However, restoration measures would not prevent substantial harm to wetlands, as discussed in Response to General Comment 10.</p>

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Table F-6.b: Alternative FP 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Executive Order for Floodplain Management	Exec. Order 11988 (1977) 40 CFR 6.302(b) 40 CFR Part 6, App. A	A federal agency proposing action in a floodplain must consider alternatives to avoid adverse effects on the floodplain, and if there is no practicable alternative, must design or modify the action to minimize harm to or within the floodplain.	Applicable to EPA; relevant and appropriate to work in floodplains.	<p>FP 6 would involve excavation of soils and construction of access roads and staging areas in the floodplain. While there may be no practical alternative (other than no action) that would avoid any effect on the floodplain, there are practical alternatives with many fewer adverse effects on the floodplain – e.g., FP 2. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>FP 6 would include practicable measures to minimize harm to the floodplain, including erosion and sedimentation control measures, reasonable restoration measures for affected portions of the floodplain, and maintenance of existing flood storage capacity of the floodplain. However, restoration measures would not prevent substantial harm to the floodplain, as discussed in Response to General Comment 10.</p>
Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains	40 CFR 264.1(j)(7) 40 CFR 264.18(b)	A hazardous waste treatment, storage, or disposal facility used for remediation waste and located in the 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of such waste by a 100-year flood unless owner/operator shows that procedures are in effect to remove waste safely before flood waters can reach facility.	These requirements would not be expected to apply to any temporary staging areas because excavated soils are not expected to constitute RCRA hazardous waste. Further, even if some soils did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas within 100-year floodplain to which AOC policy does not apply (if any), these requirements would be met. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.

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Table F-6.b: Alternative FP 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			<p>However, if some soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.</p>	
<p>National Historic Preservation Act and regulations</p>	<p>16 USC 470f 36 CFR Part 800</p>	<p>A federal agency proposing to fund or authorize a project must take into account the project's effect on properties (including a site, building, structure, or object) included or eligible for inclusion in the National Register of Historic Places (NRHP). This requires: (a) consultation with the State and/or Tribal Historic Preservation Offices; (b) identification of the project's "area of potential effects"; (c) identification of any listed or eligible historic property within that area that could be affected by the project; (d) if there is such property, determination of whether the project would have an adverse impact on the property; (e) if so, evaluation of alternatives to avoid, minimize, or mitigate the adverse impacts; and (f) agreement on such measures or, failing agreement, implementation of such measures identified by the authorizing agency.</p>	<p>Applicable to EPA; relevant and appropriate to federally authorized work in areas where property(ies) listed or eligible for inclusion on NRHP may be present.</p>	<p>Would be attained through process described in Section 6 of GE's <i>Initial Phase IA Cultural Resources Assessment for the Housatonic River – Rest of River Project</i> (Phase IA CRA: URS Corporation, March 13, 2008).</p>

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Table F-6.b: Alternative FP 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Archaeological and Historic Preservation Act	16 USC 469	When a federal agency finds or is notified that a federal or federally authorized project may cause the loss or destruction of archaeological or historic data, it must notify Department of Interior (DOI). If DOI determines that the data are significant and may be irrevocably lost or destroyed, it is to conduct a survey and other investigation of the affected area and recover and preserve such data as necessary in the public interest.	Applicable to EPA; relevant and appropriate to federally authorized work in areas where archaeological or historic data may be present.	Identification of archaeological or historic data potentially affected by FP 6 would be made through process identified in Phase IA CRA. If such data are identified that could be irrevocably lost or destroyed by implementation of FP 6, it is anticipated that EPA would notify DOI as required.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act) Note: These regulations are also listed as action-specific ARARs for FP 3	314 CMR 9.01 - 9.08	For discharge of dredged or fill material: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on bordering or isolated vegetated wetlands, including 1:1 restoration or replication of such wetlands (unless waived); (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under the Wetlands Protection Act or would be to certain designated "Outstanding Resource Waters," including certified vernal pools, unless a variance is obtained; (d) stormwater discharges must be controlled with best management practices (BMPs); and (e) there must be no substantial adverse impacts to physical, chemical, or biological integrity of surface waters.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.	(a) FP 6 would involve a large amount of remediation work in wetlands. As noted above, there are practical alternatives with less adverse impact on wetlands. Hence, the requirement that there be no such alternative would not be met. (b) While FP 6 would include appropriate and practicable steps in an effort to avoid, minimize, or mitigate potential adverse effects on wetlands, such steps would not prevent substantial harm to these resource areas (see Response to General Comment 10). (c) FP 6 would adversely affect estimated rare wildlife species habitat, because almost all excavation and supporting activities would occur within such habitat (see Figure F-6). Thus, the prohibition on actions with such effects would need to be waived as technically impracticable to meet. Based on current information, FP 6 would not involve discharges of dredged or fill material to Outstanding Resource Waters (including certified vernal pools). (d) Stormwater discharges would be

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Table F-6.b: Alternative FP 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				<p>controlled through BMPs.</p> <p>(e) FP 6 would not be expected to cause substantial long-term adverse impacts to the integrity of river water.</p>
<p>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 310 CMR 10.59</p>	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less damaging to resource areas; and (b) avoid or minimize impacts to resource areas, including, to the maximum extent practicable, minimizing hydrological changes, using BMPs during construction (including prevention of erosion/siltation); implementing mitigating measures, providing compensatory storage for lost flood storage capacity, avoiding flow restrictions that would increase flood stage or velocity, substantially restoring disturbed vegetation, and working in resource areas only when the ground is sufficiently stable to support the equipment.</p> <p>For actions that do not qualify as a “limited project,” the requirements of 310 CMR 10.54 – 10.58 would apply.</p> <p>In either case, under 310 CMR 10.59, the action must have no adverse effect on estimated habitat of rare wildlife species.</p> <p>(Note that for areas within 100 feet of stream/pond banks or wetlands (buffer zone) or within 200 feet from river’s edge (riverfront areas), minor activities such as sampling and monitoring are exempt from these requirements. See 310 CMR 10.02(2)(b)1.g.)</p>	<p>Applicable to FP 6 response actions that take place in or within 100 feet (buffer zone) of stream/pond banks or wetlands (buffer zone) or are within floodplains or riverfront areas (extending 200 feet from river’s edge) and that will alter any such resource areas.</p>	<p>Since FP 6 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> ▪ As noted above, there are practical alternatives that would be less damaging to resource areas. Thus, the requirement that there be no such practicable alternative would not be met and would need to be waived. ▪ FP 6 would include practicable measures to minimize impacts to resource areas, including control of stormwater discharges during construction through BMPs, implementation of mitigation measures where necessary, and restoration of disturbed vegetation as required. However, as discussed in CMS Report (Sections 6.6.5.3 and 6.6.8) and this Interim Response (Response to General Comment 10), these measures would not prevent massive adverse impacts on resource areas. FP 6 is not anticipated to have any significant effect on flood storage capacity of floodplain. ▪ FP 6 would affect adversely estimated rare wildlife species habitat, because almost all excavation and supporting activities would occur within such habitat (see Figure F-6). Thus, the prohibition on projects with an adverse effect on such habitat would need to be waived as technically impracticable to meet. <p>In the event that FP 6 was considered not to constitute a “limited project,” it would not meet</p>

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Table F-6.b: Alternative FP 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				<p>some of the requirements of 310 CMR 10.54 – 10.58 – e.g., prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands or impairs such wetlands within an ACEC (if designated) (10.55(4)), prohibition on projects with an adverse effect on rare wildlife species habitat (as noted above). Such requirements would thus need to be waived as technically impracticable.</p>
<p>Massachusetts standards for hazardous waste management facilities in floodplains</p>	<p>310 CMR 30.701</p>	<p>Location standards for hazardous waste management facilities in floodplains, including requirements that: (a) no active portion of a waste pile may be constructed within 500-year floodplain; and (b) tanks, containers, and similar units that are used to store hazardous waste, do not receive waste from off-site sources, and are located within the 100-year floodplain must be floodproofed to prevent floodwaters from contacting the hazardous waste.</p>	<p>These requirements would not be expected to apply to temporary staging areas because excavated soils are not expected to constitute state hazardous waste subject to these standards (see Table F-2.c). However, if some excavated soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.</p>	<p>If excavated soils do not constitute state hazardous waste subject to these regulations, these requirements would not apply. However, if some excavated soils were found to constitute such hazardous waste, it may not be feasible for some temporary staging areas for such waste to meet the requirement that waste piles be located outside 500-year floodplain, since, in some areas, this would drive the staging areas too far from the river to be practical. In such cases, that requirement should be waived as technically impracticable to attain.</p>

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Table F-6.b: Alternative FP 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Massachusetts Historical Commission Act and regulations	MGL c. 9, § 27C 950 CMR 71.07	A state body proposing to fund or authorize a project must notify the Massachusetts Historical Commission (MHC) (or the project proponent may notify MHC) if the project has an area of potential impact on a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on such a property, the state body, project proponent, and MHC must consider "prudent and feasible alternatives" that could eliminate, minimize, or mitigate the adverse effects. If there are, such alternatives will be specified in an agreement among those parties; and if there is no agreement, project cannot proceed until state body or project proponent responds to the MHC.	Applicable to State; relevant and appropriate to State-authorized work in areas where the work would have an area of potential impact on property(ies) listed in State Register.	Extent to which FP 6 would have potential impact on property(ies) listed in the State Register would be determined through the process identified in Phase IA CRA. If it would have such a potential impact, MHC would be notified and substantive provisions of these regulations would be met.
	MGL c. 9, § 27C	Any person supervising any survey, excavation, or construction on state or local government lands must report to the state archaeologist any archaeological, paleontological, or historical site or object discovered, and must take all reasonable steps to secure its preservation.	Applicable to excavations or construction on state or local government lands in MA.	If any archaeological, paleontological, or historical site or object is discovered during clearing or excavation activities on state or local government land, this requirement for notification and preservation would be met.

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Table F-6.c: Alternative FP 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Toxic Substances Control Act (TSCA) regulations on cleanup of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61	General requirements (761.50) and specific options (761.61) for cleanup of PCB Remediation Waste, including PCB-containing soils. Options include self-implementing provisions 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.	Applicable to cleanup of PCB Remediation Waste (which includes floodplain soils with PCBs > 50 ppm).	It is anticipated that, if FP 6 is selected, these requirements would be met through an EPA determination that FP 6 meets requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on storage of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.65 40 CFR 761.61(c)	General and specific requirements for storage of PCB Remediation Waste. Regulations include specific provisions for storage of PCB Remediation waste in piles at the cleanup site or site of generation for up to 180 days (761.65(c)(9)). They also allows for risk-based approval by EPA of alternate storage method (761.61(c)), based on demonstration that it will not pose an unreasonable risk of injury to health or the environment.	Applicable to temporary storage of PCB Remediation Waste.	Temporary staging areas would meet the default conditions in 761.65(c)(9) with the following exception: While these areas would contain run-on control systems capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (although they would include appropriate flood control measures). For those temporary staging areas that would not meet this condition, the TSCA requirements could be met through an EPA determination that those staging areas meet requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on discharges of PCB-containing water	40 CFR 761.50(a)(3)	Prohibits discharge of water containing PCBs to navigable waters unless PCB concentration is < 3 µg/L or discharge is in accordance with NPDES discharge limits.	Applicable to discharges of treated water from dewatering/treatment facility to Housatonic River.	If floodplain soils are saturated, they would be dewatered, and resulting water would be treated. Water treatment facilities would be designed to meet this requirement.

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Table F-6.c: Alternative FP 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
TSCA regulations on decontamination	40 CFR 761.79	Establishes decontamination standards and procedures for removing PCBs from water, organic liquids, and various types of surfaces.	Applicable to decontamination of equipment used in excavation or other handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act and NPDES regulations	33 USC 1342 40 CFR 122, including, but not limited to, 122.3(d) and 122.44(a) & (e) 40 CFR 125.1 - 125.3	Point source discharge must meet technology-based effluent limitations (including those based on best available technology for toxic and non-conventional pollutants and those based on best conventional technology for conventional pollutants) and effluent limitations and conditions necessary to meet state water quality standards, except that discharges in compliance with instructions of On-Scene Coordinator (OSC) acting pursuant to NCP are exempt from these requirements.	Applicable to point source discharges of treated water from dewatering/treatment facility to Housatonic River.	If floodplain soils are saturated, they would be dewatered, and resulting water would be treated. Discharges could not feasibly meet MA water quality criteria for PCBs (0.014 and 0.000064 µg/L) in receiving waters, since current water quality conditions in Housatonic River do not meet those criteria. In addition, it is not anticipated that those criteria would be met at the point of discharge. EPA used a standard of 0.5 µg/L for discharges from the treatment facility in the 1½ Mile Reach Removal Action, and the data from discharges in that project were generally in the range of 0.01 to 0.1 µg/L and often > 0.014 µg/L. However, this ARAR could be met through discharges in compliance with instructions from OSC.
Clean Water Act – NPDES regulations (stormwater discharges)	40 CFR 122.26(c)(1)(ii)(C) 40 CFR 122.44(k)	Best management practices (BMPs) must be employed to control pollutants in stormwater discharges during construction activities.	Applicable to stormwater discharges during construction activities, including temporary staging of excavated materials.	Would be attained through use of BMPs to control erosion from stormwater discharges during construction activities, including soil excavation, construction of access roads and temporary staging areas, and temporary staging of excavated soils at those areas.

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Table F-6.c: Alternative FP 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Endangered Species Act and regulations	16 USC 1536(a)-(d) 40 CFR 6.302(h) 50 CFR Part 402, Subparts A & B	A federal agency must ensure that any action authorized, funded, or carried out by it is not likely to jeopardize the continued existence of a listed threatened or endangered (T&E) species or result in destruction or adverse modification of critical habitat, unless an exemption is granted. If a listed species or critical habitat may be present in the action area, the key steps include a biological assessment by the authorizing agency; a biological opinion by the resource service; and if the action is likely to adversely affect a listed species or critical habitat, identification of “reasonable and prudent” measures to avoid and/or minimize such effects.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize the continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because review of available information indicates that FP 6 would not adversely affect any federally listed T&E species or their habitat.
Resource Conservation and Recovery Act (RCRA) regulations on identification of hazardous waste	40 CFR Part 261	Establishes criteria and lists for determining whether a waste is a hazardous waste under RCRA. Note that Sec. 261.24 identifies concentrations of contaminants which make waste a hazardous waste due to toxicity, as determined through the Toxicity Characteristic Leaching Procedure (TCLP).	Relevant and appropriate to determining whether excavated soils must be managed as a hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated soils would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of soils subject to removal would be conducted during design to confirm that result.
RCRA regulations for generators of hazardous waste	40 CFR 262.30 - 262.33	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated soils are not expected to constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	If excavated soils do not constitute RCRA hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table F-6.c: Alternative FP 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – general requirements	40 CFR 264.1(j)	General requirements for facilities used to manage remediation wastes that constitute hazardous waste (e.g., requirements for waste analysis, security, precautions to prevent accidental ignition or reaction of wastes, preventing washout of units in floodplain by 100-year flood). (These requirements are in lieu of Part 264, Subparts B, C, and D.)	These requirements would not be expected to apply to any temporary staging areas because excavated soils are not expected to constitute RCRA hazardous waste. Further, even if some soils did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be met at the temporary staging areas used for such waste.
RCRA regulations for hazardous waste management facilities – technical requirements for storage of hazardous waste	40 CFR Part 264, Subpart L	Design, operating, closure, and (if necessary) post-closure requirements for storage of hazardous waste in waste piles outside structures.	These requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the waste piles used for temporary staging of such waste would meet these requirements with the following exceptions: (a) While these waste piles would meet the single liner/leachate collection requirements of § 264.251(a), they would not meet the requirements of § 264.251(c) for a double liner/leachate collection system at “new waste pile units” (if applicable); and (b) while these areas would contain a run-on control system capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (see § 264.251(g)). To the extent these requirements, which were developed for permanent hazardous waste storage units, are considered applicable, they are not practical for temporary staging areas and thus should be waived as technically impracticable to attain.

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Table F-6.c: Alternative FP 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – groundwater protection	40 CFR Part 264, Subpart F	Groundwater protection requirements for hazardous waste contained in solid waste management units. Includes groundwater protection standards (i.e., maximum contaminant levels) for waste piles outside structures; alternate limits allowed under 40 CFR 264.94(b); and requirements for groundwater monitoring systems.	Same as above	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable to attain.
RCRA land disposal restrictions	40 CFR 268.50	Prohibits storage of hazardous wastes that are prohibited from land disposal under Part 268, Subpart C, with a number of exceptions, including that such waste may be stored solely for the purpose of accumulating such quantities as are necessary to facilitate proper recovery, treatment, or disposal	Same as above except that if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these provisions would apply.	If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these provisions would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would meet the exception to the storage prohibition for the accumulation of such quantities as are necessary to facilitate treatment or disposal.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (Note: Listed as location-specific ARAR in Table F-6.b, but also listed here at	314 CMR 9.01 - 9.08	Same as described for these regulations in Table F-6.b.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.	Same as described for these regulations in Table F-6.b.

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Table F-6.c: Alternative FP 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
EPA's direction.)				
Massachusetts Clean Water Act and Wetlands Protection Act – stormwater management standards	310 CMR 10.05(6)(k) 314 CMR 9.06(6)(a)	Projects subject to regulation under the Wetlands Protection Act or that involve discharge of dredged or fill material must be provided with stormwater BMPs to attenuate pollutants in stormwater discharges and provide a setback from receiving waters and wetlands in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during construction activities and at temporary staging areas.	FP 6 would include use of stormwater BMPs during construction of access roads and staging areas and at the excavation areas and temporary staging areas. These BMPs would be designed to meet the MDEP's specified stormwater management standards. These stormwater systems would include ~ 25-foot setbacks from receiving waters and wetlands where practicable, but this would not be feasible in the many areas where the soil removal would take place within or adjacent to wetlands or where there is be no practical alternative to siting the staging areas in or near wetlands. For such cases, the setback requirement would need to be waived as technically impracticable.
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity may not result in a "take" of a State-listed endangered, threatened, or special concern species, except that such a "take" may be allowed if the applicant has adequately addressed alternatives, an insignificant portion of the local population would be impacted, and the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the species. Projects in a designated Priority Habitat for a State-listed species or other area where such a species has occurred must be reviewed in accordance with these requirements.	Applicable to activities in a State-designated Priority Habitat in MA or other areas where information indicates the occurrence of a State-listed species.	Virtually all of the excavations and the access roads and temporary staging areas in FP 6 would occur within Priority Habitat, as shown on Figure F-6. Based on the evaluations presented in Appendix B to this Interim Response, these activities and facilities would result in a "take" of approximately 21 State-listed species. For about 18 of those species, the take would impact a significant portion of the local population. In these cases, the MESA requirements would need to be waived as technically impracticable to meet. For the species for which the take would not affect a significant portion of the local population, it cannot be established that a long-term Net Benefit plan could feasibly be developed at this site, as also discussed in Appendix B. If not, the MESA requirement for such a plan would need to be waived.

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Table F-6.c: Alternative FP 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
	321 CMR 10.00, Part IV	Projects that will alter a designated Significant Habitat must be reviewed to ensure that they will not reduce the viability of the habitat to sustain an endangered or threatened species.	Would be applicable to activities affecting State-designated Significant Habitat in MA. However, no such habitat has been designated.	Not applicable.
Massachusetts hazardous waste regulations on identification of hazardous waste	310 CMR 30.100	Establishes criteria and lists for determining whether a waste is a hazardous waste under state law. Note that wastes that contain PCBs \geq 50 mg/kg (which are listed wastes) are exempt from the state hazardous waste management regulations so long as they are managed in compliance with EPA's TSCA regulations (40 CFR Part 761) (see 310 CMR 30.501(3)(a)). (Materials that constitute state hazardous wastes on other grounds are referred to in this table as "non-PCB state hazardous waste.")	Applicable to determining whether excavated floodplain soils must be managed as a hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated floodplain soils would constitute hazardous waste under state law on grounds other than containing PCBs \geq 50 mg/kg. However, representative TCLP testing of soils subject to removal would be conducted during design to confirm that result.
Massachusetts hazardous waste regulations for generators	310 CMR 30.321 - 30.324	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some soils did constitute such hazardous waste, these requirements would apply.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table F-6.c: Alternative FP 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste management regulations – general requirements	310 CMR 30.513, 30.514, 30.524, 30.560	General requirements for hazardous waste management facilities (for waste analysis, security, emergency prevention and response, and precautions to prevent accidental ignition or reaction of wastes).	These requirements would not be expected to apply to temporary staging areas because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply to staging areas for such waste.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, these requirements would be met at staging areas for such waste.
Massachusetts hazardous waste management regulations – location standards for units used to store hazardous waste (Note: Some of these regulations were also listed as location-specific ARAR in Table F-6.b.)	310 CMR 30.701(6), 30.703(2), 30.704(3), 30.705(3) & (6)	Location standards for waste piles, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in wetlands, (c) within ½ mile of public water supply well, (d) on land overlying an actual, planned, or potential public underground drinking water source, (e) within 1000 feet of a private drinking water well, or (f) without a 200-foot buffer zone to fenceline.	These requirements would not be expected to apply because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply to waste piles for such waste at temporary staging areas.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be feasible to site some such staging areas outside 500-year floodplain, since, in some locations, this would drive the staging areas too far from the removal areas to be practical; (b) while GE would try to avoid siting staging areas in wetlands where practical, this would be not practical in some cases given that the majority of the PSA consists of wetlands; (c) it is unknown whether such sites would overlie a “potential public underground drinking water source” (defined as a groundwater source capable of yielding 100 gpm or more of water and with less than 10,000 mg/L of total dissolved solids); and (d) it is not certain whether some areas could be designed and constructed with a 200-foot buffer zone to

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Table F-6.c: Alternative FP 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				fenceline. Any requirements that could not feasibly be met would need to be waived as technically impracticable in order for this alternative to be implemented.
Massachusetts hazardous waste management regulations – technical requirements for storage of hazardous waste	310 CMR 30.602 310 CMR 30.640 310 CMR 30.580	Requirements for design, operation, and closure of waste piles used to store hazardous waste.	Same as above.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except as follows: (a) It may not be practical for some areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); this would require investigation during design. (b) While these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have such systems capable of preventing flow onto those areas or controlling runoff during a 100-year flood (see 30.641(2 & (3)). To the extent that these requirements are considered applicable and could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.
	310 CMR 30.660	Groundwater protection requirements for waste piles outside structures, including monitoring system requirements; groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.	Same as above.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be

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Table F-6.c: Alternative FP 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				practicable, and thus this requirement, if applicable, should be waived as technically impracticable.
Massachusetts air pollution control regulations	310 CMR 7.09	Prohibits person engaged in dust-generating activities from creating condition of air pollution, defined as air concentrations that would cause a nuisance, be injurious or potentially injurious to human or animal life, vegetation, or property, or unreasonably interfere with comfortable enjoyment of life and property or conduct of business.	Applicable to excavation and construction activities generating dust.	Would be attained through use of dust control measures during activities that could generate dust and through particulate and PCB air monitoring during excavation activities and during construction and operation of the staging areas, along with response actions if certain action levels are exceeded. These measures would be specified in design.
Guidances To Be Considered				
TSCA PCB Spill Cleanup Policy	40 CFR Part 761, Subpart G	Policy used to determine adequacy of cleanup of spills resulting from the release of materials containing PCBs at concentration of 50 ppm or greater.	To be considered.	Would be considered in the event of any new PCB spill that occurs during implementation of FP 6.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups</i> (EPA, 1995)	Memorandum from EPA Office of Solid Waste and Emergency Response, March 13, 1995	Describes EPA policy on use of Area of Contamination (AOC) approach under RCRA. Explains that an overall area that includes discrete areas of generally dispersed contamination may be considered an AOC, within which the movement of waste is not considered "placement," such that the RCRA land disposal restrictions and other RCRA requirements, including minimum technology requirements, would not be triggered.	To be considered.	Under this policy, even if excavated soils should constitute RCRA hazardous waste, the technical RCRA requirements for a hazardous waste storage facility would not apply to temporary staging areas located within the boundary of the Rest of River area, because those areas would be within the overall area of dispersed contamination.

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Table F-7.a: Alternative FP 7 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal and State ARARs				
None				
Guidances To Be Considered				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
Reference Doses	EPA's IRIS http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)	EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)	Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting floodplain remedy for Rest of River.
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting floodplain remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting floodplain remedy for Rest of River.

Table F-7.a: Alternative FP 7 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting floodplain remedy for Rest of River.
Massachusetts consumption advisory for frogs and turtles	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Fish consumption advisory also advises that the public should not consume any frogs and turtles from the Housatonic River from Dalton to Sheffield due to PCBs.	To be considered.	FP 7 includes continuation and maintenance of this advisory, including appropriate steps to inform the public about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	FP 7 includes continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table F-7.b: Alternative FP 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act – Section 404 and implementing regulations issued by U.S. Army Corps of Engineers (ACOE) and by EPA	33 USC 1344 33 CFR Parts 320-323 (ACOE) 40 CFR Part 230 (EPA)	For discharge of dredge or fill material: (a) there must be no practical alternative with less adverse impact on aquatic ecosystem; (b) discharge cannot cause or contribute to violation of state water quality standard or toxic effluent standard; (c) discharge cannot jeopardize the existence of any threatened or endangered (T&E) species; (d) discharge cannot cause or contribute to significant degradation of waters of the U.S., including significant adverse effects on human health or welfare, aquatic life, aquatic ecosystem, or recreational, aesthetic, and economic values; and (e) discharger must take appropriate and practicable steps to minimize or mitigate potential adverse effects on aquatic ecosystem.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S.	<p>(a) There are practical alternatives with less adverse impact on wetlands – e.g., FP 2. Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) FP 7 would not be expected to cause or contribute to violation of state water quality or toxic effluent standards.</p> <p>(c) Review of available information indicates that FP 7 would not affect any federally listed T&E species.</p> <p>(d) FP 7 would cause significant adverse effects on wetlands, as described in CMS Report (Sections 6.7.5.3 and 6.7.8) and this Interim Response (Response to General Comment 10). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>(e) While FP 7 would include appropriate and practicable steps in an effort to minimize or mitigate potential adverse effects on wetlands, it would be impossible to prevent substantial adverse effects on wetlands, as noted above and discussed in response to General Comment 10.</p>

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Table F-7.b: Alternative FP 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	<p>33 CFR Part 332 (ACOE)</p> <p>40 CFR Part 203, Subpart J (EPA)</p>	<p>Compensatory mitigation regulations: If project will have unavoidable adverse impacts after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation – i.e., the restoration, creation, enhancement, or (in some circumstances) preservation of aquatic resources. This requires a mitigation work plan, including detailed specifications and descriptions for compensatory mitigation. The regulations also require objective performance standards, monitoring for at least 5 years, and active long-term management and maintenance where necessary to ensure long-term sustainability.</p>	<p>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S.</p>	<p>For areas where FP 7 would have unavoidable adverse impacts on wetlands, a compensatory mitigation plan would be necessary to address those impacts. Despite such plan, however, substantial adverse impacts will remain. See Response to General Comment 10. See also Responses to General Comment 29 and Specific Comment 106.</p>
<p>Executive Order for Wetlands Protection</p>	<p>Exec. Order 11990 (1977)</p> <p>40 CFR 6.302(a)</p> <p>40 CFR Part 6, App. A</p>	<p>A federal agency must avoid construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.</p>	<p>Applicable to EPA; relevant and appropriate to work in wetlands.</p>	<p>FP 7 would involve a large amount of remediation work in wetlands. While there may be no practical alternative (other than no action) to some work in wetlands, there are practical alternatives with much less adverse impact on wetlands – e.g., FP 2. Hence, the requirement that there be no such alternative would not be met.</p> <p>FP 7 would include practicable measures to minimize harm to wetlands, including avoiding siting access roads and staging areas in wetlands where practicable, use of erosion and sedimentation control measures, and reasonable restoration measures for affected wetlands. However, restoration measures would not prevent substantial harm to wetlands, as discussed in Response to General Comment 10.</p>

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Table F-7.b: Alternative FP 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Executive Order for Floodplain Management	Exec. Order 11988 (1977) 40 CFR 6.302(b) 40 CFR Part 6, App. A	A federal agency proposing action in a floodplain must consider alternatives to avoid adverse effects on the floodplain, and if there is no practicable alternative, must design or modify the action to minimize harm to or within the floodplain.	Applicable to EPA; relevant and appropriate to work in floodplains.	<p>FP 7 would involve excavation of soils and construction of access roads and staging areas in the floodplain. While there may be no practical alternative (other than no action) that would avoid any effect on the floodplain, there are practical alternatives with many fewer adverse effects on the floodplain – e.g., FP 2. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>FP 7 would include practicable measures to minimize harm to the floodplain, including erosion and sedimentation control measures, reasonable restoration measures for affected portions of the floodplain, and maintenance of existing flood storage capacity of the floodplain. However, restoration measures would not prevent substantial harm to the floodplain, as discussed in Response to General Comment 10.</p>
Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains	40 CFR 264.1(j)(7) 40 CFR 264.18(b)	A hazardous waste treatment, storage, or disposal facility used for remediation waste and located in the 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of such waste by a 100-year flood unless owner/operator shows that procedures are in effect to remove waste safely before flood waters can reach facility.	These requirements would not be expected to apply to any temporary staging areas because excavated soils are not expected to constitute RCRA hazardous waste. Further, even if some soils did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas within 100-year floodplain to which AOC policy does not apply (if any), these requirements would be met. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.

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Table F-7.b: Alternative FP 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			<p>However, if some soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.</p>	
<p>National Historic Preservation Act and regulations</p>	<p>16 USC 470f 36 CFR Part 800</p>	<p>A federal agency proposing to fund or authorize a project must take into account the project's effect on properties (including a site, building, structure, or object) included or eligible for inclusion in the National Register of Historic Places (NRHP). This requires: (a) consultation with the State and/or Tribal Historic Preservation Offices; (b) identification of the project's "area of potential effects"; (c) identification of any listed or eligible historic property within that area that could be affected by the project; (d) if there is such property, determination of whether the project would have an adverse impact on the property; (e) if so, evaluation of alternatives to avoid, minimize, or mitigate the adverse impacts; and (f) agreement on such measures or, failing agreement, implementation of such measures identified by the authorizing agency.</p>	<p>Applicable to EPA; relevant and appropriate to federally authorized work in areas where property(ies) listed or eligible for inclusion on NRHP may be present.</p>	<p>Would be attained through process described in Section 6 of GE's <i>Initial Phase IA Cultural Resources Assessment for the Housatonic River – Rest of River Project</i> (Phase IA CRA: URS Corporation, March 13, 2008).</p>

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Table F-7.b: Alternative FP 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Archaeological and Historic Preservation Act	16 USC 469	When a federal agency finds or is notified that a federal or federally authorized project may cause the loss or destruction of archaeological or historic data, it must notify Department of Interior (DOI). If DOI determines that the data are significant and may be irrevocably lost or destroyed, it is to conduct a survey and other investigation of the affected area and recover and preserve such data as necessary in the public interest.	Applicable to EPA; relevant and appropriate to federally authorized work in areas where archaeological or historic data may be present.	Identification of archaeological or historic data potentially affected by FP 7 would be made through process identified in Phase IA CRA. If such data are identified that could be irrevocably lost or destroyed by implementation of FP 7, it is anticipated that EPA would notify DOI as required.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act) Note: These regulations are also listed as action-specific ARARs for FP 3	314 CMR 9.01 - 9.08	For discharge of dredged or fill material: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on bordering or isolated vegetated wetlands, including 1:1 restoration or replication of such wetlands (unless waived); (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under the Wetlands Protection Act or would be to certain designated "Outstanding Resource Waters," including certified vernal pools, unless a variance is obtained; (d) stormwater discharges must be controlled with best management practices (BMPs); and (e) there must be no substantial adverse impacts to physical, chemical, or biological integrity of surface waters.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.	(a) FP 7 would involve a large amount of remediation work in wetlands. As noted above, there are practical alternatives with less adverse impact on wetlands. Hence, the requirement that there be no such alternative would not be met. (b) While FP 7 would include appropriate and practicable steps in an effort to avoid, minimize, or mitigate potential adverse effects on wetlands, such steps would not prevent substantial harm to these resource areas (see Response to General Comment 10). (c) FP 7 would adversely affect estimated rare wildlife species habitat, because it would involve extensive and widespread excavation and supporting activities within such habitat (see Figure F-7). Thus, the prohibition on actions with such effects would need to be waived as technically impracticable to meet. Based on current information, FP 7 would not involve discharges of dredged or fill material to Outstanding Resource Waters (including certified vernal pools). (d) Stormwater discharges would be

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Table F-7.b: Alternative FP 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				<p>controlled through BMPs.</p> <p>(e) FP 7 would not be expected to cause substantial long-term adverse impacts to the integrity of river water.</p>
<p>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 310 CMR 10.59</p>	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less damaging to resource areas; and (b) avoid or minimize impacts to resource areas, including, to the maximum extent practicable, minimizing hydrological changes, using BMPs during construction (including prevention of erosion/siltation); implementing mitigating measures, providing compensatory storage for lost flood storage capacity, avoiding flow restrictions that would increase flood stage or velocity, substantially restoring disturbed vegetation, and working in resource areas only when the ground is sufficiently stable to support the equipment.</p> <p>For actions that do not qualify as a “limited project,” the requirements of 310 CMR 10.54 – 10.58 would apply.</p> <p>In either case, under 310 CMR 10.59, the action must have no adverse effect on estimated habitat of rare wildlife species.</p> <p>(Note that for areas within 100 feet of stream/pond banks or wetlands (buffer zone) or within 200 feet from river’s edge (riverfront areas), minor activities such as sampling and monitoring are exempt from these requirements. See 310 CMR 10.02(2)(b)1.g.)</p>	<p>Applicable to FP 7 response actions that take place in or within 100 feet (buffer zone) of stream/pond banks or wetlands (buffer zone) or are within floodplains or riverfront areas (extending 200 feet from river’s edge) and that will alter any such resource areas.</p>	<p>Since FP 7 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> ▪ As noted above, there are practical alternatives that would be less damaging to resource areas. Thus, the requirement that there be no such practicable alternative would not be met and would need to be waived. ▪ FP 7 would include practicable measures to minimize impacts to resource areas, including control of stormwater discharges during construction through BMPs, implementation of mitigation measures where necessary, and restoration of disturbed vegetation as required. However, as discussed in CMS Report (Sections 6.7.5.3 and 6.7.8) and this Interim Response (Response to General Comment 10), these measures would not prevent massive adverse impacts on resource areas. FP 7 is not anticipated to have any significant effect on flood storage capacity of floodplain. ▪ FP 7 would affect adversely estimated rare wildlife species habitat, because it would involve extensive and widespread excavation and supporting activities within such habitat (see Figure F-7). Thus, the prohibition on projects with an adverse effect on such habitat would need to be waived as technically impracticable to meet. <p>In the event that FP 7 was considered not to constitute a “limited project,” it would not meet</p>

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Table F-7.b: Alternative FP 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				<p>some of the requirements of 310 CMR 10.54 – 10.58 – e.g., prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands or impairs such wetlands within an ACEC (if designated) (10.55(4)), prohibition on projects with an adverse effect on rare wildlife species habitat (as noted above). Such requirements would thus need to be waived as technically impracticable.</p>
<p>Massachusetts standards for hazardous waste management facilities in floodplains</p>	<p>310 CMR 30.701</p>	<p>Location standards for hazardous waste management facilities in floodplains, including requirements that: (a) no active portion of a waste pile may be constructed within 500-year floodplain; and (b) tanks, containers, and similar units that are used to store hazardous waste, do not receive waste from off-site sources, and are located within the 100-year floodplain must be floodproofed to prevent floodwaters from contacting the hazardous waste.</p>	<p>These requirements would not be expected to apply to temporary staging areas because excavated soils are not expected to constitute state hazardous waste subject to these standards (see Table F-2.c). However, if some excavated soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.</p>	<p>If excavated soils do not constitute state hazardous waste subject to these regulations, these requirements would not apply. However, if some excavated soils were found to constitute such hazardous waste, it may not be feasible for some temporary staging areas for such waste to meet the requirement that waste piles be located outside 500-year floodplain, since, in some areas, this would drive the staging areas too far from the river to be practical. In such cases, that requirement should be waived as technically impracticable to attain.</p>

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Table F-7.b: Alternative FP 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts Historical Commission Act and regulations	MGL c. 9, § 27C 950 CMR 71.07	A state body proposing to fund or authorize a project must notify the Massachusetts Historical Commission (MHC) (or the project proponent may notify MHC) if the project has an area of potential impact on a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on such a property, the state body, project proponent, and MHC must consider "prudent and feasible alternatives" that could eliminate, minimize, or mitigate the adverse effects. If there are, such alternatives will be specified in an agreement among those parties; and if there is no agreement, project cannot proceed until state body or project proponent responds to the MHC.	Applicable to State; relevant and appropriate to State-authorized work in areas where the work would have an area of potential impact on property(ies) listed in State Register.	Extent to which FP 7 would have potential impact on property(ies) listed in the State Register would be determined through the process identified in Phase IA CRA. If it would have such a potential impact, MHC would be notified and substantive provisions of these regulations would be met.
	MGL c. 9, § 27C	Any person supervising any survey, excavation, or construction on state or local government lands must report to the state archaeologist any archaeological, paleontological, or historical site or object discovered, and must take all reasonable steps to secure its preservation.	Applicable to excavations or construction on state or local government lands in MA.	If any archaeological, paleontological, or historical site or object is discovered during clearing or excavation activities on state or local government land, this requirement for notification and preservation would be met.

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Table F-7.c: Alternative FP 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
Toxic Substances Control Act (TSCA) regulations on cleanup of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61	General requirements (761.50) and specific options (761.61) for cleanup of PCB Remediation Waste, including PCB-containing soils. Options include self-implementing provisions 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.	Applicable to cleanup of PCB Remediation Waste (which includes floodplain soils with PCBs > 50 ppm).	It is anticipated that, if FP 7 is selected, these requirements would be met through an EPA determination that FP 7 meets requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on storage of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.65 40 CFR 761.61(c)	General and specific requirements for storage of PCB Remediation Waste. Regulations include specific provisions for storage of PCB Remediation waste in piles at the cleanup site or site of generation for up to 180 days (761.65(c)(9)). They also allows for risk-based approval by EPA of alternate storage method (761.61(c)), based on demonstration that it will not pose an unreasonable risk of injury to health or the environment.	Applicable to temporary storage of PCB Remediation Waste.	Temporary staging areas would meet the default conditions in 761.65(c)(9) with the following exception: While these areas would contain run-on control systems capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (although they would include appropriate flood control measures). For those temporary staging areas that would not meet this condition, the TSCA requirements could be met through an EPA determination that those staging areas meet requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on discharges of PCB-containing water	40 CFR 761.50(a)(3)	Prohibits discharge of water containing PCBs to navigable waters unless PCB concentration is < 3 µg/L or discharge is in accordance with NPDES discharge limits.	Applicable to discharges of treated water from dewatering/treatment facility to Housatonic River.	If floodplain soils are saturated, they would be dewatered, and resulting water would be treated. Water treatment facilities would be designed to meet this requirement.

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Table F-7.c: Alternative FP 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
TSCA regulations on decontamination	40 CFR 761.79	Establishes decontamination standards and procedures for removing PCBs from water, organic liquids, and various types of surfaces.	Applicable to decontamination of equipment used in excavation or other handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act and NPDES regulations	33 USC 1342 40 CFR 122, including, but not limited to, 122.3(d) and 122.44(a) & (e) 40 CFR 125.1 - 125.3	Point source discharge must meet technology-based effluent limitations (including those based on best available technology for toxic and non-conventional pollutants and those based on best conventional technology for conventional pollutants) and effluent limitations and conditions necessary to meet state water quality standards, except that discharges in compliance with instructions of On-Scene Coordinator (OSC) acting pursuant to NCP are exempt from these requirements.	Applicable to point source discharges of treated water from dewatering/treatment facility to Housatonic River.	If floodplain soils are saturated, they would be dewatered, and resulting water would be treated. Discharges could not feasibly meet MA water quality criteria for PCBs (0.014 and 0.000064 µg/L) in receiving waters, since current water quality conditions in Housatonic River do not meet those criteria. In addition, it is not anticipated that those criteria would be met at the point of discharge. EPA used a standard of 0.5 µg/L for discharges from the treatment facility in the 1½ Mile Reach Removal Action, and the data from discharges in that project were generally in the range of 0.01 to 0.1 µg/L and often > 0.014 µg/L. However, this ARAR could be met through discharges in compliance with instructions from OSC.
Clean Water Act – NPDES regulations (stormwater discharges)	40 CFR 122.26(c)(1)(ii)(C) 40 CFR 122.44(k)	Best management practices (BMPs) must be employed to control pollutants in stormwater discharges during construction activities.	Applicable to stormwater discharges during construction activities, including temporary staging of excavated materials.	Would be attained through use of BMPs to control erosion from stormwater discharges during construction activities, including soil excavation, construction of access roads and temporary staging areas, and temporary staging of excavated soils at those areas.

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Table F-7.c: Alternative FP 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Endangered Species Act and regulations	16 USC 1536(a)-(d) 40 CFR 6.302(h) 50 CFR Part 402, Subparts A & B	A federal agency must ensure that any action authorized, funded, or carried out by it is not likely to jeopardize the continued existence of a listed threatened or endangered (T&E) species or result in destruction or adverse modification of critical habitat, unless an exemption is granted. If a listed species or critical habitat may be present in the action area, the key steps include a biological assessment by the authorizing agency; a biological opinion by the resource service; and if the action is likely to adversely affect a listed species or critical habitat, identification of “reasonable and prudent” measures to avoid and/or minimize such effects.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize the continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because review of available information indicates that FP 7 would not adversely affect any federally listed T&E species or their habitat.
Resource Conservation and Recovery Act (RCRA) regulations on identification of hazardous waste	40 CFR Part 261	Establishes criteria and lists for determining whether a waste is a hazardous waste under RCRA. Note that Sec. 261.24 identifies concentrations of contaminants which make waste a hazardous waste due to toxicity, as determined through the Toxicity Characteristic Leaching Procedure (TCLP).	Relevant and appropriate to determining whether excavated soils must be managed as a hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated soils would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of soils subject to removal would be conducted during design to confirm that result.
RCRA regulations for generators of hazardous waste	40 CFR 262.30 - 262.33	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated soils are not expected to constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	If excavated soils do not constitute RCRA hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table F-7.c: Alternative FP 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – general requirements	40 CFR 264.1(j)	General requirements for facilities used to manage remediation wastes that constitute hazardous waste (e.g., requirements for waste analysis, security, precautions to prevent accidental ignition or reaction of wastes, preventing washout of units in floodplain by 100-year flood). (These requirements are in lieu of Part 264, Subparts B, C, and D.)	These requirements would not be expected to apply to any temporary staging areas because excavated soils are not expected to constitute RCRA hazardous waste. Further, even if some soils did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be met at the temporary staging areas used for such waste.
RCRA regulations for hazardous waste management facilities – technical requirements for storage of hazardous waste	40 CFR Part 264, Subpart L	Design, operating, closure, and (if necessary) post-closure requirements for storage of hazardous waste in waste piles outside structures.	These requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the waste piles used for temporary staging of such waste would meet these requirements with the following exceptions: (a) While these waste piles would meet the single liner/leachate collection requirements of § 264.251(a), they would not meet the requirements of § 264.251(c) for a double liner/leachate collection system at “new waste pile units” (if applicable); and (b) while these areas would contain a run-on control system capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (see § 264.251(g)). To the extent these requirements, which were developed for permanent hazardous waste storage units, are considered applicable, they are not practical for temporary staging areas and thus should be waived as technically impracticable to attain.

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Table F-7.c: Alternative FP 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – groundwater protection	40 CFR Part 264, Subpart F	Groundwater protection requirements for hazardous waste contained in solid waste management units. Includes groundwater protection standards (i.e., maximum contaminant levels) for waste piles outside structures; alternate limits allowed under 40 CFR 264.94(b); and requirements for groundwater monitoring systems.	Same as above	If excavated soils do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable to attain.
RCRA land disposal restrictions	40 CFR 268.50	Prohibits storage of hazardous wastes that are prohibited from land disposal under Part 268, Subpart C, with a number of exceptions, including that such waste may be stored solely for the purpose of accumulating such quantities as are necessary to facilitate proper recovery, treatment, or disposal	Same as above except that if some excavated soils were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these provisions would apply.	If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these provisions would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would meet the exception to the storage prohibition for the accumulation of such quantities as are necessary to facilitate treatment or disposal.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (Note: Listed as location-specific ARAR in Table F-7.b, but also listed here at	314 CMR 9.01 - 9.08	Same as described for these regulations in Table F-7.b.	Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.	Same as described for these regulations in Table F-7.b.

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Table F-7.c: Alternative FP 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
EPA's direction.)				
Massachusetts Clean Water Act and Wetlands Protection Act – stormwater management standards	310 CMR 10.05(6)(k) 314 CMR 9.06(6)(a)	Projects subject to regulation under the Wetlands Protection Act or that involve discharge of dredged or fill material must be provided with stormwater BMPs to attenuate pollutants in stormwater discharges and provide a setback from receiving waters and wetlands in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during construction activities and at temporary staging areas.	FP 7 would include use of stormwater BMPs during construction of access roads and staging areas and at the excavation areas and temporary staging areas. These BMPs would be designed to meet the MDEP's specified stormwater management standards. These stormwater systems would include ~ 25-foot setbacks from receiving waters and wetlands where practicable, but this would not be feasible in the many areas where the soil removal would take place within or adjacent to wetlands or where there is be no practical alternative to siting the staging areas in or near wetlands. For such cases, the setback requirement would need to be waived as technically impracticable.
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity may not result in a "take" of a State-listed endangered, threatened, or special concern species, except that such a "take" may be allowed if the applicant has adequately addressed alternatives, an insignificant portion of the local population would be impacted, and the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the species. Projects in a designated Priority Habitat for a State-listed species or other area where such a species has occurred must be reviewed in accordance with these requirements.	Applicable to activities in a State-designated Priority Habitat in MA or other areas where information indicates the occurrence of a State-listed species.	FP 7 would involve extensive excavations, as well as construction of access roads and staging areas, within Priority Habitat, as shown on Figure F-7. Based on the evaluations presented in Appendix B to this Interim Response, these activities and facilities would result in a "take" of at least 21 State-listed species. For about 18 of those species, the take would impact a significant portion of the local population. In these cases, the MESA requirements would need to be waived as technically impracticable to meet. For the species for which the take would not affect a significant portion of the local population, it cannot be established that a long-term Net Benefit plan could feasibly be developed at this site, as also discussed in Appendix B. If not, the MESA requirement for such a plan would need to be waived.

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Table F-7.c: Alternative FP 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
	321 CMR 10.00, Part IV	Projects that will alter a designated Significant Habitat must be reviewed to ensure that they will not reduce the viability of the habitat to sustain an endangered or threatened species.	Would be applicable to activities affecting State-designated Significant Habitat in MA. However, no such habitat has been designated.	Not applicable.
Massachusetts hazardous waste regulations on identification of hazardous waste	310 CMR 30.100	Establishes criteria and lists for determining whether a waste is a hazardous waste under state law. Note that wastes that contain PCBs \geq 50 mg/kg (which are listed wastes) are exempt from the state hazardous waste management regulations so long as they are managed in compliance with EPA's TSCA regulations (40 CFR Part 761) (see 310 CMR 30.501(3)(a)). (Materials that constitute state hazardous wastes on other grounds are referred to in this table as "non-PCB state hazardous waste.")	Applicable to determining whether excavated floodplain soils must be managed as a hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated floodplain soils would constitute hazardous waste under state law on grounds other than containing PCBs \geq 50 mg/kg. However, representative TCLP testing of soils subject to removal would be conducted during design to confirm that result.
Massachusetts hazardous waste regulations for generators	310 CMR 30.321 - 30.324	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some soils did constitute such hazardous waste, these requirements would apply.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table F-7.c: Alternative FP 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste management regulations – general requirements	310 CMR 30.513, 30.514, 30.524, 30.560	General requirements for hazardous waste management facilities (for waste analysis, security, emergency prevention and response, and precautions to prevent accidental ignition or reaction of wastes).	These requirements would not be expected to apply to temporary staging areas because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply to staging areas for such waste.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, these requirements would be met at staging areas for such waste.
Massachusetts hazardous waste management regulations – location standards for units used to store hazardous waste (Note: Some of these regulations were also listed as location-specific ARAR in Table F-7.b.)	310 CMR 30.701(6), 30.703(2), 30.704(3), 30.705(3) & (6)	Location standards for waste piles, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in wetlands, (c) within ½ mile of public water supply well, (d) on land overlying an actual, planned, or potential public underground drinking water source, (e) within 1000 feet of a private drinking water well, or (f) without a 200-foot buffer zone to fenceline.	These requirements would not be expected to apply because excavated soils are not expected to constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply to waste piles for such waste at temporary staging areas.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be feasible to site some such staging areas outside 500-year floodplain, since, in some locations, this would drive the staging areas too far from the removal areas to be practical; (b) while GE would try to avoid siting staging areas in wetlands where practical, this would be not practical in some cases given that the majority of the PSA consists of wetlands; (c) it is unknown whether such sites would overlie a “potential public underground drinking water source” (defined as a groundwater source capable of yielding 100 gpm or more of water and with less than 10,000 mg/L of total dissolved solids); and (d) it is not certain whether some areas could be designed and constructed with a 200-foot buffer zone to

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Table F-7.c: Alternative FP 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				fenceline. Any requirements that could not feasibly be met would need to be waived as technically impracticable in order for this alternative to be implemented.
Massachusetts hazardous waste management regulations – technical requirements for storage of hazardous waste	310 CMR 30.602 310 CMR 30.640 310 CMR 30.580	Requirements for design, operation, and closure of waste piles used to store hazardous waste.	Same as above.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except as follows: (a) It may not be practical for some areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); this would require investigation during design. (b) While these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have such systems capable of preventing flow onto those areas or controlling runoff during a 100-year flood (see 30.641(2 & (3)). To the extent that these requirements are considered applicable and could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.
	310 CMR 30.660	Groundwater protection requirements for waste piles outside structures, including monitoring system requirements; groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.	Same as above.	If excavated soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be

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Table F-7.c: Alternative FP 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				practicable, and thus this requirement, if applicable, should be waived as technically impracticable.
Massachusetts air pollution control regulations	310 CMR 7.09	Prohibits person engaged in dust-generating activities from creating condition of air pollution, defined as air concentrations that would cause a nuisance, be injurious or potentially injurious to human or animal life, vegetation, or property, or unreasonably interfere with comfortable enjoyment of life and property or conduct of business.	Applicable to excavation and construction activities generating dust.	Would be attained through use of dust control measures during activities that could generate dust and through particulate and PCB air monitoring during excavation activities and during construction and operation of the staging areas, along with response actions if certain action levels are exceeded. These measures would be specified in design.
Guidances To Be Considered				
TSCA PCB Spill Cleanup Policy	40 CFR Part 761, Subpart G	Policy used to determine adequacy of cleanup of spills resulting from the release of materials containing PCBs at concentration of 50 ppm or greater.	To be considered.	Would be considered in the event of any new PCB spill that occurs during implementation of FP 7.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups</i> (EPA, 1995)	Memorandum from EPA Office of Solid Waste and Emergency Response, March 13, 1995	Describes EPA policy on use of Area of Contamination (AOC) approach under RCRA. Explains that an overall area that includes discrete areas of generally dispersed contamination may be considered an AOC, within which the movement of waste is not considered “placement,” such that the RCRA land disposal restrictions and other RCRA requirements, including minimum technology requirements, would not be triggered.	To be considered.	Under this policy, even if excavated soils should constitute RCRA hazardous waste, the technical RCRA requirements for a hazardous waste storage facility would not apply to temporary staging areas located within the boundary of the Rest of River area, because those areas would be within the overall area of dispersed contamination.

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Table S-1.a: Alternative SED 1 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act, National Ambient Water Quality Criteria for PCBs	<i>National Recommended Water Quality Criteria: 2002</i> , EPA-822-R-02-047, USEPA, Office of Water, Office of Science and Technology (Nov. 2002)	<p>Freshwater chronic aquatic life criterion (based on protection of mink): 0.014 µg/L (4-day average not to be exceeded more than once every 3 years).</p> <p>Human health criterion based on human consumption of water and organisms: 0.000064 µg/L (evaluated on annual average basis).</p>	Relevant and appropriate to surface water in Rest of River.	<p>Model indicates that SED 1 (no action) would not achieve chronic aquatic life criterion in MA, but would in CT (see Interim Response, Response to Specific Comment 62). Where not achieved, GE believes that this criterion should be waived under CERCLA and National Contingency Plan (NCP) on ground that actions necessary to achieve it would result in greater risk to human health and environment than SED 1 (CERCLA § 121(d)(4)(B); 40 CFR § 300.430(f)(1)(ii)(C)(2)).</p> <p>Model also indicates that SED 1 would not achieve human health criterion in any reaches. That criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) because it is below current ability to measure and would not be achieved by any sediment alternative (see CMS Report, Section 4.1.4).</p>
State ARARs				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	Same as federal water quality criteria (unless Mass. Dept. of Environmental Protection establishes site-specific criterion or determines that naturally occurring background concentrations are higher).	Applicable to surface water of Housatonic River in Massachusetts.	Same as for federal water quality criteria.

Table S-1.a: Alternative SED 1 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<p>Numeric Connecticut water quality criteria for PCBs</p>	<p><i>Connecticut Water Quality Standards</i> (effective Dec. 17, 2002), Appendix D</p>	<p>Freshwater chronic aquatic life criterion: 0.014 µg/L (same as federal criterion).</p> <p>Human health criterion, based on human consumption of organisms only or water and organisms: 0.00017 µg/L. (This criterion is based on the prior federal criterion and has not been revised since the federal criterion was revised.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due, in part, to PCBs.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Status of human health criterion as ARAR is not clear since it is less stringent (and less up-to-date) than comparable federal criterion (see 40 CFR 300.5).</p>	<p>CT 1-D Analysis indicates that SED 1 would achieve chronic aquatic life criterion in CT impoundments.</p> <p>For human health criterion (if it is considered an ARAR), CT 1-D Analysis indicates that SED 1 would not achieve that criterion in the CT impoundments. GE believes that that criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) for the reasons given in CMS Report, page 4-7 n.41.</p>
<p>Guidances To Be Considered</p>				
<p>Cancer Slope Factors</p>	<p>EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/iriswebp/iris/index.html</p>	<p>Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.</p>	<p>To be considered.</p>	<p>Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>
<p>Reference Doses</p>	<p>EPA's IRIS http://www.epa.gov/iriswebp/iris/index.html</p>	<p>Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.</p>	<p>To be considered.</p>	<p>Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>
<p><i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)</p>	<p>EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)</p>	<p>Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.</p>	<p>To be considered.</p>	<p>Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>

Table S-1.a: Alternative SED 1 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting remedy for Rest of River.
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting remedy for Rest of River.
Massachusetts fish consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Advises that the public should not consume any fish from the Housatonic River from Dalton to Sheffield due to PCBs; also includes frogs and turtles.	To be considered.	Will be considered in SED 1 through continuation and maintenance of this advisory, including appropriate steps to inform anglers about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	Will be considered in SED 1 through continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table S-1.a: Alternative SED 1 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Connecticut fish consumption advisory	Connecticut Department of Public Health, 2006 Advisory for Eating Fish from Connecticut Waterbodies	Establishes advisories on consuming fish from the Housatonic R. in Connecticut (above Derby Dam), including Lakes Lillinonah, Zoar, and Housatonic, due to PCBs in fish. Advisories vary by species, location, and group of consumers (i.e., high-risk vs. low-risk group), ranging from “do not eat” to “one meal per week.”	To be considered.	Will be considered in SED 1 through continuation and maintenance of these advisories, including appropriate steps to inform anglers about the advisories, for as long as considered necessary by the Connecticut Department of Public Health.

Table S-1.b: Alternative SED 1 – Potential Location-Specific ARARs

Statute/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
None				

Table S-1.c: Alternative SED 1 – Potential Action-Specific ARARs

Statute/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
None				

Table S-2.a: Alternative SED 2 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act, National Ambient Water Quality Criteria for PCBs	<i>National Recommended Water Quality Criteria: 2002</i> , EPA-822-R-02-047, USEPA, Office of Water, Office of Science and Technology (Nov. 2002)	<p>Freshwater chronic aquatic life criterion (based on protection of mink): 0.014 µg/L (4-day average not to be exceeded more than once every 3 years).</p> <p>Human health criterion based on human consumption of water and organisms: 0.000064 µg/L (evaluated on annual average basis).</p>	Relevant and appropriate to surface water in Rest of River.	<p>Model indicates that SED 2 would not achieve chronic aquatic life criterion in MA, but would in CT (see Interim Response, Response to Specific Comment 62). Where not achieved, GE believes that this criterion should be waived under CERCLA and National Contingency Plan (NCP) on ground that actions necessary to achieve it would result in greater risk to human health and environment than SED 2 (CERCLA § 121(d)(4)(B); 40 CFR § 300.430(f)(1)(ii)(C)(2)).</p> <p>Model also indicates that SED 2 would not achieve human health criterion in any reaches. That criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) because it is below current ability to measure and would not be achieved by any sediment alternative (see CMS Report, Section 4.1.4).</p>
State ARARs				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	Same as federal water quality criteria (unless Mass. Dept. of Environmental Protection establishes site-specific criterion or determines that naturally occurring background concentrations are higher).	Applicable to surface water of Housatonic River in Massachusetts.	Same as for federal water quality criteria.

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Table S-2.a: Alternative SED 2 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Numeric Connecticut water quality criteria for PCBs	<i>Connecticut Water Quality Standards</i> (effective Dec. 17, 2002), Appendix D	<p>Freshwater chronic aquatic life criterion: 0.014 µg/L (same as federal criterion).</p> <p>Human health criterion, based on human consumption of organisms only or water and organisms: 0.00017 µg/L. (This criterion is based on the prior federal criterion and has not been revised since the federal criterion was revised.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due, in part, to PCBs.</p>	Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut. Status of human health criterion as ARAR is not clear since it is less stringent (and less up-to-date) than comparable federal criterion (see 40 CFR 300.5).	<p>CT 1-D Analysis indicates that SED 2 would achieve chronic aquatic life criterion in CT impoundments.</p> <p>For human health criterion (if it is considered an ARAR), CT 1-D Analysis indicates that SED 2 would not achieve that criterion in the CT impoundments. GE believes that that criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) for the reasons given in CMS Report, page 4-7 n.41.</p>
Guidances To Be Considered				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.
Reference Doses	EPA's IRIS http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.
<i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)	EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)	Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.

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Table S-2.a: Alternative SED 2 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting remedy for Rest of River.
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting remedy for Rest of River.
Massachusetts fish consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Advises that the public should not consume any fish from the Housatonic River from Dalton to Sheffield due to PCBs; also includes frogs and turtles.	To be considered.	SED 2 includes continuation and maintenance of this advisory, including appropriate steps to inform anglers about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	SED 2 includes continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

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Table S-2.a: Alternative SED 2 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut fish consumption advisory	Connecticut Department of Public Health, 2006 Advisory for Eating Fish from Connecticut Waterbodies	Establishes advisories on consuming fish from the Housatonic R. in Connecticut (above Derby Dam), including Lakes Lillinonah, Zoar, and Housatonic, due to PCBs in fish. Advisories vary by species, location, and group of consumers (i.e., high-risk vs. low-risk group), ranging from “do not eat” to “one meal per week.”	To be considered.	SED 2 includes continuation and maintenance of these advisories, including appropriate steps to inform anglers about the advisories, for as long as considered necessary by the Connecticut Department of Public Health.

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Table S-2.b: Alternative SED 2 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
None				
State ARARs				
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.59	Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less damaging to resource areas; and (b) avoid or minimize impacts to resource areas. In addition, under 310 CMR 10.59, they must have no adverse effect on estimated habitat of rare species. For areas within 100 feet of stream/pond banks or wetlands (buffer zone) or within 200 feet from river’s edge (riverfront areas), minor activities such as sampling and monitoring are exempt from these regulations. See 310 CMR 10.02(2)(b)1.g.	Applicable to sampling and monitoring activities within waterbodies, stream/pond banks, wetlands, or floodplains	For sampling and monitoring activities under SED 2, there is no practicable alternative that would be less damaging to resource areas; and those activities would be conducted in accordance with the applicable requirements under the Wetlands Protection Act.
Massachusetts Dam Safety Standards	302 CMR 10.00	Regulations establish design and construction criteria for new and existing dams (302 CMR 10.14) and requirements for periodic inspections of dams (302 CMR 10.07). These regulations exclude dams subject to regulation by the Federal Energy Regulatory Commission (FERC) (302 CMR 10.04).	Applicable to existing GE-owned dams on Housatonic River in Massachusetts. Not applicable to other existing dams in Rest of River in Massachusetts, because those dams are subject to regulation by FERC, which preempts application of these state dam safety standards. In any case, even if these standards were relevant to non-GE-owned dams, they would	GE will meet these requirements at dams that it owns (Woods Pond Dam and Rising Pond Dam). Not applicable to other dams in Rest of River in Massachusetts.

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Table S-2.b: Alternative SED 2 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			relate to responsibilities of those dam owners and are not ARARs for SED 2.	
Massachusetts Historical Commission Act and regulations	MGL c. 9, § 27C	Any person supervising any survey, excavation, or construction on state or local government lands must report to the state archaeologist any archaeological, paleontological, or historical site or object discovered, and must take all reasonable steps to secure its preservation.	Applicable to investigations on state or local government lands in MA.	If any archaeological, paleontological, or historical site or object is discovered during sampling activities under SED 2, this requirement for notification and preservation would be met.
Connecticut Dam Safety Requirements	Conn. Gen. Stat. 22a-401 to 22a-411 Conn. Agencies Regs. Sec. 22a-409-2	Requirements for registration of certain types of dams; periodic inspections of dams; maintenance activities; construction, repair, replacement, or removal of dams; and notifications to CT DEP of sudden or unpredicted floods or major changes in condition of dams.	Not applicable to existing dams on River in Connecticut, because all such dams are subject to FERC regulation, which preempts application of these state dam requirements. In any case, even if these requirements were relevant, they would relate to responsibilities of the dam owners and are not ARARs for SED 2.	Not applicable.
Connecticut Inland Wetlands and Watercourses Act and regulations	Conn. Gen. Stat. 22a-36 <i>et seq.</i> Conn. Agencies Regs. Sec. 22a-39-4	Permit required from local (municipal) wetland agency for activities that remove material from inland wetlands or watercourses; CT DEP allowed to issue general permit for minor activities with minimal environmental impacts, defined to include monitoring and sampling (Conn. Gen. Stat. 22a-45a). No substantive standards provided.	Relevant and appropriate to sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on sampling in Connecticut portion of river.

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Table S-2.c: Alternative SED 2 – Potential Action-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
TSCA regulations on decontamination	40 CFR 761.79	Establishes decontamination standards and procedures for removing PCBs from water, organic liquids, and various types of surfaces.	Applicable to decontamination of equipment used in sampling of PCB-containing materials.	Would be attained through use of proper decontamination procedures on sampling/monitoring equipment.
State ARARs				
Connecticut fisheries and game laws	Conn. Gen. Stat. 26-60	Authorizes CT DEP to issue permits to properly accredited persons for sampling of fish, crustaceans, and wildlife for educational and scientific purposes, with CT DEP to determine number, species, area, and method of collection.	Relevant and appropriate to biota sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on biota sampling in Connecticut portion of river.

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Table S-3.a: Alternative SED 3 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act, National Ambient Water Quality Criteria for PCBs	<i>National Recommended Water Quality Criteria: 2002</i> , EPA-822-R-02-047, USEPA, Office of Water, Office of Science and Technology (Nov. 2002)	<p>Freshwater chronic aquatic life criterion (based on protection of mink): 0.014 µg/L (4-day average not to be exceeded more than once every 3 years).</p> <p>Human health criterion based on human consumption of water and organisms: 0.000064 µg/L (evaluated on annual average basis).</p>	Relevant and appropriate to surface water in Rest of River.	<p>Model indicates that SED 3 would achieve chronic aquatic life criterion in all reaches using block averaging approach (and would achieve that criterion using rolling average approach in all reaches except for 1 extra exceedance in Reaches 5A and 7G and 4 extra exceedances in Rising Pond) (see Interim Response, Response to Specific Comment 62).</p> <p>Model indicates that SED 3 would not achieve human health criterion in any reaches. That criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) because it is below current ability to measure and would not be achieved by any sediment alternative (see CMS Report, Section 4.1.4).</p>
State ARARs				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	Same as federal water quality criteria (unless Mass. Dept. of Environmental Protection establishes site-specific criterion or determines that naturally occurring background concentrations are higher).	Applicable to surface water of Housatonic River in Massachusetts.	Same as for federal water quality criteria.

Table S-3.a: Alternative SED 3 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<p>Numeric Connecticut water quality criteria for PCBs</p>	<p><i>Connecticut Water Quality Standards</i> (effective Dec. 17, 2002), Appendix D</p>	<p>Freshwater chronic aquatic life criterion: 0.014 µg/L (same as federal criterion).</p> <p>Human health criterion, based on human consumption of organisms only or water and organisms: 0.00017 µg/L. (This criterion is based on the prior federal criterion and has not been revised since the federal criterion was revised.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due, in part, to PCBs.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Status of human health criterion as ARAR is not clear since it is less stringent (and less up-to-date) than comparable federal criterion (see 40 CFR 300.5).</p>	<p>CT 1-D Analysis indicates that SED 3 would achieve chronic aquatic life criterion in CT impoundments.</p> <p>For human health criterion (if it is considered an ARAR), CT 1-D Analysis indicates that SED 3 would achieve that criterion in 2 of 4 CT impoundments. GE believes that that criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) for the reasons given in CMS Report, page 4-7 n.41.</p>
<p>Guidances To Be Considered</p>				
<p>Cancer Slope Factors</p>	<p>EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/iriswebp/iris/index.html</p>	<p>Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.</p>	<p>To be considered.</p>	<p>Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>
<p>Reference Doses</p>	<p>EPA's IRIS http://www.epa.gov/iriswebp/iris/index.html</p>	<p>Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.</p>	<p>To be considered.</p>	<p>Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>
<p><i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)</p>	<p>EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)</p>	<p>Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.</p>	<p>To be considered.</p>	<p>Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>

Table S-3.a: Alternative SED 3 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting remedy for Rest of River.
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting remedy for Rest of River.
Massachusetts fish consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Advises that the public should not consume any fish from the Housatonic River from Dalton to Sheffield due to PCBs; also includes frogs and turtles.	To be considered.	SED 3 includes continuation and maintenance of this advisory, including appropriate steps to inform anglers about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	SED 3 includes continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table S-3.a: Alternative SED 3 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut fish consumption advisory	Connecticut Department of Public Health, 2006 Advisory for Eating Fish from Connecticut Waterbodies	Establishes advisories on consuming fish from the Housatonic R. in Connecticut (above Derby Dam), including Lakes Lillinonah, Zoar, and Housatonic, due to PCBs in fish. Advisories vary by species, location, and group of consumers (i.e., high-risk vs. low-risk group), ranging from “do not eat” to “one meal per week.”	To be considered.	SED 3 includes continuation and maintenance of these advisories, including appropriate steps to inform anglers about the advisories, for as long as considered necessary by the Connecticut Department of Public Health.

Table S-3.b: Alternative SED 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act – Section 404 and implementing regulations issued by U.S. Army Corps of Engineers (ACOE) and by EPA	33 USC 1344 33 CFR Parts 320-323 (ACOE) 40 CFR Part 230 (EPA)	For discharge of dredge or fill material: (a) there must be no practical alternative with less adverse impact on aquatic ecosystem; (b) discharge cannot cause or contribute to violation of state water quality standard or toxic effluent standard; (c) discharge cannot jeopardize the existence of any threatened or endangered (T&E) species; (d) discharge cannot cause or contribute to significant degradation of waters of the U.S., including significant adverse effects on human health or welfare, aquatic life, aquatic ecosystem, or recreational, aesthetic, and economic values; and (e) discharger must take appropriate and practicable steps to minimize or mitigate potential adverse effects on aquatic ecosystem.	Applicable to discharges of dredged or fill material to waters of the U.S. (including wetlands that constitute such waters)	<p>(a) There are practical alternatives with less adverse impact on aquatic ecosystem – e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) SED 3 would not meet requirement that discharge not contribute to violation of state water quality standards, since Housatonic River does not currently meet numerical MA water quality criteria for PCBs; hence, that requirement should be waived as technically impracticable to attain.</p> <p>(c) Review of available information indicates that SED 3 would not affect any federally listed T&E species.</p> <p>(d) SED 3 would cause significant adverse effects on aquatic life, aquatic ecosystem, and recreational and aesthetic values, as described in CMS Report (Sections 4.3.5.3 and 4.3.8) and this Interim Response (Response to General Comment 10). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>(e) SED 3 would include appropriate and practicable steps in an effort to minimize or mitigate potential adverse effects on aquatic ecosystem. Despite such steps, however, SED 3 would have substantial adverse effects on the aquatic ecosystem, as noted above and discussed in Response to General Comment 10.</p>

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Table S-3.b: Alternative SED 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	33 CFR Part 332 (ACOE) 40 CFR Part 203, Subpart J (EPA)	Compensatory mitigation regulations: If project will have unavoidable adverse impacts after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation – i.e., the restoration, creation, enhancement, or (in some circumstances) preservation of aquatic resources. This requires a mitigation work plan, including detailed specifications and descriptions for compensatory mitigation. The regulations also require objective performance standards, monitoring for at least 5 years, and active long-term management and maintenance where necessary to ensure long-term sustainability.	Applicable to discharges of dredged or fill material to waters of the U.S. (including wetlands that constitute such waters)	For areas where SED 3 would have unavoidable adverse impacts on the aquatic ecosystem, a compensatory mitigation plan would be necessary to address those impacts. Despite such plan, however, considerable adverse impacts will remain. See Response to General Comment 10. See also Responses to General Comment 29 and Specific Comment 106.
Rivers and Harbors Act of 1899, Section 10	33 USC 403	Prohibits obstruction, excavation, filling, or altering any navigable water of the United States without authorization from U.S. Army Corps of Engineers.	Relevant and appropriate to dredging in, and discharge of dredge and fill material to, navigable waters of the U.S., but no permit required.	Since no permit is required, this requirement would be addressed through EPA's coordination with U.S. Army Corps of Engineers regarding work in Housatonic River.
Fish and Wildlife Coordination Act requirements	16 USC 662(a) 40 CFR 6.302(g)	A federal agency proposing to undertake or authorize an action that will control or modify any waterbody must consult with federal and state resource agencies to ascertain measures to prevent, mitigate, and compensate for project-related loss of or damage to fish and wildlife resources and to provide for the development and improvement of such resources.	Applicable to EPA; relevant and appropriate to work in river.	Would be attained through consultation by EPA with U.S. Fish and Wildlife Service and MA Department of Fish and Game.

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Table S-3.b: Alternative SED 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Executive Order for Wetlands Protection	Exec. Order 11990 (1977) 40 CFR 6.302(a) 40 CFR Part 6, App. A	A federal agency must avoid construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Applicable to EPA; relevant and appropriate to work in wetlands.	<p>SED 3 would involve some construction activities in wetlands (e.g., excavation in Reach 5A, thin-layer capping in Reach 5C and Woods Pond, construction of access roads and staging areas in wetlands). There are practical alternatives with much less adverse effect on wetlands – e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>SED 3 would include practicable measures to minimize harm to wetlands, including avoiding siting access roads and staging areas in wetlands where practicable, use of erosion and sedimentation control measures, and reasonable restoration measures for affected wetlands. However, restoration measures would not prevent considerable harm to wetlands, as discussed in Response to General Comment 10.</p>
Executive Order for Floodplain Management	Exec. Order 11988 (1977) 40 CFR 6.302(b) 40 CFR Part 6, App. A	A federal agency proposing action in a floodplain must consider alternatives to avoid adverse effects on the floodplain, and if there is no practicable alternative, must design or modify the action to minimize harm to or within the floodplain.	Applicable to EPA; relevant and appropriate to work in floodplains.	<p>SED 3 would involve construction of access roads and staging areas in the floodplain. Since these facilities must be located near sediment removal areas, they cannot be relocated to avoid any construction in the floodplain. However, there are practical alternatives with less adverse effects on the floodplain – e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>SED 3 would include practicable measures to minimize harm to the floodplain, including erosion and sedimentation control measures, reasonable restoration measures for affected portions of floodplain, and maintenance of existing flood storage capacity of the floodplain. However, these measures would not prevent considerable harm to the floodplain, as discussed in Response to General Comment 10.</p>

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Table S-3.b: Alternative SED 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains	40 CFR 264.1(j)(7) 40 CFR 264.18(b)	A hazardous waste treatment, storage, or disposal facility used for remediation waste and located in the 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of such waste by a 100-year flood unless owner/operator shows that procedures are in effect to remove waste safely before flood waters can reach facility.	These requirements would not be expected to apply to any temporary staging areas because excavated materials are not expected to constitute RCRA hazardous waste. Further, even if some materials did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if some excavated materials were found to constitute RCRA hazardous waste and were staged at areas within 100-year floodplain to which AOC policy does not apply (if any), these requirements would be met. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.
National Historic Preservation Act and regulations	16 USC 470f 36 CFR Part 800	A federal agency proposing to fund or authorize a project must take into account the project's effect on properties (including a site, building, structure, or object) included or eligible for inclusion in the National Register of Historic Places (NRHP). This requires: (a) consultation with the State and/or Tribal Historic Preservation Offices; (b) identification of the project's "area of potential effects"; (c) identification of any listed or eligible historic	Applicable to EPA; relevant and appropriate to federally authorized work in areas where property(ies) listed or eligible for inclusion on NRHP may be present.	Would be attained through process described in Section 6 of GE's <i>Initial Phase IA Cultural Resources Assessment for the Housatonic River – Rest of River Project</i> (Phase IA CRA: URS Corporation, March 13, 2008).

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Table S-3.b: Alternative SED 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		property within that area that could be affected by the project; (d) if there is such property, determination of whether the project would have an adverse impact on the property; (e) if so, evaluation of alternatives to avoid, minimize, or mitigate the adverse impacts; and (f) agreement on such measures or, failing agreement, implementation of such measures identified by the authorizing agency.		
Archaeological and Historic Preservation Act	16 USC 469	When a federal agency finds or is notified that a federal or federally authorized project may cause the loss or destruction of archaeological or historic data, it must notify Department of Interior (DOI). If DOI determines that the data are significant and may be irrevocably lost or destroyed, it is to conduct a survey and other investigation of the affected area and recover and preserve such data as necessary in public interest.	Applicable to EPA; relevant and appropriate to federally authorized work in areas where archaeological or historic data may be present.	Identification of archaeological or historic data potentially affected by SED 3 would be made through process identified in Phase IA CRA. If such data are identified that could be irrevocably lost or destroyed by implementation of SED 3, it is anticipated that EPA would notify DOI as required.
State ARARs				
Massachusetts Waterways Law and implementing regulations	MGL Ch. 91 310 CMR 9.00	Standards and requirements for any construction, placement, excavation, alteration, or removal of any fill or structures in a waterbody (below high water mark). Includes standards governing engineering and construction of fill and structures to be placed in waterbodies (9.37) and standards for dredging (9.40), including prohibition on dredging in an Area of Critical Environmental Concern (ACEC) except for sole purpose of fisheries or wildlife enhancement. Also requires compliance with other specified environmental regulatory programs (9.33).	Applicable to excavation/removal of sediments from Housatonic River, placement of caps or backfill in river, and placement of structures in river below high water mark to aid in excavation, address erosion, or restore habitat.	SED 3 would be designed to attain these standards and requirements, except that if Reach 5A becomes part of a designated ACEC, SED 3 would not comply with the prohibition on dredging in an ACEC. In the latter event, SED 3 could not be implemented without a waiver of that prohibition. (The other relevant environmental regulatory programs referenced in Section 9.33 are discussed separately in these ARARs tables.)

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Table S-3.b: Alternative SED 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<p>Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act)</p> <p>Note: These regulations are also listed as action-specific ARARs for SED 3.</p>	<p>314 CMR 9.01 - 9.08</p>	<p>For discharge of dredged or fill material: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on bordering or isolated vegetated wetlands, including 1:1 restoration or replication of such wetlands (unless waived); (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under the Wetlands Protection Act or would be to certain designated "Outstanding Resource Waters," including certified vernal pools, unless a variance is obtained; (d) stormwater discharges must be controlled with best management practices (BMPs); and (e) there must be no substantial adverse impacts to physical, chemical, or biological integrity of surface waters.</p> <p>For dredging and dredged material management: (a) no dredging is allowed if there is practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid, minimize, or mitigate adverse effects on land under water; (c) dredging must be conducted to meet performance standards designed to minimize impacts on the aquatic ecosystem and protect human health; and (d) placement of dredged material in an intermediate facility for sediment management (dewatering, processing, etc.) prior to disposal or reuse must meet certain requirements, including requirements governing method of placement/storage of</p>	<p>Applicable to excavation/removal of sediments and bank soils, discharge of dredged or fill material to waters or wetlands, and dredged material management at temporary staging areas.</p>	<p>As noted above, there are practical alternatives with less adverse impact on aquatic ecosystem – e.g., the ecologically sensitive alternative being developed. Thus, the requirement that there be no such alternative would not be met.</p> <p>SED 3 would include appropriate and practicable steps in an effort to avoid, minimize, or mitigate potential adverse effects on land under water and on wetlands, but such steps would not prevent harm to these resource areas (see Response to General Comment 10). Further, under SED 3, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), stormwater discharges would be controlled through BMPs, and there would be no substantial long-term adverse impacts to the integrity of river water. However, SED 3 would adversely affect estimated habitat of rare wildlife species, because all excavation and most supporting activities would occur within such habitat (see Figure S-3). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>Excavation activities under SED 3 would meet the specified dredging performance standards, except that they would affect areas of ecological importance (including an ACEC if designated) and, in some cases, would not be able to maintain a minimum of 25 feet between the edge of vegetated wetlands and the top of the slope of the excavation areas. Hence, the latter requirements would need to be waived as technically impracticable.</p> <p>Temporary staging areas would meet the placement and siting requirements for intermediate facilities, except that they would not be able to meet the requirements that such facilities cannot have a permanent adverse</p>

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Table S-3.b: Alternative SED 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		dredged material and siting criteria.		impact on a state-listed rare species or on an ACEC. Most temporary staging areas under SED 3 would be located in State-designated Priority Habitat of rare species (see Figure S-3) and would have a permanent adverse effect on state-listed species, as shown in Appendix B to this Interim Response. If an ACEC is designated, the staging areas would be located within the ACEC and would have a permanent adverse impact on the ACEC if restoration of the affected areas is not successful (see Response to General Comment 10). To the extent that these requirements would not be met, they would need to be waived as technically impracticable.
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 310 CMR 10.59	Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less damaging to resource areas; and (b) avoid or minimize impacts to resource areas, including, to the maximum extent practicable, minimizing hydrological changes, using BMPs during construction (including prevention of erosion/siltation); implementing mitigating measures, providing compensatory storage for lost flood storage capacity, avoiding flow restrictions that would increase flood stage or velocity, substantially restoring disturbed vegetation, and working in resource areas only when the ground is sufficiently stable to support the equipment. For actions that do not qualify as a “limited project,” the requirements of 310 CMR 10.54 – 10.58 would apply. In either case, under 310 CMR 10.59, the	Applicable to SED 3 response actions that take place in waterbodies or in or within 100 feet (buffer zone) of stream/pond banks or wetlands or are within floodplains or riverfront areas (extending 200 feet from river’s edge) and that will alter any such resource areas.	Since SED 3 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements: <ul style="list-style-type: none"> ▪ There are practical alternatives that would be less damaging to resource areas – e.g., the ecologically sensitive alternative being developed. Thus, the requirement that there be no such practicable alternative would not be met and would need to be waived. ▪ SED 3 would include practicable measures to minimize impacts to resource areas, including actions to minimize impact of hydrological changes during construction, control of stormwater discharges during construction through BMPs, implementation of mitigation measures where necessary, and restoration of disturbed vegetation as required. However, as discussed in Response to General Comment 10, these measures would not prevent substantial adverse impacts of SED 3 on resource areas. On the other hand, as discussed in the CMS Report (Section 4.3.9.1), SED 3 is not anticipated to produce any significant loss of flood storage

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Table S-3.b: Alternative SED 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>action must have no adverse effect on estimated habitat of rare wildlife species.</p> <p>(Note that for areas within 100 feet of stream/pond banks or wetlands (buffer zone) or within 200 feet from river's edge (riverfront areas), minor activities such as sampling and monitoring are exempt from these requirements. See 310 CMR 10.02(2)(b)1.g.)</p>		<p>capacity of floodplain or to cause an increase in flood stage or velocities on river.</p> <ul style="list-style-type: none"> ▪ SED 3 would adversely affect estimated habitat of rare wildlife species, because all excavation and most supporting activities would occur within such habitat (see Figure S-3). Thus, the prohibition on projects with an adverse effect on such habitat would need to be waived as technically impracticable to meet. <p>In the event that SED 3 was considered not to constitute a "limited project," it would not meet some of the requirements of 310 CMR 10.54 – 10.58 – e.g., prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands or impairs such wetlands within ACEC (if designated) (10.55(4)), as well as the above-mentioned requirement to have no adverse effect on estimated rare wildlife species habitat. Such requirements would thus need to be waived as technically impracticable.</p>
Massachusetts Dam Safety Standards	302 CMR 10.00	Regulations establish design and construction criteria for new and existing dams (302 CMR 10.14) and requirements for periodic inspections of dams (302 CMR 10.07). These regulations exclude dams subject to regulation by the Federal Energy Regulatory Commission (FERC) (302 CMR 10.04).	Applicable to existing GE-owned dams on River in Massachusetts. Not applicable to other existing dams in Rest of River in Massachusetts, because those dams are subject to regulation by FERC, which preempts application of these state dam safety standards. In any case, even if these standards were relevant to non-GE-owned dams, they would relate to responsibilities of those dam owners and are not ARARs for SED 3.	GE will meet these requirements at dams that it owns (Woods Pond Dam and Rising Pond Dam). Not applicable to other dams in Rest of River in Massachusetts.

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Table S-3.b: Alternative SED 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts standards for hazardous waste management facilities in floodplains	310 CMR 30.701	Location standards for hazardous waste management facilities in floodplains, including requirement that no active portion of a waste pile may be constructed within 500-year floodplain.	These requirements would not be expected to apply to any temporary staging areas because excavated materials are not expected to constitute state hazardous waste subject to these standards. Further, even if some excavated sediments did constitute such hazardous waste, these requirements would not apply to temporary staging areas for such sediments, due to exemption from hazardous waste regulations for dredged materials temporarily stored at intermediate facility and managed under state water quality certification and § 404 of Clean Water Act (310 CMR 30.104(3)(f)) (see Table S-3.c). However, if some excavated bank soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	If excavated materials do not constitute state hazardous waste subject to these regulations, these requirements would not apply. They would also not apply to the staging of sediments even if they constitute such hazardous waste, due to the exemption mentioned in prior column. However, if some excavated bank soils were found to constitute such hazardous waste, it may not be feasible for some temporary staging areas for such waste to meet the requirement that waste piles be located outside 500-year floodplain, since, in some areas, this would drive the staging areas too far from the river to be practical. In such cases, that requirement should be waived as technically impracticable to attain.
Massachusetts Historical Commission Act and regulations	MGL c. 9, § 27C 950 CMR 71.07	A state body proposing to fund or authorize a project must notify the Massachusetts Historical Commission (MHC) (or the project proponent may notify MHC) if the project has an area of potential impact on a property listed in the State Register of Historic Places. If MHC determines that	Applicable to State; relevant and appropriate to State-authorized work in areas where the work would have an area of potential impact on property(ies) listed in State Register.	Extent to which SED 3 would have potential impact on property(ies) listed in the State Register would be determined through the process identified in Phase IA CRA. If it would have such a potential impact, MHC would be notified and substantive provisions of these regulations would be met.

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Table S-3.b: Alternative SED 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		the project will have an adverse impact on such a property, the state body, project proponent, and MHC must consider “prudent and feasible alternatives” that could eliminate, minimize, or mitigate the adverse effects. If there are, such alternatives will be specified in an agreement among those parties; and if there is no agreement, project cannot proceed until state body or project proponent responds to the MHC.		
	MGL c. 9, § 27C	Any person supervising any survey, excavation, or construction on state or local government lands must report to the state archaeologist any archaeological, paleontological, or historical site or object discovered, and must take all reasonable steps to secure its preservation.	Applicable to excavations or construction on state or local government lands in MA.	If any archaeological, paleontological, or historical site or object is discovered during clearing or excavation activities on state or local government land, this requirement for notification and preservation would be met.
Connecticut Dam Safety Requirements	Conn. Gen. Stat. 22a-401 to 22a-411 Conn. Agencies Regs. Sec. 22a-409-2	Requirements for registration of certain types of dams; periodic inspections of dams; maintenance activities; construction, repair, replacement, or removal of dams; and notifications to CT DEP of sudden or unpredicted floods or major changes in condition of dams.	Not applicable to existing dams on River in Connecticut, because all such dams are subject to FERC regulation, which preempts application of these state dam requirements. In any case, even if these requirements were relevant, they would relate to responsibilities of the dam owners and are not ARARs for SED 3.	Not applicable.

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Table S-3.b: Alternative SED 3 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut Inland Wetlands and Watercourses Act and regulations	Conn. Gen. Stat. 22a-36 <i>et seq.</i> Conn. Agencies Regs. Sec. 22a-39-4	Permit required from local (municipal) wetland agency for activities that remove material from inland wetlands or watercourses; CT DEP allowed to issue general permit for minor activities with minimal environmental impacts, defined to include monitoring and sampling (Conn. Gen. Stat. 22a-45a). No substantive standards provided.	Relevant and appropriate to sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on sampling in Connecticut portion of river.

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Table S-3.c: Alternative SED 3 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Toxic Substances Control Act (TSCA) regulations on cleanup of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61	General requirements (761.50) and specific options (761.61) for cleanup of PCB Remediation Waste, including PCB-containing sediments and soils. Options 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.	Applicable to cleanup of PCB Remediation Waste (which includes Housatonic River sediments and bank soils with PCBs > 50 ppm).	It is anticipated that, if SED 3 is selected, these requirements would be met through EPA determination that SED 3 meets requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on storage of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.65 40 CFR 761.61(c)	General and specific requirements for storage of PCB Remediation Waste. Regulations include specific provisions for storage of PCB Remediation waste in piles at the cleanup site or site of generation for up to 180 days (761.65(c)(9)). They also allows for risk-based approval by EPA of alternate storage method (761.61(c)), based on demonstration that it will not pose an unreasonable risk of injury to health or the environment.	Applicable to temporary storage of PCB Remediation Waste.	Temporary staging areas would meet the default conditions in 761.65(c)(9) with the following exception: While these areas would contain run-on control systems capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (although they would include appropriate flood control measures). For those temporary staging areas that would not meet this condition, the TSCA requirements could be met through an EPA determination that those staging areas meet requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on discharges of PCB-containing water	40 CFR 761.50(a)(3)	Prohibits discharge of water containing PCBs to navigable waters unless PCB concentration is < 3 µg/L or discharge is in accordance with NPDES discharge limits.	Applicable to discharges of treated water from dewatering/treatment facility to Housatonic River.	Water treatment facilities would be designed to meet this requirement.

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Table S-3.c: Alternative SED 3 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
TSCA regulations on decontamination	40 CFR 761.79	Establishes decontamination standards and procedures for removing PCBs from water, organic liquids, and various types of surfaces.	Applicable to decontamination of equipment used in excavation or other handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act and NPDES regulations	33 USC 1342 40 CFR 122, including, but not limited to, 122.3(d) and 122.44(a) & (e) 40 CFR 125.1 - 125.3	Point source discharge must meet technology-based effluent limitations (including those based on best available technology for toxic and non-conventional pollutants and those based on best conventional technology for conventional pollutants) and effluent limitations and conditions necessary to meet state water quality standards, except that discharges in compliance with instructions of On-Scene Coordinator (OSC) acting pursuant to NCP are exempt from these requirements.	Applicable to point source discharges of treated water from dewatering/treatment facility to Housatonic River.	Discharges could not feasibly meet MA water quality criteria for PCBs (0.014 and 0.000064 µg/L) in receiving waters, since current water quality conditions in Housatonic River do not meet those criteria. In addition, it is not anticipated that those criteria would be met at the point of discharge. EPA used a standard of 0.5 µg/L. for discharges from the treatment facility in the 1½ Mile Reach Removal Action, and the data from discharges in that project were generally in the range of 0.01 to 0.1 µg/L and often > 0.014 µg/L. However, this ARAR could be met through discharges in compliance with instructions from OSC.
Clean Water Act – NPDES regulations (stormwater discharges)	40 CFR 122.26(c)(1)(ii)(C) 40 CFR 122.44(k)	Best management practices (BMPs) must be employed to control pollutants in stormwater discharges during construction activities.	Applicable to stormwater discharges to river during construction activities, including temporary staging of excavated materials.	Would be attained through use of BMPs to control erosion from stormwater discharges during construction activities, including construction of access roads and temporary staging areas, bank remediation, and temporary staging of excavated materials at staging areas.

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Table S-3.c: Alternative SED 3 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Endangered Species Act and regulations	16 USC 1536(a)-(d) 40 CFR 6.302(h) 50 CFR Part 402, Subparts A & B	A federal agency must ensure that any action authorized, funded, or carried out by it is not likely to jeopardize the continued existence of a listed threatened or endangered (T&E) species or result in destruction or adverse modification of critical habitat, unless an exemption is granted. If a listed species or critical habitat may be present in the action area, the key steps include a biological assessment by the authorizing agency; a biological opinion by the resource service; and if the action is likely to adversely affect a listed species or critical habitat, identification of “reasonable and prudent” measures to avoid and/or minimize such effects.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize the continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because review of available information indicates that SED 3 would not adversely affect any federally listed T&E species or their critical habitat.
Resource Conservation and Recovery Act (RCRA) regulations on identification of hazardous waste	40 CFR Part 261	Establishes criteria and lists for determining whether a waste is a hazardous waste under RCRA. Note that Sec. 261.24 identifies concentrations of contaminants which make waste a hazardous waste due to toxicity, as determined through the Toxicity Characteristic Leaching Procedure (TCLP).	Relevant and appropriate to determining whether excavated sediments or bank soils must be managed as a hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated sediments or bank soils would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
RCRA regulations for generators of hazardous waste	40 CFR 262.30 - 262.33	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated materials are not expected to constitute RCRA hazardous waste. However, if some excavated materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	If excavated materials do not constitute RCRA hazardous waste, these requirements would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table S-3.c: Alternative SED 3 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – general requirements	40 CFR 264.1(j)	General requirements for facilities used to manage remediation wastes that constitute hazardous waste (e.g., requirements for waste analysis, security, precautions to prevent accidental ignition or reaction of wastes, preventing washout of units in floodplain by 100-year flood). (These requirements are in lieu of Part 264, Subparts B, C, and D.)	These requirements would not be expected to apply to any temporary staging areas because excavated materials are not expected to constitute RCRA hazardous waste. Further, even if some materials did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be met at the temporary staging areas used for such waste.
RCRA regulations for hazardous waste management facilities – technical requirements for storage of hazardous waste in piles	40 CFR Part 264, Subpart L	Design, operating, closure, and (if necessary) post-closure requirements for storage of hazardous waste in waste piles outside structures.	These requirements would not be expected to apply to any temporary staging areas because excavated materials are not expected to constitute RCRA hazardous waste. Further, even if some materials did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the waste piles used for temporary staging of such waste would meet these requirements with the following exceptions: (a) While these waste piles would meet the single liner/leachate collection requirements of § 264.251(a), they would not meet the requirements of § 264.251(c) for a double liner/leachate collection system at "new waste pile units" (if applicable); and (b) while these areas would contain a run-on control system capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (see § 264.251(g)). To the extent these requirements, which were developed for permanent hazardous waste storage units, are considered applicable, they are not practical for short-term temporary staging areas and thus should be waived as technically impracticable to attain.

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Table S-3.c: Alternative SED 3 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA regulations for hazardous waste management facilities – groundwater protection	40 CFR Part 264, Subpart F	Groundwater protection requirements for hazardous waste contained in solid waste management units. Includes groundwater protection standards (i.e., maximum contaminant levels) for waste piles outside structures; alternate limits allowed under 40 CFR 264.94(b); and requirements for groundwater monitoring systems.	Same as above	If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable to attain.
RCRA land disposal restrictions	40 CFR 268.50	Prohibits storage of hazardous wastes that are prohibited from land disposal under Part 268, Subpart C, with a number of exceptions, including that such waste may be stored solely for the purpose of accumulating such quantities as are necessary to facilitate proper recovery, treatment, or disposal.	Same as above except that if some excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these provisions would apply.	If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these provisions would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would meet the exception to the storage prohibition for the accumulation of such quantities as are necessary to facilitate treatment or disposal.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (Note: Listed as location-specific ARAR in Table S-3.b, but also listed here at EPA’s direction.)	314 CMR 9.01 - 9.08	Same as described for these regulations in Table S-3.b.	Applicable to excavation/removal of sediments, discharge of dredged or fill material to waters and wetlands, and temporary staging areas for excavated sediments.	Same as described for these regulations in Table S-3.b.

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Table S-3.c: Alternative SED 3 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts Clean Water Act and Wetlands Protection Act – stormwater management standards	310 CMR 10.05(6)(k) 314 CMR 9.06(6)(a)	Projects subject to regulation under the Wetlands Protection Act or that involve discharge of dredged or fill material must be provided with stormwater BMPs to attenuate pollutants in stormwater discharges and provide a setback from receiving waters and wetlands in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during construction activities and at temporary staging areas.	SED 3 would include use of stormwater BMPs during construction of access roads and staging areas, bank soil removal and stabilization, and operation of staging areas. These BMPs would be designed to meet the MDEP’s specified stormwater management standards and would include ~ 25-foot setbacks from receiving waters and wetlands where practicable, but this would not be feasible for BMPs for bank remediation and in areas where there is no practical alternative to siting the staging areas in or near wetlands. Stormwater BMPs would not be necessary or practical for sediment excavation or thin-layer capping, since those activities would take place within the River. Any applicable stormwater management requirements that could not practicably be met would need to be waived as technically impracticable.
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity may not result in a “take” of a State-listed endangered, threatened, or special concern species, except that such a “take” may be allowed if the applicant has adequately addressed alternatives, an insignificant portion of the local population would be impacted, and the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the species. Projects in a designated Priority Habitat for a State-listed species or other area where such a species has occurred must be reviewed in accordance with these requirements.	Applicable to activities in a State-designated Priority Habitat in MA or other areas where information indicates the occurrence of a State-listed species.	All excavation and thin-layer capping activities and almost all access roads and temporary staging areas in SED 3 would occur within Priority Habitat, as shown on Figure S-3. Based on the evaluations presented in Appendix B to this Interim Response, these activities and facilities would result in a “take” of approximately 18 State-listed species. For about 13 of those species, the take would impact a significant portion of the local population. In these cases, the MESA requirements would need to be waived as technically impracticable to meet. As also described in Appendix B, for the species for which the take would not impact a significant portion of the local population, it cannot be established that a long-term Net Benefit plan could feasibly be developed at this site. If not, the MESA requirement for such a plan would need to be waived.

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Table S-3.c: Alternative SED 3 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	321 CMR 10.00, Part IV	Projects that will alter a designated Significant Habitat must be reviewed to ensure that they will not reduce the viability of the habitat to sustain an endangered or threatened species.	Would be applicable to activities affecting State-designated Significant Habitat in MA. However, no such habitat has been designated.	Not applicable.
Massachusetts hazardous waste regulations on identification of hazardous waste	310 CMR 30.100	<p>Establishes criteria and lists for determining whether a waste is a hazardous waste under state law.</p> <p>Note that wastes that contain PCBs \geq 50 mg/kg (which are listed wastes) are exempt from the state hazardous waste management regulations so long as they are managed in compliance with EPA's TSCA regulations (40 CFR Part 761) (see 310 CMR 30.501(3)(a)). (Materials that constitute state hazardous wastes on other grounds are referred to in this table as "non-PCB state hazardous waste.")</p> <p>Note also that the state hazardous waste management regulations also exempt dredged material (even if it constitutes non-PCB state hazardous waste) that is temporarily stored at an intermediate facility (pursuant to 314 CMR 9.07(4)) and managed in accordance with a state water quality certification and § 404 requirements under the Clean Water Act (see 310 CMR 30.104(3)(f)).</p>	Applicable to determining whether excavated sediments and bank soils must be managed as a hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated sediments or bank soils would constitute hazardous waste under state law on grounds other than containing PCBs \geq 50 mg/kg. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.

Note: As noted above, it is not expected that the excavated materials would constitute non-PCB state hazardous waste. However, for **sediments**, even if some excavated sediments did constitute such hazardous waste, the following Massachusetts hazardous waste management requirements are considered inapplicable to temporary staging areas for such sediments due to the exemption from the hazardous waste regulations for dredged materials temporarily stored at an intermediate facility and managed under state water quality certification and § 404 of Clean Water Act (310 CMR 30.104(3)(f)). Hence, these requirements have been evaluated based solely on their potential applicability to temporary staging areas that are used for excavated **bank soils**.

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Table S-3.c: Alternative SED 3 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste regulations for generators	310 CMR 30.321 - 30.324	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated materials are not expected to constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, these requirements would be met prior to any off-site transport of such waste.
Massachusetts hazardous waste management regulations – general requirements	310 CMR 30.513, 30.514, 30.524, 30.560	General requirements for hazardous waste management facilities (for waste analysis, security, emergency prevention and response, and precautions to prevent accidental ignition or reaction of wastes).	These requirements would not be expected to apply to temporary staging areas because excavated materials are not expected to constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply to staging areas for such waste.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, these requirements would be met at staging areas for such waste.

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Table S-3.c: Alternative SED 3 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<p>Massachusetts hazardous waste management regulations – location standards for units used to store hazardous waste</p> <p>(Note: Some of these regulations were also listed as location-specific ARAR in Table S-3.b.)</p>	<p>310 CMR 30.701(6), 30.703(2), 30.704(3), 30.705(3) & (6)</p>	<p>Location standards for waste piles, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in wetlands, (c) within ½ mile of public water supply well, (d) on land overlying an actual, planned, or potential public underground drinking water source, (e) within 1000 feet of a private drinking water well, or (f) without a 200-foot buffer zone to fenceline.</p>	<p>These requirements would not be expected to apply because excavated materials are not expected to constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply to waste piles for such waste at temporary staging areas.</p>	<p>If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be feasible to site some such staging areas outside 500-year floodplain, since in some locations this would drive the staging areas too far from the river to be practical; (b) while GE would attempt to avoid siting staging areas in wetlands where practical, this would not be practical in some cases given that the majority of the PSA consists of wetlands; (c) it is unknown whether such sites would overlie a “potential public underground drinking water source” (defined as a groundwater source capable of yielding 100 gpm or more of water and with less than 10,000 mg/L of total dissolved solids); and (d) it is not certain whether some areas could be designed and constructed with a 200-foot buffer zone to fenceline. Any such requirements that could not feasibly be met would need to be waived as technically impracticable in order for this alternative to be implemented.</p>
<p>Massachusetts hazardous waste management regulations – technical requirements for storage of hazardous waste</p>	<p>310 CMR 30.602 310 CMR 30.640 310 CMR 30.580</p>	<p>Requirements for design, operation, and closure of waste piles used to store hazardous waste.</p>	<p>Same as above.</p>	<p>If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except as follows: (a) It may not be practical for some areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); this would require investigation during design. (b) While these areas would contain run-on and runoff</p>

* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table S-3.b.

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Table S-3.c: Alternative SED 3 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				control systems capable of handling a 100-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have such systems capable of preventing flow onto those areas or controlling runoff during a 100-year flood (see 30.641(2 & (3)). To the extent that these requirements are considered applicable and could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.
	310 CMR 30.660	Groundwater protection requirements for waste piles outside structures, including monitoring system requirements; groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.	Same as above.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for short-term temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable.
Massachusetts air pollution control regulations	310 CMR 7.09	Prohibits person engaged in dust-generating activities from creating condition of air pollution, defined as air concentrations that would cause a nuisance, be injurious or potentially injurious to human or animal life, vegetation, or property, or unreasonably interfere with comfortable enjoyment of life and property or conduct of business.	Applicable to excavation and construction activities generating dust.	Would be attained through use of dust control measures during activities that could generate dust and through particulate and PCB air monitoring during excavation activities and during construction and operation of the staging areas, along with response actions if certain action levels are exceeded. These measures would be specified in design.
Connecticut Endangered Species Act	Conn. Gen. Stat. 26-303 through 26-316	Requires state agency to: (a) ensure that any action authorized or performed by it does not threaten the continued existence of a listed endangered or threatened species or	This statute is not applicable or relevant and appropriate to SED 3 because implementation	Not applicable.

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Table S-3.c: Alternative SED 3 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		result in destruction or adverse modification of habitat essential to such species, unless an exemption is granted; and (b) take all reasonable measures to mitigate any adverse impacts of the proposed action on such species or habitat. Prohibits “taking” of endangered or threatened species, except where State determines that a proposed action would not appreciably reduce likelihood of survival or recovery of the species.	of SED 3 is not expected to have any adverse impact on endangered or threatened species or their habitat in Connecticut, or to cause a “taking” of such species.	
Connecticut fisheries and game laws	Conn. Gen. Stat. 26-60	Authorizes CT DEP to issue permits to properly accredited persons for sampling of fish, crustaceans, and wildlife for educational and scientific purposes, with CT DEP to determine number, species, area, and method of collection.	Relevant and appropriate to biota sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on biota sampling in Connecticut portion of river.
Guidances To Be Considered				
TSCA PCB Spill Cleanup Policy	40 CFR Part 761, Subpart G	Policy used to determine adequacy of cleanup of spills resulting from the release of materials containing PCBs at concentration of 50 ppm or greater.	To be considered.	Would be considered in the event of any new PCB spill that occurs during implementation of SED 3.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups</i> (EPA, 1995)	Memorandum from EPA Office of Solid Waste and Emergency Response, March 13, 1995	Describes EPA policy on use of Area of Contamination (AOC) approach under RCRA. Explains that an area of generally dispersed contamination may be considered an AOC, within which the movement of waste is not considered “placement,” such that the RCRA land disposal restrictions and other RCRA requirements, including minimum technology requirements, would not be triggered.	To be considered.	Under this policy, even if excavated sediments or bank soils should constitute RCRA hazardous waste, the technical RCRA requirements for a hazardous waste storage facility would not apply to temporary staging areas located within the boundary of the Rest of River area, because those areas would be within the overall area of dispersed contamination.

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Table S-4.a: Alternative SED 4 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act, National Ambient Water Quality Criteria for PCBs	<i>National Recommended Water Quality Criteria: 2002</i> , EPA-822-R-02-047, USEPA, Office of Water, Office of Science and Technology (Nov. 2002)	Freshwater chronic aquatic life criterion (based on protection of mink): 0.014 µg/L (4-day average not to be exceeded more than once every 3 years). Human health criterion based on human consumption of water and organisms: 0.000064 µg/L (evaluated on annual average basis).	Relevant and appropriate to surface water in Rest of River.	Model indicates that SED 4 would achieve chronic aquatic life criterion in all reaches using block averaging approach (and would achieve that criterion using rolling average approach in all reaches except for 1 extra exceedance in Reaches 5A, 5C, and 7B, 2 extra exceedances in Reaches 7E and 7G, and 4 extra exceedances in Rising Pond) (see Interim Response, Response to Specific Comment 62). Model indicates that SED 4 would not achieve human health criterion in any reaches . That criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) because it is below current ability to measure and would not be achieved by any sediment alternative (see CMS Report, Section 4.1.4).
State ARARs				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	Same as federal water quality criteria (unless Mass. Dept. of Environmental Protection establishes site-specific criterion or determines that naturally occurring background concentrations are higher).	Applicable to surface water of Housatonic River in Massachusetts.	Same as for federal water quality criteria.

Table S-4.a: Alternative SED 4 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<p>Numeric Connecticut water quality criteria for PCBs</p>	<p><i>Connecticut Water Quality Standards</i> (effective Dec. 17, 2002), Appendix D</p>	<p>Freshwater chronic aquatic life criterion: 0.014 µg/L (same as federal criterion).</p> <p>Human health criterion, based on human consumption of organisms only or water and organisms: 0.00017 µg/L. (This criterion is based on the prior federal criterion and has not been revised since the federal criterion was revised.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due, in part, to PCBs.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Status of human health criterion as ARAR is not clear since it is less stringent (and less up-to-date) than comparable federal criterion (see 40 CFR 300.5).</p>	<p>CT 1-D Analysis indicates that SED 4 would achieve chronic aquatic life criterion in CT impoundments.</p> <p>For human health criterion (if it is considered an ARAR), CT 1-D Analysis indicates that SED 4 would achieve that criterion in the 4 CT impoundments. GE believes that this criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) for the reasons given in CMS Report, page 4-7 n.41.</p>
<p>Guidances To Be Considered</p>				
<p>Cancer Slope Factors</p>	<p>EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/iriswebp/iris/index.html</p>	<p>Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.</p>	<p>To be considered.</p>	<p>Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>
<p>Reference Doses</p>	<p>EPA's IRIS http://www.epa.gov/iriswebp/iris/index.html</p>	<p>Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.</p>	<p>To be considered.</p>	<p>Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>
<p><i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)</p>	<p>EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)</p>	<p>Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.</p>	<p>To be considered.</p>	<p>Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>

Table S-4.a: Alternative SED 4 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting remedy for Rest of River.
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting remedy for Rest of River.
Massachusetts fish consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Advises that the public should not consume any fish from the Housatonic River from Dalton to Sheffield due to PCBs; also includes frogs and turtles.	To be considered.	SED 4 includes continuation and maintenance of this advisory, including appropriate steps to inform anglers about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	SED 4 includes continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table S-4.a: Alternative SED 4 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut fish consumption advisory	Connecticut Department of Public Health, 2006 Advisory for Eating Fish from Connecticut Waterbodies	Establishes advisories on consuming fish from the Housatonic R. in Connecticut (above Derby Dam), including Lakes Lillinonah, Zoar, and Housatonic, due to PCBs in fish. Advisories vary by species, location, and group of consumers (i.e., high-risk vs. low-risk group), ranging from “do not eat” to “one meal per week.”	To be considered.	SED 4 includes continuation and maintenance of these advisories, including appropriate steps to inform anglers about the advisories, for as long as considered necessary by the Connecticut Department of Public Health.

Table S-4.b: Alternative SED 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act – Section 404 and implementing regulations issued by U.S. Army Corps of Engineers (ACOE) and by EPA	33 USC 1344 33 CFR Parts 320-323 (ACOE) 40 CFR Part 230 (EPA)	For discharge of dredge or fill material: (a) there must be no practical alternative with less adverse impact on aquatic ecosystem; (b) discharge cannot cause or contribute to violation of state water quality standard or toxic effluent standard; (c) discharge cannot jeopardize the existence of any threatened or endangered (T&E) species; (d) discharge cannot cause or contribute to significant degradation of waters of the U.S., including significant adverse effects on human health or welfare, aquatic life, aquatic ecosystem, or recreational, aesthetic, and economic values; and (e) discharger must take appropriate and practicable steps to minimize or mitigate potential adverse effects on aquatic ecosystem.	Applicable to discharges of dredged or fill material to waters of the U.S. (including wetlands that constitute such waters)	<p>(a) There are practical alternatives with less adverse impact on aquatic ecosystem – e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) SED 4 would not meet requirement that discharge not contribute to violation of state water quality standards, since Housatonic River does not currently meet numerical MA water quality criteria for PCBs; hence, that requirement should be waived as technically impracticable to attain.</p> <p>(c) Review of available information indicates that SED 4 would not affect any federally listed T&E species.</p> <p>(d) SED 4 would cause significant adverse effects on aquatic life, aquatic ecosystem, and recreational and aesthetic values, as described in CMS Report (Sections 4.4.5.3 and 4.4.8) and this Interim Response (Response to General Comment 10). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>(e) SED 4 would include appropriate and practicable steps in an effort to minimize or mitigate potential adverse effects on aquatic ecosystem. Despite such steps, however, SED 4 would have substantial adverse effects on the aquatic ecosystem, as noted above and discussed in Response to General Comment 10.</p>

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Table S-4.b: Alternative SED 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	33 CFR Part 332 (ACOE) 40 CFR Part 203, Subpart J (EPA)	Compensatory mitigation regulations: If project will have unavoidable adverse impacts after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation – i.e., the restoration, creation, enhancement, or (in some circumstances) preservation of aquatic resources. This requires a mitigation work plan, including detailed specifications and descriptions for compensatory mitigation. The regulations also require objective performance standards, monitoring for at least 5 years, and active long-term management and maintenance where necessary to ensure long-term sustainability.	Applicable to discharges of dredged or fill material to waters of the U.S. (including wetlands that constitute such waters)	For areas where SED 4 would have unavoidable adverse impacts on the aquatic ecosystem, a compensatory mitigation plan would be necessary to address those impacts. Despite such plan, however, substantial adverse impacts will remain. See Response to General Comment 10. See also Responses to General Comment 29 and Specific Comment 106.
Rivers and Harbors Act of 1899, Section 10	33 USC 403	Prohibits obstruction, excavation, filling, or altering any navigable water of the United States without authorization from U.S. Army Corps of Engineers.	Relevant and appropriate to dredging in, and discharge of dredge and fill material to, navigable waters of the U.S., but no permit required.	Since no permit is required, this requirement would be addressed through EPA's coordination with U.S. Army Corps of Engineers regarding work in Housatonic River.
Fish and Wildlife Coordination Act requirements	16 USC 662(a) 40 CFR 6.302(g)	A federal agency proposing to undertake or authorize an action that will control or modify any waterbody must consult with federal and state resource agencies to ascertain measures to prevent, mitigate, and compensate for project-related loss of or damage to fish and wildlife resources and to provide for the development and improvement of such resources.	Applicable to EPA; relevant and appropriate to work in river.	Would be attained through consultation by EPA with U.S. Fish and Wildlife Service and MA Department of Fish and Game.

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Table S-4.b: Alternative SED 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Executive Order for Wetlands Protection	Exec. Order 11990 (1977) 40 CFR 6.302(a) 40 CFR Part 6, App. A	A federal agency must avoid construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Applicable to EPA; relevant and appropriate to work in wetlands.	<p>SED 4 would involve construction activities in wetlands. There are practical alternatives with much less adverse effect on wetlands (e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>SED 4 would include practicable measures to minimize harm to wetlands, including avoiding siting access roads and staging areas in wetlands where practicable, use of erosion and sedimentation control measures, and reasonable restoration measures for affected wetlands. However, restoration measures would not prevent substantial harm to wetlands, as discussed in Response to General Comment 10.</p>
Executive Order for Floodplain Management	Exec. Order 11988 (1977) 40 CFR 6.302(b) 40 CFR Part 6, App. A	A federal agency proposing action in a floodplain must consider alternatives to avoid adverse effects on the floodplain, and if there is no practicable alternative, must design or modify the action to minimize harm to or within the floodplain.	Applicable to EPA; relevant and appropriate to work in floodplains.	<p>SED 4 would involve construction of access roads and staging areas in the floodplain. Since these facilities must be located near sediment removal areas, they cannot be relocated to avoid any construction in the floodplain. However, there are practical alternatives with less adverse effects on the floodplain – e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>SED 4 would include practicable measures to minimize harm to floodplain, including erosion and sedimentation control measures, reasonable restoration measures for affected portions of floodplain, and maintenance of existing flood storage capacity of floodplain. However, restoration measures would not prevent substantial harm to floodplain, as discussed in Response to General Comment 10.</p>

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Table S-4.b: Alternative SED 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains	40 CFR 264.1(j)(7) 40 CFR 264.18(b)	A hazardous waste treatment, storage, or disposal facility used for remediation waste and located in the 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of such waste by a 100-year flood unless owner/operator shows that procedures are in effect to remove waste safely before flood waters can reach facility.	These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute RCRA hazardous waste. Further, even if some materials did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if some excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas within 100-year floodplain to which AOC policy does not apply (if any), these requirements would be met. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.
National Historic Preservation Act and regulations	16 USC 470f 36 CFR Part 800	A federal agency proposing to fund or authorize a project must take into account the project's effect on properties (including a site, building, structure, or object) included or eligible for inclusion in the National Register of Historic Places (NRHP). This requires: (a) consultation with the State and/or Tribal	Applicable to EPA; relevant and appropriate to federally authorized work in areas where property(ies) listed or eligible for inclusion on NRHP may be present.	Would be attained through process described in Section 6 of GE's <i>Initial Phase IA Cultural Resources Assessment for the Housatonic River – Rest of River Project</i> (Phase IA CRA: URS Corporation, March 13, 2008).

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Table S-4.b: Alternative SED 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		<p>Historic Preservation Offices; (b) identification of the project’s “area of potential effects”; (c) identification of any listed or eligible historic property within that area that could be affected by the project; (d) if there is such property, determination of whether the project would have an adverse impact on the property; (e) if so, evaluation of alternatives to avoid, minimize, or mitigate the adverse impacts; and (f) agreement on such measures or, failing agreement, implementation of such measures identified by the authorizing agency.</p>		
<p>Archaeological and Historic Preservation Act</p>	<p>16 USC 469</p>	<p>When a federal agency finds or is notified that a federal or federally authorized project may cause the loss or destruction of archaeological or historic data, it must notify Department of Interior (DOI). If DOI determines that the data are significant and may be irrevocably lost or destroyed, it is to conduct a survey and other investigation of the affected area and recover and preserve such data as necessary in the public interest.</p>	<p>Applicable to EPA; relevant and appropriate to federally authorized work in areas where archaeological or historic data may be present.</p>	<p>Identification of archaeological or historic data potentially affected by SED 4 would be made through process identified in Phase IA CRA. If such data are identified that could be irrevocably lost or destroyed by implementation of SED 4, it is anticipated that EPA would notify DOI as required.</p>
<p>State ARARs</p>				
<p>Massachusetts Waterways Law and implementing regulations</p>	<p>MGL Ch. 91 310 CMR 9.00</p>	<p>Standards and requirements for any construction, placement, excavation, alteration, or removal of any fill or structures in a waterbody (below high water mark). Includes standards governing engineering and construction of fill and structures to be placed in waterbodies (9.37) and standards for dredging (9.40), including prohibition on dredging in an Area of Critical Environmental Concern (ACEC) except for sole purpose of fisheries or wildlife enhancement. Also requires compliance with other specified</p>	<p>Applicable to excavation/removal of sediments from Housatonic River, placement of caps or backfill in river, and placement of structures in river below high water mark to aid in excavation, address erosion, or restore habitat.</p>	<p>SED 4 would be designed to attain these standards and requirements, except that if ACEC is designated, SED 4 would not comply with the prohibition on dredging in an ACEC. In the latter event, SED 4 could not be implemented without a waiver of that prohibition. (The other relevant environmental regulatory programs referenced in Section 9.33 are discussed separately in these ARARs tables.)</p>

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Table S-4.b: Alternative SED 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		environmental regulatory programs (9.33).		
<p>Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act)</p> <p>Note: These regulations are also listed as action-specific ARARs for SED 3.</p>	314 CMR 9.01 - 9.08	<p>For discharge of dredged or fill material: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on bordering or isolated vegetated wetlands, including 1:1 restoration or replication of such wetlands (unless waived); (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under the Wetlands Protection Act or would be to certain designated “Outstanding Resource Waters,” including certified vernal pools, unless a variance is obtained; (d) stormwater discharges must be controlled with best management practices (BMPs); and (e) there must be no substantial adverse impacts to physical, chemical, or biological integrity of surface waters.</p> <p>For dredging and dredged material management: (a) no dredging is allowed if there is practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid, minimize, or mitigate adverse effects on land under water; (c) dredging must be conducted to meet performance standards designed to minimize impacts on the aquatic ecosystem and protect human health; and (d) placement of dredged material in an intermediate facility for sediment management (dewatering, processing, etc.) prior to disposal or reuse must meet certain requirements, including</p>	Applicable to excavation/removal of sediments and bank soils, discharge of dredged or fill material to waters or wetlands, and dredged material management at temporary staging areas.	<p>As noted above, there are practical alternatives with less adverse impact on aquatic ecosystem – e.g., the ecologically sensitive alternative being developed. Thus, the requirement that there be no such alternative would not be met.</p> <p>SED 4 would include appropriate and practicable steps in an effort to avoid, minimize, or mitigate potential adverse effects on land under water and on wetlands, but such steps would not prevent substantial harm to these resource areas (see Response to General Comment 10). Further, under SED 4, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), stormwater discharges would be controlled through BMPs, and there would be no substantial long-term adverse impacts to the integrity of river water. However, SED 4 would adversely affect estimated habitat of rare wildlife species, because all remediation and most supporting activities would occur within such habitat (see Figure S-4). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>Excavation/dredging activities under SED 4 would meet the specified dredging performance standards, except that they would affect areas of ecological importance (including an ACEC if designated) and, in some cases, would not be able to maintain a minimum of 25 feet between the edge of vegetated wetlands and the top of the slope of the excavation areas. Hence, the latter requirements would need to be waived as technically impracticable.</p> <p>Temporary staging areas would meet the placement and siting requirements for</p>

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Table S-4.b: Alternative SED 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>requirements governing method of placement/ storage of dredged material and siting criteria.</p>		<p>intermediate facilities, except that they would not be able to meet the requirements that such facilities cannot have a permanent adverse impact on a state-listed rare species or on an ACEC. Most temporary staging areas under SED 4 would be located in State-designated Priority Habitat of rare species (see Figure S-4) and would have a permanent adverse effect on state-listed species, as shown in Appendix B to this Interim Response. If an ACEC is designated, the staging areas would be located within the ACEC and would have a permanent adverse impact on the ACEC if restoration of the affected areas is not successful (see Response to General Comment 10). To the extent that these requirements would not be met, they would need to be waived as technically impracticable.</p>
<p>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 310 CMR 10.59</p>	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less damaging to resource areas; and (b) avoid or minimize impacts to resource areas, including, to the maximum extent practicable, minimizing hydrological changes, using BMPs during construction (including prevention of erosion/siltation); implementing mitigating measures, providing compensatory storage for lost flood storage capacity, avoiding flow restrictions that would increase flood stage or velocity, substantially restoring disturbed vegetation, and working in resource areas only when the ground is sufficiently stable to support the equipment.</p> <p>For actions that do not qualify as a “limited project,” the requirements of 310 CMR 10.54</p>	<p>Applicable to SED 4 response actions that take place in waterbodies or in or within 100 feet (buffer zone) of stream/pond banks or wetlands or are within floodplains or riverfront areas (extending 200 feet from river’s edge) and that will alter any such resource areas.</p>	<p>Since SED 4 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> ▪ As noted above, there are practical alternatives that would be less damaging to resource areas. Thus, the requirement that there be no such practicable alternative would not be met and would need to be waived. ▪ SED 4 would include practicable measures to minimize impacts to resource areas, including actions to minimize impact of hydrological changes during construction, control of stormwater discharges during construction through BMPs, implementation of mitigation measures where necessary, and restoration of disturbed vegetation as required. However, as discussed in CMS Report (Sections 4.4.5.3 and 4.4.8) and this Interim Response (Response to General Comment 10), these measures would not prevent substantial adverse impacts of SED 4

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Table S-4.b: Alternative SED 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>– 10.58 would apply.</p> <p>In either case, under 310 CMR 10.59, the action must have no adverse effect on estimated habitat of rare wildlife species.</p> <p>(Note that for areas within 100 feet of stream/pond banks or wetlands (buffer zone) or within 200 feet from river’s edge (riverfront areas), minor activities such as sampling and monitoring are exempt from these requirements. See 310 CMR 10.02(2)(b)1.g.)</p>		<p>on resource areas. Further, as discussed in CMS Report (Section 4.4.9.1), the caps placed in Reaches 5B and 5C could have a limited impact on flood storage capacity of the floodplain, while the caps placed in the backwaters and Woods Pond would not be expected to have a significant effect on flood storage capacity. The effect of the placement of caps (without removal) on flood storage capacity and on flood water elevations and velocity, as well as the need for and scope of flood storage compensation, would be further evaluated further during design.</p> <ul style="list-style-type: none"> ▪ SED 4 would adversely affect estimated habitat of rare wildlife species, because all remediation and most supporting activities would occur within such habitat (see Figure S-4). Thus, the prohibition on projects with an adverse effect on such habitat would need to be waived as technically impracticable to meet. <p>In the event that SED 4 was considered not to constitute a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 – e.g., prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands or impairs such wetlands within ACEC (if designated) (10.55(4)), as well as the above-mentioned requirement to have no adverse effect on estimated rare wildlife species habitat. Such requirements would thus need to be waived as technically impracticable.</p>
Massachusetts Dam Safety Standards	302 CMR 10.00	Regulations establish design and construction criteria for new and existing dams (302 CMR 10.14) and requirements for periodic inspections of dams (302 CMR 10.07). These regulations exclude dams subject to regulation by the Federal Energy Regulatory Commission (FERC) (302 CMR	Applicable to existing GE-owned dams on River in Massachusetts. Not applicable to other existing dams in Rest of River in Massachusetts, because those dams are subject to	GE will meet these requirements at dams that it owns (Woods Pond Dam and Rising Pond Dam). Not applicable to other dams in Rest of River in Massachusetts.

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Table S-4.b: Alternative SED 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		10.04).	regulation by FERC, which preempts application of these state dam safety standards. In any case, even if these standards were relevant to non-GE-owned dams, they would relate to responsibilities of those dam owners and are not ARARs for SED 4.	
Massachusetts standards for hazardous waste management facilities in floodplains	310 CMR 30.701	Location standards for hazardous waste management facilities in floodplains, including requirements that: (a) no active portion of a waste pile or surface impoundment may be constructed within 500-year floodplain; and (b) tanks, containers, and similar units that are used to store hazardous waste, do not receive waste from off-site sources, and are located within the 100-year floodplain must be floodproofed to prevent floodwaters from contacting the hazardous waste.	These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute state hazardous waste subject to these standards. Further, even if some excavated/dredged sediments did constitute such hazardous waste, these requirements would not apply to temporary staging areas for such sediments, due to exemption from hazardous waste regulations for dredged materials temporarily stored at intermediate facility and managed under state water quality certification and § 404 of Clean Water Act (310 CMR 30.104(3)(f)) (see Table S-4.c). However, if some	If excavated /dredged materials do not constitute state hazardous waste subject to these regulations, these requirements would not apply. They would also not apply to the staging of excavated/dredged sediments even if they constitute such hazardous waste, due to the exemption mentioned in prior column. However, if some excavated bank soils were found to constitute such hazardous waste, it may not be feasible for some temporary staging areas for such waste to meet the requirement that waste piles be located outside 500-year floodplain, since, in some areas, this would drive the staging areas too far from the river to be practical. In such cases, that requirement should be waived as technically impracticable to attain.

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Table S-4.b: Alternative SED 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			excavated bank soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	
Massachusetts Historical Commission Act and regulations	MGL c. 9, § 27C 950 CMR 71.07	A state body proposing to fund or authorize a project must notify the Massachusetts Historical Commission (MHC) (or the project proponent may notify MHC) if the project has an area of potential impact on a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on such a property, the state body, project proponent, and MHC must consider “prudent and feasible alternatives” that could eliminate, minimize, or mitigate the adverse effects. If there are, such alternatives will be specified in an agreement among those parties; and if there is no agreement, project cannot proceed until state body or project proponent responds to the MHC.	Applicable to State; relevant and appropriate to State-authorized work in areas where the work would have an area of potential impact on property(ies) listed in State Register.	Extent to which SED 4 would have potential impact on property(ies) listed in the State Register would be determined through the process identified in Phase IA CRA. If it would have such a potential impact, MHC would be notified and substantive provisions of these regulations would be met.
	MGL c. 9, § 27C	Any person supervising any survey, excavation, or construction on state or local government lands must report to the state archaeologist any archaeological, paleontological, or historical site or object discovered, and must take all reasonable steps to secure its preservation.	Applicable to excavations or construction on state or local government lands in MA.	If any archaeological, paleontological, or historical site or object is discovered during clearing or excavation/dredging activities on state or local government land, this requirement for notification and preservation would be met.

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Table S-4.b: Alternative SED 4 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut Dam Safety Requirements	Conn. Gen. Stat. 22a-401 to 22a-411 Conn. Agencies Regs. Sec. 22a-409-2	Requirements for registration of certain types of dams; periodic inspections of dams; maintenance activities; construction, repair, replacement, or removal of dams; and notifications to CT DEP of sudden or unpredicted floods or major changes in condition of dams.	Not applicable to existing dams on River in Connecticut, because all such dams are subject to FERC regulation, which preempts application of these state dam requirements. In any case, even if these requirements were relevant, they would relate to responsibilities of the dam owners and are not ARARs for SED 4.	Not applicable.
Connecticut Inland Wetlands and Watercourses Act and regulations	Conn. Gen. Stat. 22a-36 <i>et seq.</i> Conn. Agencies Regs. Sec. 22a-39-4	Permit required from local (municipal) wetland agency for activities that remove material from inland wetlands or watercourses; CT DEP allowed to issue general permit for minor activities with minimal environmental impacts, defined to include monitoring and sampling (Conn. Gen. Stat. 22a-45a). No substantive standards provided.	Relevant and appropriate to sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on sampling in Connecticut portion of river.

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Table S-4.c: Alternative SED 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Toxic Substances Control Act (TSCA) regulations on cleanup of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61	General requirements (761.50) and specific options (761.61) for cleanup of PCB Remediation Waste, including PCB-containing sediments and soils. Options 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.	Applicable to cleanup of PCB Remediation Waste (which includes Housatonic River sediments and bank soils with PCBs > 50 ppm).	It is anticipated that, if SED 4 is selected, these requirements would be met through EPA determination that SED 4 meets requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on storage of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.65 40 CFR 761.61(c)	General and specific requirements for storage of PCB Remediation Waste. Regulations include specific provisions for storage of PCB Remediation waste in piles at the cleanup site or site of generation for up to 180 days (761.65(c)(9)). They also allows for risk-based approval by EPA of alternate storage method (761.61(c)), based on demonstration that it will not pose an unreasonable risk of injury to health or the environment.	Applicable to temporary storage of PCB Remediation Waste.	Temporary staging areas would meet the default conditions in 761.65(c)(9) with the following exception: While these areas would contain run-on control systems capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (although they would include appropriate flood control measures). For those temporary staging areas that would not meet this condition, the TSCA requirements could be met through an EPA determination that those staging areas meet requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on discharges of PCB-containing water	40 CFR 761.50(a)(3)	Prohibits discharge of water containing PCBs to navigable waters unless PCB concentration is < 3 µg/L or discharge is in accordance with NPDES discharge limits.	Applicable to discharges of treated water from dewatering/treatment facility to Housatonic River.	Water treatment facilities would be designed to meet this requirement.

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Table S-4.c: Alternative SED 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
TSCA regulations on decontamination	40 CFR 761.79	Establishes decontamination standards and procedures for removing PCBs from water, organic liquids, and various types of surfaces.	Applicable to decontamination of equipment used in excavation or other handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act and NPDES regulations	33 USC 1342 40 CFR 122, including, but not limited to, 122.3(d) and 122.44(a) & (e) 40 CFR 125.1 - 125.3	Point source discharge must meet technology-based effluent limitations (including those based on best available technology for toxic and non-conventional pollutants and those based on best conventional technology for conventional pollutants) and effluent limitations and conditions necessary to meet state water quality standards, except that discharges in compliance with instructions of On-Scene Coordinator (OSC) acting pursuant to NCP are exempt from these requirements.	Applicable to point source discharges of treated water from dewatering/treatment facility to Housatonic River.	Discharges could not feasibly meet MA water quality criteria for PCBs (0.014 and 0.000064 µg/L) in receiving waters, since current water quality conditions in Housatonic River do not meet those criteria. In addition, it is not anticipated that those criteria would be met at the point of discharge. EPA used a standard of 0.5 µg/L. for discharges from the treatment facility in the 1½ Mile Reach Removal Action, and the data from discharges in that project were generally in the range of 0.01 to 0.1 µg/L and often > 0.014 µg/L. However, this ARAR could be met through discharges in compliance with instructions from OSC.
Clean Water Act – NPDES regulations (stormwater discharges)	40 CFR 122.26(c)(1)(ii)(C) 40 CFR 122.44(k)	Best management practices (BMPs) must be employed to control pollutants in stormwater discharges during construction activities.	Applicable to stormwater discharges to river during construction activities, including temporary staging of excavated materials.	Would be attained through use of BMPs to control erosion from stormwater discharges during construction activities, including construction of access roads and temporary staging areas, bank remediation, and temporary staging of excavated materials at staging areas.

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Table S-4.c: Alternative SED 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Endangered Species Act and regulations	16 USC 1536(a)-(d) 40 CFR 6.302(h) 50 CFR Part 402, Subparts A & B	A federal agency must ensure that any action authorized, funded, or carried out by it is not likely to jeopardize the continued existence of a listed threatened or endangered (T&E) species or result in destruction or adverse modification of critical habitat, unless an exemption is granted. If a listed species or critical habitat may be present in the action area, the key steps include a biological assessment by the authorizing agency; a biological opinion by the resource service; and if the action is likely to adversely affect a listed species or critical habitat, identification of “reasonable and prudent” measures to avoid and/or minimize such effects.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize the continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because review of available information indicates that SED 4 would not adversely affect any federally listed T&E species or their critical habitat.
Resource Conservation and Recovery Act (RCRA) regulations on identification of hazardous waste	40 CFR Part 261	Establishes criteria and lists for determining whether a waste is a hazardous waste under RCRA. Note that Sec. 261.24 identifies concentrations of contaminants which make waste a hazardous waste due to toxicity, as determined through the Toxicity Characteristic Leaching Procedure (TCLP).	Relevant and appropriate to determining whether excavated/dredged sediments or bank soils must be managed as a hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated/dredged sediments or bank soils would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
RCRA regulations for generators of hazardous waste	40 CFR 262.30 - 262.33	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated/dredged materials are not expected to constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	If excavated/dredged materials do not constitute RCRA hazardous waste, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table S-4.c: Alternative SED 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA regulations for less than 90 day accumulation of hazardous waste	40 CFR 262.34	Allows on-site accumulation of hazardous waste for less than 90 days in containers, tanks, or containment buildings, provided generator complies with specified requirements, including referenced requirements of 40 CFR Part 265.	These requirements would not be expected to apply because excavated/dredged materials are not expected to constitute RCRA hazardous waste. However, if some dredged sediments did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such dredged sediments.	If excavated materials do not constitute RCRA hazardous waste, these requirements would not apply. However, if any dredged sediments should constitute RCRA hazardous waste, any tanks used for < 90-day accumulation of such sediments would meet these requirements.
RCRA regulations for hazardous waste management facilities – general requirements	40 CFR 264.1(j)	General requirements for facilities used to manage remediation wastes that constitute hazardous waste (e.g., requirements for waste analysis, security, precautions to prevent accidental ignition or reaction of wastes, preventing washout of units in floodplain by 100-year flood). (These requirements are in lieu of Part 264, Subparts B, C, and D.)	These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute RCRA hazardous waste. Further, even if some materials did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be met at the temporary staging areas used for such waste.
RCRA regulations for hazardous waste management facilities – technical requirements for storage of hazardous waste	40 CFR Part 264, Subparts J, K, and L	Design, operating, closure, and (if necessary) post-closure requirements for storage of hazardous waste in tanks (Subpart J), surface impoundments (Subpart K) and waste piles outside structures (Subpart L).	These requirements would not be expected to apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, any waste piles, tanks, or surface impoundments used for temporary staging of such waste would meet these requirements with the following exceptions: (a) While the waste piles and

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Table S-4.c: Alternative SED 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			dispersed contamination. However, if some excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to these types of facilities used for staging of those materials.	surface impoundments (if any) would meet the single liner/leachate collection requirements of §§ 264.251(a) and 264.221(a), they would not meet the requirements of §§ 264.251(c) and 264.221(c) for a double liner/leachate collection system at “new waste pile units” and “new surface impoundment units” (if applicable). (b) While the waste piles would contain a run-on control system capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (see § 264.251(g)). To the extent these requirements, which were developed for permanent hazardous waste storage units, are considered applicable, they are not practical for temporary staging areas and thus should be waived as technically impracticable to attain.
RCRA regulations for hazardous waste management facilities – groundwater protection	40 CFR Part 264, Subpart F	Groundwater protection requirements for hazardous waste contained in solid waste management units. Includes groundwater protection standards (i.e., maximum contaminant levels) for waste piles outside structures; alternate limits allowed under 40 CFR 264.94(b); and requirements for groundwater monitoring systems.	Same as above.	If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable to attain.

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Table S-4.c: Alternative SED 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
RCRA land disposal restrictions	40 CFR 268.50	Prohibits storage of hazardous wastes that are prohibited from land disposal under Part 268, Subpart C, with a number of exceptions, including that such waste may be stored solely for the purpose of accumulating such quantities as are necessary to facilitate proper recovery, treatment, or disposal.	Same as above except that if some excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these provisions would apply.	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these provisions would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would meet the exception to the storage prohibition for the accumulation of such quantities as are necessary to facilitate treatment or disposal.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (Note: These were listed as location-specific ARAR in Table S-4.b, but are also listed here at EPA’s direction.)	314 CMR 9.01 - 9.08	Same as described for these regulations in Table S-4.b.	Applicable to excavation/removal of sediments, discharge of dredged or fill material to waters and wetlands, and temporary staging areas for excavated sediments.	Same as described for these regulations in Table S-4.b.
Massachusetts Clean Water Act and Wetlands Protection Act – stormwater management standards	310 CMR 10.05(6)(k) 314 CMR 9.06(6)(a)	Projects subject to regulation under the Wetlands Protection Act or that involve discharge of dredged or fill material must be provided with stormwater BMPs to attenuate pollutants in stormwater discharges and provide a setback from receiving waters and wetlands in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during remediation activities and at temporary staging areas.	SED 4 would include use of stormwater BMPs during construction of access roads and staging areas, bank soil removal and stabilization, and operation of staging areas. These BMPs would be designed to meet the MDEP’s specified stormwater management standards. These stormwater systems would include ~ 25-foot setbacks from receiving waters and wetlands where practicable, but this would not be feasible for BMPs for bank remediation or in areas where there would be no practical alternative to siting the staging areas in or

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Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				near wetlands. Stormwater BMPs would not be necessary or practical for sediment excavation or dredging or capping, since those activities would take place within the River. Any applicable stormwater management requirements that could not practically be met would need to be waived as technically impracticable.
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity may not result in a “take” of a State-listed endangered, threatened, or special concern species, except that such a “take” may be allowed if the applicant has adequately addressed alternatives, an insignificant portion of the local population would be impacted, and the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the species. Projects in a designated Priority Habitat for a State-listed species or other area where such a species has occurred must be reviewed in accordance with these requirements.	Applicable to activities in a State-designated Priority Habitat in MA or other areas where information indicates the occurrence of a State-listed species.	All excavation, capping, and thin-layer capping activities, as well as most access roads and temporary staging areas, in SED 4 would occur within Priority Habitat, as shown on Figure S-4. Based on the evaluations presented in Appendix B to this Interim Response, these activities and facilities would result in a “take” of approximately 19 State-listed species. For about 16 of those species, the take would impact a significant portion of the local population. In these cases, the MESA requirements would need to be waived as technically impracticable to meet. As also described in Appendix B, for the species for which the take would not impact a significant portion of the local population, it cannot be established that a long-term Net Benefit plan could feasibly be developed at this site. If not, the MESA requirement for such a plan would need to be waived.
	321 CMR 10.00, Part IV	Projects that will alter a designated Significant Habitat must be reviewed to ensure that they will not reduce the viability of the habitat to sustain an endangered or threatened species.	Would be applicable to activities affecting State-designated Significant Habitat in MA. However, no such habitat has been designated.	Not applicable.

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Table S-4.c: Alternative SED 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste regulations on identification of hazardous waste	310 CMR 30.100	<p>Establishes criteria and lists for determining whether a waste is a hazardous waste under state law.</p> <p>Note that wastes that contain PCBs ≥ 50 mg/kg (which are listed wastes) are exempt from the state hazardous waste management regulations so long as they are managed in compliance with EPA's TSCA regulations (40 CFR Part 761) (see 310 CMR 30.501(3)(a)). (Materials that constitute state hazardous wastes on other grounds are referred to in this table as "non-PCB state hazardous waste.")</p> <p>Note also that the state hazardous waste management regulations also exempt dredged material (even if it constitutes non-PCB state hazardous waste) that is temporarily stored at an intermediate facility (pursuant to 314 CMR 9.07(4)) and managed in accordance with a state water quality certification and § 404 requirements under the Clean Water Act (see 310 CMR 30.104(3)(f)).</p>	Applicable to determining whether excavated/ dredged sediments and bank soils must be managed as a hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated/dredged sediments or bank soils would constitute hazardous waste under state law on grounds other than containing PCBs ≥ 50 mg/kg.. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
<p>Note: As noted above, it is not expected that the excavated/dredged materials would constitute non-PCB state hazardous waste. However, for sediments, even if some excavated/dredged sediments did constitute such hazardous waste, the following Massachusetts hazardous waste management requirements are considered inapplicable to temporary staging areas for such sediments due to the exemption from the hazardous waste regulations for dredged materials temporarily stored at an intermediate facility and managed under state water quality certification and § 404 of Clean Water Act (310 CMR 30.104(3)(f)). Hence, these requirements have been evaluated based solely on their potential applicability to temporary staging areas that are used for excavated bank soils.</p>				
Massachusetts hazardous waste regulations for generators	310 CMR 30.321 - 30.324	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated materials are not expected to constitute non-PCB state hazardous waste.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, these requirements would be met prior to any off-site transport of such waste.

* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table S-4.b.

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

Table S-4.c: Alternative SED 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply.	
Massachusetts hazardous waste management regulations – general requirements	310 CMR 30.513, 30.514, 30.524, 30.560	General requirements for hazardous waste management facilities (for waste analysis, security, emergency prevention and response, and precautions to prevent accidental ignition or reaction of wastes).	These requirements would not be expected to apply to temporary staging areas because excavated materials are not expected to constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply to staging areas for such waste.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, these requirements would be met at staging areas for such waste.
Massachusetts hazardous waste management regulations – location standards for units used to store hazardous waste (Note: Some of these regulations were also listed as location-specific ARAR in Table S-4.b.)	310 CMR 30.701(6), 30.703(2), 30.704(3), 30.705(3) & (6)	Location standards for waste piles, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in wetlands, (c) within ½ mile of public water supply well, (d) on land overlying an actual, planned, or potential public underground drinking water source, (e) within 1000 feet of a private drinking water well, or (f) without a 200-foot buffer zone to fenceline.	These requirements would not be expected to apply because excavated materials are not expected to constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply to waste piles for such waste at temporary staging areas.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) It may not be feasible to site some such staging areas outside 500-year floodplain, since, in some locations, this would drive the staging areas too far from the river to be practical; (b) while GE would attempt to avoid siting staging areas in wetlands where practical, this would not be practical in some cases given that the majority of the PSA consists of wetlands; (c) it is unknown whether such sites would overlie a “potential public

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Table S-4.c: Alternative SED 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				underground drinking water source” (defined as a groundwater source capable of yielding 100 gpm or more of water and with less than 10,000 mg/L of total dissolved solids); and (d) it is not certain whether some areas could be designed and constructed with a 200-foot buffer zone to fenceline. Any requirements that could not feasibly be met would need to be waived as technically impracticable in order for this alternative to be implemented.
Massachusetts hazardous waste management regulations – technical requirements for storage of hazardous waste	310 CMR 30.602 310 CMR 30.640 310 CMR 30.580	Requirements for design, operation, and closure of waste piles used to store hazardous waste.	Same as above.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except as follows: (a) It may not be practical for some areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); this would require investigation during design. (b) While these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have such systems capable of preventing flow onto those areas or controlling runoff during a 100-year flood (see 30.641(2 & (3)). To the extent that these requirements are considered applicable and could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.
	310 CMR 30.660	Groundwater protection requirements for waste piles outside structures, including monitoring system requirements; groundwater protection standards (i.e.,	Same as above.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste,

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Table S-4.c: Alternative SED 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		maximum contaminant levels), and potential alternate limits.		waste piles used for such waste at temporary staging areas would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable.
Massachusetts air pollution control regulations	310 CMR 7.09	Prohibits person engaged in dust-generating activities from creating condition of air pollution, defined as air concentrations that would cause a nuisance, be injurious or potentially injurious to human or animal life, vegetation, or property, or unreasonably interfere with comfortable enjoyment of life and property or conduct of business.	Applicable to excavation and construction activities generating dust.	Would be attained through use of dust control measures during activities that could generate dust and through particulate and PCB air monitoring during active remediation activities and during construction and operation of the staging areas, along with response actions if certain action levels are exceeded. These measures would be specified in design.
Connecticut Endangered Species Act	Conn. Gen. Stat. 26-303 through 26-316	Requires state agency to: (a) ensure that any action authorized or performed by it does not threaten the continued existence of a listed endangered or threatened species or result in destruction or adverse modification of habitat essential to such species, unless an exemption is granted; and (b) take all reasonable measures to mitigate any adverse impacts of the proposed action on such species or habitat. Prohibits "taking" of endangered or threatened species, except where State determines that a proposed action would not appreciably reduce likelihood of survival or recovery of the species.	This statute is not applicable or relevant and appropriate to SED 4 because implementation of SED 4 is not expected to have any adverse impact on endangered or threatened species or their habitat in Connecticut, or to cause a "taking" of such species.	Not applicable.

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Table S-4.c: Alternative SED 4 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Connecticut fisheries and game laws	Conn. Gen. Stat. 26-60	Authorizes CT DEP to issue permits to properly accredited persons for sampling of fish, crustaceans, and wildlife for educational and scientific purposes, with CT DEP to determine number, species, area, and method of collection.	Relevant and appropriate to biota sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on biota sampling in Connecticut portion of river.
Guidances To Be Considered				
TSCA PCB Spill Cleanup Policy	40 CFR Part 761, Subpart G	Policy used to determine adequacy of cleanup of spills resulting from the release of materials containing PCBs at concentration of 50 ppm or greater.	To be considered.	Would be considered in the event of any new PCB spill that occurs during implementation of SED 4.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups</i> (EPA, 1995)	Memorandum from EPA Office of Solid Waste and Emergency Response, March 13, 1995	Describes EPA policy on use of Area of Contamination (AOC) approach under RCRA. Explains that an overall area that includes discrete areas of generally dispersed contamination may be considered an AOC, within which the movement of waste is not considered "placement," such that the RCRA land disposal restrictions and other RCRA requirements, including minimum technology requirements, would not be triggered.	To be considered.	Under this policy, even if excavated sediments or bank soils should constitute RCRA hazardous waste, the technical RCRA requirements for a hazardous waste storage facility would not apply to temporary staging areas located within the boundary of the Rest of River area, because those areas would be within the overall area of dispersed contamination.

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Table S-5.a: Alternative SED 5 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act, National Ambient Water Quality Criteria for PCBs	<i>National Recommended Water Quality Criteria: 2002</i> , EPA-822-R-02-047, USEPA, Office of Water, Office of Science and Technology (Nov. 2002)	<p>Freshwater chronic aquatic life criterion (based on protection of mink): 0.014 µg/L (4-day average not to be exceeded more than once every 3 years).</p> <p>Human health criterion based on human consumption of water and organisms: 0.000064 µg/L (evaluated on annual average basis).</p>	Relevant and appropriate to surface water in Rest of River.	<p>Model indicates that SED 5 would achieve chronic aquatic life criterion in all reaches using block averaging approach (and would achieve that criterion using rolling average approach in all reaches except for 1 extra exceedance in Reach 5A, 2 extra exceedances in Reach 7G, and 3 extra exceedances in Rising Pond) (see Interim Response, Response to Specific Comment 62).</p> <p>Model indicates that SED 5 would not achieve human health criterion in any reaches in MA and in 2 of 4 impoundments in CT. That criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) because it is below current ability to measure and would not be achieved by any sediment alternative (see CMS Report, Section 4.1.4).</p>
State ARARs				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	Same as federal water quality criteria (unless Mass. Dept. of Environmental Protection establishes site-specific criterion or determines that naturally occurring background concentrations are higher).	Applicable to surface water of Housatonic River in Massachusetts.	Same as for federal water quality criteria.

Table S-5.a: Alternative SED 5 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<p>Numeric Connecticut water quality criteria for PCBs</p>	<p><i>Connecticut Water Quality Standards</i> (effective Dec. 17, 2002), Appendix D</p>	<p>Freshwater chronic aquatic life criterion: 0.014 µg/L (same as federal criterion).</p> <p>Human health criterion, based on human consumption of organisms only or water and organisms: 0.00017 µg/L. (This criterion is based on the prior federal criterion and has not been revised since the federal criterion was revised.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due, in part, to PCBs.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Status of human health criterion as ARAR is not clear since it is less stringent (and less up-to-date) than comparable federal criterion (see 40 CFR 300.5).</p>	<p>CT 1-D Analysis indicates that SED 5 would achieve chronic aquatic life criterion in CT impoundments.</p> <p>For human health criterion (if it is considered an ARAR), CT 1-D Analysis indicates that SED 5 would achieve that criterion in the 4 CT impoundments. GE believes that this criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) for the reasons given in CMS Report, page 4-7 n.41.</p>
<p>Guidances To Be Considered</p>				
<p>Cancer Slope Factors</p>	<p>EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/iriswebp/iris/index.html</p>	<p>Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.</p>	<p>To be considered.</p>	<p>Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>
<p>Reference Doses</p>	<p>EPA's IRIS http://www.epa.gov/iriswebp/iris/index.html</p>	<p>Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.</p>	<p>To be considered.</p>	<p>Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>
<p><i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)</p>	<p>EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)</p>	<p>Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.</p>	<p>To be considered.</p>	<p>Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>

Table S-5.a: Alternative SED 5 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting remedy for Rest of River.
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting remedy for Rest of River.
Massachusetts fish consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Advises that the public should not consume any fish from the Housatonic River from Dalton to Sheffield due to PCBs; also includes frogs and turtles.	To be considered.	SED 5 includes continuation and maintenance of this advisory, including appropriate steps to inform anglers about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	SED 5 includes continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table S-5.a: Alternative SED 5 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut fish consumption advisory	Connecticut Department of Public Health, 2006 Advisory for Eating Fish from Connecticut Waterbodies	Establishes advisories on consuming fish from the Housatonic R. in Connecticut (above Derby Dam), including Lakes Lillinonah, Zoar, and Housatonic, due to PCBs in fish. Advisories vary by species, location, and group of consumers (i.e., high-risk vs. low-risk group), ranging from “do not eat” to “one meal per week.”	To be considered.	SED 5 includes continuation and maintenance of these advisories, including appropriate steps to inform anglers about the advisories, for as long as considered necessary by the Connecticut Department of Public Health.

Table S-5.b: Alternative SED 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act – Section 404 and implementing regulations issued by U.S. Army Corps of Engineers (ACOE) and by EPA	33 USC 1344 33 CFR Parts 320-323 (ACOE) 40 CFR Part 230 (EPA)	For discharge of dredge or fill material: (a) there must be no practical alternative with less adverse impact on aquatic ecosystem; (b) discharge cannot cause or contribute to violation of state water quality standard or toxic effluent standard; (c) discharge cannot jeopardize the existence of any threatened or endangered (T&E) species; (d) discharge cannot cause or contribute to significant degradation of waters of the U.S., including significant adverse effects on human health or welfare, aquatic life, aquatic ecosystem, or recreational, aesthetic, and economic values; and (e) discharger must take appropriate and practicable steps to minimize or mitigate potential adverse effects on aquatic ecosystem.	Applicable to discharges of dredged or fill material to waters of the U.S. (including wetlands that constitute such waters)	<p>(a) There are practical alternatives with less adverse impact on aquatic ecosystem – e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) SED 5 would not meet requirement that discharge not contribute to violation of state water quality standards, since Housatonic River does not currently meet numerical MA water quality criteria for PCBs; hence, that requirement should be waived as technically impracticable to attain.</p> <p>(c) Review of available information indicates that SED 5 would not affect any federally listed T&E species.</p> <p>(d) SED 5 would cause significant adverse effects on aquatic life, aquatic ecosystem, and recreational and aesthetic values, as described in CMS Report (Sections 4.5.5.3 and 4.5.8) and this Interim Response (Response to General Comment 10). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>(e) SED 5 would include appropriate and practicable steps in an effort to minimize or mitigate potential adverse effects on aquatic ecosystem. Despite such steps, however, SED 5 would have substantial adverse effects on the aquatic ecosystem, as noted above and discussed in Response to General Comment 10.</p>

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Table S-5.b: Alternative SED 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	33 CFR Part 332 (ACOE) 40 CFR Part 203, Subpart J (EPA)	Compensatory mitigation regulations: If project will have unavoidable adverse impacts after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation – i.e., the restoration, creation, enhancement, or (in some circumstances) preservation of aquatic resources. This requires a mitigation work plan, including detailed specifications and descriptions for compensatory mitigation. The regulations also require objective performance standards, monitoring for at least 5 years, and active long-term management and maintenance where necessary to ensure long-term sustainability.	Applicable to discharges of dredged or fill material to waters of the U.S. (including wetlands that constitute such waters)	For areas where SED 5 would have unavoidable adverse impacts on the aquatic ecosystem, a compensatory mitigation plan would be necessary to address those impacts. Despite such plan, however, substantial adverse impacts will remain. See Response to General Comment 10. See also Responses to General Comment 29 and Specific Comment 106.
Rivers and Harbors Act of 1899, Section 10	33 USC 403	Prohibits obstruction, excavation, filling, or altering any navigable water of the United States without authorization from U.S. Army Corps of Engineers.	Relevant and appropriate to dredging in, and discharge of dredge and fill material to, navigable waters of the U.S., but no permit required.	Since no permit is required, this requirement would be addressed through EPA's coordination with U.S. Army Corps of Engineers regarding work in Housatonic River.
Fish and Wildlife Coordination Act requirements	16 USC 662(a) 40 CFR 6.302(g)	A federal agency proposing to undertake or authorize an action that will control or modify any waterbody must consult with federal and state resource agencies to ascertain measures to prevent, mitigate, and compensate for project-related loss of or damage to fish and wildlife resources and to provide for the development and improvement of such resources.	Applicable to EPA; relevant and appropriate to work in river.	Would be attained through consultation by EPA with U.S. Fish and Wildlife Service and MA Department of Fish and Game.

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Table S-5.b: Alternative SED 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Executive Order for Wetlands Protection	Exec. Order 11990 (1977) 40 CFR 6.302(a) 40 CFR Part 6, App. A	A federal agency must avoid construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Applicable to EPA; relevant and appropriate to work in wetlands.	<p>SED 5 would involve construction activities in wetlands. There are practical alternatives with much less adverse effect on wetlands (e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>SED 5 would include practicable measures to minimize harm to wetlands, including avoiding siting access roads and staging areas in wetlands where practicable, use of erosion and sedimentation control measures, and reasonable restoration measures for affected wetlands. However, restoration measures would not prevent substantial harm to wetlands, as discussed in Response to General Comment 10.</p>
Executive Order for Floodplain Management	Exec. Order 11988 (1977) 40 CFR 6.302(b) 40 CFR Part 6, App. A	A federal agency proposing action in a floodplain must consider alternatives to avoid adverse effects on the floodplain, and if there is no practicable alternative, must design or modify the action to minimize harm to or within the floodplain.	Applicable to EPA; relevant and appropriate to work in floodplains.	<p>SED 5 would involve construction of access roads and staging areas in the floodplain. Since these facilities must be located near sediment removal areas, they cannot be relocated to avoid any construction in the floodplain. However, there are practical alternatives with less adverse effects on the floodplain – e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>SED 5 would include practicable measures to minimize harm to floodplain, including erosion and sedimentation control measures, reasonable restoration measures for affected portions of floodplain, and maintenance of existing flood storage capacity of floodplain. However, restoration measures would not prevent substantial harm to floodplain, as discussed in Response to General Comment 10.</p>

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Table S-5.b: Alternative SED 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains	40 CFR 264.1(j)(7) 40 CFR 264.18(b)	A hazardous waste treatment, storage, or disposal facility used for remediation waste and located in the 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of such waste by a 100-year flood unless owner/operator shows that procedures are in effect to remove waste safely before flood waters can reach facility.	These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute RCRA hazardous waste. Further, even if some materials did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if some excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas within 100-year floodplain to which AOC policy does not apply (if any), these requirements would be met. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.
National Historic Preservation Act and regulations	16 USC 470f 36 CFR Part 800	A federal agency proposing to fund or authorize a project must take into account the project's effect on properties (including a site, building, structure, or object) included or eligible for inclusion in the National Register of Historic Places (NRHP). This requires: (a) consultation with the State and/or Tribal	Applicable to EPA; relevant and appropriate to federally authorized work in areas where property(ies) listed or eligible for inclusion on NRHP may be present.	Would be attained through process described in Section 6 of GE's <i>Initial Phase IA Cultural Resources Assessment for the Housatonic River – Rest of River Project</i> (Phase IA CRA: URS Corporation, March 13, 2008).

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Table S-5.b: Alternative SED 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>Historic Preservation Offices; (b) identification of the project's "area of potential effects"; (c) identification of any listed or eligible historic property within that area that could be affected by the project; (d) if there is such property, determination of whether the project would have an adverse impact on the property; (e) if so, evaluation of alternatives to avoid, minimize, or mitigate the adverse impacts; and (f) agreement on such measures or, failing agreement, implementation of such measures identified by the authorizing agency.</p>		
<p>Archaeological and Historic Preservation Act</p>	<p>16 USC 469</p>	<p>When a federal agency finds or is notified that a federal or federally authorized project may cause the loss or destruction of archaeological or historic data, it must notify Department of Interior (DOI). If DOI determines that the data are significant and may be irrevocably lost or destroyed, it is to conduct a survey and other investigation of the affected area and recover and preserve such data as necessary in the public interest.</p>	<p>Applicable to EPA; relevant and appropriate to federally authorized work in areas where archaeological or historic data may be present.</p>	<p>Identification of archaeological or historic data potentially affected by SED 5 would be made through process identified in Phase IA CRA. If such data are identified that could be irrevocably lost or destroyed by implementation of SED 5, it is anticipated that EPA would notify DOI as required.</p>
<p>State ARARs</p>				
<p>Massachusetts Waterways Law and implementing regulations</p>	<p>MGL Ch. 91 310 CMR 9.00</p>	<p>Standards and requirements for any construction, placement, excavation, alteration, or removal of any fill or structures in a waterbody (below high water mark). Includes standards governing engineering and construction of fill and structures to be placed in waterbodies (9.37) and standards for dredging (9.40), including prohibition on dredging in an Area of Critical Environmental Concern (ACEC) except for sole purpose of fisheries or wildlife enhancement. Also requires compliance with other specified</p>	<p>Applicable to excavation/removal of sediments from Housatonic River, placement of caps or backfill in river, and placement of structures in river below high water mark to aid in excavation, address erosion, or restore habitat.</p>	<p>SED 5 would be designed to attain these standards and requirements, except that if ACEC is designated, SED 5 would not comply with the prohibition on dredging in an ACEC. In the latter event, SED 5 could not be implemented without a waiver of that prohibition. (The other relevant environmental regulatory programs referenced in Section 9.33 are discussed separately in these ARARs tables.)</p>

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Table S-5.b: Alternative SED 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		environmental regulatory programs (9.33).		
<p>Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act)</p> <p>Note: These regulations are also listed as action-specific ARARs for SED 3.</p>	314 CMR 9.01 - 9.08	<p>For discharge of dredged or fill material: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on bordering or isolated vegetated wetlands, including 1:1 restoration or replication of such wetlands (unless waived); (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under the Wetlands Protection Act or would be to certain designated “Outstanding Resource Waters,” including certified vernal pools, unless a variance is obtained; (d) stormwater discharges must be controlled with best management practices (BMPs); and (e) there must be no substantial adverse impacts to physical, chemical, or biological integrity of surface waters.</p> <p>For dredging and dredged material management: (a) no dredging is allowed if there is practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid, minimize, or mitigate adverse effects on land under water; (c) dredging must be conducted to meet performance standards designed to minimize impacts on the aquatic ecosystem and protect human health; and (d) placement of dredged material in an intermediate facility for sediment management (dewatering, processing, etc.) prior to disposal or reuse must meet certain requirements, including</p>	Applicable to excavation/removal of sediments and bank soils, discharge of dredged or fill material to waters or wetlands, and dredged material management at temporary staging areas.	<p>As noted above, there are practical alternatives with less adverse impact on aquatic ecosystem – e.g., the ecologically sensitive alternative being developed. Thus, the requirement that there be no such alternative would not be met.</p> <p>SED 5 would include appropriate and practicable steps in an effort to avoid, minimize, or mitigate potential adverse effects on land under water and on wetlands, ut such steps would not prevent substantial harm to these resource areas (see Response to General Comment 10). Further, under SED 5, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), stormwater discharges would be controlled through BMPs, and there would be no substantial long-term adverse impacts to the integrity of river water. However, SED 5 would adversely affect estimated habitat of rare wildlife species, because all remediation and most supporting activities would occur within such habitat (see Figure S-5). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>Excavation/dredging activities under SED 5 would meet the specified dredging performance standards, except that they would affect areas of ecological importance (including an ACEC if designated) and, in some cases, would not be able to maintain a minimum of 25 feet between the edge of vegetated wetlands and the top of the slope of the excavation areas. Hence, the latter requirements would need to be waived as technically impracticable.</p> <p>Temporary staging areas would meet the placement and siting requirements for</p>

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Table S-5.b: Alternative SED 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>requirements governing method of placement/ storage of dredged material and siting criteria.</p>		<p>intermediate facilities, except that they would not be able to meet the requirements that such facilities cannot have a permanent adverse impact on a state-listed rare species or on an ACEC. Most temporary staging areas under SED 5 would be located in State-designated Priority Habitat of rare species (see Figure S-5) and would have a permanent adverse effect on state-listed species, as shown in Appendix B to this Interim Response. If an ACEC is designated, the staging areas would be located within the ACEC and would have a permanent adverse impact on the ACEC if restoration of the affected areas is not successful (see Response to General Comment 10). To the extent that these requirements would not be met, they would need to be waived as technically impracticable.</p>
<p>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 310 CMR 10.59</p>	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less damaging to resource areas; and (b) avoid or minimize impacts to resource areas, including, to the maximum extent practicable, minimizing hydrological changes, using BMPs during construction (including prevention of erosion/siltation); implementing mitigating measures, providing compensatory storage for lost flood storage capacity, avoiding flow restrictions that would increase flood stage or velocity, substantially restoring disturbed vegetation, and working in resource areas only when the ground is sufficiently stable to support the equipment.</p> <p>For actions that do not qualify as a “limited project,” the requirements of 310 CMR 10.54</p>	<p>Applicable to SED 5 response actions that take place in waterbodies or in or within 100 feet (buffer zone) of stream/pond banks or wetlands or are within floodplains or riverfront areas (extending 200 feet from river’s edge) and that will alter any such resource areas.</p>	<p>Since SED 5 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> ▪ As noted above, there are practical alternatives that would be less damaging to resource areas. Thus, the requirement that there be no such practicable alternative would not be met and would need to be waived. ▪ SED 5 would include practicable measures to minimize impacts to resource areas, including actions to minimize impact of hydrological changes during construction, control of stormwater discharges during construction through BMPs, implementation of mitigation measures where necessary, and restoration of disturbed vegetation as required. However, as discussed in CMS Report (Sections 4.5.5.3 and 4.5.8) and this Interim Response (Response to General Comment 10), these measures would not prevent substantial adverse impacts of SED 5

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Table S-5.b: Alternative SED 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>– 10.58 would apply.</p> <p>In either case, under 310 CMR 10.59, the action must have no adverse effect on estimated habitat of rare wildlife species.</p> <p>(Note that for areas within 100 feet of stream/pond banks or wetlands (buffer zone) or within 200 feet from river’s edge (riverfront areas), minor activities such as sampling and monitoring are exempt from these requirements. See 310 CMR 10.02(2)(b)1.g.)</p>		<p>on resource areas. Further, as discussed in CMS Report (Section 4.5.9.1), the cap placed in Reach 5C could have a limited impact on flood storage capacity of the floodplain, while the caps placed in the backwaters, Woods Pond, and Rising Pond would not be expected to affect flood storage capacity. The effect of the placement of caps (without removal) on flood storage capacity and on flood water elevations and velocity, as well as the need for and scope of flood storage compensation, would be further evaluated further during design.</p> <ul style="list-style-type: none"> ▪ SED 5 would adversely affect estimated habitat of rare wildlife species, because all remediation and most supporting activities would occur within such habitat (see Figure S-5). Thus, the prohibition on projects with an adverse effect on such habitat would need to be waived as technically impracticable to meet. <p>In the event that SED 5 was considered not to constitute a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 – e.g., prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands or impairs such wetlands within ACEC (if designated) (10.55(4)), as well as the above-mentioned requirement to have no adverse effect on estimated rare wildlife species habitat. Such requirements would thus need to be waived as technically impracticable.</p>
Massachusetts Dam Safety Standards	302 CMR 10.00	Regulations establish design and construction criteria for new and existing dams (302 CMR 10.14) and requirements for periodic inspections of dams (302 CMR 10.07). These regulations exclude dams subject to regulation by the Federal Energy Regulatory Commission (FERC) (302 CMR	Applicable to existing GE-owned dams on River in Massachusetts. Not applicable to other existing dams in Rest of River in Massachusetts, because those dams are subject to	GE will meet these requirements at dams that it owns (Woods Pond Dam and Rising Pond Dam). Not applicable to other dams in Rest of River in Massachusetts.

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Table S-5.b: Alternative SED 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		10.04).	regulation by FERC, which preempts application of these state dam safety standards. In any case, even if these standards were relevant to non-GE-owned dams, they would relate to responsibilities of those dam owners and are not ARARs for SED 5.	
Massachusetts standards for hazardous waste management facilities in floodplains	310 CMR 30.701	Location standards for hazardous waste management facilities in floodplains, including requirements that: (a) no active portion of a waste pile or surface impoundment may be constructed within 500-year floodplain; and (b) tanks, containers, and similar units that are used to store hazardous waste, do not receive waste from off-site sources, and are located within the 100-year floodplain must be floodproofed to prevent floodwaters from contacting the hazardous waste.	These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute state hazardous waste subject to these standards. Further, even if some excavated/dredged sediments did constitute such hazardous waste, these requirements would not apply to temporary staging areas for such sediments, due to exemption from hazardous waste regulations for dredged materials temporarily stored at intermediate facility and managed under state water quality certification and § 404 of Clean Water Act (310 CMR 30.104(3)(f)) (see Table S-4.c). However, if some	If excavated /dredged materials do not constitute state hazardous waste subject to these regulations, these requirements would not apply. They would also not apply to the staging of excavated/dredged sediments even if they constitute such hazardous waste, due to the exemption mentioned in prior column. However, if some excavated bank soils were found to constitute such hazardous waste, it may not be feasible for some temporary staging areas for such waste to meet the requirement that waste piles be located outside 500-year floodplain, since, in some areas, this would drive the staging areas too far from the river to be practical. In such cases, that requirement should be waived as technically impracticable to attain.

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Table S-5.b: Alternative SED 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			excavated bank soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	
Massachusetts Historical Commission Act and regulations	MGL c. 9, § 27C 950 CMR 71.07	A state body proposing to fund or authorize a project must notify the Massachusetts Historical Commission (MHC) (or the project proponent may notify MHC) if the project has an area of potential impact on a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on such a property, the state body, project proponent, and MHC must consider “prudent and feasible alternatives” that could eliminate, minimize, or mitigate the adverse effects. If there are, such alternatives will be specified in an agreement among those parties; and if there is no agreement, project cannot proceed until state body or project proponent responds to the MHC.	Applicable to State; relevant and appropriate to State-authorized work in areas where the work would have an area of potential impact on property(ies) listed in State Register.	Extent to which SED 5 would have potential impact on property(ies) listed in the State Register would be determined through the process identified in Phase IA CRA. If it would have such a potential impact, MHC would be notified and substantive provisions of these regulations would be met.
	MGL c. 9, § 27C	Any person supervising any survey, excavation, or construction on state or local government lands must report to the state archaeologist any archaeological, paleontological, or historical site or object discovered, and must take all reasonable steps to secure its preservation.	Applicable to excavations or construction on state or local government lands in MA.	If any archaeological, paleontological, or historical site or object is discovered during clearing or excavation/dredging activities on state or local government land, this requirement for notification and preservation would be met.

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Table S-5.b: Alternative SED 5 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut Dam Safety Requirements	Conn. Gen. Stat. 22a-401 to 22a-411 Conn. Agencies Regs. Sec. 22a-409-2	Requirements for registration of certain types of dams; periodic inspections of dams; maintenance activities; construction, repair, replacement, or removal of dams; and notifications to CT DEP of sudden or unpredicted floods or major changes in condition of dams.	Not applicable to existing dams on River in Connecticut, because all such dams are subject to FERC regulation, which preempts application of these state dam requirements. In any case, even if these requirements were relevant, they would relate to responsibilities of the dam owners and are not ARARs for SED 5.	Not applicable.
Connecticut Inland Wetlands and Watercourses Act and regulations	Conn. Gen. Stat. 22a-36 <i>et seq.</i> Conn. Agencies Regs. Sec. 22a-39-4	Permit required from local (municipal) wetland agency for activities that remove material from inland wetlands or watercourses; CT DEP allowed to issue general permit for minor activities with minimal environmental impacts, defined to include monitoring and sampling (Conn. Gen. Stat. 22a-45a). No substantive standards provided.	Relevant and appropriate to sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on sampling in Connecticut portion of river.

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Table S-5.c: Alternative SED 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Toxic Substances Control Act (TSCA) regulations on cleanup of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61	General requirements (761.50) and specific options (761.61) for cleanup of PCB Remediation Waste, including PCB-containing sediments and soils. Options 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.	Applicable to cleanup of PCB Remediation Waste (which includes Housatonic River sediments and bank soils with PCBs > 50 ppm).	It is anticipated that, if SED 5 is selected, these requirements would be met through EPA determination that SED 5 meets requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on storage of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.65 40 CFR 761.61(c)	General and specific requirements for storage of PCB Remediation Waste. Regulations include specific provisions for storage of PCB Remediation waste in piles at the cleanup site or site of generation for up to 180 days (761.65(c)(9)). They also allows for risk-based approval by EPA of alternate storage method (761.61(c)), based on demonstration that it will not pose an unreasonable risk of injury to health or the environment.	Applicable to temporary storage of PCB Remediation Waste.	Temporary staging areas would meet the default conditions in 761.65(c)(9) with the following exception: While these areas would contain run-on control systems capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (although they would include appropriate flood control measures). For those temporary staging areas that would not meet this condition, the TSCA requirements could be met through an EPA determination that those staging areas meet requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on discharges of PCB-containing water	40 CFR 761.50(a)(3)	Prohibits discharge of water containing PCBs to navigable waters unless PCB concentration is < 3 µg/L or discharge is in accordance with NPDES discharge limits.	Applicable to discharges of treated water from dewatering/treatment facility to Housatonic River.	Water treatment facilities would be designed to meet this requirement.

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Table S-5.c: Alternative SED 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
TSCA regulations on decontamination	40 CFR 761.79	Establishes decontamination standards and procedures for removing PCBs from water, organic liquids, and various types of surfaces.	Applicable to decontamination of equipment used in excavation or other handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act and NPDES regulations	33 USC 1342 40 CFR 122, including, but not limited to, 122.3(d) and 122.44(a) & (e) 40 CFR 125.1 - 125.3	Point source discharge must meet technology-based effluent limitations (including those based on best available technology for toxic and non-conventional pollutants and those based on best conventional technology for conventional pollutants) and effluent limitations and conditions necessary to meet state water quality standards, except that discharges in compliance with instructions of On-Scene Coordinator (OSC) acting pursuant to NCP are exempt from these requirements.	Applicable to point source discharges of treated water from dewatering/treatment facility to Housatonic River.	Discharges could not feasibly meet MA water quality criteria for PCBs (0.014 and 0.000064 µg/L) in receiving waters, since current water quality conditions in Housatonic River do not meet those criteria. In addition, it is not anticipated that those criteria would be met at the point of discharge. EPA used a standard of 0.5 µg/L. for discharges from the treatment facility in the 1½ Mile Reach Removal Action, and the data from discharges in that project were generally in the range of 0.01 to 0.1 µg/L and often > 0.014 µg/L. However, this ARAR could be met through discharges in compliance with instructions from OSC.
Clean Water Act – NPDES regulations (stormwater discharges)	40 CFR 122.26(c)(1)(ii)(C) 40 CFR 122.44(k)	Best management practices (BMPs) must be employed to control pollutants in stormwater discharges during construction activities.	Applicable to stormwater discharges to river during construction activities, including temporary staging of excavated materials.	Would be attained through use of BMPs to control erosion from stormwater discharges during construction activities, including construction of access roads and temporary staging areas, bank remediation, and temporary staging of excavated materials at staging areas.

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Table S-5.c: Alternative SED 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Endangered Species Act and regulations	16 USC 1536(a)-(d) 40 CFR 6.302(h) 50 CFR Part 402, Subparts A & B	A federal agency must ensure that any action authorized, funded, or carried out by it is not likely to jeopardize the continued existence of a listed threatened or endangered (T&E) species or result in destruction or adverse modification of critical habitat, unless an exemption is granted. If a listed species or critical habitat may be present in the action area, the key steps include a biological assessment by the authorizing agency; a biological opinion by the resource service; and if the action is likely to adversely affect a listed species or critical habitat, identification of “reasonable and prudent” measures to avoid and/or minimize such effects.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize the continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because review of available information indicates that SED 5 would not adversely affect any federally listed T&E species or their critical habitat.
Resource Conservation and Recovery Act (RCRA) regulations on identification of hazardous waste	40 CFR Part 261	Establishes criteria and lists for determining whether a waste is a hazardous waste under RCRA. Note that Sec. 261.24 identifies concentrations of contaminants which make waste a hazardous waste due to toxicity, as determined through the Toxicity Characteristic Leaching Procedure (TCLP).	Relevant and appropriate to determining whether excavated/dredged sediments or bank soils must be managed as a hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated/dredged sediments or bank soils would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
RCRA regulations for generators of hazardous waste	40 CFR 262.30 - 262.33	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated/dredged materials are not expected to constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these requirements would be relevant and	If excavated/dredged materials do not constitute RCRA hazardous waste, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table S-5.c: Alternative SED 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			appropriate.	
RCRA regulations for less than 90 day accumulation of hazardous waste	40 CFR 262.34	Allows on-site accumulation of hazardous waste for less than 90 days in containers, tanks, or containment buildings, provided generator complies with specified requirements, including referenced requirements of 40 CFR Part 265.	These requirements would not be expected to apply because excavated/dredged materials are not expected to constitute RCRA hazardous waste. However, if some dredged sediments did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such dredged sediments.	If excavated materials do not constitute RCRA hazardous waste, these requirements would not apply. However, if any dredged sediments should constitute RCRA hazardous waste, any tanks used for < 90-day accumulation of such sediments would meet these requirements.
RCRA regulations for hazardous waste management facilities – general requirements	40 CFR 264.1(j)	General requirements for facilities used to manage remediation wastes that constitute hazardous waste (e.g., requirements for waste analysis, security, precautions to prevent accidental ignition or reaction of wastes, preventing washout of units in floodplain by 100-year flood). (These requirements are in lieu of Part 264, Subparts B, C, and D.)	These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute RCRA hazardous waste. Further, even if some materials did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC)	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be met at the temporary staging areas used for such waste.
RCRA regulations for hazardous waste management facilities – technical requirements for storage of hazardous waste	40 CFR Part 264, Subparts J, K, and L	Design, operating, closure, and (if necessary) post-closure requirements for storage of hazardous waste in tanks (Subpart J), surface impoundments (Subpart K) and waste piles outside structures (Subpart L).		If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not

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Table S-5.c: Alternative SED 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			<p>policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to these types of facilities used for staging of those materials.</p>	<p>apply, any waste piles, tanks, or surface impoundments used for temporary staging of such waste would meet these requirements with the following exceptions: (a) While the waste piles and surface impoundments (if any) would meet the single liner/leachate collection requirements of §§ 264.251(a) and 264.221(a), they would not meet the requirements of §§ 264.251(c) and 264.221(c) for a double liner/leachate collection system at “new waste pile units” and “new surface impoundment units” (if applicable). (b) While the waste piles would contain a run-on control system capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (see § 264.251(g)). To the extent these requirements, which were developed for permanent hazardous waste storage units, are considered applicable, they are not practical for temporary staging areas and thus should be waived as technically impracticable to attain.</p>
<p>RCRA regulations for hazardous waste management facilities – groundwater protection</p>	<p>40 CFR Part 264, Subpart F</p>	<p>Groundwater protection requirements for hazardous waste contained in solid waste management units. Includes groundwater protection standards (i.e., maximum contaminant levels) for waste piles outside structures; alternate limits allowed under 40 CFR 264.94(b); and requirements for groundwater monitoring systems.</p>	<p>Same as above.</p>	<p>If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as</p>

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Table S-5.c: Alternative SED 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				technically impracticable to attain.
RCRA land disposal restrictions	40 CFR 268.50	Prohibits storage of hazardous wastes that are prohibited from land disposal under Part 268, Subpart C, with a number of exceptions, including that such waste may be stored solely for the purpose of accumulating such quantities as are necessary to facilitate proper recovery, treatment, or disposal.	Same as above except that if some excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these provisions would apply.	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these provisions would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would meet the exception to the storage prohibition for the accumulation of such quantities as are necessary to facilitate treatment or disposal.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (Note: These were listed as location-specific ARAR in Table S-5.b, but are also listed here at EPA’s direction.)	314 CMR 9.01 - 9.08	Same as described for these regulations in Table S-4.b.	Applicable to excavation/removal of sediments, discharge of dredged or fill material to waters and wetlands, and temporary staging areas for excavated sediments.	Same as described for these regulations in Table S-5.b.
Massachusetts Clean Water Act and Wetlands Protection Act – stormwater management standards	310 CMR 10.05(6)(k) 314 CMR 9.06(6)(a)	Projects subject to regulation under the Wetlands Protection Act or that involve discharge of dredged or fill material must be provided with stormwater BMPs to attenuate pollutants in stormwater discharges and provide a setback from receiving waters and wetlands in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during remediation activities and at temporary staging areas.	SED 5 would include use of stormwater BMPs during construction of access roads and staging areas, bank soil removal and stabilization, and operation of staging areas. These BMPs would be designed to meet the MDEP’s specified stormwater management standards. These stormwater systems would include ~ 25-foot setbacks from receiving waters and wetlands where practicable,

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Table S-5.c: Alternative SED 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				but this would not be feasible for BMPs for bank remediation or in areas where there would be no practical alternative to siting the staging areas in or near wetlands. Stormwater BMPs would not be necessary or practical for sediment excavation or dredging or capping, since those activities would take place within the River. Any applicable stormwater management requirements that could not practically be met would need to be waived as technically impracticable.
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity may not result in a “take” of a State-listed endangered, threatened, or special concern species, except that such a “take” may be allowed if the applicant has adequately addressed alternatives, an insignificant portion of the local population would be impacted, and the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the species. Projects in a designated Priority Habitat for a State-listed species or other area where such a species has occurred must be reviewed in accordance with these requirements.	Applicable to activities in a State-designated Priority Habitat in MA or other areas where information indicates the occurrence of a State-listed species.	All excavation, capping, and thin-layer capping activities, as well as most access roads and temporary staging areas, in SED 5 would occur within Priority Habitat, as shown on Figure S-5. Based on the evaluations presented in Appendix B to this Interim Response, these activities and facilities would result in a “take” of approximately 19 State-listed species. For about 16 of those species, the take would impact a significant portion of the local population. In these cases, the MESA requirements would need to be waived as technically impracticable to meet. As also described in Appendix B, for the species for which the take would not impact a significant portion of the local population, it cannot be established that a long-term Net Benefit plan could feasibly be developed at this site. If not, the MESA requirement for such a plan would need to be waived.
	321 CMR 10.00, Part IV	Projects that will alter a designated Significant Habitat must be reviewed to ensure that they will not reduce the viability of the habitat to sustain an endangered or threatened species.	Would be applicable to activities affecting State-designated Significant Habitat in MA. However, no such habitat has been designated.	Not applicable.

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Table S-5.c: Alternative SED 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste regulations on identification of hazardous waste	310 CMR 30.100	<p>Establishes criteria and lists for determining whether a waste is a hazardous waste under state law.</p> <p>Note that wastes that contain PCBs \geq 50 mg/kg (which are listed wastes) are exempt from the state hazardous waste management regulations so long as they are managed in compliance with EPA's TSCA regulations (40 CFR Part 761) (see 310 CMR 30.501(3)(a)). (Materials that constitute state hazardous wastes on other grounds are referred to in this table as "non-PCB state hazardous waste.")</p> <p>Note also that the state hazardous waste management regulations also exempt dredged material (even if it constitutes non-PCB state hazardous waste) that is temporarily stored at an intermediate facility (pursuant to 314 CMR 9.07(4)) and managed in accordance with a state water quality certification and § 404 requirements under the Clean Water Act (see 310 CMR 30.104(3)(f)).</p>	Applicable to determining whether excavated/ dredged sediments and bank soils must be managed as a hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated/dredged sediments or bank soils would constitute hazardous waste under state law on grounds other than containing PCBs \geq 50 mg/kg.. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
<p>Note: As noted above, it is not expected that the excavated/dredged materials would constitute non-PCB state hazardous waste. However, for sediments, even if some excavated/dredged sediments did constitute such hazardous waste, the following Massachusetts hazardous waste management requirements are considered inapplicable to temporary staging areas for such sediments due to the exemption from the hazardous waste regulations for dredged materials temporarily stored at an intermediate facility and managed under state water quality certification and § 404 of Clean Water Act (310 CMR 30.104(3)(f)). Hence, these requirements have been evaluated based solely on their potential applicability to temporary staging areas that are used for excavated bank soils.</p>				
Massachusetts hazardous waste regulations for generators	310 CMR 30.321 - 30.324	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated materials are not expected to constitute non-PCB state	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, these requirements would be met prior to any off-

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Table S-5.c: Alternative SED 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply.	site transport of such waste.
Massachusetts hazardous waste management regulations – general requirements	310 CMR 30.513, 30.514, 30.524, 30.560	General requirements for hazardous waste management facilities (for waste analysis, security, emergency prevention and response, and precautions to prevent accidental ignition or reaction of wastes).	These requirements would not be expected to apply to temporary staging areas because excavated materials are not expected to constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply to staging areas for such waste.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, these requirements would be met at staging areas for such waste.
Massachusetts hazardous waste management regulations – location standards for units used to store hazardous waste (Note: Some of these regulations were also listed as location-specific	310 CMR 30.701(6), 30.703(2), 30.704(3), 30.705(3) & (6)	Location standards for waste piles, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in wetlands, (c) within ½ mile of public water supply well, (d) on land overlying an actual, planned, or potential public underground drinking water source, (e) within 1000 feet of a private drinking water well, or (f) without a 200-foot buffer zone to fenceline.	These requirements would not be expected to apply because excavated materials are not expected to constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply to waste piles for	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) It may not be feasible to site some such staging areas outside 500-year floodplain, since, in some locations, this would drive the staging areas too far from the river to be practical; (b) while GE would attempt to avoid siting staging areas in wetlands where practical, this would not be practical in some cases given that the majority

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Table S-5.c: Alternative SED 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
ARAR in Table S-5.b.)			such waste at temporary staging areas.	of the PSA consists of wetlands; (c) it is unknown whether such sites would overlie a "potential public underground drinking water source" (defined as a groundwater source capable of yielding 100 gpm or more of water and with less than 10,000 mg/L of total dissolved solids); and (d) it is not certain whether some areas could be designed and constructed with a 200-foot buffer zone to fenceline. Any requirements that could not feasibly be met would need to be waived as technically impracticable in order for this alternative to be implemented.
Massachusetts hazardous waste management regulations – technical requirements for storage of hazardous waste	310 CMR 30.602 310 CMR 30.640 310 CMR 30.580	Requirements for design, operation, and closure of waste piles used to store hazardous waste.	Same as above.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except as follows: (a) It may not be practical for some areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); this would require investigation during design. (b) While these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have such systems capable of preventing flow onto those areas or controlling runoff during a 100-year flood (see 30.641(2 & (3)). To the extent that these requirements are considered applicable and could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.

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Table S-5.c: Alternative SED 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
	310 CMR 30.660	Groundwater protection requirements for waste piles outside structures, including monitoring system requirements; groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.	Same as above.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable.
Massachusetts air pollution control regulations	310 CMR 7.09	Prohibits person engaged in dust-generating activities from creating condition of air pollution, defined as air concentrations that would cause a nuisance, be injurious or potentially injurious to human or animal life, vegetation, or property, or unreasonably interfere with comfortable enjoyment of life and property or conduct of business.	Applicable to excavation and construction activities generating dust.	Would be attained through use of dust control measures during activities that could generate dust and through particulate and PCB air monitoring during active remediation activities and during construction and operation of the staging areas, along with response actions if certain action levels are exceeded. These measures would be specified in design.
Connecticut Endangered Species Act	Conn. Gen. Stat. 26-303 through 26-316	Requires state agency to: (a) ensure that any action authorized or performed by it does not threaten the continued existence of a listed endangered or threatened species or result in destruction or adverse modification of habitat essential to such species, unless an exemption is granted; and (b) take all reasonable measures to mitigate any adverse impacts of the proposed action on such species or habitat. Prohibits “taking” of endangered or threatened species, except where State determines that a proposed action would not appreciably reduce likelihood of survival or recovery of the species.	This statute is not applicable or relevant and appropriate to SED 5 because implementation of SED 5 is not expected to have any adverse impact on endangered or threatened species or their habitat in Connecticut, or to cause a “taking” of such species.	Not applicable.

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Table S-5.c: Alternative SED 5 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut fisheries and game laws	Conn. Gen. Stat. 26-60	Authorizes CT DEP to issue permits to properly accredited persons for sampling of fish, crustaceans, and wildlife for educational and scientific purposes, with CT DEP to determine number, species, area, and method of collection.	Relevant and appropriate to biota sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on biota sampling in Connecticut portion of river.
Guidances To Be Considered				
TSCA PCB Spill Cleanup Policy	40 CFR Part 761, Subpart G	Policy used to determine adequacy of cleanup of spills resulting from the release of materials containing PCBs at concentration of 50 ppm or greater.	To be considered.	Would be considered in the event of any new PCB spill that occurs during implementation of SED 5.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups</i> (EPA, 1995)	Memorandum from EPA Office of Solid Waste and Emergency Response, March 13, 1995	Describes EPA policy on use of Area of Contamination (AOC) approach under RCRA. Explains that an overall area that includes discrete areas of generally dispersed contamination may be considered an AOC, within which the movement of waste is not considered “placement,” such that the RCRA land disposal restrictions and other RCRA requirements, including minimum technology requirements, would not be triggered.	To be considered.	Under this policy, even if excavated sediments or bank soils should constitute RCRA hazardous waste, the technical RCRA requirements for a hazardous waste storage facility would not apply to temporary staging areas located within the boundary of the Rest of River area, because those areas would be within the overall area of dispersed contamination.

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Table S-6.a: Alternative SED 6 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act, National Ambient Water Quality Criteria for PCBs	<i>National Recommended Water Quality Criteria: 2002</i> , EPA-822-R-02-047, USEPA, Office of Water, Office of Science and Technology (Nov. 2002)	<p>Freshwater chronic aquatic life criterion (based on protection of mink): 0.014 µg/L (4-day average not to be exceeded more than once every 3 years).</p> <p>Human health criterion based on human consumption of water and organisms: 0.000064 µg/L (evaluated on annual average basis).</p>	Relevant and appropriate to surface water in Rest of River.	<p>Model indicates that SED 6 would achieve chronic aquatic life criterion in all reaches using block averaging approach (and would achieve that criterion using rolling average approach in all reaches except for 1 extra exceedance in Reach 5A) (see Interim Response, Response to Specific Comment 62).</p> <p>Model indicates that SED 6 would not achieve human health criterion in any reaches in MA and in 1 of 4 impoundments in CT. That criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) because it is below current ability to measure and would not be achieved by any sediment alternative (see CMS Report, Section 4.1.4).</p>
State ARARs				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	Same as federal water quality criteria (unless Mass. Dept. of Environmental Protection establishes site-specific criterion or determines that naturally occurring background concentrations are higher).	Applicable to surface water of Housatonic River in Massachusetts.	Same as for federal water quality criteria.

Table S-6.a: Alternative SED 6 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<p>Numeric Connecticut water quality criteria for PCBs</p>	<p><i>Connecticut Water Quality Standards</i> (effective Dec. 17, 2002), Appendix D</p>	<p>Freshwater chronic aquatic life criterion: 0.014 µg/L (same as federal criterion).</p> <p>Human health criterion, based on human consumption of organisms only or water and organisms: 0.00017 µg/L. (This criterion is based on the prior federal criterion and has not been revised since the federal criterion was revised.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due, in part, to PCBs.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Status of human health criterion as ARAR is not clear since it is less stringent (and less up-to-date) than comparable federal criterion (see 40 CFR 300.5).</p>	<p>CT 1-D Analysis indicates that SED 6 would achieve chronic aquatic life criterion in CT impoundments.</p> <p>For human health criterion (if it is considered an ARAR), CT 1-D Analysis indicates that SED 6 would achieve that criterion in the 4 CT impoundments. GE believes that this criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) for the reasons given in CMS Report, page 4-7 n.41.</p>
<p>Guidances To Be Considered</p>				
<p>Cancer Slope Factors</p>	<p>EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/iriswebp/iris/index.html</p>	<p>Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.</p>	<p>To be considered.</p>	<p>Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>
<p>Reference Doses</p>	<p>EPA's IRIS http://www.epa.gov/iriswebp/iris/index.html</p>	<p>Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.</p>	<p>To be considered.</p>	<p>Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>
<p><i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)</p>	<p>EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)</p>	<p>Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.</p>	<p>To be considered.</p>	<p>Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>

Table S-6.a: Alternative SED 6 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting remedy for Rest of River.
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting remedy for Rest of River.
Massachusetts fish consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Advises that the public should not consume any fish from the Housatonic River from Dalton to Sheffield due to PCBs; also includes frogs and turtles.	To be considered.	SED 6 includes continuation and maintenance of this advisory, including appropriate steps to inform anglers about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	SED 6 includes continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table S-6.a: Alternative SED 6 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut fish consumption advisory	Connecticut Department of Public Health, 2006 Advisory for Eating Fish from Connecticut Waterbodies	Establishes advisories on consuming fish from the Housatonic R. in Connecticut (above Derby Dam), including Lakes Lillinonah, Zoar, and Housatonic, due to PCBs in fish. Advisories vary by species, location, and group of consumers (i.e., high-risk vs. low-risk group), ranging from “do not eat” to “one meal per week.”	To be considered.	SED 6 includes continuation and maintenance of these advisories, including appropriate steps to inform anglers about the advisories, for as long as considered necessary by the Connecticut Department of Public Health.

Table S-6.b: Alternative SED 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act – Section 404 and implementing regulations issued by U.S. Army Corps of Engineers (ACOE) and by EPA	33 USC 1344 33 CFR Parts 320-323 (ACOE) 40 CFR Part 230 (EPA)	For discharge of dredge or fill material: (a) there must be no practical alternative with less adverse impact on aquatic ecosystem; (b) discharge cannot cause or contribute to violation of state water quality standard or toxic effluent standard; (c) discharge cannot jeopardize the existence of any threatened or endangered (T&E) species; (d) discharge cannot cause or contribute to significant degradation of waters of the U.S., including significant adverse effects on human health or welfare, aquatic life, aquatic ecosystem, or recreational, aesthetic, and economic values; and (e) discharger must take appropriate and practicable steps to minimize or mitigate potential adverse effects on aquatic ecosystem.	Applicable to discharges of dredged or fill material to waters of the U.S. (including wetlands that constitute such waters)	<p>(a) There are practical alternatives with less adverse impact on aquatic ecosystem – e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) SED 6 would not meet requirement that discharge not contribute to violation of state water quality standards, since Housatonic River does not currently meet numerical MA water quality criteria for PCBs; hence, that requirement should be waived as technically impracticable to attain.</p> <p>(c) Review of available information indicates that SED 6 would not affect any federally listed T&E species.</p> <p>(d) SED 6 would cause significant adverse effects on aquatic life, aquatic ecosystem, and recreational and aesthetic values, as described in CMS Report (Sections 4.6.5.3 and 4.6.8) and this Interim Response (Response to General Comment 10). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>(e) SED 6 would include appropriate and practicable steps in an effort to minimize or mitigate potential adverse effects on aquatic ecosystem. Despite such steps, however, SED 6 would have substantial adverse effects on the aquatic ecosystem, as noted above and discussed in Response to General Comment 10.</p>

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Table S-6.b: Alternative SED 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	33 CFR Part 332 (ACOE) 40 CFR Part 203, Subpart J (EPA)	Compensatory mitigation regulations: If project will have unavoidable adverse impacts after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation – i.e., the restoration, creation, enhancement, or (in some circumstances) preservation of aquatic resources. This requires a mitigation work plan, including detailed specifications and descriptions for compensatory mitigation. The regulations also require objective performance standards, monitoring for at least 5 years, and active long-term management and maintenance where necessary to ensure long-term sustainability.	Applicable to discharges of dredged or fill material to waters of the U.S. (including wetlands that constitute such waters)	For areas where SED 6 would have unavoidable adverse impacts on the aquatic ecosystem, a compensatory mitigation plan would be necessary to address those impacts. Despite such plan, however, substantial adverse impacts will remain. See Response to General Comment 10. See also Responses to General Comment 29 and Specific Comment 106.
Rivers and Harbors Act of 1899, Section 10	33 USC 403	Prohibits obstruction, excavation, filling, or altering any navigable water of the United States without authorization from U.S. Army Corps of Engineers.	Relevant and appropriate to dredging in, and discharge of dredge and fill material to, navigable waters of the U.S., but no permit required.	Since no permit is required, this requirement would be addressed through EPA's coordination with U.S. Army Corps of Engineers regarding work in Housatonic River.
Fish and Wildlife Coordination Act requirements	16 USC 662(a) 40 CFR 6.302(g)	A federal agency proposing to undertake or authorize an action that will control or modify any waterbody must consult with federal and state resource agencies to ascertain measures to prevent, mitigate, and compensate for project-related loss of or damage to fish and wildlife resources and to provide for the development and improvement of such resources.	Applicable to EPA; relevant and appropriate to work in river.	Would be attained through consultation by EPA with U.S. Fish and Wildlife Service and MA Department of Fish and Game.

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Table S-6.b: Alternative SED 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Executive Order for Wetlands Protection	Exec. Order 11990 (1977) 40 CFR 6.302(a) 40 CFR Part 6, App. A	A federal agency must avoid construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Applicable to EPA; relevant and appropriate to work in wetlands.	<p>SED 6 would involve construction activities in wetlands. There are practical alternatives with much less adverse effect on wetlands (e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>SED 6 would include practicable measures to minimize harm to wetlands, including avoiding siting access roads and staging areas in wetlands where practicable, use of erosion and sedimentation control measures, and reasonable restoration measures for affected wetlands. However, restoration measures would not prevent substantial harm to wetlands, as discussed in Response to General Comment 10.</p>
Executive Order for Floodplain Management	Exec. Order 11988 (1977) 40 CFR 6.302(b) 40 CFR Part 6, App. A	A federal agency proposing action in a floodplain must consider alternatives to avoid adverse effects on the floodplain, and if there is no practicable alternative, must design or modify the action to minimize harm to or within the floodplain.	Applicable to EPA; relevant and appropriate to work in floodplains.	<p>SED 6 would involve construction of access roads and staging areas in the floodplain. Since these facilities must be located near sediment removal areas, they cannot be relocated to avoid any construction in the floodplain. However, there are practical alternatives with less adverse effects on the floodplain – e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>SED 6 would include practicable measures to minimize harm to floodplain, including erosion and sedimentation control measures, reasonable restoration measures for affected portions of floodplain, and maintenance of existing flood storage capacity of floodplain. However, restoration measures would not prevent substantial harm to floodplain, as discussed in Response to General Comment 10.</p>

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Table S-6.b: Alternative SED 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains	40 CFR 264.1(j)(7) 40 CFR 264.18(b)	A hazardous waste treatment, storage, or disposal facility used for remediation waste and located in the 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of such waste by a 100-year flood unless owner/operator shows that procedures are in effect to remove waste safely before flood waters can reach facility.	These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute RCRA hazardous waste. Further, even if some materials did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if some excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas within 100-year floodplain to which AOC policy does not apply (if any), these requirements would be met. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.
National Historic Preservation Act and regulations	16 USC 470f 36 CFR Part 800	A federal agency proposing to fund or authorize a project must take into account the project's effect on properties (including a site, building, structure, or object) included or eligible for inclusion in the National Register of Historic Places (NRHP). This requires: (a) consultation with the State and/or Tribal	Applicable to EPA; relevant and appropriate to federally authorized work in areas where property(ies) listed or eligible for inclusion on NRHP may be present.	Would be attained through process described in Section 6 of GE's <i>Initial Phase IA Cultural Resources Assessment for the Housatonic River – Rest of River Project</i> (Phase IA CRA: URS Corporation, March 13, 2008).

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Table S-6.b: Alternative SED 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		Historic Preservation Offices; (b) identification of the project's "area of potential effects"; (c) identification of any listed or eligible historic property within that area that could be affected by the project; (d) if there is such property, determination of whether the project would have an adverse impact on the property; (e) if so, evaluation of alternatives to avoid, minimize, or mitigate the adverse impacts; and (f) agreement on such measures or, failing agreement, implementation of such measures identified by the authorizing agency.		
Archaeological and Historic Preservation Act	16 USC 469	When a federal agency finds or is notified that a federal or federally authorized project may cause the loss or destruction of archaeological or historic data, it must notify Department of Interior (DOI). If DOI determines that the data are significant and may be irrevocably lost or destroyed, it is to conduct a survey and other investigation of the affected area and recover and preserve such data as necessary in the public interest.	Applicable to EPA; relevant and appropriate to federally authorized work in areas where archaeological or historic data may be present.	Identification of archaeological or historic data potentially affected by SED 6 would be made through process identified in Phase IA CRA. If such data are identified that could be irrevocably lost or destroyed by implementation of SED 6, it is anticipated that EPA would notify DOI as required.
State ARARs				
Massachusetts Waterways Law and implementing regulations	MGL Ch. 91 310 CMR 9.00	Standards and requirements for any construction, placement, excavation, alteration, or removal of any fill or structures in a waterbody (below high water mark). Includes standards governing engineering and construction of fill and structures to be placed in waterbodies (9.37) and standards for dredging (9.40), including prohibition on dredging in an Area of Critical Environmental Concern (ACEC) except for sole purpose of fisheries or wildlife enhancement. Also requires compliance with other specified	Applicable to excavation/removal of sediments from Housatonic River, placement of caps or backfill in river, and placement of structures in river below high water mark to aid in excavation, address erosion, or restore habitat.	SED 6 would be designed to attain these standards and requirements, except that if ACEC is designated, SED 6 would not comply with the prohibition on dredging in an ACEC. In the latter event, SED 6 could not be implemented without a waiver of that prohibition. (The other relevant environmental regulatory programs referenced in Section 9.33 are discussed separately in these ARARs tables.)

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Table S-6.b: Alternative SED 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		environmental regulatory programs (9.33).		
<p>Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act)</p> <p>Note: These regulations are also listed as action-specific ARARs for SED 3.</p>	314 CMR 9.01 - 9.08	<p>For discharge of dredged or fill material: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on bordering or isolated vegetated wetlands, including 1:1 restoration or replication of such wetlands (unless waived); (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under the Wetlands Protection Act or would be to certain designated “Outstanding Resource Waters,” including certified vernal pools, unless a variance is obtained; (d) stormwater discharges must be controlled with best management practices (BMPs); and (e) there must be no substantial adverse impacts to physical, chemical, or biological integrity of surface waters.</p> <p>For dredging and dredged material management: (a) no dredging is allowed if there is practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid, minimize, or mitigate adverse effects on land under water; (c) dredging must be conducted to meet performance standards designed to minimize impacts on the aquatic ecosystem and protect human health; and (d) placement of dredged material in an intermediate facility for sediment management (dewatering, processing, etc.) prior to disposal or reuse must meet certain requirements, including</p>	Applicable to excavation/removal of sediments and bank soils, discharge of dredged or fill material to waters or wetlands, and dredged material management at temporary staging areas.	<p>As noted above, there are practical alternatives with less adverse impact on aquatic ecosystem – e.g., the ecologically sensitive alternative being developed. Thus, the requirement that there be no such alternative would not be met.</p> <p>SED 6 would include appropriate and practicable steps in an effort to avoid, minimize, or mitigate potential adverse effects on land under water and on wetlands, but such steps would not prevent substantial harm to these resource areas (see Response to General Comment 10). Further, under SED 6, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), stormwater discharges would be controlled through BMPs, and there would be no substantial long-term adverse impacts to the integrity of river water. However, SED 6 would adversely affect estimated habitat of rare wildlife species, because most remediation and supporting activities would occur within such habitat (see Figure S-6). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>Excavation/dredging activities under SED 6 would meet the specified dredging performance standards, except that they would affect areas of ecological importance (including an ACEC if designated) and, in many cases, would not be able to maintain a minimum of 25 feet between the edge of vegetated wetlands and the top of the slope of the excavation areas. Hence, the latter requirements would need to be waived as technically impracticable.</p> <p>Temporary staging areas would meet the placement and siting requirements for</p>

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Table S-6.b: Alternative SED 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>requirements governing method of placement/ storage of dredged material and siting criteria.</p>		<p>intermediate facilities, except that they would not be able to meet the requirements that such facilities cannot have a permanent adverse impact on a state-listed rare species or on an ACEC. Most temporary staging areas under SED 6 would be located in State-designated Priority Habitat of rare species (see Figure S-6) and would have a permanent adverse effect on state-listed species, as shown in Appendix B to this Interim Response. If an ACEC is designated, the staging areas would be located within the ACEC and would have a permanent adverse impact on the ACEC if restoration of the affected areas is not successful (see Response to General Comment 10). To the extent that these requirements would not be met, they would need to be waived as technically impracticable.</p>
<p>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 310 CMR 10.59</p>	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less damaging to resource areas; and (b) avoid or minimize impacts to resource areas, including, to the maximum extent practicable, minimizing hydrological changes, using BMPs during construction (including prevention of erosion/siltation); implementing mitigating measures, providing compensatory storage for lost flood storage capacity, avoiding flow restrictions that would increase flood stage or velocity, substantially restoring disturbed vegetation, and working in resource areas only when the ground is sufficiently stable to support the equipment.</p> <p>For actions that do not qualify as a “limited project,” the requirements of 310 CMR 10.54</p>	<p>Applicable to SED 6 response actions that take place in waterbodies or in or within 100 feet (buffer zone) of stream/pond banks or wetlands or are within floodplains or riverfront areas (extending 200 feet from river’s edge) and that will alter any such resource areas.</p>	<p>Since SED 6 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> ▪ As noted above, there are practical alternatives that would be less damaging to resource areas. Thus, the requirement that there be no such practicable alternative would not be met and would need to be waived. ▪ SED 6 would include practicable measures to minimize impacts to resource areas, including actions to minimize impact of hydrological changes during construction, control of stormwater discharges during construction through BMPs, implementation of mitigation measures where necessary, and restoration of disturbed vegetation as required. However, as discussed in CMS Report (Sections 4.6.5.3 and 4.6.8) and this Interim Response (Response to General Comment 10), these measures would not prevent substantial adverse impacts of SED 6

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Table S-6.b: Alternative SED 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>– 10.58 would apply.</p> <p>In either case, under 310 CMR 10.59, the action must have no adverse effect on estimated habitat of rare wildlife species.</p> <p>(Note that for areas within 100 feet of stream/pond banks or wetlands (buffer zone) or within 200 feet from river’s edge (riverfront areas), minor activities such as sampling and monitoring are exempt from these requirements. See 310 CMR 10.02(2)(b)1.g.)</p>		<p>on resource areas. On the other hand, as discussed in CMS Report (Section 4.6.9.1), SED 6 would not be expected to have a significant effect on flood storage capacity of floodplain or to cause an increase in flood stage or velocities on river. However, the effect of the placement of caps (without removal) on these parameters would be evaluated further during design.</p> <ul style="list-style-type: none"> ▪ SED 6 would adversely affect estimated habitat of rare wildlife species, because most remediation and supporting activities would occur within such habitat (see Figure S-6). Thus, the prohibition on projects with an adverse effect on such habitat would need to be waived as technically impracticable to meet. <p>In the event that SED 6 was considered not to constitute a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 – e.g., prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands or impairs such wetlands within ACEC (if designated) (10.55(4)), as well as the above-mentioned requirement to have no adverse effect on estimated rare wildlife species habitat. Such requirements would thus need to be waived as technically impracticable.</p>
Massachusetts Dam Safety Standards	302 CMR 10.00	Regulations establish design and construction criteria for new and existing dams (302 CMR 10.14) and requirements for periodic inspections of dams (302 CMR 10.07). These regulations exclude dams subject to regulation by the Federal Energy Regulatory Commission (FERC) (302 CMR 10.04).	Applicable to existing GE-owned dams on River in Massachusetts. Not applicable to other existing dams in Rest of River in Massachusetts, because those dams are subject to regulation by FERC, which preempts application of these state dam safety standards. In any case,	GE will meet these requirements at dams that it owns (Woods Pond Dam and Rising Pond Dam). Not applicable to other dams in Rest of River in Massachusetts.

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Table S-6.b: Alternative SED 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			<p>even if these standards were relevant to non-GE-owned dams, they would relate to responsibilities of those dam owners and are not ARARs for SED 6.</p>	
<p>Massachusetts standards for hazardous waste management facilities in floodplains</p>	<p>310 CMR 30.701</p>	<p>Location standards for hazardous waste management facilities in floodplains, including requirements that: (a) no active portion of a waste pile or surface impoundment may be constructed within 500-year floodplain; and (b) tanks, containers, and similar units that are used to store hazardous waste, do not receive waste from off-site sources, and are located within the 100-year floodplain must be floodproofed to prevent floodwaters from contacting the hazardous waste.</p>	<p>These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute state hazardous waste subject to these standards. Further, even if some excavated/dredged sediments did constitute such hazardous waste, these requirements would not apply to temporary staging areas for such sediments, due to exemption from hazardous waste regulations for dredged materials temporarily stored at intermediate facility and managed under state water quality certification and § 404 of Clean Water Act (310 CMR 30.104(3)(f)) (see Table S-6.c). However, if some excavated bank soils were found to constitute such hazardous waste, these requirements would apply</p>	<p>If excavated /dredged materials do not constitute state hazardous waste subject to these regulations, these requirements would not apply. They would also not apply to the staging of excavated/dredged sediments even if they constitute such hazardous waste, due to the exemption mentioned in prior column. However, if some excavated bank soils were found to constitute such hazardous waste, it may not be feasible for some temporary staging areas for such waste to meet the requirement that waste piles be located outside 500-year floodplain, since, in some areas, this would drive the staging areas too far from the river to be practical. In such cases, that requirement should be waived as technically impracticable to attain.</p>

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Table S-6.b: Alternative SED 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			to temporary staging areas for such waste.	
Massachusetts Historical Commission Act and regulations	MGL c. 9, § 27C 950 CMR 71.07	A state body proposing to fund or authorize a project must notify the Massachusetts Historical Commission (MHC) (or the project proponent may notify MHC) if the project has an area of potential impact on a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on such a property, the state body, project proponent, and MHC must consider “prudent and feasible alternatives” that could eliminate, minimize, or mitigate the adverse effects. If there are, such alternatives will be specified in an agreement among those parties; and if there is no agreement, project cannot proceed until state body or project proponent responds to the MHC.	Applicable to State; relevant and appropriate to State-authorized work in areas where the work would have an area of potential impact on property(ies) listed in State Register.	Extent to which SED 6 would have potential impact on property(ies) listed in the State Register would be determined through the process identified in Phase IA CRA. If it would have such a potential impact, MHC would be notified and substantive provisions of these regulations would be met.
	MGL c. 9, § 27C	Any person supervising any survey, excavation, or construction on state or local government lands must report to the state archaeologist any archaeological, paleontological, or historical site or object discovered, and must take all reasonable steps to secure its preservation.	Applicable to excavations or construction on state or local government lands in MA.	If any archaeological, paleontological, or historical site or object is discovered during clearing or excavation/dredging activities on state or local government land, this requirement for notification and preservation would be met.

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Table S-6.b: Alternative SED 6 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut Dam Safety Requirements	Conn. Gen. Stat. 22a-401 to 22a-411 Conn. Agencies Regs. Sec. 22a-409-2	Requirements for registration of certain types of dams; periodic inspections of dams; maintenance activities; construction, repair, replacement, or removal of dams; and notifications to CT DEP of sudden or unpredicted floods or major changes in condition of dams.	Not applicable to existing dams on River in Connecticut, because all such dams are subject to FERC regulation, which preempts application of these state dam requirements. In any case, even if these requirements were relevant, they would relate to responsibilities of the dam owners and are not ARARs for SED 6.	Not applicable.
Connecticut Inland Wetlands and Watercourses Act and regulations	Conn. Gen. Stat. 22a-36 <i>et seq.</i> Conn. Agencies Regs. Sec. 22a-39-4	Permit required from local (municipal) wetland agency for activities that remove material from inland wetlands or watercourses; CT DEP allowed to issue general permit for minor activities with minimal environmental impacts, defined to include monitoring and sampling (Conn. Gen. Stat. 22a-45a). No substantive standards provided.	Relevant and appropriate to sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on sampling in Connecticut portion of river.

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Table S-6.c: Alternative SED 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Toxic Substances Control Act (TSCA) regulations on cleanup of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61	General requirements (761.50) and specific options (761.61) for cleanup of PCB Remediation Waste, including PCB-containing sediments and soils. Options 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.	Applicable to cleanup of PCB Remediation Waste (which includes Housatonic River sediments and bank soils with PCBs > 50 ppm).	It is anticipated that, if SED 6 is selected, these requirements would be met through EPA determination that SED 6 meets requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on storage of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.65 40 CFR 761.61(c)	General and specific requirements for storage of PCB Remediation Waste. Regulations include specific provisions for storage of PCB Remediation waste in piles at the cleanup site or site of generation for up to 180 days (761.65(c)(9)). They also allows for risk-based approval by EPA of alternate storage method (761.61(c)), based on demonstration that it will not pose an unreasonable risk of injury to health or the environment.	Applicable to temporary storage of PCB Remediation Waste.	Temporary staging areas would meet the default conditions in 761.65(c)(9) with the following exception: While these areas would contain run-on control systems capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (although they would include appropriate flood control measures). For those temporary staging areas that would not meet this condition, the TSCA requirements could be met through an EPA determination that those staging areas meet requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on discharges of PCB-containing water	40 CFR 761.50(a)(3)	Prohibits discharge of water containing PCBs to navigable waters unless PCB concentration is < 3 µg/L or discharge is in accordance with NPDES discharge limits.	Applicable to discharges of treated water from dewatering/treatment facility to Housatonic River.	Water treatment facilities would be designed to meet this requirement.

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Table S-6.c: Alternative SED 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
TSCA regulations on decontamination	40 CFR 761.79	Establishes decontamination standards and procedures for removing PCBs from water, organic liquids, and various types of surfaces.	Applicable to decontamination of equipment used in excavation or other handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act and NPDES regulations	33 USC 1342 40 CFR 122, including, but not limited to, 122.3(d) and 122.44(a) & (e) 40 CFR 125.1 - 125.3	Point source discharge must meet technology-based effluent limitations (including those based on best available technology for toxic and non-conventional pollutants and those based on best conventional technology for conventional pollutants) and effluent limitations and conditions necessary to meet state water quality standards, except that discharges in compliance with instructions of On-Scene Coordinator (OSC) acting pursuant to NCP are exempt from these requirements.	Applicable to point source discharges of treated water from dewatering/treatment facility to Housatonic River.	Discharges could not feasibly meet MA water quality criteria for PCBs (0.014 and 0.000064 µg/L) in receiving waters, since current water quality conditions in Housatonic River do not meet those criteria. In addition, it is not anticipated that those criteria would be met at the point of discharge. EPA used a standard of 0.5 µg/L. for discharges from the treatment facility in the 1½ Mile Reach Removal Action, and the data from discharges in that project were generally in the range of 0.01 to 0.1 µg/L and often > 0.014 µg/L. However, this ARAR could be met through discharges in compliance with instructions from OSC.
Clean Water Act – NPDES regulations (stormwater discharges)	40 CFR 122.26(c)(1)(ii)(C) 40 CFR 122.44(k)	Best management practices (BMPs) must be employed to control pollutants in stormwater discharges during construction activities.	Applicable to stormwater discharges to river during construction activities, including temporary staging of excavated materials.	Would be attained through use of BMPs to control erosion from stormwater discharges during construction activities, including construction of access roads and temporary staging areas, bank remediation, and temporary staging of excavated materials at staging areas.

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Table S-6.c: Alternative SED 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Endangered Species Act and regulations	16 USC 1536(a)-(d) 40 CFR 6.302(h) 50 CFR Part 402, Subparts A & B	A federal agency must ensure that any action authorized, funded, or carried out by it is not likely to jeopardize the continued existence of a listed threatened or endangered (T&E) species or result in destruction or adverse modification of critical habitat, unless an exemption is granted. If a listed species or critical habitat may be present in the action area, the key steps include a biological assessment by the authorizing agency; a biological opinion by the resource service; and if the action is likely to adversely affect a listed species or critical habitat, identification of “reasonable and prudent” measures to avoid and/or minimize such effects.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize the continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because review of available information indicates that SED 6 would not adversely affect any federally listed T&E species or their critical habitat.
Resource Conservation and Recovery Act (RCRA) regulations on identification of hazardous waste	40 CFR Part 261	Establishes criteria and lists for determining whether a waste is a hazardous waste under RCRA. Note that Sec. 261.24 identifies concentrations of contaminants which make waste a hazardous waste due to toxicity, as determined through the Toxicity Characteristic Leaching Procedure (TCLP).	Relevant and appropriate to determining whether excavated/dredged sediments or bank soils must be managed as a hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated/dredged sediments or bank soils would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
RCRA regulations for generators of hazardous waste	40 CFR 262.30 - 262.33	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated/dredged materials are not expected to constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these requirements would be relevant and	If excavated/dredged materials do not constitute RCRA hazardous waste, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table S-6.c: Alternative SED 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			appropriate.	
RCRA regulations for less than 90 day accumulation of hazardous waste	40 CFR 262.34	Allows on-site accumulation of hazardous waste for less than 90 days in containers, tanks, or containment buildings, provided generator complies with specified requirements, including referenced requirements of 40 CFR Part 265.	These requirements would not be expected to apply because excavated/dredged materials are not expected to constitute RCRA hazardous waste. However, if some dredged sediments did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such dredged sediments.	If excavated materials do not constitute RCRA hazardous waste, these requirements would not apply. However, if any dredged sediments should constitute RCRA hazardous waste, any tanks used for < 90-day accumulation of such sediments would meet these requirements.
RCRA regulations for hazardous waste management facilities – general requirements	40 CFR 264.1(j)	General requirements for facilities used to manage remediation wastes that constitute hazardous waste (e.g., requirements for waste analysis, security, precautions to prevent accidental ignition or reaction of wastes, preventing washout of units in floodplain by 100-year flood). (These requirements are in lieu of Part 264, Subparts B, C, and D.)	These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute RCRA hazardous waste. Further, even if some materials did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC)	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be met at the temporary staging areas used for such waste.
RCRA regulations for hazardous waste management facilities – technical requirements for storage of hazardous waste	40 CFR Part 264, Subparts J, K, and L	Design, operating, closure, and (if necessary) post-closure requirements for storage of hazardous waste in tanks (Subpart J), surface impoundments (Subpart K) and waste piles outside structures (Subpart L).		If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not

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Table S-6.c: Alternative SED 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			<p>policy, since those staging areas would be located in overall area of dispersed contamination. However, if some excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to these types of facilities used for staging of those materials.</p>	<p>apply, any waste piles, tanks, or surface impoundments used for temporary staging of such waste would meet these requirements with the following exceptions: (a) While the waste piles and surface impoundments (if any) would meet the single liner/leachate collection requirements of §§ 264.251(a) and 264.221(a), they would not meet the requirements of §§ 264.251(c) and 264.221(c) for a double liner/leachate collection system at “new waste pile units” and “new surface impoundment units” (if applicable). (b) While the waste piles would contain a run-on control system capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (see § 264.251(g)). To the extent these requirements, which were developed for permanent hazardous waste storage units, are considered applicable, they are not practical for temporary staging areas and thus should be waived as technically impracticable to attain.</p>
<p>RCRA regulations for hazardous waste management facilities – groundwater protection</p>	<p>40 CFR Part 264, Subpart F</p>	<p>Groundwater protection requirements for hazardous waste contained in solid waste management units. Includes groundwater protection standards (i.e., maximum contaminant levels) for waste piles outside structures; alternate limits allowed under 40 CFR 264.94(b); and requirements for groundwater monitoring systems.</p>	<p>Same as above.</p>	<p>If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as</p>

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Table S-6.c: Alternative SED 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				technically impracticable to attain.
RCRA land disposal restrictions	40 CFR 268.50	Prohibits storage of hazardous wastes that are prohibited from land disposal under Part 268, Subpart C, with a number of exceptions, including that such waste may be stored solely for the purpose of accumulating such quantities as are necessary to facilitate proper recovery, treatment, or disposal.	Same as above except that if some excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these provisions would apply.	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these provisions would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would meet the exception to the storage prohibition for the accumulation of such quantities as are necessary to facilitate treatment or disposal.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (Note: These were listed as location-specific ARAR in Table S-6.b, but are also listed here at EPA’s direction.)	314 CMR 9.01 - 9.08	Same as described for these regulations in Table S-4.b.	Applicable to excavation/removal of sediments, discharge of dredged or fill material to waters and wetlands, and temporary staging areas for excavated sediments.	Same as described for these regulations in Table S-6.b.
Massachusetts Clean Water Act and Wetlands Protection Act – stormwater management standards	310 CMR 10.05(6)(k) 314 CMR 9.06(6)(a)	Projects subject to regulation under the Wetlands Protection Act or that involve discharge of dredged or fill material must be provided with stormwater BMPs to attenuate pollutants in stormwater discharges and provide a setback from receiving waters and wetlands in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during remediation activities and at temporary staging areas.	SED 6 would include use of stormwater BMPs during construction of access roads and staging areas, bank soil removal and stabilization, and operation of staging areas. These BMPs would be designed to meet the MDEP’s specified stormwater management standards. These stormwater systems would include ~ 25-foot setbacks from receiving waters and wetlands where practicable,

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Table S-6.c: Alternative SED 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				but this would not be feasible for BMPs for bank remediation or in areas where there would be no practical alternative to siting the staging areas in or near wetlands. Stormwater BMPs would not be necessary or practical for sediment excavation or dredging or capping, since those activities would take place within the River. Any applicable stormwater management requirements that could not practically be met would need to be waived as technically impracticable.
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity may not result in a “take” of a State-listed endangered, threatened, or special concern species, except that such a “take” may be allowed if the applicant has adequately addressed alternatives, an insignificant portion of the local population would be impacted, and the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the species. Projects in a designated Priority Habitat for a State-listed species or other area where such a species has occurred must be reviewed in accordance with these requirements.	Applicable to activities in a State-designated Priority Habitat in MA or other areas where information indicates the occurrence of a State-listed species.	Most remediation activities, as well as most access roads and temporary staging areas, in SED 6 would occur within Priority Habitat, as shown on Figure S-6. Based on the evaluations presented in Appendix B to this Interim Response, these activities and facilities would result in a “take” of approximately 19 State-listed species. For about 16 of those species, the take would impact a significant portion of the local population. In these cases, the MESA requirements would need to be waived as technically impracticable to meet. As also described in Appendix B, for the species for which the take would not impact a significant portion of the local population, it cannot be established that a long-term Net Benefit plan could feasibly be developed at this site. If not, the MESA requirement for such a plan would need to be waived.
	321 CMR 10.00, Part IV	Projects that will alter a designated Significant Habitat must be reviewed to ensure that they will not reduce the viability of the habitat to sustain an endangered or threatened species.	Would be applicable to activities affecting State-designated Significant Habitat in MA. However, no such habitat has been designated.	Not applicable.

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Table S-6.c: Alternative SED 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste regulations on identification of hazardous waste	310 CMR 30.100	<p>Establishes criteria and lists for determining whether a waste is a hazardous waste under state law.</p> <p>Note that wastes that contain PCBs \geq 50 mg/kg (which are listed wastes) are exempt from the state hazardous waste management regulations so long as they are managed in compliance with EPA's TSCA regulations (40 CFR Part 761) (see 310 CMR 30.501(3)(a)). (Materials that constitute state hazardous wastes on other grounds are referred to in this table as "non-PCB state hazardous waste.")</p> <p>Note also that the state hazardous waste management regulations also exempt dredged material (even if it constitutes non-PCB state hazardous waste) that is temporarily stored at an intermediate facility (pursuant to 314 CMR 9.07(4)) and managed in accordance with a state water quality certification and § 404 requirements under the Clean Water Act (see 310 CMR 30.104(3)(f)).</p>	Applicable to determining whether excavated/ dredged sediments and bank soils must be managed as a hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated/dredged sediments or bank soils would constitute hazardous waste under state law on grounds other than containing PCBs \geq 50 mg/kg.. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
<p>Note: As noted above, it is not expected that the excavated/dredged materials would constitute non-PCB state hazardous waste. However, for sediments, even if some excavated/dredged sediments did constitute such hazardous waste, the following Massachusetts hazardous waste management requirements are considered inapplicable to temporary staging areas for such sediments due to the exemption from the hazardous waste regulations for dredged materials temporarily stored at an intermediate facility and managed under state water quality certification and § 404 of Clean Water Act (310 CMR 30.104(3)(f)). Hence, these requirements have been evaluated based solely on their potential applicability to temporary staging areas that are used for excavated bank soils.</p>				
Massachusetts hazardous waste regulations for generators	310 CMR 30.321 - 30.324	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated materials are not expected to constitute	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, these requirements would be met prior to any off-

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Table S-6.c: Alternative SED 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply.	site transport of such waste.
Massachusetts hazardous waste management regulations – general requirements	310 CMR 30.513, 30.514, 30.524, 30.560	General requirements for hazardous waste management facilities (for waste analysis, security, emergency prevention and response, and precautions to prevent accidental ignition or reaction of wastes).	These requirements would not be expected to apply to temporary staging areas because excavated materials are not expected to constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply to staging areas for such waste.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, these requirements would be met at staging areas for such waste.
Massachusetts hazardous waste management regulations – location standards for units used to store hazardous waste (Note: Some of these regulations were also listed as	310 CMR 30.701(6), 30.703(2), 30.704(3), 30.705(3) & (6)	Location standards for waste piles, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in wetlands, (c) within ½ mile of public water supply well, (d) on land overlying an actual, planned, or potential public underground drinking water source, (e) within 1000 feet of a private drinking water well, or (f) without a 200-foot buffer zone to fenceline.	These requirements would not be expected to apply because excavated materials are not expected to constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) It may not be feasible to site some such staging areas outside 500-year floodplain, since, in some locations, this would drive the staging areas too far from the river to be practical; (b) while GE would attempt to avoid siting staging areas in wetlands where practical, this would not

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Table S-6.c: Alternative SED 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
location-specific ARAR in Table S-6.b.)			apply to waste piles for such waste at temporary staging areas.	be practical in some cases given that the majority of the PSA consists of wetlands; (c) it is unknown whether such sites would overlie a “potential public underground drinking water source” (defined as a groundwater source capable of yielding 100 gpm or more of water and with less than 10,000 mg/L of total dissolved solids); and (d) it is not certain whether some areas could be designed and constructed with a 200-foot buffer zone to fenceline. Any requirements that could not feasibly be met would need to be waived as technically impracticable in order for this alternative to be implemented.
Massachusetts hazardous waste management regulations – technical requirements for storage of hazardous waste	310 CMR 30.602 310 CMR 30.640 310 CMR 30.580	Requirements for design, operation, and closure of waste piles used to store hazardous waste.	Same as above.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except as follows: (a) It may not be practical for some areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); this would require investigation during design. (b) While these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have such systems capable of preventing flow onto those areas or controlling runoff during a 100-year flood (see 30.641(2 & (3)). To the extent that these requirements are considered applicable and could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.

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Table S-6.c: Alternative SED 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	310 CMR 30.660	Groundwater protection requirements for waste piles outside structures, including monitoring system requirements; groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.	Same as above.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable.
Massachusetts air pollution control regulations	310 CMR 7.09	Prohibits person engaged in dust-generating activities from creating condition of air pollution, defined as air concentrations that would cause a nuisance, be injurious or potentially injurious to human or animal life, vegetation, or property, or unreasonably interfere with comfortable enjoyment of life and property or conduct of business.	Applicable to excavation and construction activities generating dust.	Would be attained through use of dust control measures during activities that could generate dust and through particulate and PCB air monitoring during active remediation activities and during construction and operation of the staging areas, along with response actions if certain action levels are exceeded. These measures would be specified in design.
Connecticut Endangered Species Act	Conn. Gen. Stat. 26-303 through 26-316	Requires state agency to: (a) ensure that any action authorized or performed by it does not threaten the continued existence of a listed endangered or threatened species or result in destruction or adverse modification of habitat essential to such species, unless an exemption is granted; and (b) take all reasonable measures to mitigate any adverse impacts of the proposed action on such species or habitat. Prohibits “taking” of endangered or threatened species, except where State determines that a proposed action would not appreciably reduce likelihood of survival or recovery of the species.	This statute is not applicable or relevant and appropriate to SED 6 because implementation of SED 6 is not expected to have any adverse impact on endangered or threatened species or their habitat in Connecticut, or to cause a “taking” of such species.	Not applicable.

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Table S-6.c: Alternative SED 6 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut fisheries and game laws	Conn. Gen. Stat. 26-60	Authorizes CT DEP to issue permits to properly accredited persons for sampling of fish, crustaceans, and wildlife for educational and scientific purposes, with CT DEP to determine number, species, area, and method of collection.	Relevant and appropriate to biota sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on biota sampling in Connecticut portion of river.
Guidances To Be Considered				
TSCA PCB Spill Cleanup Policy	40 CFR Part 761, Subpart G	Policy used to determine adequacy of cleanup of spills resulting from the release of materials containing PCBs at concentration of 50 ppm or greater.	To be considered.	Would be considered in the event of any new PCB spill that occurs during implementation of SED 6.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups</i> (EPA, 1995)	Memorandum from EPA Office of Solid Waste and Emergency Response, March 13, 1995	Describes EPA policy on use of Area of Contamination (AOC) approach under RCRA. Explains that an overall area that includes discrete areas of generally dispersed contamination may be considered an AOC, within which the movement of waste is not considered “placement,” such that the RCRA land disposal restrictions and other RCRA requirements, including minimum technology requirements, would not be triggered.	To be considered.	Under this policy, even if excavated sediments or bank soils should constitute RCRA hazardous waste, the technical RCRA requirements for a hazardous waste storage facility would not apply to temporary staging areas located within the boundary of the Rest of River area, because those areas would be within the overall area of dispersed contamination.

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Table S-7.a: Alternative SED 7 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act, National Ambient Water Quality Criteria for PCBs	<i>National Recommended Water Quality Criteria: 2002</i> , EPA-822-R-02-047, USEPA, Office of Water, Office of Science and Technology (Nov. 2002)	Freshwater chronic aquatic life criterion (based on protection of mink): 0.014 µg/L (4-day average not to be exceeded more than once every 3 years). Human health criterion based on human consumption of water and organisms: 0.000064 µg/L (evaluated on annual average basis).	Relevant and appropriate to surface water in Rest of River.	Model indicates that SED 7 would not achieve chronic aquatic life criterion in upper portion of Rest of River, with 2 exceedances in 3-year period in Reach 5A using block averaging approach (and 10 exceedances in that reach using rolling average approach) (see Interim Response, Response to Specific Comment 62). Hence, this criterion would need to be waived under SED 7. Model indicates that SED 7 would not achieve human health criterion in any reaches in MA and in 2 of 4 impoundments in CT. That criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) because it is below current ability to measure and would not be achieved by any sediment alternative (see CMS Report, Section 4.1.4).
State ARARs				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	Same as federal water quality criteria (unless Mass. Dept. of Environmental Protection establishes site-specific criterion or determines that naturally occurring background concentrations are higher).	Applicable to surface water of Housatonic River in Massachusetts.	Same as for federal water quality criteria.

Table S-7.a: Alternative SED 7 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<p>Numeric Connecticut water quality criteria for PCBs</p>	<p><i>Connecticut Water Quality Standards</i> (effective Dec. 17, 2002), Appendix D</p>	<p>Freshwater chronic aquatic life criterion: 0.014 µg/L (same as federal criterion).</p> <p>Human health criterion, based on human consumption of organisms only or water and organisms: 0.00017 µg/L. (This criterion is based on the prior federal criterion and has not been revised since the federal criterion was revised.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due, in part, to PCBs.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Status of human health criterion as ARAR is not clear since it is less stringent (and less up-to-date) than comparable federal criterion (see 40 CFR 300.5).</p>	<p>CT 1-D Analysis indicates that SED 7 would achieve chronic aquatic life criterion in CT impoundments.</p> <p>For human health criterion (if it is considered an ARAR), CT 1-D Analysis indicates that SED 7 would achieve that criterion in the 4 CT impoundments. GE believes that this criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) for the reasons given in CMS Report, page 4-7 n.41.</p>
<p>Guidances To Be Considered</p>				
<p>Cancer Slope Factors</p>	<p>EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/iriswebp/iris/index.html</p>	<p>Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.</p>	<p>To be considered.</p>	<p>Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>
<p>Reference Doses</p>	<p>EPA's IRIS http://www.epa.gov/iriswebp/iris/index.html</p>	<p>Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.</p>	<p>To be considered.</p>	<p>Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>
<p><i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)</p>	<p>EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)</p>	<p>Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.</p>	<p>To be considered.</p>	<p>Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.</p>

Table S-7.a: Alternative SED 7 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting remedy for Rest of River.
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting remedy for Rest of River.
Massachusetts fish consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Advises that the public should not consume any fish from the Housatonic River from Dalton to Sheffield due to PCBs; also includes frogs and turtles.	To be considered.	SED 7 includes continuation and maintenance of this advisory, including appropriate steps to inform anglers about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	SED 7 includes continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table S-7.a: Alternative SED 7 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut fish consumption advisory	Connecticut Department of Public Health, 2006 Advisory for Eating Fish from Connecticut Waterbodies	Establishes advisories on consuming fish from the Housatonic R. in Connecticut (above Derby Dam), including Lakes Lillinonah, Zoar, and Housatonic, due to PCBs in fish. Advisories vary by species, location, and group of consumers (i.e., high-risk vs. low-risk group), ranging from “do not eat” to “one meal per week.”	To be considered.	SED 7 includes continuation and maintenance of these advisories, including appropriate steps to inform anglers about the advisories, for as long as considered necessary by the Connecticut Department of Public Health.

Table S-7.b: Alternative SED 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act – Section 404 and implementing regulations issued by U.S. Army Corps of Engineers (ACOE) and by EPA	33 USC 1344 33 CFR Parts 320-323 (ACOE) 40 CFR Part 230 (EPA)	For discharge of dredge or fill material: (a) there must be no practical alternative with less adverse impact on aquatic ecosystem; (b) discharge cannot cause or contribute to violation of state water quality standard or toxic effluent standard; (c) discharge cannot jeopardize the existence of any threatened or endangered (T&E) species; (d) discharge cannot cause or contribute to significant degradation of waters of the U.S., including significant adverse effects on human health or welfare, aquatic life, aquatic ecosystem, or recreational, aesthetic, and economic values; and (e) discharger must take appropriate and practicable steps to minimize or mitigate potential adverse effects on aquatic ecosystem.	Applicable to discharges of dredged or fill material to waters of the U.S. (including wetlands that constitute such waters)	<p>(a) There are practical alternatives with less adverse impact on aquatic ecosystem – e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) SED 7 would not meet requirement that discharge not contribute to violation of state water quality standards, since Housatonic River does not currently meet numerical MA water quality criteria for PCBs; hence, that requirement should be waived as technically impracticable to attain.</p> <p>(c) Review of available information indicates that SED 7 would not affect any federally listed T&E species.</p> <p>(d) SED 7 would cause significant adverse effects on aquatic life, aquatic ecosystem, and recreational and aesthetic values, as described in CMS Report (Sections 4.7.5.3 and 4.7.8) and this Interim Response (Response to General Comment 10). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>(e) SED 7 would include appropriate and practicable steps in an effort to minimize or mitigate potential adverse effects on aquatic ecosystem. Despite such steps, however, SED 7 would have substantial adverse effects on the aquatic ecosystem, as noted above and discussed in Response to General Comment 10.</p>

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Table S-7.b: Alternative SED 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	<p>33 CFR Part 332 (ACOE)</p> <p>40 CFR Part 203, Subpart J (EPA)</p>	<p>Compensatory mitigation regulations: If project will have unavoidable adverse impacts after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation – i.e., the restoration, creation, enhancement, or (in some circumstances) preservation of aquatic resources. This requires a mitigation work plan, including detailed specifications and descriptions for compensatory mitigation. The regulations also require objective performance standards, monitoring for at least 5 years, and active long-term management and maintenance where necessary to ensure long-term sustainability.</p>	<p>Applicable to discharges of dredged or fill material to waters of the U.S. (including wetlands that constitute such waters)</p>	<p>For areas where SED 7 would have unavoidable adverse impacts on the aquatic ecosystem, a compensatory mitigation plan would be necessary to address those impacts. Despite such plan, however, substantial adverse impacts will remain. See Response to General Comment 10. See also Responses to General Comment 29 and Specific Comment 106.</p>
<p>Rivers and Harbors Act of 1899, Section 10</p>	<p>33 USC 403</p>	<p>Prohibits obstruction, excavation, filling, or altering any navigable water of the United States without authorization from U.S. Army Corps of Engineers.</p>	<p>Relevant and appropriate to dredging in, and discharge of dredge and fill material to, navigable waters of the U.S., but no permit required.</p>	<p>Since no permit is required, this requirement would be addressed through EPA's coordination with U.S. Army Corps of Engineers regarding work in Housatonic River.</p>
<p>Fish and Wildlife Coordination Act requirements</p>	<p>16 USC 662(a)</p> <p>40 CFR 6.302(g)</p>	<p>A federal agency proposing to undertake or authorize an action that will control or modify any waterbody must consult with federal and state resource agencies to ascertain measures to prevent, mitigate, and compensate for project-related loss of or damage to fish and wildlife resources and to provide for the development and improvement of such resources.</p>	<p>Applicable to EPA; relevant and appropriate to work in river.</p>	<p>Would be attained through consultation by EPA with U.S. Fish and Wildlife Service and MA Department of Fish and Game.</p>

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Table S-7.b: Alternative SED 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Executive Order for Wetlands Protection	Exec. Order 11990 (1977) 40 CFR 6.302(a) 40 CFR Part 6, App. A	A federal agency must avoid construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Applicable to EPA; relevant and appropriate to work in wetlands.	<p>SED 7 would involve some construction activities in wetlands. There are practical alternatives with much less adverse effect on wetlands (e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>SED 7 would include practicable measures to minimize harm to wetlands, including avoiding siting access roads and staging areas in wetlands where practicable, use of erosion and sedimentation control measures, and reasonable restoration measures for affected wetlands. However, restoration measures would not prevent substantial harm to wetlands, as discussed in Response to General Comment 10.</p>
Executive Order for Floodplain Management	Exec. Order 11988 (1977) 40 CFR 6.302(b) 40 CFR Part 6, App. A	A federal agency proposing action in a floodplain must consider alternatives to avoid adverse effects on the floodplain, and if there is no practicable alternative, must design or modify the action to minimize harm to or within the floodplain.	Applicable to EPA; relevant and appropriate to work in floodplains.	<p>SED 7 would involve construction of access roads and staging areas in the floodplain. Since these facilities must be located near sediment removal areas, they cannot be relocated to avoid any construction in the floodplain. However, there are practical alternatives with less adverse effects on the floodplain – e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>SED 7 would include practicable measures to minimize harm to floodplain, including erosion and sedimentation control measures, reasonable restoration measures for affected portions of floodplain, and maintenance of existing flood storage capacity of floodplain. However, restoration measures would not prevent substantial harm to floodplain, as discussed in Response to General Comment 10.</p>

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Table S-7.b: Alternative SED 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains	40 CFR 264.1(j)(7) 40 CFR 264.18(b)	A hazardous waste treatment, storage, or disposal facility used for remediation waste and located in the 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of such waste by a 100-year flood unless owner/operator shows that procedures are in effect to remove waste safely before flood waters can reach facility.	These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute RCRA hazardous waste. Further, even if some materials did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if some excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas within 100-year floodplain to which AOC policy does not apply (if any), these requirements would be met. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.
National Historic Preservation Act and regulations	16 USC 470f 36 CFR Part 800	A federal agency proposing to fund or authorize a project must take into account the project's effect on properties (including a site, building, structure, or object) included or eligible for inclusion in the National Register of Historic Places (NRHP). This requires: (a) consultation with the State and/or Tribal	Applicable to EPA; relevant and appropriate to federally authorized work in areas where property(ies) listed or eligible for inclusion on NRHP may be present.	Would be attained through process described in Section 6 of GE's <i>Initial Phase IA Cultural Resources Assessment for the Housatonic River – Rest of River Project</i> (Phase IA CRA: URS Corporation, March 13, 2008).

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Table S-7.b: Alternative SED 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		Historic Preservation Offices; (b) identification of the project's "area of potential effects"; (c) identification of any listed or eligible historic property within that area that could be affected by the project; (d) if there is such property, determination of whether the project would have an adverse impact on the property; (e) if so, evaluation of alternatives to avoid, minimize, or mitigate the adverse impacts; and (f) agreement on such measures or, failing agreement, implementation of such measures identified by the authorizing agency.		
Archaeological and Historic Preservation Act	16 USC 469	When a federal agency finds or is notified that a federal or federally authorized project may cause the loss or destruction of archaeological or historic data, it must notify Department of Interior (DOI). If DOI determines that the data are significant and may be irrevocably lost or destroyed, it is to conduct a survey and other investigation of the affected area and recover and preserve such data as necessary in the public interest.	Applicable to EPA; relevant and appropriate to federally authorized work in areas where archaeological or historic data may be present.	Identification of archaeological or historic data potentially affected by SED 7 would be made through process identified in Phase IA CRA. If such data are identified that could be irrevocably lost or destroyed by implementation of SED 7, it is anticipated that EPA would notify DOI as required.
State ARARs				
Massachusetts Waterways Law and implementing regulations	MGL Ch. 91 310 CMR 9.00	Standards and requirements for any construction, placement, excavation, alteration, or removal of any fill or structures in a waterbody (below high water mark). Includes standards governing engineering and construction of fill and structures to be placed in waterbodies (9.37) and standards for dredging (9.40), including prohibition on dredging in an Area of Critical Environmental Concern (ACEC) except for sole purpose of fisheries or wildlife enhancement. Also requires compliance with other specified	Applicable to excavation/removal of sediments from Housatonic River, placement of caps or backfill in river, and placement of structures in river below high water mark to aid in excavation, address erosion, or restore habitat.	SED 7 would be designed to attain these standards and requirements, except that if ACEC is designated, SED 7 would not comply with the prohibition on dredging in an ACEC. In the latter event, SED 7 could not be implemented without a waiver of that prohibition. (The other relevant environmental regulatory programs referenced in Section 9.33 are discussed separately in these ARARs tables.)

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Table S-7.b: Alternative SED 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		environmental regulatory programs (9.33).		
<p>Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act)</p> <p>Note: These regulations are also listed as action-specific ARARs for SED 3.</p>	314 CMR 9.01 - 9.08	<p>For discharge of dredged or fill material: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on bordering or isolated vegetated wetlands, including 1:1 restoration or replication of such wetlands (unless waived); (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under the Wetlands Protection Act or would be to certain designated “Outstanding Resource Waters,” including certified vernal pools, unless a variance is obtained; (d) stormwater discharges must be controlled with best management practices (BMPs); and (e) there must be no substantial adverse impacts to physical, chemical, or biological integrity of surface waters.</p> <p>For dredging and dredged material management: (a) no dredging is allowed if there is practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid, minimize, or mitigate adverse effects on land under water; (c) dredging must be conducted to meet performance standards designed to minimize impacts on the aquatic ecosystem and protect human health; and (d) placement of dredged material in an intermediate facility for sediment management (dewatering, processing, etc.) prior to disposal or reuse must meet certain requirements, including</p>	<p>Applicable to excavation/removal of sediments and bank soils, discharge of dredged or fill material to waters or wetlands, and dredged material management at temporary staging areas.</p>	<p>As noted above, there are practical alternatives with less adverse impact on aquatic ecosystem – e.g., the ecologically sensitive alternative being developed. Thus, the requirement that there be no such alternative would not be met.</p> <p>SED 7 would include appropriate and practicable steps in an effort to avoid, minimize, or mitigate potential adverse effects on land under water and on wetlands, but such steps would not prevent substantial harm to these resource areas (see Response to General Comment 10). Further, under SED 7, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), stormwater discharges would be controlled through BMPs, and there would be no substantial long-term adverse impacts to the integrity of river water. However, SED 7 would adversely affect estimated habitat of rare wildlife species, because most remediation and supporting activities would occur within such habitat (see Figure S-7). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>Excavation/dredging activities under SED 7 would meet the specified dredging performance standards, except that they would affect areas of ecological importance (including an ACEC if designated) and, in many cases, would not be able to maintain a minimum of 25 feet between the edge of vegetated wetlands and the top of the slope of the excavation areas. Hence, the latter requirements would need to be waived as technically impracticable.</p> <p>Temporary staging areas would meet the placement and siting requirements for</p>

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Table S-7.b: Alternative SED 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>requirements governing method of placement/ storage of dredged material and siting criteria.</p>		<p>intermediate facilities, except that they would not be able to meet the requirements that such facilities cannot have a permanent adverse impact on a state-listed rare species or on an ACEC. Most temporary staging areas under SED 7 would be located in State-designated Priority Habitat of rare species (see Figure S-7) and would have a permanent adverse effect on state-listed species, as shown in Appendix B to this Interim Response. If an ACEC is designated, the staging areas would be located within the ACEC and would have a permanent adverse impact on the ACEC if restoration of the affected areas is not successful (see Response to General Comment 10). To the extent that these requirements would not be met, they would need to be waived as technically impracticable.</p>
<p>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 310 CMR 10.59</p>	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less damaging to resource areas; and (b) avoid or minimize impacts to resource areas, including, to the maximum extent practicable, minimizing hydrological changes, using BMPs during construction (including prevention of erosion/siltation); implementing mitigating measures, providing compensatory storage for lost flood storage capacity, avoiding flow restrictions that would increase flood stage or velocity, substantially restoring disturbed vegetation, and working in resource areas only when the ground is sufficiently stable to support the equipment.</p> <p>For actions that do not qualify as a “limited project,” the requirements of 310 CMR 10.54</p>	<p>Applicable to SED 7 response actions that take place in waterbodies or in or within 100 feet (buffer zone) of stream/pond banks or wetlands or are within floodplains or riverfront areas (extending 200 feet from river’s edge) and that will alter any such resource areas.</p>	<p>Since SED 7 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> ▪ As noted above, there are practical alternatives that would be less damaging to resource areas. Thus, the requirement that there be no such practicable alternative would not be met and would need to be waived. ▪ SED 7 would include practicable measures to minimize impacts to resource areas, including actions to minimize impact of hydrological changes during construction, control of stormwater discharges during construction through BMPs, implementation of mitigation measures where necessary, and restoration of disturbed vegetation as required. However, as discussed in CMS Report (Sections 4.7.5.3 and 4.7.8) and this Interim Response (Response to General Comment 10), these measures would not prevent substantial adverse impacts of SED 7

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Table S-7.b: Alternative SED 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>– 10.58 would apply.</p> <p>In either case, under 310 CMR 10.59, the action must have no adverse effect on estimated habitat of rare wildlife species.</p> <p>(Note that for areas within 100 feet of stream/pond banks or wetlands (buffer zone) or within 200 feet from river’s edge (riverfront areas), minor activities such as sampling and monitoring are exempt from these requirements. See 310 CMR 10.02(2)(b)1.g.)</p>		<p>on resource areas. On the other hand, as discussed in CMS Report (Section 4.7.9.1), SED 7 would not be expected to have a significant effect on flood storage capacity of floodplain or to cause an increase in flood stage or velocities on river. However, the effect of the placement of caps (without removal) on these parameters would be evaluated further during design.</p> <ul style="list-style-type: none"> ▪ SED 7 would adversely affect estimated habitat of rare wildlife species, because most remediation and supporting activities would occur within such habitat (see Figure S-7). Thus, the prohibition on projects with an adverse effect on such habitat would need to be waived as technically impracticable to meet. <p>In the event that SED 7 was considered not to constitute a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 – e.g., prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands or impairs such wetlands within ACEC (if designated) (10.55(4)), as well as the above-mentioned requirement to have no adverse effect on estimated rare wildlife species habitat. Such requirements would thus need to be waived as technically impracticable.</p>
Massachusetts Dam Safety Standards	302 CMR 10.00	Regulations establish design and construction criteria for new and existing dams (302 CMR 10.14) and requirements for periodic inspections of dams (302 CMR 10.07). These regulations exclude dams subject to regulation by the Federal Energy Regulatory Commission (FERC) (302 CMR 10.04).	Applicable to existing GE-owned dams on River in Massachusetts. Not applicable to other existing dams in Rest of River in Massachusetts, because those dams are subject to regulation by FERC, which preempts application of these state dam safety standards. In any case,	GE will meet these requirements at dams that it owns (Woods Pond Dam and Rising Pond Dam). Not applicable to other dams in Rest of River in Massachusetts.

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Table S-7.b: Alternative SED 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			<p>even if these standards were relevant to non-GE-owned dams, they would relate to responsibilities of those dam owners and are not ARARs for SED 7.</p>	
<p>Massachusetts standards for hazardous waste management facilities in floodplains</p>	<p>310 CMR 30.701</p>	<p>Location standards for hazardous waste management facilities in floodplains, including requirements that: (a) no active portion of a waste pile or surface impoundment may be constructed within 500-year floodplain; and (b) tanks, containers, and similar units that are used to store hazardous waste, do not receive waste from off-site sources, and are located within the 100-year floodplain must be floodproofed to prevent floodwaters from contacting the hazardous waste.</p>	<p>These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute state hazardous waste subject to these standards. Further, even if some excavated/dredged sediments did constitute such hazardous waste, these requirements would not apply to temporary staging areas for such sediments, due to exemption from hazardous waste regulations for dredged materials temporarily stored at intermediate facility and managed under state water quality certification and § 404 of Clean Water Act (310 CMR 30.104(3)(f)) (see Table S-7.c). However, if some excavated bank soils were found to constitute such hazardous waste, these requirements would apply</p>	<p>If excavated /dredged materials do not constitute state hazardous waste subject to these regulations, these requirements would not apply. They would also not apply to the staging of excavated/dredged sediments even if they constitute such hazardous waste, due to the exemption mentioned in prior column. However, if some excavated bank soils were found to constitute such hazardous waste, it may not be feasible for some temporary staging areas for such waste to meet the requirement that waste piles be located outside 500-year floodplain, since, in some areas, this would drive the staging areas too far from the river to be practical. In such cases, that requirement should be waived as technically impracticable to attain.</p>

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Table S-7.b: Alternative SED 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			to temporary staging areas for such waste.	
Massachusetts Historical Commission Act and regulations	MGL c. 9, § 27C 950 CMR 71.07	A state body proposing to fund or authorize a project must notify the Massachusetts Historical Commission (MHC) (or the project proponent may notify MHC) if the project has an area of potential impact on a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on such a property, the state body, project proponent, and MHC must consider “prudent and feasible alternatives” that could eliminate, minimize, or mitigate the adverse effects. If there are, such alternatives will be specified in an agreement among those parties; and if there is no agreement, project cannot proceed until state body or project proponent responds to the MHC.	Applicable to State; relevant and appropriate to State-authorized work in areas where the work would have an area of potential impact on property(ies) listed in State Register.	Extent to which SED 7 would have potential impact on property(ies) listed in the State Register would be determined through the process identified in Phase IA CRA. If it would have such a potential impact, MHC would be notified and substantive provisions of these regulations would be met.
	MGL c. 9, § 27C	Any person supervising any survey, excavation, or construction on state or local government lands must report to the state archaeologist any archaeological, paleontological, or historical site or object discovered, and must take all reasonable steps to secure its preservation.	Applicable to excavations or construction on state or local government lands in MA.	If any archaeological, paleontological, or historical site or object is discovered during clearing or excavation/dredging activities on state or local government land, this requirement for notification and preservation would be met.

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Table S-7.b: Alternative SED 7 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut Dam Safety Requirements	Conn. Gen. Stat. 22a-401 to 22a-411 Conn. Agencies Regs. Sec. 22a-409-2	Requirements for registration of certain types of dams; periodic inspections of dams; maintenance activities; construction, repair, replacement, or removal of dams; and notifications to CT DEP of sudden or unpredicted floods or major changes in condition of dams.	Not applicable to existing dams on River in Connecticut, because all such dams are subject to FERC regulation, which preempts application of these state dam requirements. In any case, even if these requirements were relevant, they would relate to responsibilities of the dam owners and are not ARARs for SED 7.	Not applicable.
Connecticut Inland Wetlands and Watercourses Act and regulations	Conn. Gen. Stat. 22a-36 <i>et seq.</i> Conn. Agencies Regs. Sec. 22a-39-4	Permit required from local (municipal) wetland agency for activities that remove material from inland wetlands or watercourses; CT DEP allowed to issue general permit for minor activities with minimal environmental impacts, defined to include monitoring and sampling (Conn. Gen. Stat. 22a-45a). No substantive standards provided.	Relevant and appropriate to sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on sampling in Connecticut portion of river.

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Table S-7.c: Alternative SED 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Toxic Substances Control Act (TSCA) regulations on cleanup of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61	General requirements (761.50) and specific options (761.61) for cleanup of PCB Remediation Waste, including PCB-containing sediments and soils. Options 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.	Applicable to cleanup of PCB Remediation Waste (which includes Housatonic River sediments and bank soils with PCBs > 50 ppm).	It is anticipated that, if SED 7 is selected, these requirements would be met through EPA determination that SED 7 meets requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on storage of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.65 40 CFR 761.61(c)	General and specific requirements for storage of PCB Remediation Waste. Regulations include specific provisions for storage of PCB Remediation waste in piles at the cleanup site or site of generation for up to 180 days (761.65(c)(9)). They also allows for risk-based approval by EPA of alternate storage method (761.61(c)), based on demonstration that it will not pose an unreasonable risk of injury to health or the environment.	Applicable to temporary storage of PCB Remediation Waste.	Temporary staging areas would meet the default conditions in 761.65(c)(9) with the following exception: While these areas would contain run-on control systems capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (although they would include appropriate flood control measures). For those temporary staging areas that would not meet this condition, the TSCA requirements could be met through an EPA determination that those staging areas meet requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on discharges of PCB-containing water	40 CFR 761.50(a)(3)	Prohibits discharge of water containing PCBs to navigable waters unless PCB concentration is < 3 µg/L or discharge is in accordance with NPDES discharge limits.	Applicable to discharges of treated water from dewatering/treatment facility to Housatonic River.	Water treatment facilities would be designed to meet this requirement.

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Table S-7.c: Alternative SED 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
TSCA regulations on decontamination	40 CFR 761.79	Establishes decontamination standards and procedures for removing PCBs from water, organic liquids, and various types of surfaces.	Applicable to decontamination of equipment used in excavation or other handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act and NPDES regulations	33 USC 1342 40 CFR 122, including, but not limited to, 122.3(d) and 122.44(a) & (e) 40 CFR 125.1 - 125.3	Point source discharge must meet technology-based effluent limitations (including those based on best available technology for toxic and non-conventional pollutants and those based on best conventional technology for conventional pollutants) and effluent limitations and conditions necessary to meet state water quality standards, except that discharges in compliance with instructions of On-Scene Coordinator (OSC) acting pursuant to NCP are exempt from these requirements.	Applicable to point source discharges of treated water from dewatering/treatment facility to Housatonic River.	Discharges could not feasibly meet MA water quality criteria for PCBs (0.014 and 0.000064 µg/L) in receiving waters, since current water quality conditions in Housatonic River do not meet those criteria. In addition, it is not anticipated that those criteria would be met at the point of discharge. EPA used a standard of 0.5 µg/L. for discharges from the treatment facility in the 1½ Mile Reach Removal Action, and the data from discharges in that project were generally in the range of 0.01 to 0.1 µg/L and often > 0.014 µg/L. However, this ARAR could be met through discharges in compliance with instructions from OSC.
Clean Water Act – NPDES regulations (stormwater discharges)	40 CFR 122.26(c)(1)(ii)(C) 40 CFR 122.44(k)	Best management practices (BMPs) must be employed to control pollutants in stormwater discharges during construction activities.	Applicable to stormwater discharges to river during construction activities, including temporary staging of excavated materials.	Would be attained through use of BMPs to control erosion from stormwater discharges during construction activities, including construction of access roads and temporary staging areas, bank remediation, and temporary staging of excavated materials at staging areas.

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Table S-7.c: Alternative SED 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Endangered Species Act and regulations	16 USC 1536(a)-(d) 40 CFR 6.302(h) 50 CFR Part 402, Subparts A & B	A federal agency must ensure that any action authorized, funded, or carried out by it is not likely to jeopardize the continued existence of a listed threatened or endangered (T&E) species or result in destruction or adverse modification of critical habitat, unless an exemption is granted. If a listed species or critical habitat may be present in the action area, the key steps include a biological assessment by the authorizing agency; a biological opinion by the resource service; and if the action is likely to adversely affect a listed species or critical habitat, identification of “reasonable and prudent” measures to avoid and/or minimize such effects.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize the continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because review of available information indicates that SED 7 would not adversely affect any federally listed T&E species or their critical habitat.
Resource Conservation and Recovery Act (RCRA) regulations on identification of hazardous waste	40 CFR Part 261	Establishes criteria and lists for determining whether a waste is a hazardous waste under RCRA. Note that Sec. 261.24 identifies concentrations of contaminants which make waste a hazardous waste due to toxicity, as determined through the Toxicity Characteristic Leaching Procedure (TCLP).	Relevant and appropriate to determining whether excavated/dredged sediments or bank soils must be managed as a hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated/dredged sediments or bank soils would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
RCRA regulations for generators of hazardous waste	40 CFR 262.30 - 262.33	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated/dredged materials are not expected to constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	If excavated/dredged materials do not constitute RCRA hazardous waste, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table S-7.c: Alternative SED 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA regulations for less than 90 day accumulation of hazardous waste	40 CFR 262.34	Allows on-site accumulation of hazardous waste for less than 90 days in containers, tanks, or containment buildings, provided generator complies with specified requirements, including referenced requirements of 40 CFR Part 265.	These requirements would not be expected to apply because excavated/dredged materials are not expected to constitute RCRA hazardous waste. However, if some dredged sediments did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such dredged sediments.	If excavated materials do not constitute RCRA hazardous waste, these requirements would not apply. However, if any dredged sediments should constitute RCRA hazardous waste, any tanks used for < 90-day accumulation of such sediments would meet these requirements.
RCRA regulations for hazardous waste management facilities – general requirements	40 CFR 264.1(j)	General requirements for facilities used to manage remediation wastes that constitute hazardous waste (e.g., requirements for waste analysis, security, precautions to prevent accidental ignition or reaction of wastes, preventing washout of units in floodplain by 100-year flood). (These requirements are in lieu of Part 264, Subparts B, C, and D.)	These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute RCRA hazardous waste. Further, even if some materials did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be met at the temporary staging areas used for such waste.
RCRA regulations for hazardous waste management facilities – technical requirements for storage of hazardous waste	40 CFR Part 264, Subparts J, K, and L	Design, operating, closure, and (if necessary) post-closure requirements for storage of hazardous waste in tanks (Subpart J), surface impoundments (Subpart K) and waste piles outside structures (Subpart L).	These requirements would not be expected to apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, any waste piles, tanks, or surface impoundments used for temporary staging of such waste would meet these requirements with the following exceptions: (a) While the waste piles and

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Table S-7.c: Alternative SED 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			<p>dispersed contamination. However, if some excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to these types of facilities used for staging of those materials.</p>	<p>surface impoundments (if any) would meet the single liner/leachate collection requirements of §§ 264.251(a) and 264.221(a), they would not meet the requirements of §§ 264.251(c) and 264.221(c) for a double liner/leachate collection system at “new waste pile units” and “new surface impoundment units” (if applicable). (b) While the waste piles would contain a run-on control system capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (see § 264.251(g)). To the extent these requirements, which were developed for permanent hazardous waste storage units, are considered applicable, they are not practical for temporary staging areas and thus should be waived as technically impracticable to attain.</p>
<p>RCRA regulations for hazardous waste management facilities – groundwater protection</p>	<p>40 CFR Part 264, Subpart F</p>	<p>Groundwater protection requirements for hazardous waste contained in solid waste management units. Includes groundwater protection standards (i.e., maximum contaminant levels) for waste piles outside structures; alternate limits allowed under 40 CFR 264.94(b); and requirements for groundwater monitoring systems.</p>	<p>Same as above.</p>	<p>If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable to attain.</p>

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Table S-7.c: Alternative SED 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
RCRA land disposal restrictions	40 CFR 268.50	Prohibits storage of hazardous wastes that are prohibited from land disposal under Part 268, Subpart C, with a number of exceptions, including that such waste may be stored solely for the purpose of accumulating such quantities as are necessary to facilitate proper recovery, treatment, or disposal.	Same as above except that if some excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these provisions would apply.	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these provisions would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would meet the exception to the storage prohibition for the accumulation of such quantities as are necessary to facilitate treatment or disposal.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (Note: These were listed as location-specific ARAR in Table S-7.b, but are also listed here at EPA’s direction.)	314 CMR 9.01 - 9.08	Same as described for these regulations in Table S-7.b.	Applicable to excavation/removal of sediments, discharge of dredged or fill material to waters and wetlands, and temporary staging areas for excavated sediments.	Same as described for these regulations in Table S-7.b.
Massachusetts Clean Water Act and Wetlands Protection Act – stormwater management standards	310 CMR 10.05(6)(k) 314 CMR 9.06(6)(a)	Projects subject to regulation under the Wetlands Protection Act or that involve discharge of dredged or fill material must be provided with stormwater BMPs to attenuate pollutants in stormwater discharges and provide a setback from receiving waters and wetlands in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during remediation activities and at temporary staging areas.	SED 7 would include use of stormwater BMPs during construction of access roads and staging areas, bank soil removal and stabilization, and operation of staging areas. These BMPs would be designed to meet the MDEP’s specified stormwater management standards. These stormwater systems would include ~ 25-foot setbacks from receiving waters and wetlands where practicable, but this would not be feasible for BMPs for bank remediation or in areas where there would be no practical alternative to siting the staging areas in or

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Table S-7.c: Alternative SED 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				near wetlands. Stormwater BMPs would not be necessary or practical for sediment excavation or dredging or capping, since those activities would take place within the River. Any applicable stormwater management requirements that could not practically be met would need to be waived as technically impracticable.
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity may not result in a “take” of a State-listed endangered, threatened, or special concern species, except that such a “take” may be allowed if the applicant has adequately addressed alternatives, an insignificant portion of the local population would be impacted, and the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the species. Projects in a designated Priority Habitat for a State-listed species or other area where such a species has occurred must be reviewed in accordance with these requirements.	Applicable to activities in a State-designated Priority Habitat in MA or other areas where information indicates the occurrence of a State-listed species.	The vast majority of excavation, dredging, and capping activities, as well as most access roads and temporary staging areas, in SED 7 would occur within Priority Habitat, as shown on Figure S-7. Based on the evaluations presented in Appendix B to this Interim Response, these activities and facilities would result in a “take” of approximately 19 State-listed species. For about 16 of those species, the take would impact a significant portion of the local population. In these cases, the MESA requirements would need to be waived as technically impracticable to meet. As also described in Appendix B, for the species for which the take would not impact a significant portion of the local population, it cannot be established that a long-term Net Benefit plan could feasibly be developed at this site. If not, the MESA requirement for such a plan would need to be waived.
	321 CMR 10.00, Part IV	Projects that will alter a designated Significant Habitat must be reviewed to ensure that they will not reduce the viability of the habitat to sustain an endangered or threatened species.	Would be applicable to activities affecting State-designated Significant Habitat in MA. However, no such habitat has been designated.	Not applicable.

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Table S-7.c: Alternative SED 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste regulations on identification of hazardous waste	310 CMR 30.100	<p>Establishes criteria and lists for determining whether a waste is a hazardous waste under state law.</p> <p>Note that wastes that contain PCBs \geq 50 mg/kg (which are listed wastes) are exempt from the state hazardous waste management regulations so long as they are managed in compliance with EPA's TSCA regulations (40 CFR Part 761) (see 310 CMR 30.501(3)(a)). (Materials that constitute state hazardous wastes on other grounds are referred to in this table as "non-PCB state hazardous waste.")</p> <p>Note also that the state hazardous waste management regulations also exempt dredged material (even if it constitutes non-PCB state hazardous waste) that is temporarily stored at an intermediate facility (pursuant to 314 CMR 9.07(4)) and managed in accordance with a state water quality certification and § 404 requirements under the Clean Water Act (see 310 CMR 30.104(3)(f)).</p>	Applicable to determining whether excavated/ dredged sediments and bank soils must be managed as a hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated/dredged sediments or bank soils would constitute hazardous waste under state law on grounds other than containing PCBs \geq 50 mg/kg.. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
<p>Note: As noted above, it is not expected that the excavated/dredged materials would constitute non-PCB state hazardous waste. However, for sediments, even if some excavated/dredged sediments did constitute such hazardous waste, the following Massachusetts hazardous waste management requirements are considered inapplicable to temporary staging areas for such sediments due to the exemption from the hazardous waste regulations for dredged materials temporarily stored at an intermediate facility and managed under state water quality certification and § 404 of Clean Water Act (310 CMR 30.104(3)(f)). Hence, these requirements have been evaluated based solely on their potential applicability to temporary staging areas that are used for excavated bank soils.</p>				
Massachusetts hazardous waste regulations for generators	310 CMR 30.321 - 30.324	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated materials are not expected to constitute non-PCB state	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table S-7.c: Alternative SED 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply.	
Massachusetts hazardous waste management regulations – general requirements	310 CMR 30.513, 30.514, 30.524, 30.560	General requirements for hazardous waste management facilities (for waste analysis, security, emergency prevention and response, and precautions to prevent accidental ignition or reaction of wastes).	These requirements would not be expected to apply to temporary staging areas because excavated materials are not expected to constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply to staging areas for such waste.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, these requirements would be met at staging areas for such waste.
Massachusetts hazardous waste management regulations – location standards for units used to store hazardous waste (Note: Some of these regulations were also listed as location-specific ARAR in Table S-	310 CMR 30.701(6), 30.703(2), 30.704(3), 30.705(3) & (6)	Location standards for waste piles, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in wetlands, (c) within ½ mile of public water supply well, (d) on land overlying an actual, planned, or potential public underground drinking water source, (e) within 1000 feet of a private drinking water well, or (f) without a 200-foot buffer zone to fenceline.	These requirements would not be expected to apply because excavated materials are not expected to constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply to waste piles for such waste at temporary	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) It may not be feasible to site some such staging areas outside 500-year floodplain, since, in some locations, this would drive the staging areas too far from the river to be practical; (b) while GE would attempt to avoid siting staging areas in wetlands where practical, this would not be practical in some cases given that the majority of the PSA consists of wetlands; (c) it is unknown

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Table S-7.c: Alternative SED 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
7.b.)			staging areas.	whether such sites would overlie a “potential public underground drinking water source” (defined as a groundwater source capable of yielding 100 gpm or more of water and with less than 10,000 mg/L of total dissolved solids; and (d) it is not certain whether some areas could be designed and constructed with a 200-foot buffer zone to fenceline. Any requirements that could not feasibly be met would need to be waived as technically impracticable.
Massachusetts hazardous waste management regulations – technical requirements for storage of hazardous waste	310 CMR 30.602 310 CMR 30.640 310 CMR 30.580	Requirements for design, operation, and closure of waste piles used to store hazardous waste.	Same as above.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except as follows: (a) It may not be practical for some areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); this would require investigation during design. (b) While these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have such systems capable of preventing flow onto those areas or controlling runoff during a 100-year flood (see 30.641(2 & (3)). To the extent that these requirements are considered applicable and could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.
	310 CMR 30.660	Groundwater protection requirements for waste piles outside structures, including monitoring system requirements; groundwater protection standards (i.e.,	Same as above.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste,

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Table S-7.c: Alternative SED 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		maximum contaminant levels), and potential alternate limits.		waste piles used for such waste at temporary staging areas would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable.
Massachusetts air pollution control regulations	310 CMR 7.09	Prohibits person engaged in dust-generating activities from creating condition of air pollution, defined as air concentrations that would cause a nuisance, be injurious or potentially injurious to human or animal life, vegetation, or property, or unreasonably interfere with comfortable enjoyment of life and property or conduct of business.	Applicable to excavation and construction activities generating dust.	Would be attained through use of dust control measures during activities that could generate dust and through particulate and PCB air monitoring during active remediation activities and during construction and operation of the staging areas, along with response actions if certain action levels are exceeded. These measures would be specified in design.
Connecticut Endangered Species Act	Conn. Gen. Stat. 26-303 through 26-316	Requires state agency to: (a) ensure that any action authorized or performed by it does not threaten the continued existence of a listed endangered or threatened species or result in destruction or adverse modification of habitat essential to such species, unless an exemption is granted; and (b) take all reasonable measures to mitigate any adverse impacts of the proposed action on such species or habitat. Prohibits “taking” of endangered or threatened species, except where State determines that a proposed action would not appreciably reduce likelihood of survival or recovery of the species.	This statute is not applicable or relevant and appropriate to SED 7 because implementation of SED 7 is not expected to have any adverse impact on endangered or threatened species or their habitat in Connecticut, or to cause a “taking” of such species.	Not applicable.

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Table S-7.c: Alternative SED 7 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut fisheries and game laws	Conn. Gen. Stat. 26-60	Authorizes CT DEP to issue permits to properly accredited persons for sampling of fish, crustaceans, and wildlife for educational and scientific purposes, with CT DEP to determine number, species, area, and method of collection.	Relevant and appropriate to biota sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on biota sampling in Connecticut portion of river.
Guidances To Be Considered				
TSCA PCB Spill Cleanup Policy	40 CFR Part 761, Subpart G	Policy used to determine adequacy of cleanup of spills resulting from the release of materials containing PCBs at concentration of 50 ppm or greater.	To be considered.	Would be considered in the event of any new PCB spill that occurs during implementation of SED 7.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups</i> (EPA, 1995)	Memorandum from EPA Office of Solid Waste and Emergency Response, March 13, 1995	Describes EPA policy on use of Area of Contamination (AOC) approach under RCRA. Explains that an overall area that includes discrete areas of generally dispersed contamination may be considered an AOC, within which the movement of waste is not considered “placement,” such that the RCRA land disposal restrictions and other RCRA requirements, including minimum technology requirements, would not be triggered.	To be considered.	Under this policy, even if excavated sediments or bank soils should constitute RCRA hazardous waste, the technical RCRA requirements for a hazardous waste storage facility would not apply to temporary staging areas located within the boundary of the Rest of River area, because those areas would be within the overall area of dispersed contamination.

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Table S-8.a: Alternative SED 8 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
Clean Water Act, National Ambient Water Quality Criteria for PCBs	<i>National Recommended Water Quality Criteria: 2002</i> , EPA-822-R-02-047, USEPA, Office of Water, Office of Science and Technology (Nov. 2002)	Freshwater chronic aquatic life criterion (based on protection of mink): 0.014 µg/L (4-day average not to be exceeded more than once every 3 years). Human health criterion based on human consumption of water and organisms: 0.000064 µg/L (evaluated on annual average basis).	Relevant and appropriate to surface water in Rest of River.	Model indicates that SED 8 would achieve chronic aquatic life criterion in all reaches using block averaging approach (and would achieve that criterion using rolling average approach in all reaches except for 3 extra exceedances in Reach 5A) (see Interim Response, Response to Specific Comment 62). Model indicates that SED 8 would not achieve human health criterion in any reaches in MA and in 1 of 4 impoundments in CT. That criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) because it is below current ability to measure and would not be achieved by any sediment alternative (see CMS Report, Section 4.1.4).
State ARARs				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	Same as federal water quality criteria (unless Mass. Dept. of Environmental Protection establishes site-specific criterion or determines that naturally occurring background concentrations are higher).	Applicable to surface water of Housatonic River in Massachusetts.	Same as for federal water quality criteria.

Table S-8.a: Alternative SED 8 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Numeric Connecticut water quality criteria for PCBs	<i>Connecticut Water Quality Standards</i> (effective Dec. 17, 2002), Appendix D	<p>Freshwater chronic aquatic life criterion: 0.014 µg/L (same as federal criterion).</p> <p>Human health criterion, based on human consumption of organisms only or water and organisms: 0.00017 µg/L. (This criterion is based on the prior federal criterion and has not been revised since the federal criterion was revised.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due, in part, to PCBs.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Status of human health criterion as ARAR is not clear since it is less stringent (and less up-to-date) than comparable federal criterion (see 40 CFR 300.5).</p>	<p>CT 1-D Analysis indicates that SED 8 would achieve chronic aquatic life criterion in CT impoundments.</p> <p>For human health criterion (if it is considered an ARAR), CT 1-D Analysis indicates that SED 8 would achieve that criterion in the 4 CT impoundments. GE believes that this criterion should be waived under CERCLA and NCP as technically impracticable to attain (CERCLA § 121(d)(4)(C); 40 CFR § 300.430(f)(1)(ii)(C)(3)) for the reasons given in CMS Report, page 4-7 n.41.</p>
Guidances To Be Considered				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential carcinogenic risk associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.
Reference Doses	EPA's IRIS http://www.epa.gov/iriswebp/iris/index.html	Guidance values used to evaluate potential non-carcinogenic hazards associated with exposure to PCBs.	To be considered.	Used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.
<i>PCBs: Cancer Dose-Response Assessment and Application in Environmental Mixtures</i> (EPA, 1996)	EPA/600/P-96/001F (National Center for Environmental Assessment, Office of Research and Development, September 1996)	Guidance describing EPA's reassessment of the carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing the Cancer Slope Factors used in EPA's Human Health Risk Assessment and in developing the human health IMPGs used in CMS. May be considered by EPA in selecting remedy for Rest of River.

Table S-8.a: Alternative SED 8 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<i>Guidelines for Carcinogenic Risk Assessment</i> (EPA, 2005)	EPA/630/P-03/001F (EPA Risk Assessment Forum, March 2005)	Framework and guidelines for assessing potential cancer risks from exposure to pollutants and other environmental agents.	To be considered.	Draft of these guidelines was considered in EPA's Human Health Risk Assessment. EPA may consider final guidelines in selecting remedy for Rest of River.
<i>Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens</i> (EPA, 2005)	EPA/630/R-03/003F (EPA Risk Assessment Forum, March 2005)	Guidance on issues relating to assessing cancer risks associated with early-life exposures, including an adjustment for carcinogens acting through a mutagenic mode of action.	To be considered.	Draft of this guidance was considered in EPA's Human Health Risk Assessment. EPA may consider final guidance in selecting remedy for Rest of River.
<i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)	Report available from National Academies Press	Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.	To be considered.	Should be considered by EPA in selecting remedy for Rest of River.
Massachusetts fish consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	Advises that the public should not consume any fish from the Housatonic River from Dalton to Sheffield due to PCBs; also includes frogs and turtles.	To be considered.	SED 8 includes continuation and maintenance of this advisory, including appropriate steps to inform anglers about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.
Massachusetts waterfowl consumption advisory	Massachusetts Department of Public Health, Center for Environmental Health, Provisional Waterfowl Consumption Advisory (1999)	Advises that the public should refrain from eating all mallards and wood ducks from the Housatonic River and its impoundments from Pittsfield south to Rising Pond.	To be considered.	SED 8 includes continuation and maintenance of this advisory, including appropriate steps to inform waterfowl hunters about the advisory, for as long as considered necessary by the Massachusetts Department of Public Health.

Table S-8.a: Alternative SED 8 – Potential Chemical-Specific ARARs

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut fish consumption advisory	Connecticut Department of Public Health, 2006 Advisory for Eating Fish from Connecticut Waterbodies	Establishes advisories on consuming fish from the Housatonic R. in Connecticut (above Derby Dam), including Lakes Lillinonah, Zoar, and Housatonic, due to PCBs in fish. Advisories vary by species, location, and group of consumers (i.e., high-risk vs. low-risk group), ranging from “do not eat” to “one meal per week.”	To be considered.	SED 8 includes continuation and maintenance of these advisories, including appropriate steps to inform anglers about the advisories, for as long as considered necessary by the Connecticut Department of Public Health.

Table S-8.b: Alternative SED 8 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Federal ARARs				
<p>Clean Water Act – Section 404 and implementing regulations issued by U.S. Army Corps of Engineers (ACOE) and by EPA</p>	<p>33 USC 1344 33 CFR Parts 320-323 (ACOE) 40 CFR Part 230 (EPA)</p>	<p>For discharge of dredge or fill material: (a) there must be no practical alternative with less adverse impact on aquatic ecosystem; (b) discharge cannot cause or contribute to violation of state water quality standard or toxic effluent standard; (c) discharge cannot jeopardize the existence of any threatened or endangered (T&E) species; (d) discharge cannot cause or contribute to significant degradation of waters of the U.S., including significant adverse effects on human health or welfare, aquatic life, aquatic ecosystem, or recreational, aesthetic, and economic values; and (e) discharger must take appropriate and practicable steps to minimize or mitigate potential adverse effects on aquatic ecosystem.</p>	<p>Applicable to discharges of dredged or fill material to waters of the U.S. (including wetlands that constitute such waters)</p>	<p>(a) There are practical alternatives with less adverse impact on aquatic ecosystem – e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) SED 8 would not meet requirement that discharge not contribute to violation of state water quality standards, since Housatonic River does not currently meet numerical MA water quality criteria for PCBs; hence, that requirement should be waived as technically impracticable to attain.</p> <p>(c) Review of available information indicates that SED 8 would not affect any federally listed T&E species.</p> <p>(d) SED 8 would cause significant adverse effects on aquatic life, aquatic ecosystem, and recreational and aesthetic values, as described in CMS Report (Sections 4.8.5.3 and 4.8.8) and this Interim Response (Response to General Comment 10). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>(e) SED 8 would include appropriate and practicable steps in an effort to minimize or mitigate potential adverse effects on aquatic ecosystem. Despite such steps, however, SED 8 would have substantial adverse effects on the aquatic ecosystem, as noted above and discussed in Response to General Comment 10.</p>

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Table S-8.b: Alternative SED 8 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	<p>33 CFR Part 332 (ACOE)</p> <p>40 CFR Part 203, Subpart J (EPA)</p>	<p>Compensatory mitigation regulations: If project will have unavoidable adverse impacts after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation – i.e., the restoration, creation, enhancement, or (in some circumstances) preservation of aquatic resources. This requires a mitigation work plan, including detailed specifications and descriptions for compensatory mitigation. The regulations also require objective performance standards, monitoring for at least 5 years, and active long-term management and maintenance where necessary to ensure long-term sustainability.</p>	<p>Applicable to discharges of dredged or fill material to waters of the U.S. (including wetlands that constitute such waters)</p>	<p>For areas where SED 8 would have unavoidable adverse impacts on the aquatic ecosystem, a compensatory mitigation plan would be necessary to address those impacts. Despite such plan, however, substantial adverse impacts will remain. See Response to General Comment 10. See also Responses to General Comment 29 and Specific Comment 106.</p>
<p>Rivers and Harbors Act of 1899, Section 10</p>	<p>33 USC 403</p>	<p>Prohibits obstruction, excavation, filling, or altering any navigable water of the United States without authorization from U.S. Army Corps of Engineers.</p>	<p>Relevant and appropriate to dredging in, and discharge of dredge and fill material to, navigable waters of the U.S., but no permit required.</p>	<p>Since no permit is required, this requirement would be addressed through EPA's coordination with U.S. Army Corps of Engineers regarding work in Housatonic River.</p>
<p>Fish and Wildlife Coordination Act requirements</p>	<p>16 USC 662(a)</p> <p>40 CFR 6.302(g)</p>	<p>A federal agency proposing to undertake or authorize an action that will control or modify any waterbody must consult with federal and state resource agencies to ascertain measures to prevent, mitigate, and compensate for project-related loss of or damage to fish and wildlife resources and to provide for the development and improvement of such resources.</p>	<p>Applicable to EPA; relevant and appropriate to work in river.</p>	<p>Would be attained through consultation by EPA with U.S. Fish and Wildlife Service and MA Department of Fish and Game.</p>

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Table S-8.b: Alternative SED 8 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Executive Order for Wetlands Protection	Exec. Order 11990 (1977) 40 CFR 6.302(a) 40 CFR Part 6, App. A	A federal agency must avoid construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Applicable to EPA; relevant and appropriate to work in wetlands.	<p>SED 8 would involve construction activities in wetlands. There are practical alternatives with much less adverse effect on wetlands (e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>SED 8 would include practicable measures to minimize harm to wetlands, including avoiding siting access roads and staging areas in wetlands where practicable, use of erosion and sedimentation control measures, and reasonable restoration measures for affected wetlands. However, restoration measures would not prevent substantial harm to wetlands, as discussed in Response to General Comment 10.</p>
Executive Order for Floodplain Management	Exec. Order 11988 (1977) 40 CFR 6.302(b) 40 CFR Part 6, App. A	A federal agency proposing action in a floodplain must consider alternatives to avoid adverse effects on the floodplain, and if there is no practicable alternative, must design or modify the action to minimize harm to or within the floodplain.	Applicable to EPA; relevant and appropriate to work in floodplains.	<p>SED 8 would involve construction of access roads and staging areas in the floodplain. Since these facilities must be located near sediment removal areas, they cannot be relocated to avoid any construction in the floodplain. However, there are practical alternatives with less adverse effects on the floodplain – e.g., the ecologically sensitive alternative being developed. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>SED 8 would include practicable measures to minimize harm to floodplain, including erosion and sedimentation control measures, reasonable restoration measures for affected portions of floodplain, and maintenance of existing flood storage capacity of floodplain. However, restoration measures would not prevent substantial harm to floodplain, as discussed in Response to General Comment 10.</p>

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Table S-8.b: Alternative SED 8 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains	40 CFR 264.1(j)(7) 40 CFR 264.18(b)	A hazardous waste treatment, storage, or disposal facility used for remediation waste and located in the 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of such waste by a 100-year flood unless owner/operator shows that procedures are in effect to remove waste safely before flood waters can reach facility.	These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute RCRA hazardous waste. Further, even if some materials did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of dispersed contamination. However, if some materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if some excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas within 100-year floodplain to which AOC policy does not apply (if any), these requirements would be met. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.
National Historic Preservation Act and regulations	16 USC 470f 36 CFR Part 800	A federal agency proposing to fund or authorize a project must take into account the project's effect on properties (including a site, building, structure, or object) included or eligible for inclusion in the National Register of Historic Places (NRHP). This requires: (a) consultation with the State and/or Tribal	Applicable to EPA; relevant and appropriate to federally authorized work in areas where property(ies) listed or eligible for inclusion on NRHP may be present.	Would be attained through process described in Section 6 of GE's <i>Initial Phase IA Cultural Resources Assessment for the Housatonic River – Rest of River Project</i> (Phase IA CRA: URS Corporation, March 13, 2008).

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Table S-8.b: Alternative SED 8 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		Historic Preservation Offices; (b) identification of the project's "area of potential effects"; (c) identification of any listed or eligible historic property within that area that could be affected by the project; (d) if there is such property, determination of whether the project would have an adverse impact on the property; (e) if so, evaluation of alternatives to avoid, minimize, or mitigate the adverse impacts; and (f) agreement on such measures or, failing agreement, implementation of such measures identified by the authorizing agency.		
Archaeological and Historic Preservation Act	16 USC 469	When a federal agency finds or is notified that a federal or federally authorized project may cause the loss or destruction of archaeological or historic data, it must notify Department of Interior (DOI). If DOI determines that the data are significant and may be irrevocably lost or destroyed, it is to conduct a survey and other investigation of the affected area and recover and preserve such data as necessary in the public interest.	Applicable to EPA; relevant and appropriate to federally authorized work in areas where archaeological or historic data may be present.	Identification of archaeological or historic data potentially affected by SED 8 would be made through process identified in Phase IA CRA. If such data are identified that could be irrevocably lost or destroyed by implementation of SED 8, it is anticipated that EPA would notify DOI as required.
State ARARs				
Massachusetts Waterways Law and implementing regulations	MGL Ch. 91 310 CMR 9.00	Standards and requirements for any construction, placement, excavation, alteration, or removal of any fill or structures in a waterbody (below high water mark). Includes standards governing engineering and construction of fill and structures to be placed in waterbodies (9.37) and standards for dredging (9.40), including prohibition on dredging in an Area of Critical Environmental Concern (ACEC) except for sole purpose of fisheries or wildlife enhancement. Also requires compliance with other specified	Applicable to excavation/removal of sediments from Housatonic River, placement of caps or backfill in river, and placement of structures in river below high water mark to aid in excavation, address erosion, or restore habitat.	SED 8 would be designed to attain these standards and requirements, except that if ACEC is designated, SED 8 would not comply with the prohibition on dredging in an ACEC. In the latter event, SED 8 could not be implemented without a waiver of that prohibition. (The other relevant environmental regulatory programs referenced in Section 9.33 are discussed separately in these ARARs tables.)

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Table S-8.b: Alternative SED 8 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		environmental regulatory programs (9.33).		
<p>Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act)</p> <p>Note: These regulations are also listed as action-specific ARARs for SED 3.</p>	314 CMR 9.01 - 9.08	<p>For discharge of dredged or fill material: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on bordering or isolated vegetated wetlands, including 1:1 restoration or replication of such wetlands (unless waived); (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under the Wetlands Protection Act or would be to certain designated “Outstanding Resource Waters,” including certified vernal pools, unless a variance is obtained; (d) stormwater discharges must be controlled with best management practices (BMPs); and (e) there must be no substantial adverse impacts to physical, chemical, or biological integrity of surface waters.</p> <p>For dredging and dredged material management: (a) no dredging is allowed if there is practicable alternative with less adverse impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid, minimize, or mitigate adverse effects on land under water; (c) dredging must be conducted to meet performance standards designed to minimize impacts on the aquatic ecosystem and protect human health; and (d) placement of dredged material in an intermediate facility for sediment management (dewatering, processing, etc.) prior to disposal or reuse must meet certain requirements, including</p>	Applicable to excavation/removal of sediments and bank soils, discharge of dredged or fill material to waters or wetlands, and dredged material management at temporary staging areas.	<p>As noted above, there are practical alternatives with less adverse impact on aquatic ecosystem – e.g., the ecologically sensitive alternative being developed. Thus, the requirement that there be no such alternative would not be met.</p> <p>SED 8 would include appropriate and practicable steps in an effort to avoid, minimize, or mitigate potential adverse effects on land under water and on wetlands, but such steps would not prevent substantial harm to these resource areas (see Response to General Comment 10). Further, under SED 8, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), stormwater discharges would be controlled through BMPs, and there would be no substantial long-term adverse impacts to the integrity of river water. However, SED 8 would adversely affect estimated habitat of rare wildlife species, because most remediation and supporting activities would occur within such habitat (see Figure S-8). Hence, the prohibition on actions with such effects would need to be waived as technically impracticable to meet.</p> <p>Excavation/dredging activities under SED 8 would meet the specified dredging performance standards, except that they would affect areas of ecological importance (including an ACEC if designated) and, in many cases, would not be able to maintain a minimum of 25 feet between the edge of vegetated wetlands and the top of the slope of the excavation areas. Hence, the latter requirements would need to be waived as technically impracticable.</p> <p>Temporary staging areas would meet the placement and siting requirements for</p>

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Table S-8.b: Alternative SED 8 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>requirements governing method of placement/ storage of dredged material and siting criteria.</p>		<p>intermediate facilities, except that they would not be able to meet the requirements that such facilities cannot have a permanent adverse impact on a state-listed rare species or on an ACEC. Most temporary staging areas under SED 8 would be located in State-designated Priority Habitat of rare species (see Figure S-8) and would have a permanent adverse effect on state-listed species, as shown in Appendix B to this Interim Response. If an ACEC is designated, the staging areas would be located within the ACEC and would have a permanent adverse impact on the ACEC if restoration of the affected areas is not successful (see Response to General Comment 10). To the extent that these requirements would not be met, they would need to be waived as technically impracticable.</p>
<p>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 310 CMR 10.59</p>	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are allowed as “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less damaging to resource areas; and (b) avoid or minimize impacts to resource areas, including, to the maximum extent practicable, minimizing hydrological changes, using BMPs during construction (including prevention of erosion/siltation); implementing mitigating measures, providing compensatory storage for lost flood storage capacity, avoiding flow restrictions that would increase flood stage or velocity, substantially restoring disturbed vegetation, and working in resource areas only when the ground is sufficiently stable to support the equipment.</p> <p>For actions that do not qualify as a “limited project,” the requirements of 310 CMR 10.54</p>	<p>Applicable to SED 8 response actions that take place in waterbodies or in or within 100 feet (buffer zone) of stream/pond banks or wetlands or are within floodplains or riverfront areas (extending 200 feet from river’s edge) and that will alter any such resource areas.</p>	<p>Since SED 8 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> ▪ As noted above, there are practical alternatives that would be less damaging to resource areas. Thus, the requirement that there be no such practicable alternative would not be met and would need to be waived. ▪ SED 8 would include practicable measures to minimize impacts to resource areas, including actions to minimize impact of hydrological changes during construction, control of stormwater discharges during construction through BMPs, implementation of mitigation measures where necessary, and restoration of disturbed vegetation as required. However, as discussed in CMS Report (Sections 4.8.5.3 and 4.8.8) and this Interim Response (Response to General Comment 10), these measures would not prevent substantial adverse impacts of SED 8

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Table S-8.b: Alternative SED 8 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>– 10.58 would apply.</p> <p>In either case, under 310 CMR 10.59, the action must have no adverse effect on estimated habitat of rare wildlife species.</p> <p>(Note that for areas within 100 feet of stream/pond banks or wetlands (buffer zone) or within 200 feet from river’s edge (riverfront areas), minor activities such as sampling and monitoring are exempt from these requirements. See 310 CMR 10.02(2)(b)1.g.)</p>		<p>on resource areas. On the other hand, as noted in CMS Report (Section 4.8.9.1), SED 8 would not be expected to cause a net loss of flood storage capacity of floodplain or an increase in flood stage or velocities on river.</p> <ul style="list-style-type: none"> ▪ SED 8 would adversely affect estimated habitat of rare wildlife species, because most remediation and supporting activities would occur within such habitat (see Figure S-8). Thus, the prohibition on projects with an adverse effect on such habitat would need to be waived as technically impracticable to meet. <p>In the event that SED 8 was considered not to constitute a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 – e.g., prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands or impairs such wetlands within ACEC (if designated) (10.55(4)), as well as the above-mentioned requirement to have no adverse effect on estimated rare wildlife species habitat. Such requirements would thus need to be waived as technically impracticable.</p>
Massachusetts Dam Safety Standards	302 CMR 10.00	Regulations establish design and construction criteria for new and existing dams (302 CMR 10.14) and requirements for periodic inspections of dams (302 CMR 10.07). These regulations exclude dams subject to regulation by the Federal Energy Regulatory Commission (FERC) (302 CMR 10.04).	Applicable to existing GE-owned dams on River in Massachusetts. Not applicable to other existing dams in Rest of River in Massachusetts, because those dams are subject to regulation by FERC, which preempts application of these state dam safety standards. In any case, even if these standards were relevant to non-GE-owned dams, they would	GE will meet these requirements at dams that it owns (Woods Pond Dam and Rising Pond Dam). Not applicable to other dams in Rest of River in Massachusetts.

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Table S-8.b: Alternative SED 8 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			relate to responsibilities of those dam owners and are not ARARs for SED 8.	
Massachusetts standards for hazardous waste management facilities in floodplains	310 CMR 30.701	Location standards for hazardous waste management facilities in floodplains, including requirements that: (a) no active portion of a waste pile or surface impoundment may be constructed within 500-year floodplain; and (b) tanks, containers, and similar units that are used to store hazardous waste, do not receive waste from off-site sources, and are located within the 100-year floodplain must be floodproofed to prevent floodwaters from contacting the hazardous waste.	These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute state hazardous waste subject to these standards. Further, even if some excavated/dredged sediments did constitute such hazardous waste, these requirements would not apply to temporary staging areas for such sediments, due to exemption from hazardous waste regulations for dredged materials temporarily stored at intermediate facility and managed under state water quality certification and § 404 of Clean Water Act (310 CMR 30.104(3)(f)) (see Table S-8.c). However, if some excavated bank soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	If excavated/dredged materials do not constitute state hazardous waste subject to these regulations, these requirements would not apply. They would also not apply to the staging of excavated/dredged sediments even if they constitute such hazardous waste, due to the exemption mentioned in prior column. However, if some excavated bank soils were found to constitute such hazardous waste, it may not be feasible for some temporary staging areas for such waste to meet the requirement that waste piles be located outside 500-year floodplain, since, in some areas, this would drive the staging areas too far from the river to be practical. In such cases, that requirement should be waived as technically impracticable to attain.

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Table S-8.b: Alternative SED 8 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts Historical Commission Act and regulations	MGL c. 9, § 27C 950 CMR 71.07	A state body proposing to fund or authorize a project must notify the Massachusetts Historical Commission (MHC) (or the project proponent may notify MHC) if the project has an area of potential impact on a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on such a property, the state body, project proponent, and MHC must consider “prudent and feasible alternatives” that could eliminate, minimize, or mitigate the adverse effects. If there are, such alternatives will be specified in an agreement among those parties; and if there is no agreement, project cannot proceed until state body or project proponent responds to the MHC.	Applicable to State; relevant and appropriate to State-authorized work in areas where the work would have an area of potential impact on property(ies) listed in State Register.	Extent to which SED 8 would have potential impact on property(ies) listed in the State Register would be determined through the process identified in Phase IA CRA. If it would have such a potential impact, MHC would be notified and substantive provisions of these regulations would be met.
	MGL c. 9, § 27C	Any person supervising any survey, excavation, or construction on state or local government lands must report to the state archaeologist any archaeological, paleontological, or historical site or object discovered, and must take all reasonable steps to secure its preservation.	Applicable to excavations or construction on state or local government lands in MA.	If any archaeological, paleontological, or historical site or object is discovered during clearing or excavation/dredging activities on state or local government land, this requirement for notification and preservation would be met.
Connecticut Dam Safety Requirements	Conn. Gen. Stat. 22a-401 to 22a-411 Conn. Agencies Regs. Sec. 22a-409-2	Requirements for registration of certain types of dams; periodic inspections of dams; maintenance activities; construction, repair, replacement, or removal of dams; and notifications to CT DEP of sudden or unpredicted floods or major changes in condition of dams.	Not applicable to existing dams on River in Connecticut, because all such dams are subject to FERC regulation, which preempts application of these state dam requirements. In any case, even if these requirements were relevant, they would relate to responsibilities of the dam owners and are not	Not applicable.

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Table S-8.b: Alternative SED 8 – Potential Location-Specific ARARs

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			ARARs for SED 8.	
Connecticut Inland Wetlands and Watercourses Act and regulations	Conn. Gen. Stat. 22a-36 <i>et seq.</i> Conn. Agencies Regs. Sec. 22a-39-4	Permit required from local (municipal) wetland agency for activities that remove material from inland wetlands or watercourses; CT DEP allowed to issue general permit for minor activities with minimal environmental impacts, defined to include monitoring and sampling (Conn. Gen. Stat. 22a-45a). No substantive standards provided.	Relevant and appropriate to sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on sampling in Connecticut portion of river.

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Table S-8.c: Alternative SED 8 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Federal ARARs				
Toxic Substances Control Act (TSCA) regulations on cleanup of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61	General requirements (761.50) and specific options (761.61) for cleanup of PCB Remediation Waste, including PCB-containing sediments and soils. Options 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.	Applicable to cleanup of PCB Remediation Waste (which includes Housatonic River sediments and bank soils with PCBs > 50 ppm).	It is anticipated that, if SED 8 is selected, these requirements would be met through EPA determination that SED 8 meets requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on storage of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.65 40 CFR 761.61(c)	General and specific requirements for storage of PCB Remediation Waste. Regulations include specific provisions for storage of PCB Remediation waste in piles at the cleanup site or site of generation for up to 180 days (761.65(c)(9)). They also allows for risk-based approval by EPA of alternate storage method (761.61(c)), based on demonstration that it will not pose an unreasonable risk of injury to health or the environment.	Applicable to temporary storage of PCB Remediation Waste.	Temporary staging areas would meet the default conditions in 761.65(c)(9) with the following exception: While these areas would contain run-on control systems capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (although they would include appropriate flood control measures). For those temporary staging areas that would not meet this condition, the TSCA requirements could be met through an EPA determination that those staging areas meet requirements for risk-based approval under 40 CFR 761.61(c).
TSCA regulations on discharges of PCB-containing water	40 CFR 761.50(a)(3)	Prohibits discharge of water containing PCBs to navigable waters unless PCB concentration is < 3 µg/L or discharge is in accordance with NPDES discharge limits.	Applicable to discharges of treated water from dewatering/treatment facility to Housatonic River.	Water treatment facilities would be designed to meet this requirement.

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Table S-8.c: Alternative SED 8 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
TSCA regulations on decontamination	40 CFR 761.79	Establishes decontamination standards and procedures for removing PCBs from water, organic liquids, and various types of surfaces.	Applicable to decontamination of equipment used in excavation or other handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act and NPDES regulations	33 USC 1342 40 CFR 122, including, but not limited to, 122.3(d) and 122.44(a) & (e) 40 CFR 125.1 - 125.3	Point source discharge must meet technology-based effluent limitations (including those based on best available technology for toxic and non-conventional pollutants and those based on best conventional technology for conventional pollutants) and effluent limitations and conditions necessary to meet state water quality standards, except that discharges in compliance with instructions of On-Scene Coordinator (OSC) acting pursuant to NCP are exempt from these requirements.	Applicable to point source discharges of treated water from dewatering/treatment facility to Housatonic River.	Discharges could not feasibly meet MA water quality criteria for PCBs (0.014 and 0.000064 µg/L) in receiving waters, since current water quality conditions in Housatonic River do not meet those criteria. In addition, it is not anticipated that those criteria would be met at the point of discharge. EPA used a standard of 0.5 µg/L. for discharges from the treatment facility in the 1½ Mile Reach Removal Action, and the data from discharges in that project were generally in the range of 0.01 to 0.1 µg/L and often > 0.014 µg/L. However, this ARAR could be met through discharges in compliance with instructions from OSC.
Clean Water Act – NPDES regulations (stormwater discharges)	40 CFR 122.26(c)(1)(ii)(C) 40 CFR 122.44(k)	Best management practices (BMPs) must be employed to control pollutants in stormwater discharges during construction activities.	Applicable to stormwater discharges to river during construction activities, including temporary staging of excavated materials.	Would be attained through use of BMPs to control erosion from stormwater discharges during construction activities, including construction of access roads and temporary staging areas, bank remediation, and temporary staging of excavated materials at staging areas.

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Table S-8.c: Alternative SED 8 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Endangered Species Act and regulations	16 USC 1536(a)-(d) 40 CFR 6.302(h) 50 CFR Part 402, Subparts A & B	A federal agency must ensure that any action authorized, funded, or carried out by it is not likely to jeopardize the continued existence of a listed threatened or endangered (T&E) species or result in destruction or adverse modification of critical habitat, unless an exemption is granted. If a listed species or critical habitat may be present in the action area, the key steps include a biological assessment by the authorizing agency; a biological opinion by the resource service; and if the action is likely to adversely affect a listed species or critical habitat, identification of “reasonable and prudent” measures to avoid and/or minimize such effects.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize the continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because review of available information indicates that SED 8 would not adversely affect any federally listed T&E species or their critical habitat.
Resource Conservation and Recovery Act (RCRA) regulations on identification of hazardous waste	40 CFR Part 261	Establishes criteria and lists for determining whether a waste is a hazardous waste under RCRA. Note that Sec. 261.24 identifies concentrations of contaminants which make waste a hazardous waste due to toxicity, as determined through the Toxicity Characteristic Leaching Procedure (TCLP).	Relevant and appropriate to determining whether excavated/dredged sediments or bank soils must be managed as a hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated/dredged sediments or bank soils would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
RCRA regulations for generators of hazardous waste	40 CFR 262.30 - 262.33	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated/dredged materials are not expected to constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	If excavated/dredged materials do not constitute RCRA hazardous waste, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table S-8.c: Alternative SED 8 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA regulations for less than 90 day accumulation of hazardous waste	40 CFR 262.34	Allows on-site accumulation of hazardous waste for less than 90 days in containers, tanks, or containment buildings, provided generator complies with specified requirements, including referenced requirements of 40 CFR Part 265.	These requirements would not be expected to apply because excavated/dredged materials are not expected to constitute RCRA hazardous waste. However, if some dredged sediments did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such dredged sediments.	If excavated materials do not constitute RCRA hazardous waste, these requirements would not apply. However, if any dredged sediments should constitute RCRA hazardous waste, any tanks used for < 90-day accumulation of such sediments would meet these requirements.
RCRA regulations for hazardous waste management facilities – general requirements	40 CFR 264.1(j)	General requirements for facilities used to manage remediation wastes that constitute hazardous waste (e.g., requirements for waste analysis, security, precautions to prevent accidental ignition or reaction of wastes, preventing washout of units in floodplain by 100-year flood). (These requirements are in lieu of Part 264, Subparts B, C, and D.)	These requirements would not be expected to apply to any temporary staging areas because excavated/dredged materials are not expected to constitute RCRA hazardous waste. Further, even if some materials did constitute RCRA hazardous waste, these requirements would not apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be met at the temporary staging areas used for such waste.
RCRA regulations for hazardous waste management facilities – technical requirements for storage of hazardous waste	40 CFR Part 264, Subparts J, K, and L	Design, operating, closure, and (if necessary) post-closure requirements for storage of hazardous waste in tanks (Subpart J), surface impoundments (Subpart K) and waste piles outside structures (Subpart L).	These requirements would not be expected to apply to staging areas within Rest of River boundary under EPA's Area of Contamination (AOC) policy, since those staging areas would be located in overall area of	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, any waste piles, tanks, or surface impoundments used for temporary staging of such waste would meet these requirements with the following exceptions: (a) While the waste piles and

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Table S-8.c: Alternative SED 8 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			<p>dispersed contamination. However, if some excavated materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these requirements would be relevant and appropriate to these types of facilities used for staging of those materials.</p>	<p>surface impoundments (if any) would meet the single liner/leachate collection requirements of §§ 264.251(a) and 264.221(a), they would not meet the requirements of §§ 264.251(c) and 264.221(c) for a double liner/leachate collection system at “new waste pile units” and “new surface impoundment units” (if applicable). (b) While the waste piles would contain a run-on control system capable of preventing flow onto those areas from a 25-year precipitation storm event, it would not be practical for some staging areas in the floodplain to have a run-on control system capable of preventing flow onto those areas from a 25-year flood (see § 264.251(g)). To the extent these requirements, which were developed for permanent hazardous waste storage units, are considered applicable, they are not practical for temporary staging areas and thus should be waived as technically impracticable to attain.</p>
<p>RCRA regulations for hazardous waste management facilities – groundwater protection</p>	<p>40 CFR Part 264, Subpart F</p>	<p>Groundwater protection requirements for hazardous waste contained in solid waste management units. Includes groundwater protection standards (i.e., maximum contaminant levels) for waste piles outside structures; alternate limits allowed under 40 CFR 264.94(b); and requirements for groundwater monitoring systems.</p>	<p>Same as above.</p>	<p>If excavated materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these requirements would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable to attain.</p>

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Table S-8.c: Alternative SED 8 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
RCRA land disposal restrictions	40 CFR 268.50	Prohibits storage of hazardous wastes that are prohibited from land disposal under Part 268, Subpart C, with a number of exceptions, including that such waste may be stored solely for the purpose of accumulating such quantities as are necessary to facilitate proper recovery, treatment, or disposal.	Same as above except that if some excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, these provisions would apply.	If excavated/dredged materials do not constitute RCRA hazardous waste or if temporary staging areas are covered by AOC policy, these provisions would not apply. However, if any excavated/dredged materials were found to constitute RCRA hazardous waste and were staged at areas to which AOC policy does not apply, the temporary staging areas for such waste would meet the exception to the storage prohibition for the accumulation of such quantities as are necessary to facilitate treatment or disposal.
State ARARs				
Massachusetts Clean Water Act – water quality certification regulations (Note: These were listed as location-specific ARAR in Table S-8.b, but are also listed here at EPA’s direction.)	314 CMR 9.01 - 9.08	Same as described for these regulations in Table S-4.b.	Applicable to excavation/removal of sediments, discharge of dredged or fill material to waters and wetlands, and temporary staging areas for excavated sediments.	Same as described for these regulations in Table S-8.b.
Massachusetts Clean Water Act and Wetlands Protection Act – stormwater management standards	310 CMR 10.05(6)(k) 314 CMR 9.06(6)(a)	Projects subject to regulation under the Wetlands Protection Act or that involve discharge of dredged or fill material must be provided with stormwater BMPs to attenuate pollutants in stormwater discharges and provide a setback from receiving waters and wetlands in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during remediation activities and at temporary staging areas.	SED 8 would include use of stormwater BMPs during construction of access roads and staging areas, bank soil removal and stabilization, and operation of staging areas. These BMPs would be designed to meet the MDEP’s specified stormwater management standards. These stormwater systems would include ~ 25-foot setbacks from receiving waters and wetlands where practicable, but this would not be feasible for BMPs for bank remediation or in areas where there would be no practical alternative to siting the staging areas in or

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Table S-8.c: Alternative SED 8 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				near wetlands. Stormwater BMPs would not be necessary or practical for sediment excavation or dredging or capping, since those activities would take place within the River. Any applicable stormwater management requirements that could not practically be met would need to be waived as technically impracticable.
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity may not result in a “take” of a State-listed endangered, threatened, or special concern species, except that such a “take” may be allowed if the applicant has adequately addressed alternatives, an insignificant portion of the local population would be impacted, and the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the species. Projects in a designated Priority Habitat for a State-listed species or other area where such a species has occurred must be reviewed in accordance with these requirements.	Applicable to activities in a State-designated Priority Habitat in MA or other areas where information indicates the occurrence of a State-listed species.	Most remediation activities, as well as most access roads and temporary staging areas, in SED 8 would occur within Priority Habitat, as shown on Figure S-8. Based on the evaluations presented in Appendix B to this Interim Response, these activities and facilities would result in a “take” of approximately 19 State-listed species. For about 16 of those species, the take would impact a significant portion of the local population. In these cases, the MESA requirements would need to be waived as technically impracticable to meet. As also described in Appendix B, for the species for which the take would not impact a significant portion of the local population, it cannot be established that a long-term Net Benefit plan could feasibly be developed at this site. If not, the MESA requirement for such a plan would need to be waived.
	321 CMR 10.00, Part IV	Projects that will alter a designated Significant Habitat must be reviewed to ensure that they will not reduce the viability of the habitat to sustain an endangered or threatened species.	Would be applicable to activities affecting State-designated Significant Habitat in MA. However, no such habitat has been designated.	Not applicable.

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Table S-8.c: Alternative SED 8 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste regulations on identification of hazardous waste	310 CMR 30.100	<p>Establishes criteria and lists for determining whether a waste is a hazardous waste under state law.</p> <p>Note that wastes that contain PCBs \geq 50 mg/kg (which are listed wastes) are exempt from the state hazardous waste management regulations so long as they are managed in compliance with EPA's TSCA regulations (40 CFR Part 761) (see 310 CMR 30.501(3)(a)). (Materials that constitute state hazardous wastes on other grounds are referred to in this table as "non-PCB state hazardous waste.")</p> <p>Note also that the state hazardous waste management regulations also exempt dredged material (even if it constitutes non-PCB state hazardous waste) that is temporarily stored at an intermediate facility (pursuant to 314 CMR 9.07(4)) and managed in accordance with a state water quality certification and § 404 requirements under the Clean Water Act (see 310 CMR 30.104(3)(f)).</p>	Applicable to determining whether excavated/ dredged sediments and bank soils must be managed as a hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated/dredged sediments or bank soils would constitute hazardous waste under state law on grounds other than containing PCBs \geq 50 mg/kg.. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
<p>Note: As noted above, it is not expected that the excavated/dredged materials would constitute non-PCB state hazardous waste. However, for sediments, even if some excavated/dredged sediments did constitute such hazardous waste, the following Massachusetts hazardous waste management requirements are considered inapplicable to temporary staging areas for such sediments due to the exemption from the hazardous waste regulations for dredged materials temporarily stored at an intermediate facility and managed under state water quality certification and § 404 of Clean Water Act (310 CMR 30.104(3)(f)). Hence, these requirements have been evaluated based solely on their potential applicability to temporary staging areas that are used for excavated bank soils.</p>				
Massachusetts hazardous waste regulations for generators	310 CMR 30.321 - 30.324	Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).	These requirements would not be expected to apply because excavated materials are not expected to constitute non-PCB state	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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Table S-8.c: Alternative SED 8 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply.	
Massachusetts hazardous waste management regulations – general requirements	310 CMR 30.513, 30.514, 30.524, 30.560	General requirements for hazardous waste management facilities (for waste analysis, security, emergency prevention and response, and precautions to prevent accidental ignition or reaction of wastes).	These requirements would not be expected to apply to temporary staging areas because excavated materials are not expected to constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply to staging areas for such waste.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, these requirements would be met at staging areas for such waste.
Massachusetts hazardous waste management regulations – location standards for units used to store hazardous waste (Note: Some of these regulations were also listed as location-specific ARAR in Table S-	310 CMR 30.701(6), 30.703(2), 30.704(3), 30.705(3) & (6)	Location standards for waste piles, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in wetlands, (c) within ½ mile of public water supply well, (d) on land overlying an actual, planned, or potential public underground drinking water source, (e) within 1000 feet of a private drinking water well, or (f) without a 200-foot buffer zone to fenceline.	These requirements would not be expected to apply because excavated materials are not expected to constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply to waste piles for such waste at temporary	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be feasible to site some such staging areas outside 500-year floodplain, since, in some locations, this would drive the staging areas too far from the river to be practical; (b) while GE would attempt to avoid siting staging areas in wetlands where practical, this would not be practical in some cases given that the majority of the PSA consists of wetlands; (c) it is unknown

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Table S-8.c: Alternative SED 8 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
8.b.)			staging areas.	whether such sites would overlie a “potential public underground drinking water source” (defined as a groundwater source capable of yielding 100 gpm or more of water and with less than 10,000 mg/L of total dissolved solids); and (d) it is not certain whether some areas could be designed and constructed with a 200-foot buffer zone to fenceline. Any requirements that could not feasibly be met would need to be waived as technically impracticable in order for this alternative to be implemented.
Massachusetts hazardous waste management regulations – technical requirements for storage of hazardous waste	310 CMR 30.602 310 CMR 30.640 310 CMR 30.580	Requirements for design, operation, and closure of waste piles used to store hazardous waste.	Same as above.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except as follows: (a) It may not be practical for some areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); this would require investigation during design. (b) While these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, it would not be practical for some of the staging areas in the floodplain to have such systems capable of preventing flow onto those areas or controlling runoff during a 100-year flood (see 30.641(2 & (3)). To the extent that these requirements are considered applicable and could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.
	310 CMR 30.660	Groundwater protection requirements for waste piles outside structures, including monitoring system requirements;	Same as above.	If excavated bank soils do not constitute non-PCB state hazardous waste, these requirements would not apply. However, if any excavated bank soils

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Table S-8.c: Alternative SED 8 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.		were found to constitute such hazardous waste, waste piles used for such waste at temporary staging areas would not have groundwater monitoring systems such as required for regular hazardous waste management facilities. Construction of such systems for temporary staging areas would not be practicable, and thus this requirement, if applicable, should be waived as technically impracticable.
Massachusetts air pollution control regulations	310 CMR 7.09	Prohibits person engaged in dust-generating activities from creating condition of air pollution, defined as air concentrations that would cause a nuisance, be injurious or potentially injurious to human or animal life, vegetation, or property, or unreasonably interfere with comfortable enjoyment of life and property or conduct of business.	Applicable to excavation and construction activities generating dust.	Would be attained through use of dust control measures during activities that could generate dust and through particulate and PCB air monitoring during active remediation activities and during construction and operation of the staging areas, along with response actions if certain action levels are exceeded. These measures would be specified in design.
Connecticut Endangered Species Act	Conn. Gen. Stat. 26-303 through 26-316	Requires state agency to: (a) ensure that any action authorized or performed by it does not threaten the continued existence of a listed endangered or threatened species or result in destruction or adverse modification of habitat essential to such species, unless an exemption is granted; and (b) take all reasonable measures to mitigate any adverse impacts of the proposed action on such species or habitat. Prohibits “taking” of endangered or threatened species, except where State determines that a proposed action would not appreciably reduce likelihood of survival or recovery of the species.	This statute is not applicable or relevant and appropriate to SED 8 because implementation of SED 8 is not expected to have any adverse impact on endangered or threatened species or their habitat in Connecticut, or to cause a “taking” of such species.	Not applicable.

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Table S-8.c: Alternative SED 8 – Potential Action-Specific ARARs *

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Connecticut fisheries and game laws	Conn. Gen. Stat. 26-60	Authorizes CT DEP to issue permits to properly accredited persons for sampling of fish, crustaceans, and wildlife for educational and scientific purposes, with CT DEP to determine number, species, area, and method of collection.	Relevant and appropriate to biota sampling in Connecticut portion of Housatonic River, but no permit required.	Would be attained through coordination with CT DEP on biota sampling in Connecticut portion of river.
Guidances To Be Considered				
TSCA PCB Spill Cleanup Policy	40 CFR Part 761, Subpart G	Policy used to determine adequacy of cleanup of spills resulting from the release of materials containing PCBs at concentration of 50 ppm or greater.	To be considered.	Would be considered in the event of any new PCB spill that occurs during implementation of SED 8.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups</i> (EPA, 1995)	Memorandum from EPA Office of Solid Waste and Emergency Response, March 13, 1995	Describes EPA policy on use of Area of Contamination (AOC) approach under RCRA. Explains that an overall area that includes discrete areas of generally dispersed contamination may be considered an AOC, within which the movement of waste is not considered “placement,” such that the RCRA land disposal restrictions and other RCRA requirements, including minimum technology requirements, would not be triggered.	To be considered.	Under this policy, even if excavated sediments or bank soils should constitute RCRA hazardous waste, the technical RCRA requirements for a hazardous waste storage facility would not apply to temporary staging areas located within the boundary of the Rest of River area, because those areas would be within the overall area of dispersed contamination.

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Figures

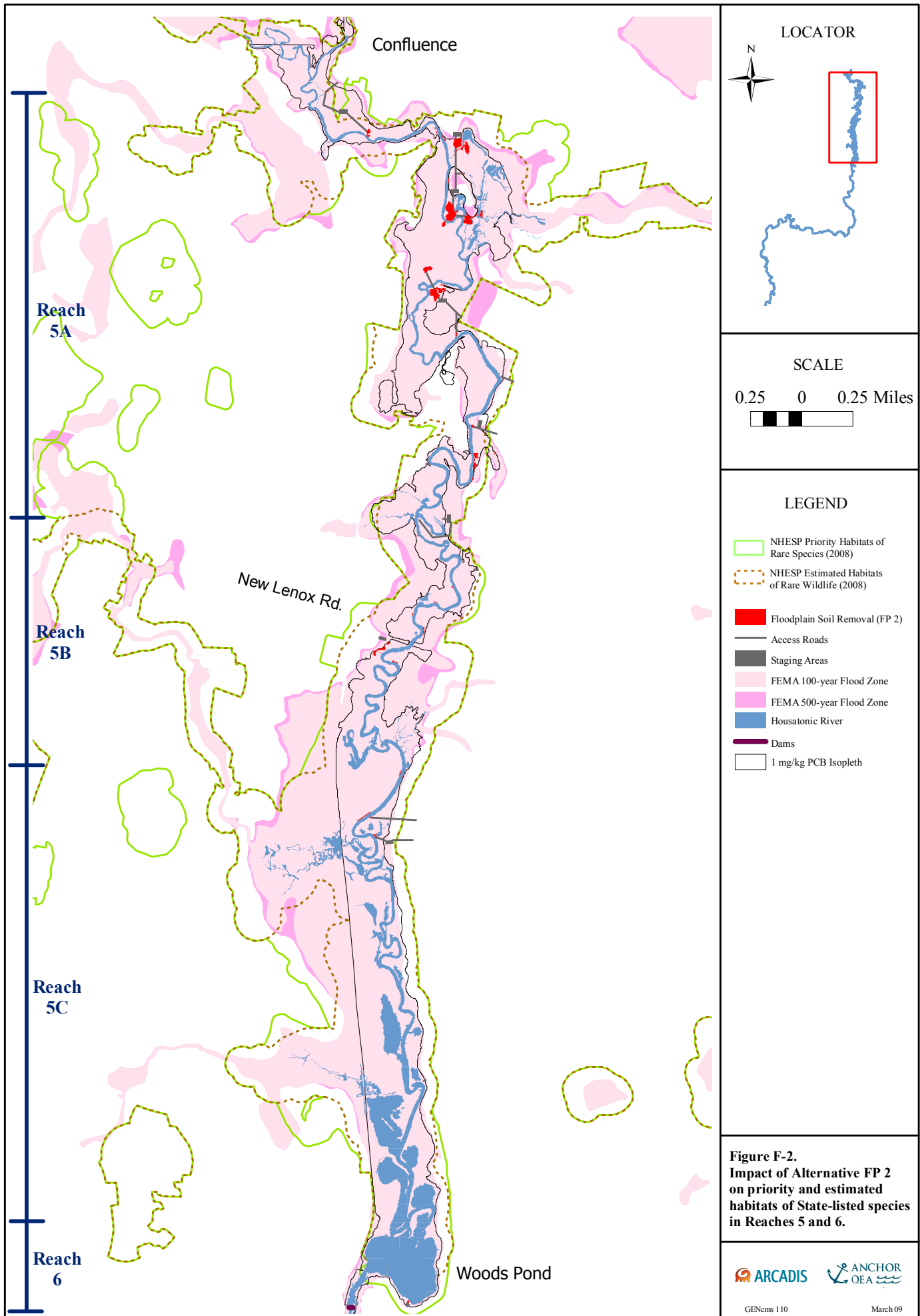
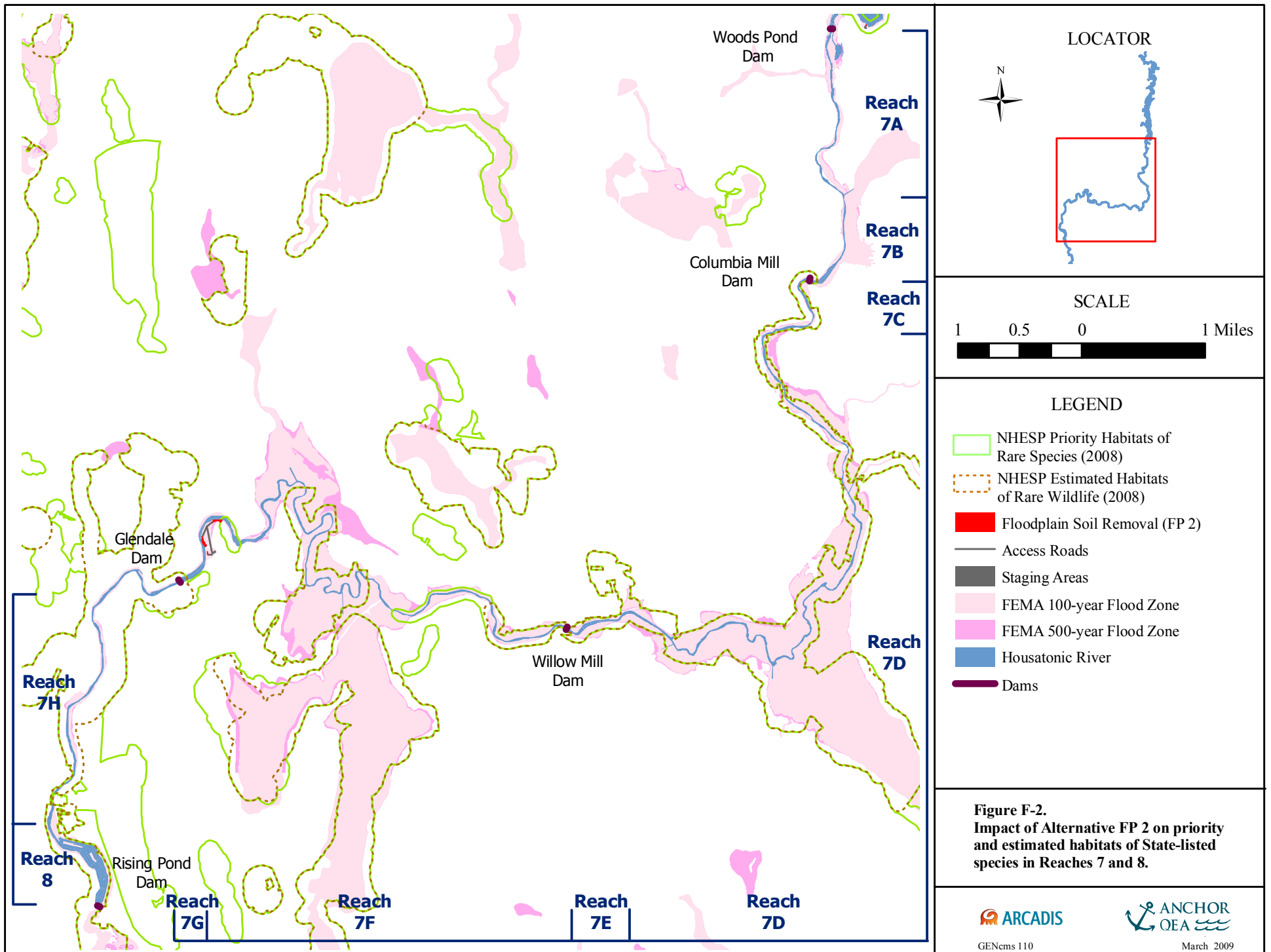
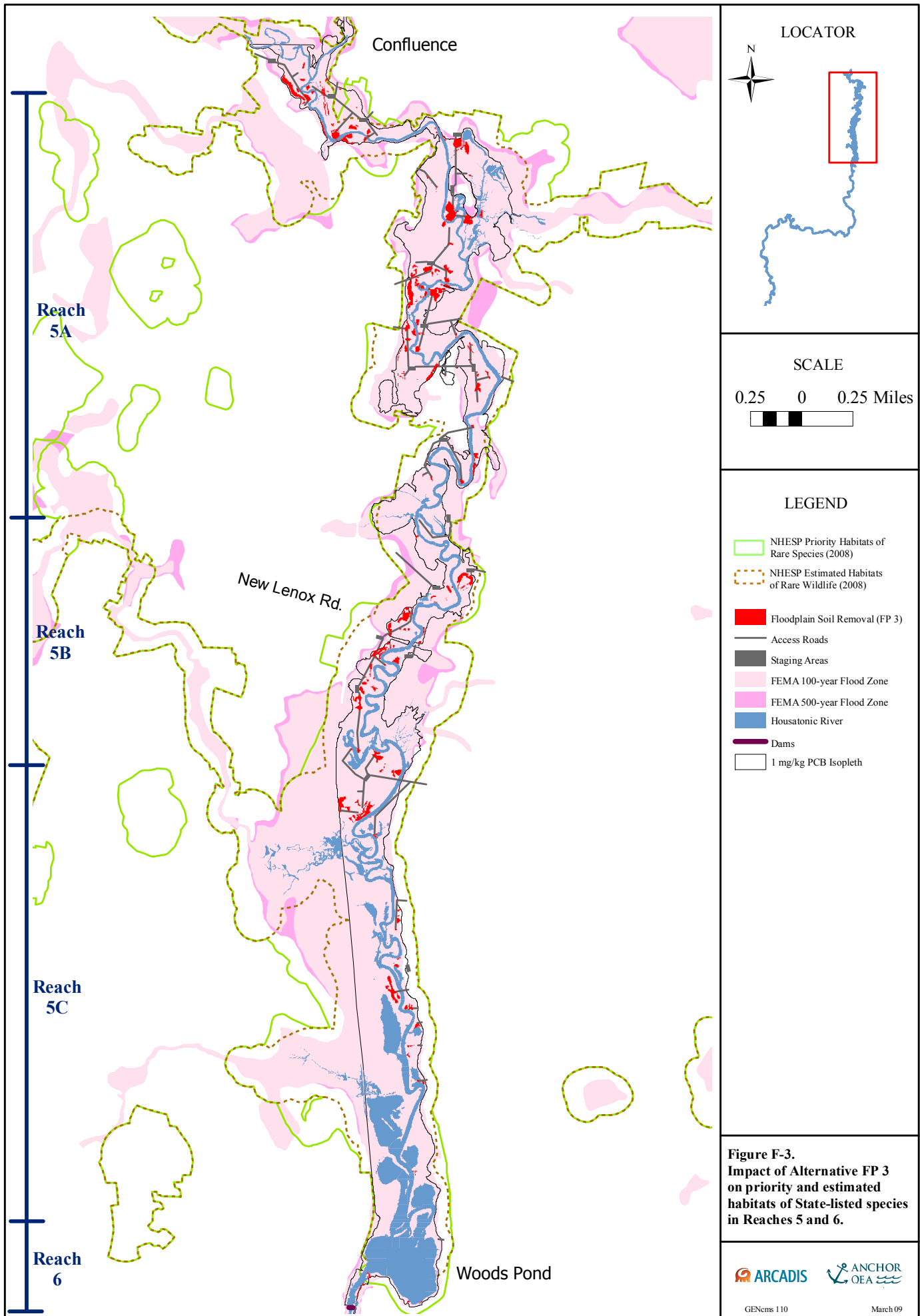
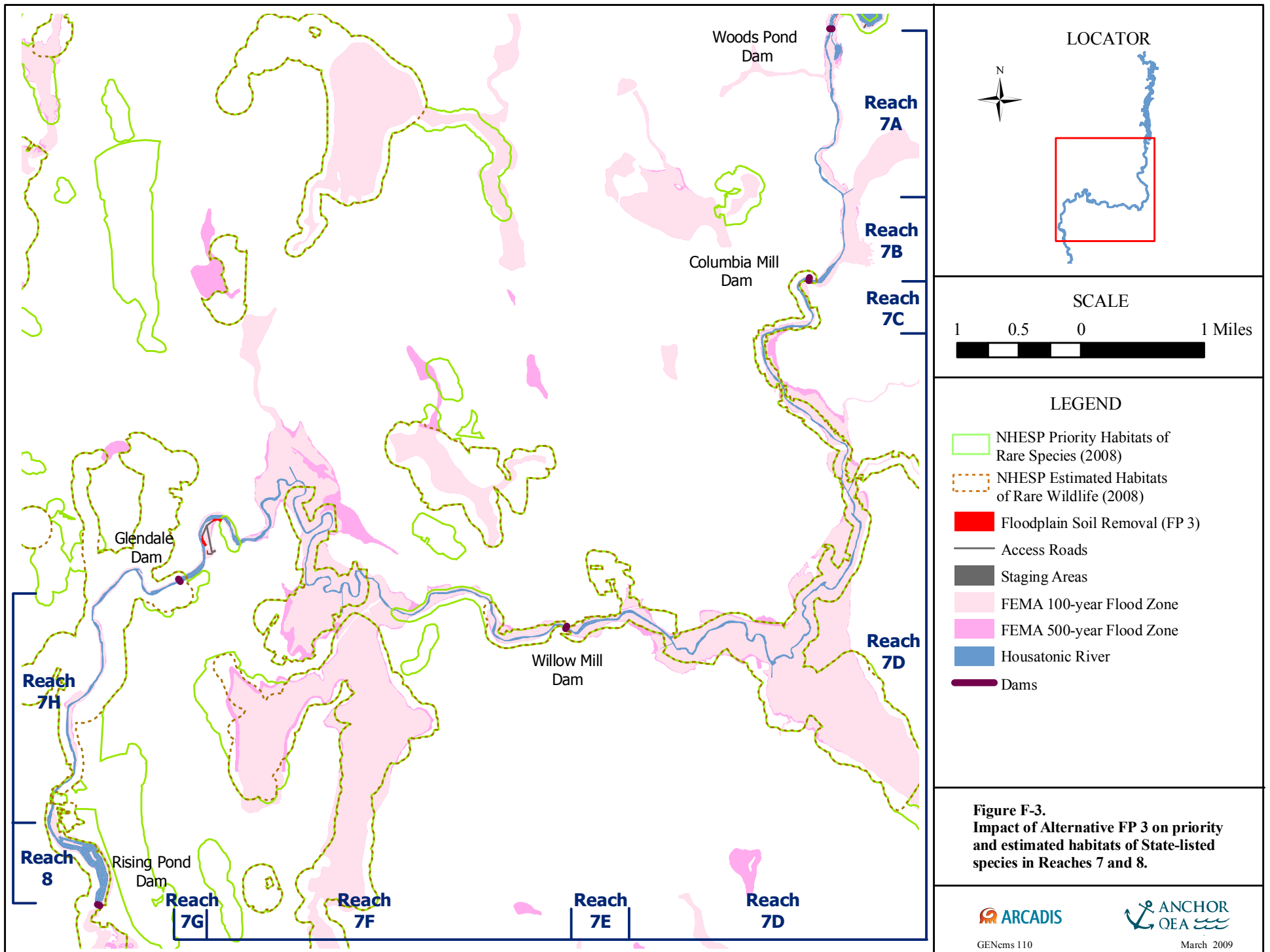


Figure F-2.
Impact of Alternative FP 2
on priority and estimated
habitats of State-listed species
in Reaches 5 and 6.







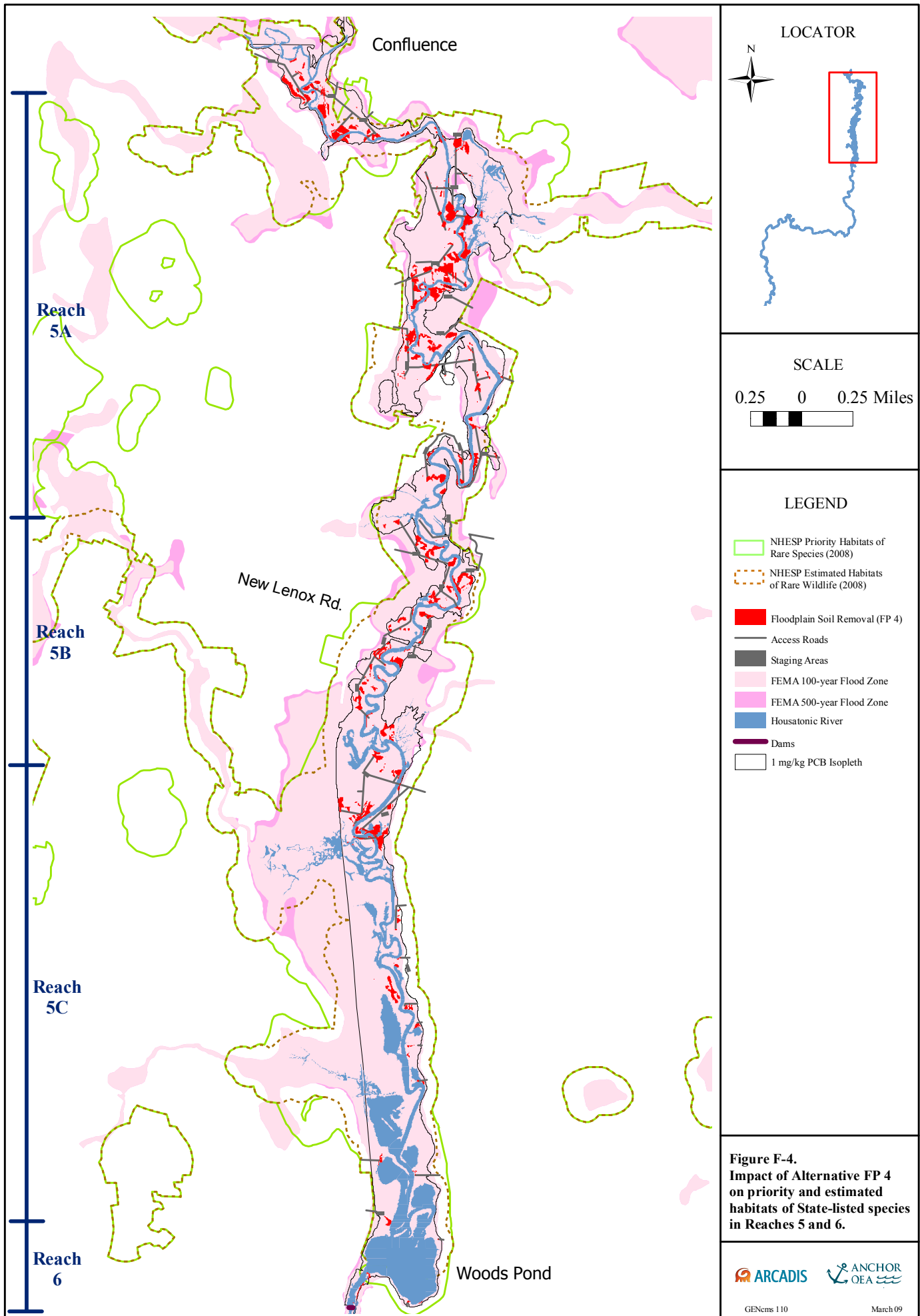
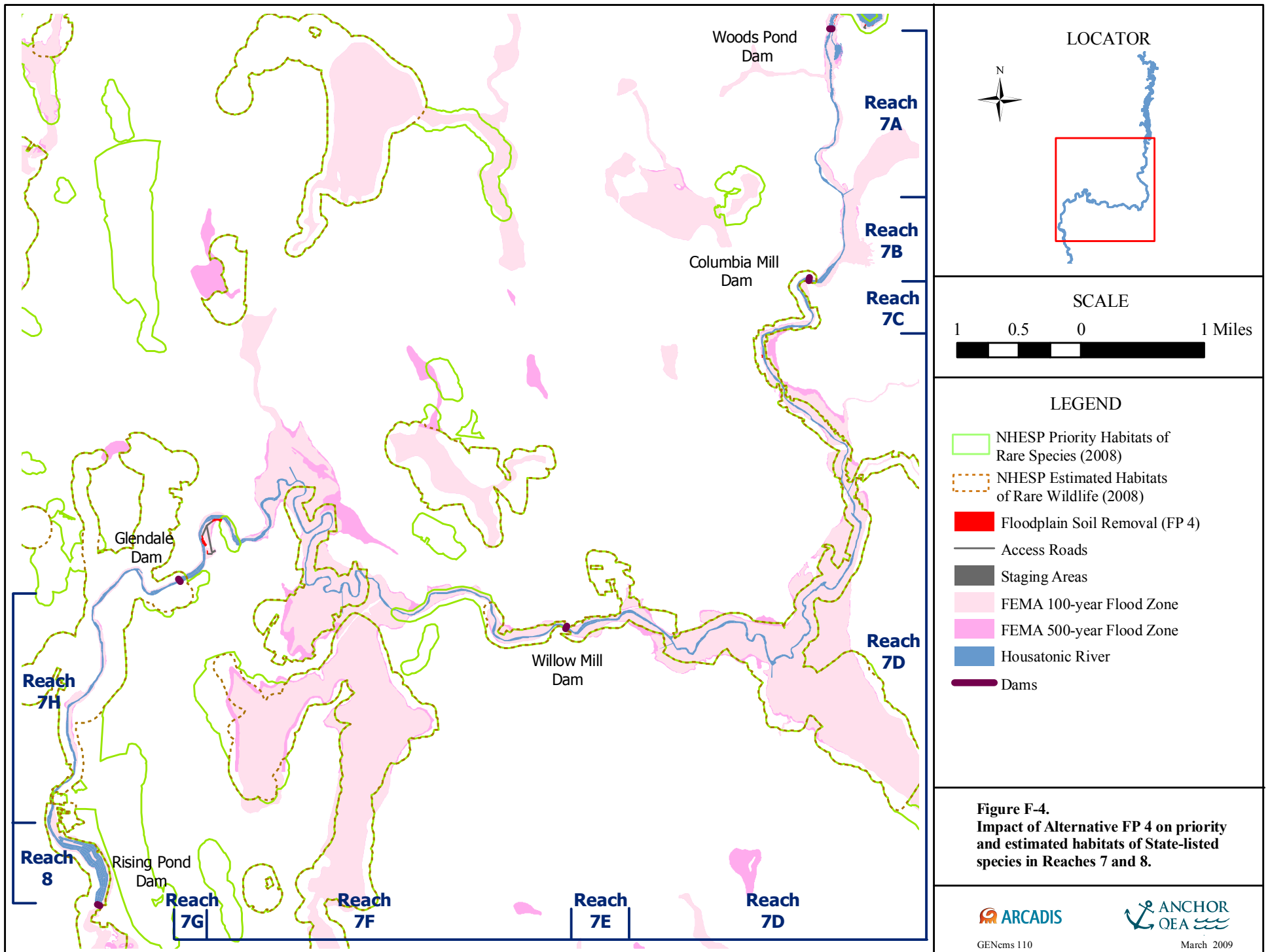


Figure F-4.
Impact of Alternative FP 4
on priority and estimated
habitats of State-listed species
in Reaches 5 and 6.



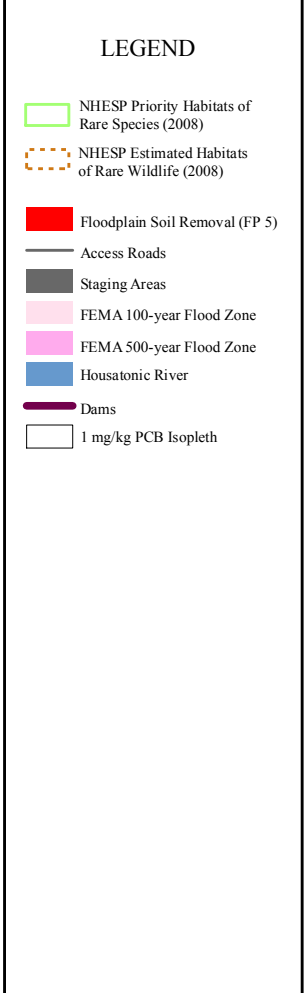
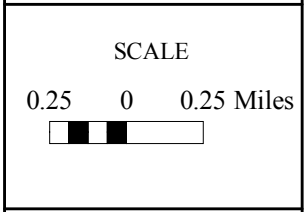
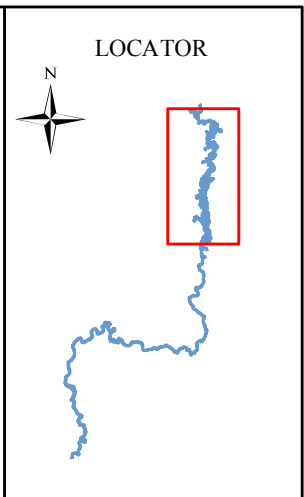
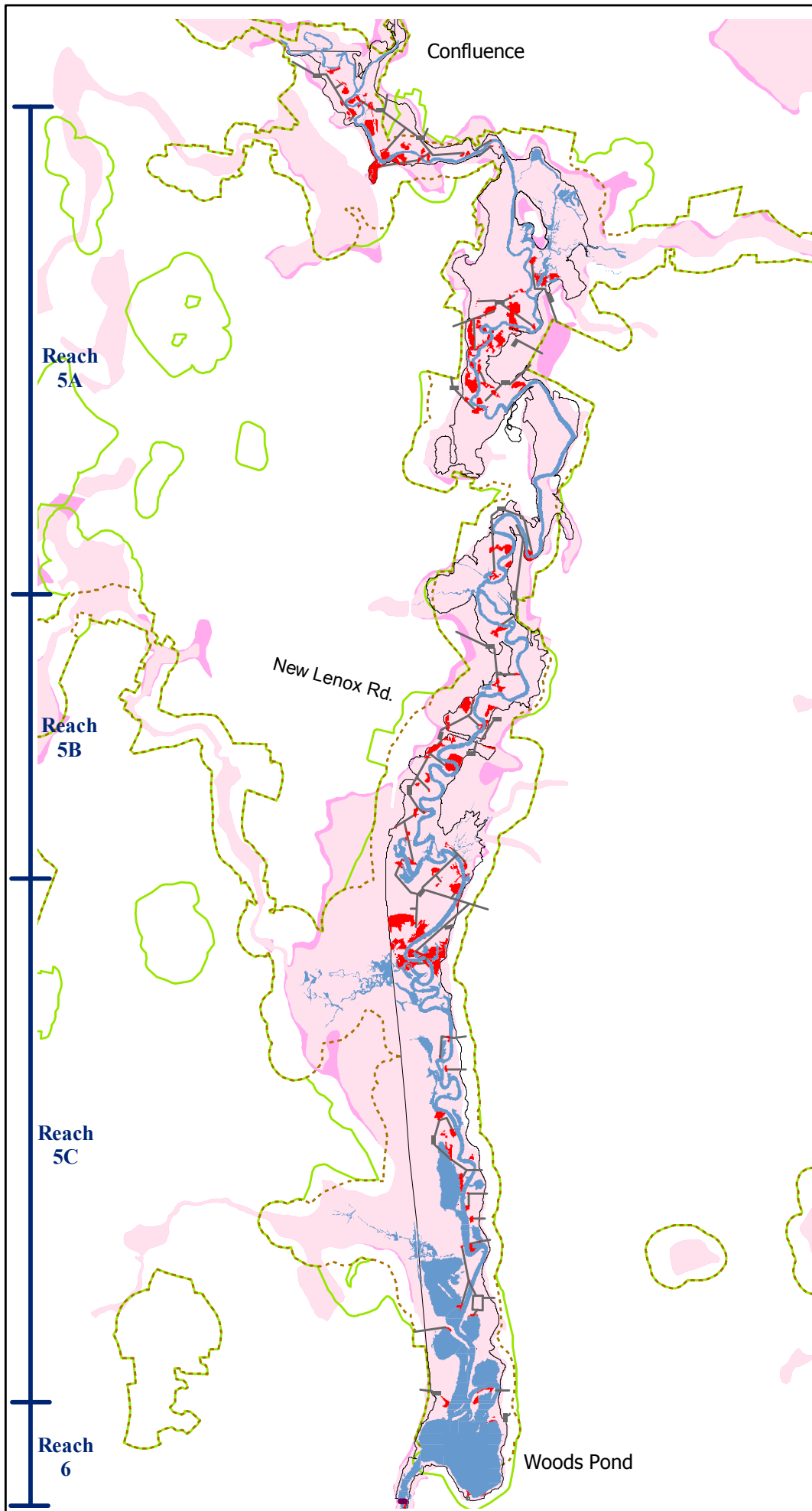
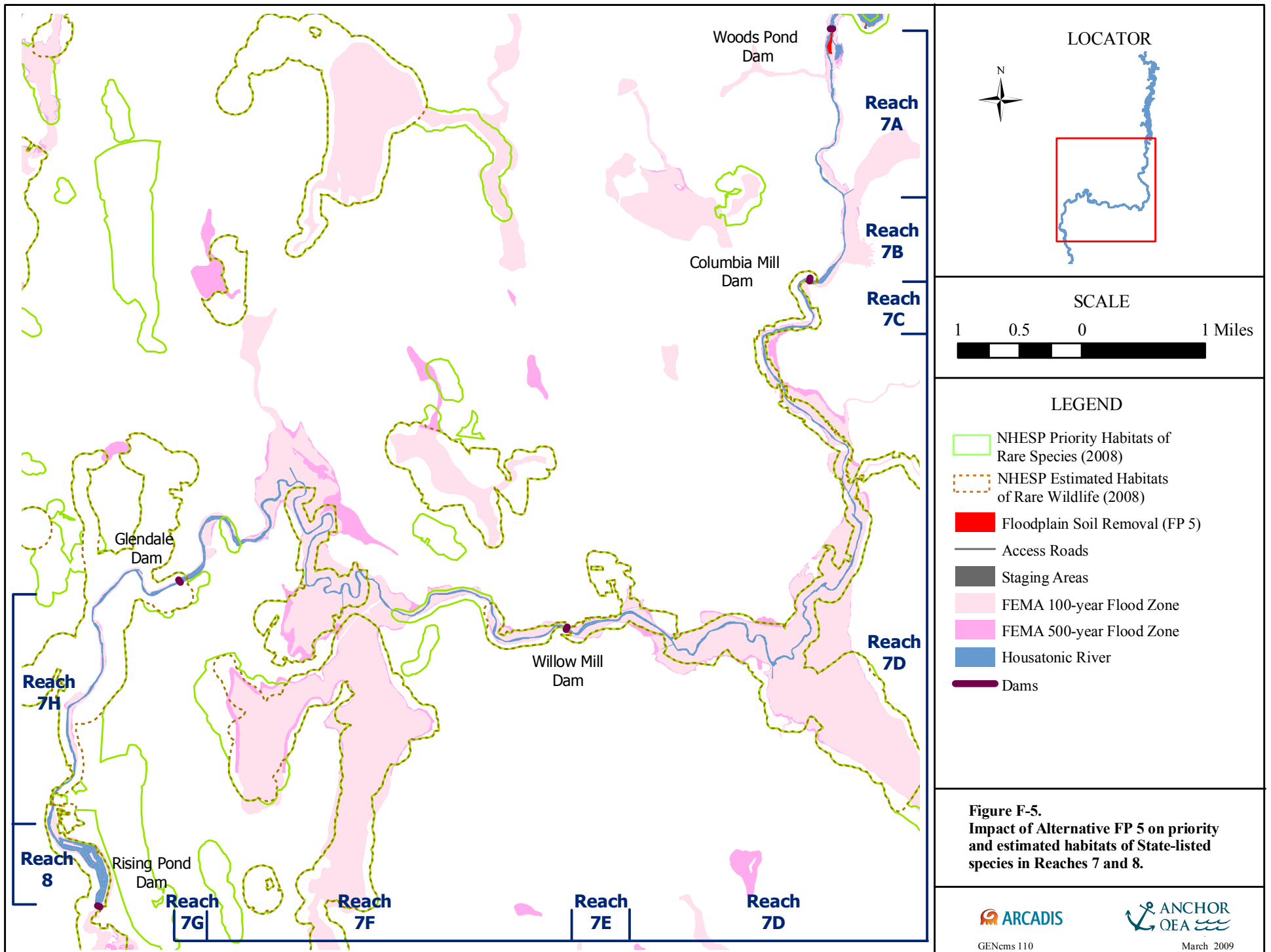


Figure F-5.
Impact of Alternative FP 5
on priority and estimated
habitats of State-listed species
in Reaches 5 and 6.



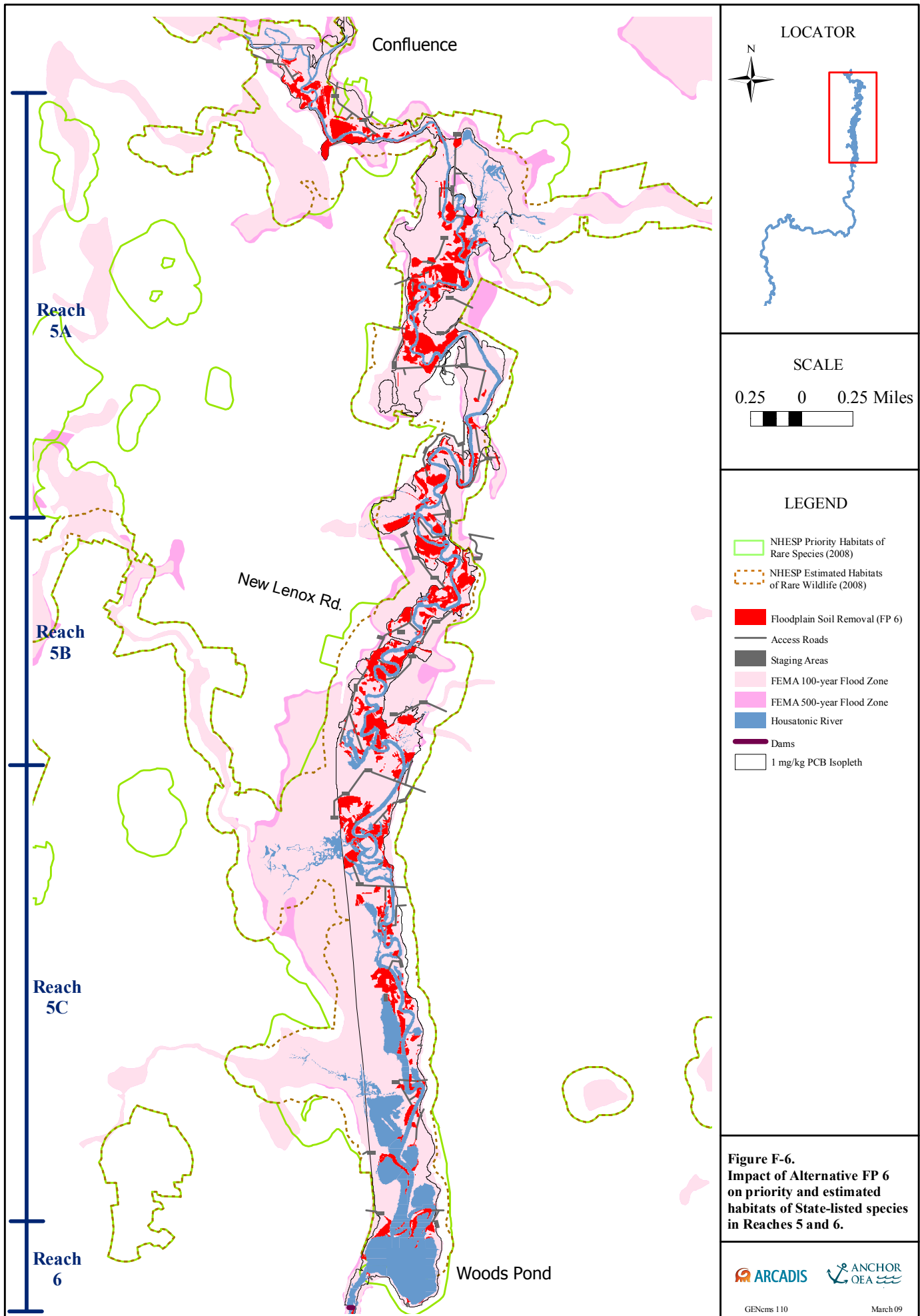
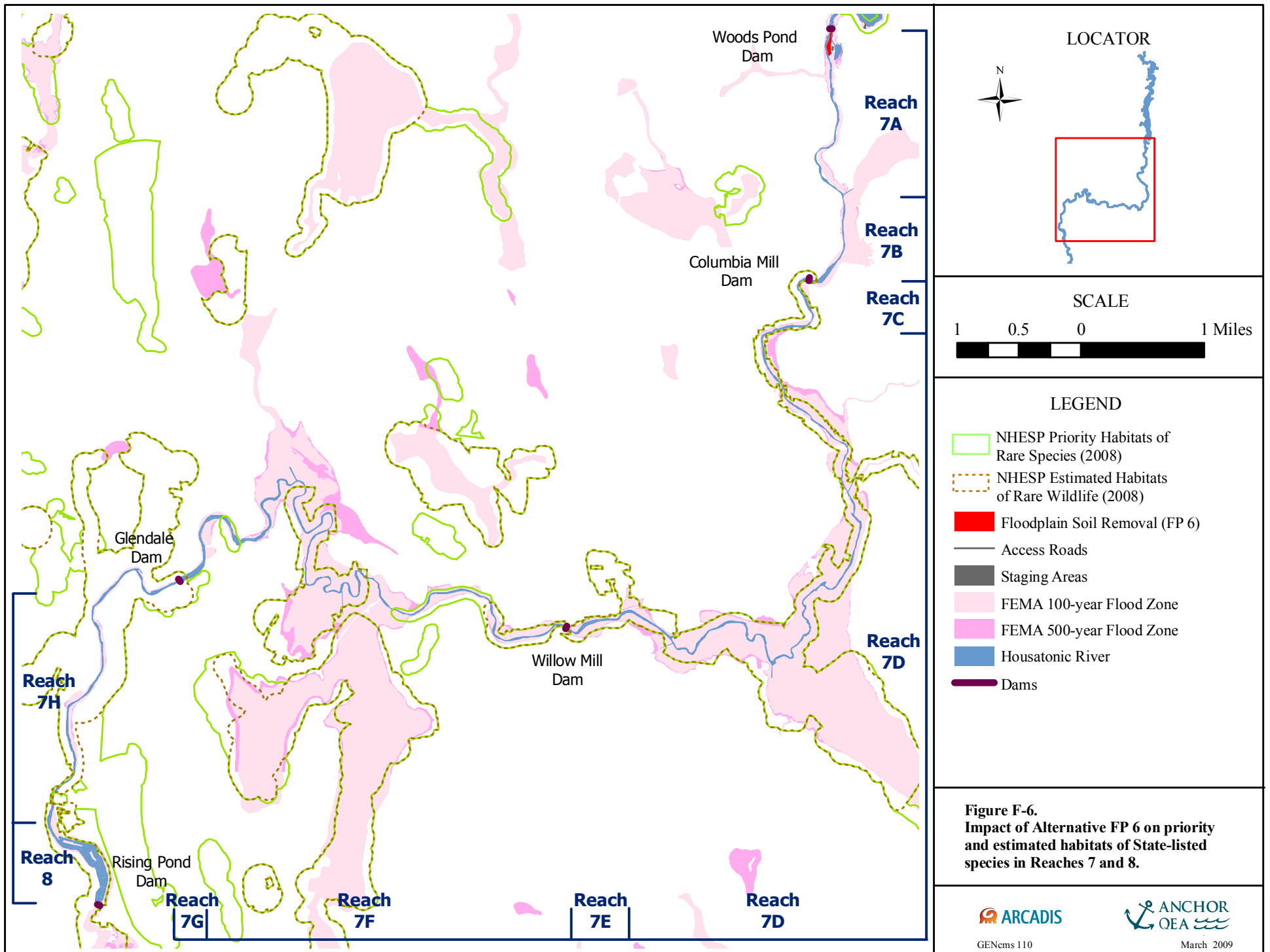


Figure F-6.
Impact of Alternative FP 6
on priority and estimated
habitats of State-listed species
in Reaches 5 and 6.



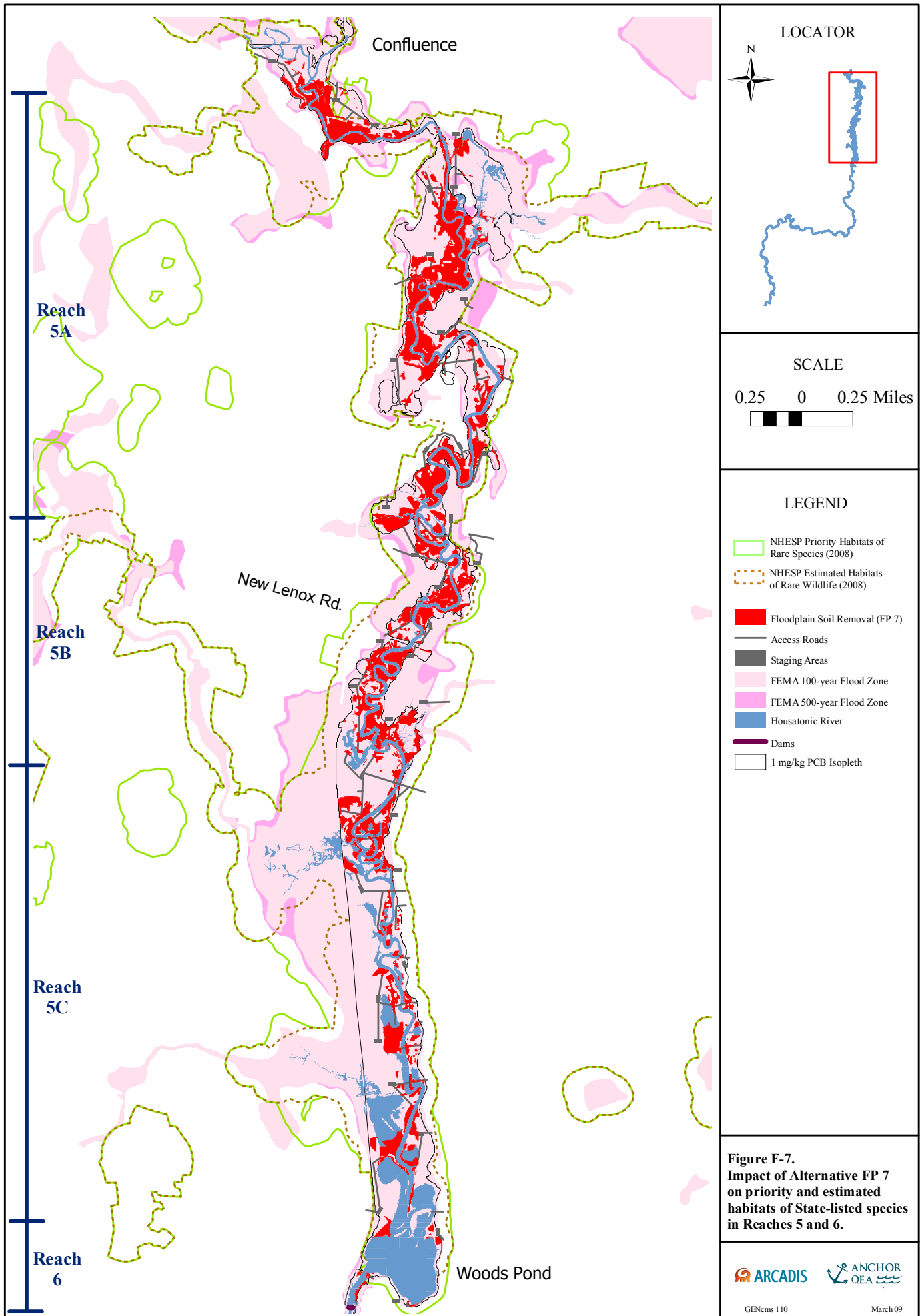


Figure F-7.
Impact of Alternative FP 7
on priority and estimated
habitats of State-listed species
in Reaches 5 and 6.

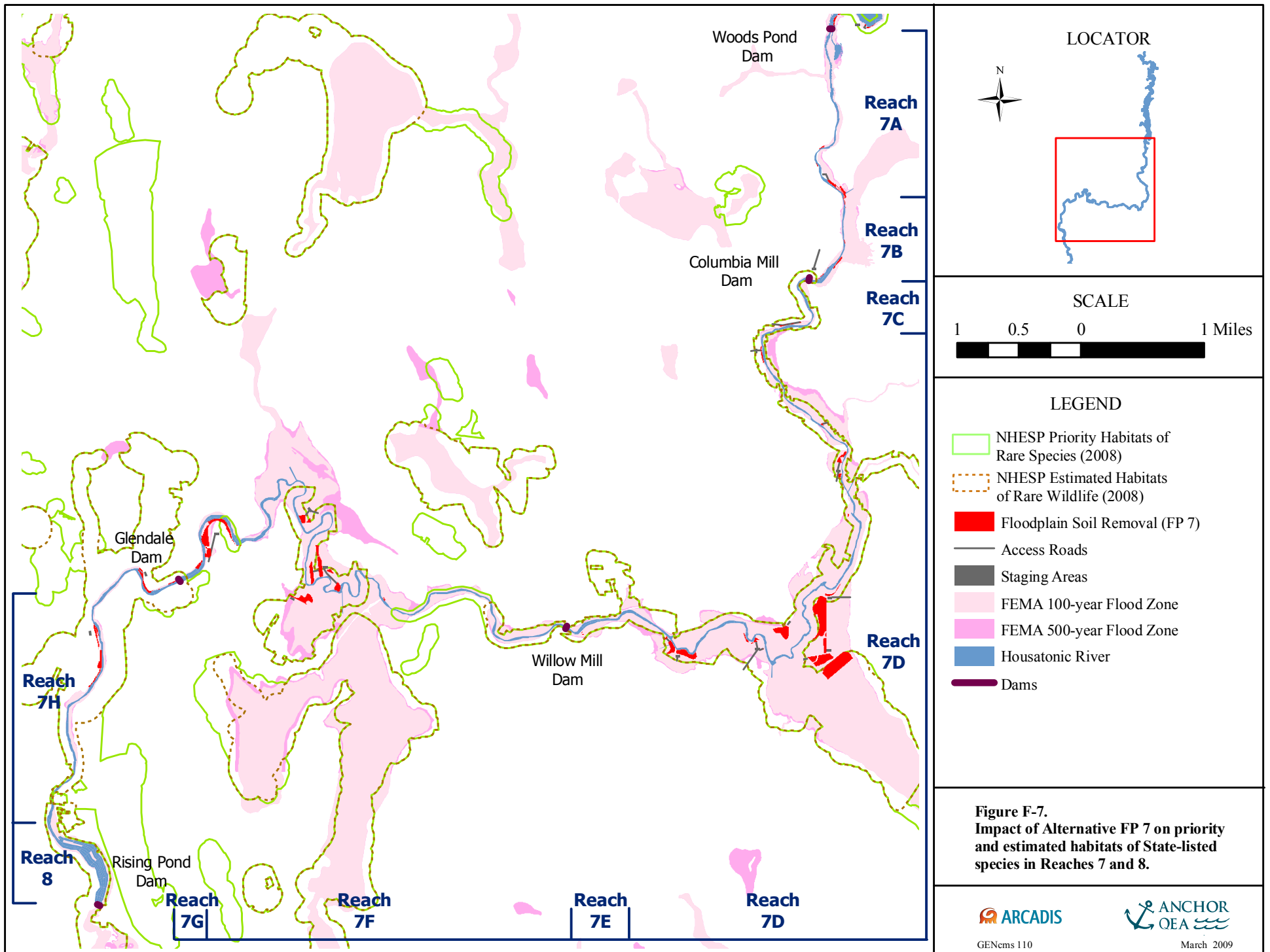
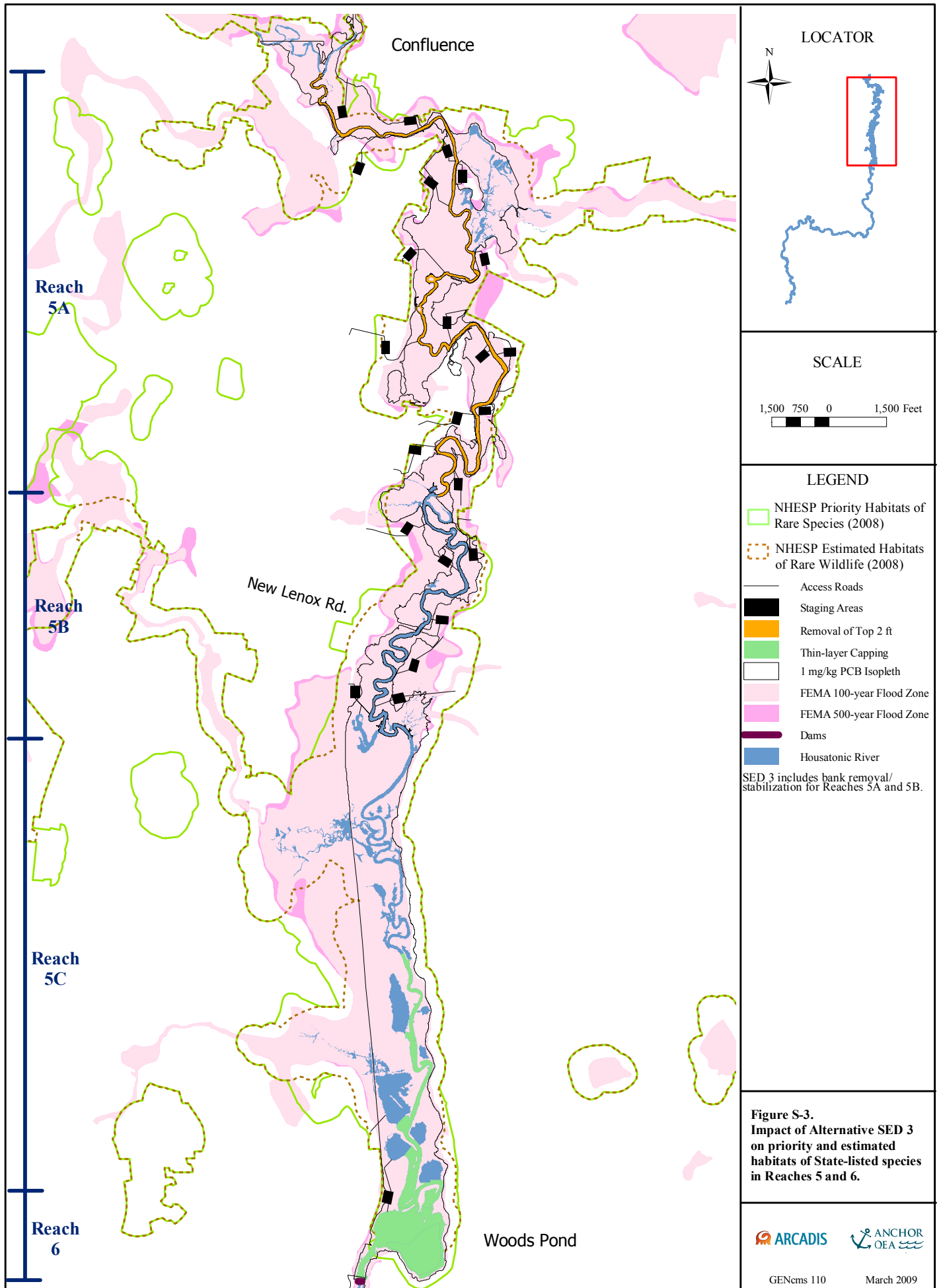


Figure F-7.
Impact of Alternative FP 7 on priority and estimated habitats of State-listed species in Reaches 7 and 8.



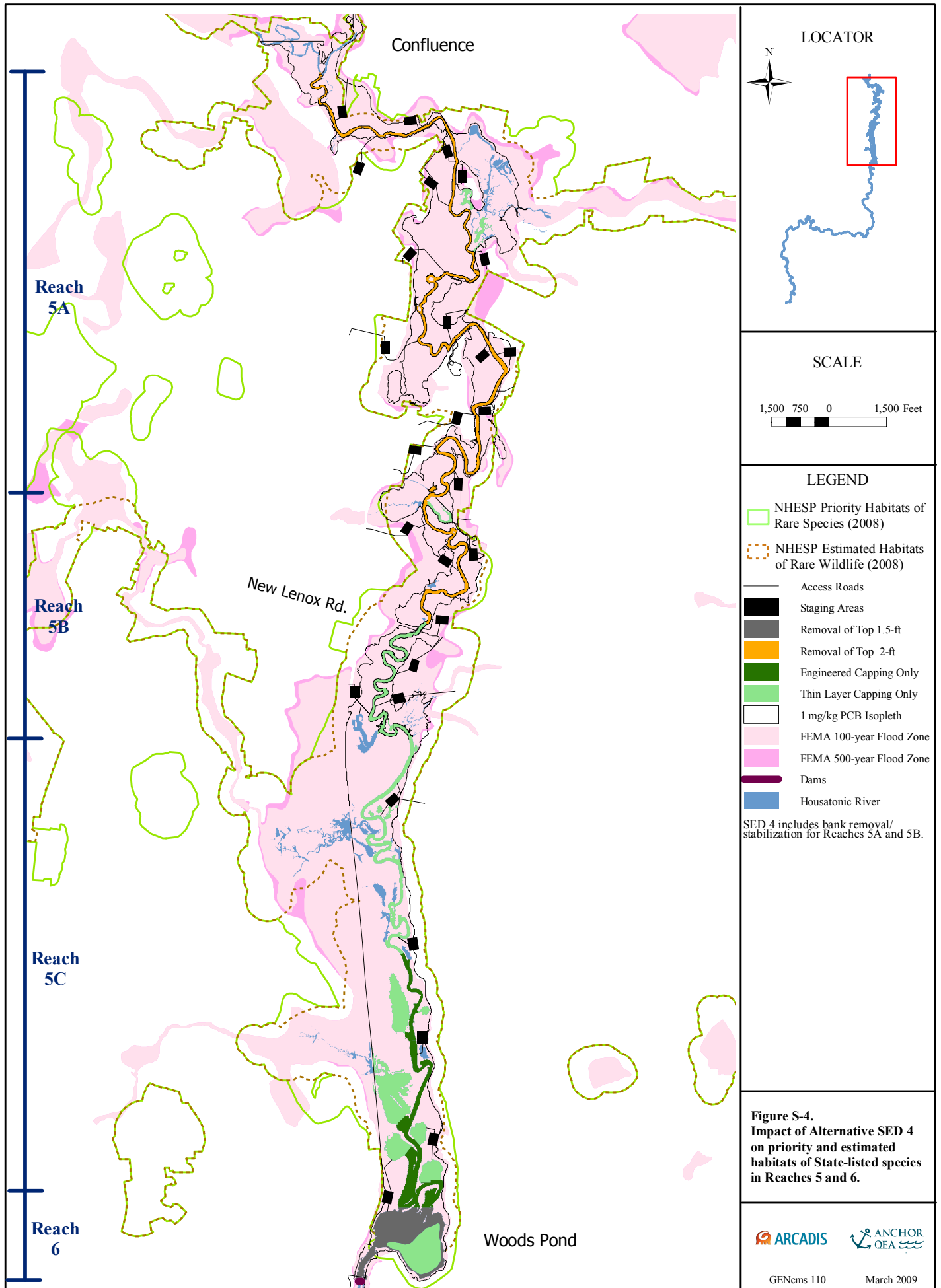


Figure S-4.
Impact of Alternative SED 4
on priority and estimated
habitats of State-listed species
in Reaches 5 and 6.

