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**Appendix C**

ARARs Tables

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Sediment Alternative Tables

**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
<b>Federal ARARs</b>				
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. Where not achieved, 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 the environment than SED 1 (CERCLA § 121(d)(4)(B); 40 CFR § 300.430(f)(1)(ii)(C)(2)). See Revised CMS Report, Section 6.1.4.</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 Revised CMS Report, Section 6.1.4.</p>
<b>State ARARs</b>				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	<p>Same as federal water quality criteria (unless MDEP establishes site-specific criterion or determines that naturally occurring background concentrations are higher).</p> <p>Note: Housatonic River in Massachusetts is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and pathogens.</p>	Applicable to surface water of Housatonic River in Massachusetts.	Same as for federal water quality criteria.

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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 not an ARAR as noted in next column. CT DEP has proposed to revise this criterion to 0.00000056 µg/L, but that revision has not been adopted.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and, in some stretches, e-coli.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Current CT human health criterion is not an ARAR 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>The current CT human health criterion is not an ARAR.</p>
<p><b>To Be Considered</b></p>				
<p>Cancer Slope Factors</p>	<p>EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a></p>	<p>Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a></p>	<p>Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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 purported 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 (MDPH), 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.  Note: MDPH has also issued a state-wide fish consumption advisory for certain sensitive groups based on mercury in fish.	To be considered.	Would 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 MDPH.
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.	Would 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 MDPH.

**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
Connecticut fish consumption advisory	Connecticut Department of Public Health (CDPH), 2006 Advisory for Eating Fish from Connecticut Waterbodies	<p>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.”</p> <p>Note: CDPH has also issued a state-wide advisory of one meal per month (for high-risk group) or one meal per week (for low-risk group) due to mercury in fish.</p>	To be considered.	Would 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 CDPH.

**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
<b>Federal ARARs</b>				
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. Where not achieved, this criterion should be waived under CERCLA and NCP on ground that actions necessary to achieve it would result in greater risk to the environment than SED 2 (CERCLA § 121(d)(4)(B); 40 CFR § 300.430(f)(1)(ii)(C)(2)). See Revised CMS Report, Sections 6.1.4 and 6.2.4.</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 Revised CMS Report, Sections 6.1.4 and 6.2.4.</p>
<b>State ARARs</b>				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	<p>Same as federal water quality criteria (unless MDEP establishes site-specific criterion or determines that naturally occurring background concentrations are higher).</p> <p>Note: Housatonic River in Massachusetts is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and pathogens.</p>	Applicable to surface water of Housatonic River in Massachusetts.	Same as for federal water quality criteria.

**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
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 not an ARAR as noted in next column. CT DEP has proposed to revise this criterion to 0.00000056 µg/L, but that revision has not been adopted.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and, in some stretches, e-coli.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Current CT human health criterion is not an ARAR 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 2 would achieve chronic aquatic life criterion in CT impoundments.</p> <p>Current CT human health criterion is not an ARAR.</p>
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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-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 purported 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 (MDPH), 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.  Note: MDPH has also issued a state-wide fish consumption advisory for certain sensitive groups based on mercury in fish.	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 MDPH.
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 MDPH.

**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 (CDPH), 2006 Advisory for Eating Fish from Connecticut Waterbodies	<p>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.”</p> <p>Note: CDPH has also issued a state-wide advisory of one meal per month (for high-risk group) or one meal per week (for low-risk group) due to mercury in fish.</p>	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 CDPH.

**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
<b>Federal ARARs</b>				
None				
<b>State ARARs</b>				
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 authorized as a “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.

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

**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
<b>Federal ARARs</b>				
Toxic Substances Control Act (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.
<b>State ARARs</b>				
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
<b>Federal ARARs</b>				
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 Revised CMS Report, Section 6.3.4.</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 Revised CMS Report, Sections 6.1.4 and 6.3.4.</p>
<b>State ARARs</b>				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	<p>Same as federal water quality criteria (unless MDEP establishes site-specific criterion or determines that naturally occurring background concentrations are higher).</p> <p>Note: Housatonic River in Massachusetts is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and pathogens.</p>	Applicable to surface water of Housatonic River in Massachusetts.	Same as for federal water quality criteria.

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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 not an ARAR as noted in next column. CT DEP has proposed to revise this criterion to 0.00000056 µg/L, but that revision has not been adopted.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and, in some stretches, e-coli.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Current CT human health criterion is not an ARAR 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>Current CT human health criterion is not an ARAR.</p>
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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.
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<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 purported 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 (MDPH), 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.  Note: MDPH has also issued a state-wide fish consumption advisory for certain sensitive groups based on mercury in fish.	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 MDPH.
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 MDPH.

**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 (CDPH), 2006 Advisory for Eating Fish from Connecticut Waterbodies	<p>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.”</p> <p>Note: CDPH has also issued a state-wide advisory of one meal per month (for high-risk group) or one meal per week (for low-risk group) due to mercury in fish.</p>	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 CDPH.

**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
<b>Federal ARARs</b>				
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 practicable 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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. 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&amp;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 the Revised CMS Report (Sections 6.3.5.3 and 6.3.8). Hence, the prohibition on actions with such effects would not be met.</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.</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)	Where SED 3 would have unavoidable adverse impacts on the aquatic ecosystem, these regulations would require a compensatory mitigation plan to address those impacts. However, even if such a plan were implemented, considerable adverse impacts would remain. See Revised CMS Report, Sections 6.3.5.3 and 6.3.8.
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
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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some materials did constitute such 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 any RCRA hazardous waste was staged at areas outside lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	In the unlikely event that some excavated materials were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. 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 property within that area that could be	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)	Action(s) To Be Taken To Achieve ARAR
		<p>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 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 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.</p>
<p><b>State ARARs</b></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 environmental regulatory programs (9.33).</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>Since Reach 5A is part of the Upper Housatonic ACEC, SED 3 would not comply with the prohibition on dredging in an ACEC. SED 3 would be designed to meet the other specified standards and requirements of these regulations. (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-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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. 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 Revised CMS Report, Sections 6.3.5.3 and 6.3.8). Under SED 3, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), and stormwater discharges would be controlled through BMPs. However, SED 3 would adversely affect estimated habitat of rare wildlife species, because all excavation and almost all supporting activities would occur within such habitat (see Figure S-3); and SED 3 would have substantial adverse impacts on biological conditions in the River. Hence, the prohibition on actions with such effects would not be met.</p> <p>Excavation activities under SED 3 would be designed to meet the specified dredging performance standards to the extent practical, but would not avoid adverse impacts on the aquatic ecosystem or minimize such impacts relative to other alternatives (e.g., SED 10).</p> <p>The temporary staging areas may not meet the requirements that intermediate facilities cannot have a permanent adverse impact on state-listed rare species or on an ACEC. Almost all temporary staging areas under SED 3 would be located in state-mapped Priority Habitat of rare species (see Figure S-3) and in the Upper Housatonic ACEC, and the permanence of their impacts would depend on the uncertain success of restoration. The staging areas would meet the</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.		other placement and siting requirements for intermediate facilities.
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 & 10.60 310 CMR 10.59	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are authorized as a “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 and 10.60 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>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>	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.	<p>Since SED 3 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> <li>▪ There are practicable sediment and riverbank remediation alternatives that would be less damaging to resource areas – e.g., SED 10. Thus, the requirement that there be no such practicable alternative would not be met.</li> <li>▪ 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 the Revised CMS Report (Sections 6.3.5.3 and 6.3.8), these measures would not prevent substantial adverse impacts of SED 3 on resource areas. As also discussed in that report (Section 6.3.9.1), SED 3 is not anticipated to produce any significant loss of flood storage capacity of floodplain or to cause an increase in flood stage or velocities on river.</li> <li>▪ SED 3 would adversely affect estimated habitat of rare wildlife species, because all excavation and almost all supporting activities would occur within such habitat (see Figure S-3). Thus, the prohibition on projects with an adverse effect on such habitat would not be met.</li> </ul> <p>In addition, if SED 3 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and</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
				10.60 – e.g., the prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands or impairs such wetlands within an ACEC (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).
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.
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 apply to any temporary staging areas if, as expected, excavated materials do not constitute state hazardous waste subject to these standards. Further, even if some excavated <b>sediments</b> did constitute such hazardous waste, these requirements would not apply to	In the unlikely event that some excavated bank soils were found to constitute state hazardous waste subject to these regulations, 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, given the need for staging areas to be near the river. In such cases, that requirement should be waived as technically impracticable to attain.

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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>temporary staging areas for such <b>sediments</b>, 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 <b>bank soils</b> were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.</p>	
<p>Massachusetts Historical Commission Act and regulations</p>	<p>MGL c. 9, § 27C 950 CMR 71.07</p>	<p>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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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</p>	<p>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.</p>	<p>Extent to which SED 3 would have potential impact on property(ies) listed in the State Register would be determined – and, if it would, the substantive provisions of these regulations would be met – through the process identified in Phase IA CRA.</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
	MGL c. 9, § 27C	<p>proponent responds to the MHC.</p> <p>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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.</p>	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) preservation would be met.
Connecticut Dam Safety Requirements	<p>Conn. Gen. Stat. 22a-401 to 22a-411</p> <p>Conn. Agencies Regs. Sec. 22a-409-2</p>	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.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	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). Although there may be no practicable alternative (other than MNR) to some construction in wetlands, there are practicable alternatives with less adverse effect on wetlands – e.g., SED 10. Hence, the requirement that there be no such practicable alternative would not be met.  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 the Revised CMS Report, Sections 6.3.5.3 and 6.3.8..
Executive Order for Floodplain Management	Exec. Order 11988 (1977)  Procedures for implementing this	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	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it	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

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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
	Order are set forth in 40 CFR 6.302(b) and 40 CFR Part 6, App. A	design or modify the action to minimize harm to or within the floodplain.	is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	<p>any construction in the floodplain. However, there are practicable alternatives with less adverse effects on the floodplain – e.g., SED 10. 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 the Revised CMS Report, Sections 6.3.5.3 and 6.3.8.</p>

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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
<b>Federal ARARs</b>				
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 would include excavated Housatonic River sediments and bank soils with PCBs $\geq$ 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 allow 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 $< 3 \mu\text{g/L}$ 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.

\* 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
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)	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 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. 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 would constitute 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 apply if, as expected, excavated materials do not constitute RCRA hazardous waste. However, if some excavated materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some materials did constitute such waste, these	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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.	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 any RCRA hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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 the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for short-term temporary staging areas and thus, if applicable, 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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy does not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary 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.
<b>State ARARs</b>				
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)	Actions(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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 setbacks (~ 25 feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible for BMPs for bank remediation and in areas (if any) where there is no practical alternative to siting the staging areas in or adjacent to 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 should be waived as technically impracticable.
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	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 L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 23 state-listed species. Thus, the prohibition on a “take” would not be met.

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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>Wastes that contain PCBs <math>\geq</math> 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>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 would constitute 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 non-PCB state hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.

Note: It is not expected that 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 apply if, as expected, excavated materials do not constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state 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 apply to temporary staging areas if, as expected, excavated materials do not 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state 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), 30.702, 30.703(2), 30.704(3), 30.705(3) &amp; (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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.</p>	<p>These requirements would not apply to temporary staging areas if, as expected, excavated materials do not 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>In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain (given the need for proximity to the river) or outside wetlands; (b) 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 (c) 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 should be waived as technically impracticable.</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>In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not have such systems capable of preventing flow onto those areas, or controlling runoff during a 100-year flood (see 30.641(2 &amp; (3))). To the extent that these requirements, if applicable, could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.</p>

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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
	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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles for such waste at temporary staging areas would not meet these requirements since they 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 these requirements, 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 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 3 because implementation 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.	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
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.
<b>To Be Considered</b>				
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 (EPA, 1995)</i>	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 were to 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
<b>Federal ARARs</b>				
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 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 at 2 locations in PSA and 1-4 extra exceedances at 4 locations in Reaches 7 and 8). See Revised CMS Report, Section 6.4.4.</p> <p>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 Revised CMS Report, Sections 6.1.4 and 6.4.4.</p>
<b>State ARARs</b>				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	<p>Same as federal water quality criteria (unless MDEP establishes site-specific criterion or determines that naturally occurring background concentrations are higher).</p> <p>Note: Housatonic River in Massachusetts is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and pathogens.</p>	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
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 not an ARAR as noted in next column. CT DEP has proposed to revise this criterion to 0.00000056 µg/L, but that revision has not been adopted.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and, in some stretches, e-coli.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Current CT human health criterion is not an ARAR 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>The current CT human health criterion is not an ARAR.</p>
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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-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 purported 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 (MDPH), 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.  Note: MDPH has also issued a state-wide fish consumption advisory for certain sensitive groups based on mercury in fish.	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 MDPH.
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 MDPH.

**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 (CDPH), 2006 Advisory for Eating Fish from Connecticut Waterbodies	<p>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.”</p> <p>Note: CDPH has also issued a state-wide advisory of one meal per month (for high-risk group) or one meal per week (for low-risk group) due to mercury in fish.</p>	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 CDPH.

**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
<b>Federal ARARs</b>				
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 practicable 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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. 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&amp;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 the Revised CMS Report (Sections 6.4.5.3 and 6.4.8). Hence, the prohibition on actions with such effects would not be met.</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.</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)	Where SED 4 would have unavoidable adverse impacts on the aquatic ecosystem, these regulations would require a compensatory mitigation plan would be necessary to address those impacts. However, even if such a plan were implemented, substantial adverse impacts would remain. See Revised CMS Report, Sections 6.4.5.3 and 6.4.8.
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
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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some excavated materials did constitute such 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 any RCRA hazardous waste was staged at areas outside lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	In the unlikely event that some excavated materials were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. 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	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>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><b>State ARARs</b></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 environmental regulatory programs (9.33).</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 not comply with the prohibition on dredging in an ACEC. SED 4 would be designed to meet the other specified standards and requirements of these regulations. (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)	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 dredged material and siting criteria.</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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. 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 Revised CMS Report, Sections 6.4.5.3 and 6.4.8). Under SED 4, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), and stormwater discharges would be controlled through BMPs. However, SED 4 would adversely affect estimated habitat of rare wildlife species, because all remediation and nearly all supporting activities would occur within such habitat (see Figure S-4); and SED 4 would have substantial adverse impacts on biological conditions in the River. Hence, the prohibition on actions with such effects would not be met.</p> <p>Excavation/dredging activities under SED 4 would be designed to meet the specified dredging performance standards to the extent practical, but would not avoid adverse impacts on the aquatic ecosystem or minimize such impacts relative to other alternatives (e.g., SED 10).</p> <p>The temporary staging areas may not meet the requirements that intermediate facilities cannot have a permanent adverse impact on a state-listed rare species or on an ACEC. Almost all temporary staging areas under SED 4 would be located in state-mapped Priority Habitat of rare species (see Figure S-4) and in the Upper Housatonic ACEC, and the permanence of their impacts would depend on the uncertain success</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
				of restoration. The staging areas would meet the other placement and siting requirements for intermediate facilities.
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 & 10.60 310 CMR 10.59	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are authorized as a “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 and 10.60 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>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>	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>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"> <li>▪ As noted above, there are practicable sediment and riverbank remediation alternatives that would be less damaging to resource areas (e.g., SED 10). Thus, the requirement that there be no such practicable alternative would not be met.</li> <li>▪ 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 the Revised CMS Report (Sections 6.4.5.3 and 6.4.8), these measures would not prevent substantial adverse impacts of SED 4 on resource areas. Further, as also discussed in the Revised CMS Report (Section 6.4.9.1), 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.</li> </ul>

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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
				<ul style="list-style-type: none"> <li>▪ SED 4 would adversely affect estimated habitat of rare wildlife species, because all remediation and nearly all supporting activities would occur within such habitat (see Figure S-4). Thus, the prohibition on projects with an adverse effect on such habitat would not be met.</li> </ul> <p>In addition, if SED 4 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., the prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands or impairs such wetlands within an ACEC (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</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 4.	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
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 apply to any temporary staging areas if, as expected, excavated materials do not constitute state hazardous waste subject to these standards. Further, even if some excavated <b>sediments</b> did constitute such hazardous waste, these requirements would not apply to temporary staging areas for such <b>sediments</b> , 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 excavated <b>bank soils</b> were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	In the unlikely event that some excavated bank soils were found to constitute state hazardous waste subject to these regulations, 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, given the need for staging areas to be near the river. . In such cases, that requirement should be waived as technically impracticable to attain. The requirement for floodproofing tanks, containers, and similar units used to store hazardous waste (if any) 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
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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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 – and, if it would, the substantive provisions of these regulations would be met – through the process identified in Phase IA CRA.
	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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) 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)	Actions(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.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	SED 4 would involve construction activities in wetlands. Although there may be no practicable alternative (other than MNR) to some construction in wetlands, there are practicable alternatives with much less adverse effect on wetlands (e.g., SED 10). Hence, the requirement that there be no such practicable alternative would not be met.  SED 4 would include practicable measures to minimize harm to wetlands, including avoiding siting access roads and staging areas in wetlands

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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>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 the Revised CMS Report, Sections 6.4.5.3 and 6.4.8.</p>
<p>Executive Order for Floodplain Management</p>	<p>Exec. Order 11988 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 40 CFR Part 6, App. A</p>	<p>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.</p>	<p>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.</p>	<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 practicable alternatives with less adverse effects on the floodplain – e.g., SED 10. 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 the Revised CMS Report, Sections 6.4.5.3 and 6.4.8.</p>

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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
<b>Federal ARARs</b>				
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 would include excavated Housatonic River sediments and bank soils with PCBs $\geq$ 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 allow 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 $< 3 \mu\text{g/L}$ 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.

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

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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. 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 would constitute 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 apply if, as expected, excavated materials do not constitute RCRA hazardous waste. However, if some excavated materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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-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 apply if, as expected, excavated materials do not constitute RCRA hazardous waste. However, if some sediments removed in the wet did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such dredged sediments.	In the unlikely event that any sediments removed in the wet were found to constitute RCRA hazardous waste, any tanks used for < 90-day accumulation of such dredged 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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some materials did constitute	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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).  Note: In addition to the requirements for waste piles, the requirements relating to tanks and surface impoundments are identified due to the possibility that such types of facilities would be used at the	such 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 any RCRA hazardous waste was	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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 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)

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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
		temporary staging areas for holding of liquid sediments removed in the wet.	staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to these types of facilities used for staging of those materials.	for a double liner/leachate collection system at "new waste pile units" and "new surface impoundment units" (if applicable); and (b) while the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for temporary staging areas and thus, if applicable, 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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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.

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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
<b>State ARARs</b>				
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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 setbacks (~ 25 feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible for BMPs for bank remediation or in areas (if any) where there would be no practical alternative to siting the staging areas in or adjacent to wetlands. Stormwater BMPs would not be necessary or practical for sediment excavation/dredging or capping, since those activities would take place within the River. Any applicable stormwater management requirements that could not practically be met should be waived as technically impracticable.

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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 Endangered Species Act (MESA) and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	All excavation, capping, and thin-layer capping activities, as well as nearly all 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 L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 23 state-listed species. Thus, the prohibition on a “take” would not be met.
	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.  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 sediments and bank soils would constitute 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 non-PCB state hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.

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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
		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>Note: It is not expected that excavated materials would constitute non-PCB state hazardous waste. However, for <b>sediments</b>, 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 <b>bank soils</b>.</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 apply if, as expected, excavated materials do not constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state 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 apply to temporary staging areas if, as expected, excavated materials do not constitute non-PCB state hazardous waste. However, if some	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, these requirements would be met at staging areas for 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
			excavated bank soils did constitute such hazardous waste, these requirements would apply to 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), 30.702, 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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.	These requirements would not apply to temporary staging areas if, as expected, excavated materials do not 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain (given the need for proximity to the river) or outside wetlands; (b) 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 (c) 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 should 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not

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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
				<p>have such systems capable of preventing flow onto those areas, or controlling runoff, during a 100-year flood (see 30.641(2 &amp; (3)). To the extent that these requirements, if applicable, could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.</p>
	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.	<p>In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements because they 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 these requirements, if applicable, should be waived as technically impracticable.</p>
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.	<p>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.</p>

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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 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.
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.
<b>To Be Considered</b>				
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.

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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
<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 were to 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)	Action(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 Revised CMS Report, Section 6.5.4.</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 Revised CMS Report, Sections 6.1.4 and 6.5.4.</p>
<b>State ARARs</b>				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	<p>Same as federal water quality criteria (unless MDEP establishes site-specific criterion or determines that naturally occurring background concentrations are higher).</p> <p>Note: Housatonic River in Massachusetts is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and pathogens.</p>	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
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 not an ARAR as noted in next column. CT DEP has proposed to revise this criterion to 0.00000056 µg/L, but that revision has not been adopted.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and, in some stretches, e-coli.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Current CT human health criterion is not an ARAR 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>The current CT human health criterion is not an ARAR.</p>
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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-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 purported 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 (MDPH), 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.  Note: MDPH has also issued a state-wide fish consumption advisory for certain sensitive groups based on mercury in fish.	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 MDPH.
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 MDPH.

**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 (CDPH), 2006 Advisory for Eating Fish from Connecticut Waterbodies	<p>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.”</p> <p>Note: CDPH has also issued a state-wide advisory of one meal per month (for high-risk group) or one meal per week (for low-risk group) due to mercury in fish.</p>	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 CDPH.

**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
<b>Federal ARARs</b>				
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 practicable 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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. 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&amp;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 the Revised CMS Report (Sections 6.5.5.3 and 6.5.8). Hence, the prohibition on actions with such effects would not be met.</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.</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)	Where SED 5 would have unavoidable adverse impacts on the aquatic ecosystem, these regulations would require a compensatory mitigation plan to address those impacts. However, even if such a plan were implemented, considerable adverse impacts would remain. See Revised CMS Report, Sections 6.5.5.3 and 6.5.8.
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
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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some excavated materials did constitute such 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 any RCRA hazardous waste was staged at areas outside lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	In the unlikely event that some excavated materials were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. 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	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)	Actions(s) To Be Taken To Achieve ARAR
		<p>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><b>State ARARs</b></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 environmental regulatory programs (9.33).</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 not comply with the prohibition on dredging in an ACEC. SED 5 would be designed to meet the other specified standards and requirements of these regulations. (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)	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 dredged material and siting criteria.</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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. 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, but such steps would not prevent harm to these resource areas (see Revised CMS Report, Sections 6.5.5.3 and 6.5.8). Under SED 5, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), and stormwater discharges would be controlled through BMPs. However, SED 5 would adversely affect estimated habitat of rare wildlife species, because all excavation and almost all supporting activities would occur within such habitat (see Figure S-5); and SED 5 would have substantial adverse impacts on biological conditions in the River. Hence, the prohibition on actions with such effects would not be met.</p> <p>Excavation activities under SED 5 would be designed to meet the specified dredging performance standards to the extent practical, but would not avoid adverse impacts on the aquatic ecosystem or minimize such impacts relative to other alternatives (e.g., SED 10).</p> <p>The temporary staging areas may not meet the requirements that intermediate facilities cannot have a permanent adverse impact on state-listed rare species or on an ACEC. Almost all temporary staging areas under SED 5 would be located in state-mapped Priority Habitat of rare species (see Figure S-5) and in the Upper Housatonic ACEC, and the permanence of their impacts would depend on the uncertain success of restoration. The staging areas would meet the</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
				other placement and siting requirements for intermediate facilities.
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 & 10.60 310 CMR 10.59	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are authorized as a “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 and 10.60 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>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>	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>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"> <li>▪ There are practicable sediment and riverbank remediation alternatives that would be less damaging to resource areas – e.g., SED 10. Thus, the requirement that there be no such practicable alternative would not be met.</li> <li>▪ 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 the Revised CMS Report (Sections 6.5.5.3 and 6.5.8), these measures would not prevent substantial adverse impacts of SED 5 on resource areas.</li> <li>▪ Further, as discussed in CMS Report (Section 6.5.9.1), 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.</li> <li>▪ SED 5 would adversely affect estimated habitat of rare wildlife species, because all</li> </ul>

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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>excavation and almost all supporting activities would occur within such habitat (see Figure S-5). Thus, the prohibition on projects with an adverse effect on such habitat would not be met.</p> <p>In addition, if SED 5 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., the prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands or impairs such wetlands within an ACEC (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</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 5.	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
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 apply to any temporary staging areas if, as expected, excavated materials do not constitute state hazardous waste subject to these standards. Further, even if some excavated <b>sediments</b> did constitute such hazardous waste, these requirements would not apply to temporary staging areas for such <b>sediments</b> , 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 excavated <b>bank soils</b> were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	In the unlikely event that some excavated bank soils were found to constitute state hazardous waste subject to these regulations, 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, given the need for staging areas to be near the river. 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 that could cause a change in the historical, architectural,	Applicable to State; relevant and appropriate to State-authorized work in areas where the work would have an area of potential impact on	Extent to which SED 5 would have potential impact on property(ies) listed in the State Register would be determined – and, if it would, the substantive provisions of these regulations would be met – through the process identified in Phase IA CRA.

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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
		archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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.	property(ies) listed in State Register.	
	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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) 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	Not applicable.

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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
			relevant, they would relate to responsibilities of the dam owners and are not ARARs for SED 5.	
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.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	SED 5 would involve construction activities in wetlands. Although there may be no practicable alternative (other than MNR) to some construction in wetlands, there are practicable alternatives with less adverse effect on wetlands – e.g., SED 10. Hence, the requirement that there be no such practicable alternative would not be met.  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 the Revised CMS Report, Sections 6.5.5.3 and 6.5.8.

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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 Floodplain Management	Exec. Order 11988 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 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.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	<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 practicable alternatives with less adverse effects on the floodplain – e.g., SED 10. 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 the Revised CMS Report, Sections 6.5.5.3 and 6.5.8.</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
<b>Federal ARARs</b>				
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 would include excavated Housatonic River sediments and bank soils with PCBs $\geq$ 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 $< 3 \mu\text{g/L}$ 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. 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 would constitute 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 apply if, as expected, excavated materials do not constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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-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
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 apply if, as expected, excavated materials do not constitute RCRA hazardous waste. However, if some sediments removed in the wet did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such dredged sediments.	In the unlikely event that any sediments removed in the wet were found to constitute RCRA hazardous waste, any tanks used for < 90-day accumulation of such dredged 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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some materials did constitute such 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 any RCRA	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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).  Note: In addition to the requirements for waste piles, the requirements relating to tanks and surface impoundments are identified due to the possibility that such	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 any RCRA	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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 surface impoundments (if any) would meet the single liner/leachate collection requirements of §§ 264.251(a) and 264.221(a), they would not meet

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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
		types of facilities would be used at the temporary staging areas for holding of liquid sediments removed in the wet.	hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to these types of facilities used for staging of those materials.	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); and (b) while the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for temporary staging areas and thus, if applicable, 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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, if applicable, should be waived as technically impracticable to attain.

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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
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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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.
<b>State ARARs</b>				
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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 setbacks (~ 25 feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible for BMPs for bank remediation or in areas (if any) where there would be no practical alternative to siting the staging areas in or adjacent wetlands. Stormwater BMPs would not be necessary or practical for

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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
				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 should be waived as technically impracticable.
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	All excavation, capping, and thin-layer capping activities, as well as nearly all 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 L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 23 state-listed species. Thus, the prohibition on a “take” would not be met.
	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>Wastes that contain PCBs <math>\geq</math> 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>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 would constitute 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 non-PCB state hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
<p>Note: It is not expected that excavated materials would constitute non-PCB state hazardous waste. However, for <b>sediments</b>, 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 <b>bank soils</b>.</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 apply if, as expected, excavated materials do not constitute non-PCB state hazardous waste. However, if some	In the unlikely event that any excavated bank soils were found to constitute non-PCB state 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
			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 apply to temporary staging areas if, as expected, excavated materials do not 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state 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-5.b.)	310 CMR 30.701(6), 30.702, 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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.	These requirements would not apply to temporary staging areas if, as expected, excavated materials do not 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain (given the need for proximity to the river) or outside wetlands; (b) 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 (c) 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

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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
				be met should 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not 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, if applicable, 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements because they 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 these requirements, if applicable, 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)	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 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.
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-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
<b>To Be Considered</b>				
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 were to 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
<b>Federal ARARs</b>				
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 Revised CMS Report, Section 6.6.4.</p> <p>Model indicates that SED 6 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 Revised CMS Report, Sections 6.1.4 and 6.6.4.</p>
<b>State ARARs</b>				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	<p>Same as federal water quality criteria (unless MDEP establishes site-specific criterion or determines that naturally occurring background concentrations are higher).</p> <p>Note: Housatonic River in Massachusetts is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and pathogens.</p>	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
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 not an ARAR as noted in next column. CT DEP has proposed to revise this criterion to 0.00000056 µg/L, but that revision has not been adopted.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and, in some stretches, e-coli.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Current CT human health criterion is not an ARAR 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>The current CT human health criterion is not an ARAR.</p>
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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-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 purported 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 (MDPH), 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.  Note: MDPH has also issued a state-wide fish consumption advisory for certain sensitive groups based on mercury in fish.	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 MDPH.
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 MDPH.

**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 (CDPH), 2006 Advisory for Eating Fish from Connecticut Waterbodies	<p>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.”</p> <p>Note: CDPH has also issued a state-wide advisory of one meal per month (for high-risk group) or one meal per week (for low-risk group) due to mercury in fish.</p>	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 CDPH.

**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
<b>Federal ARARs</b>				
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 practicable 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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. 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&amp;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 the Revised CMS Report (Sections 6.6.5.3 and 6.6.8). Hence, the prohibition on actions with such effects would not be met.</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.</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)	Where SED 6 would have unavoidable adverse impacts on the aquatic ecosystem, these regulations would require a compensatory mitigation plan to address those impacts. However, even if such a plan were implemented, considerable adverse impacts would remain. See Revised CMS Report, Sections 6.6.5.3 and 6.6.8.
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
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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some excavated materials did constitute such 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 any RCRA hazardous waste was staged at areas outside lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	In the unlikely event that some excavated materials were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. 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	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)	Actions(s) To Be Taken To Achieve ARAR
		<p>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>		
Archaeological and Historic Preservation Act	16 USC 469	<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 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.</p>
<b>State ARARs</b>				
Massachusetts Waterways Law and implementing regulations	MGL Ch. 91 310 CMR 9.00	<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 environmental regulatory programs (9.33).</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 6 would not comply with the prohibition on dredging in an ACEC. SED 6 would be designed to meet the other specified standards and requirements of these regulations. (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-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>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 dredged material and siting criteria.</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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. 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 Revised CMS Report, Sections 6.6.5.3 and 6.6.8). Under SED 6, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), and stormwater discharges would be controlled through BMPs. However, SED 6 would adversely affect estimated habitat of rare wildlife species, because the vast majority of remediation and supporting activities would occur within such habitat (see Figure S-6); and SED 6 would have substantial adverse impacts on biological conditions in the River. Hence, the prohibition on actions with such effects would not be met.</p> <p>Excavation/dredging activities under SED 6 would be designed to meet the specified dredging performance standards to the extent practical, but would not avoid adverse impacts on the aquatic ecosystem or minimize such impacts relative to other alternatives (e.g., SED 10).</p> <p>The temporary staging areas may not meet the requirements that intermediate 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-mapped Priority Habitat of rare species (see Figure S-6) and in the Upper Housatonic ACEC, and the permanence of their impacts would depend on the uncertain success</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
				of restoration. The staging areas would meet the other placement and siting requirements for intermediate facilities.
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 & 10.60 310 CMR 10.59	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are authorized as a “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 and 10.60 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>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>	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>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"> <li>▪ As noted above, there are practicable sediment and riverbank remediation alternatives that would be less damaging to resource areas (e.g., SED 10). Thus, the requirement that there be no such practicable alternative would not be met.</li> <li>▪ 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 the Revised CMS Report (Sections 6.6.5.3 and 6.6.8), these measures would not prevent substantial adverse impacts of SED 6 on resource areas. As also discussed in the Revised CMS Report (Section 6.6.9.1), 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.</li> <li>▪ SED 6 would adversely affect estimated habitat of rare wildlife species, because the vast majority of remediation and supporting activities would occur within such habitat (see Figure S-6). Thus, the prohibition on projects with an adverse</li> </ul>

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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>effect on such habitat would not be met.</p> <p>In addition, if SED 6 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., the prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands or impairs such wetlands within an ACEC (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</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 6.	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.
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	These requirements would not apply to any temporary staging areas if, as expected, excavated materials do not constitute state hazardous waste subject to these standards.	In the unlikely event that some excavated bank soils were found to constitute state hazardous waste subject to these regulations, 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, given the need for staging areas to be near the

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Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>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>Further, even if some excavated <b>sediments</b> did constitute such hazardous waste, these requirements would not apply to temporary staging areas for such <b>sediments</b>, 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 <b>bank soils</b> were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.</p>	<p>river. In such cases, that requirement should be waived as technically impracticable to attain. The requirement for floodproofing tanks, containers, and similar units used to store hazardous waste (if any) would be met.</p>
<p>Massachusetts Historical Commission Act and regulations</p>	<p>MGL c. 9, § 27C 950 CMR 71.07</p>	<p>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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, the state body, project proponent, and MHC must consider "prudent</p>	<p>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.</p>	<p>Extent to which SED 6 would have potential impact on property(ies) listed in the State Register would be determined – and, if it would, the substantive provisions of these regulations would be met – through the process identified in Phase IA CRA.</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
		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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) 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 6.	Not applicable.

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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 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.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	SED 6 would involve construction activities in wetlands. Although there may be no practicable alternative (other than MNR) to some construction in wetlands, there are practicable alternatives with much less adverse effect on wetlands (e.g., SED 10). Hence, the requirement that there be no such practicable alternative would not be met.  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 the Revised CMS Report, Sections 6.6.5.3 and 6.6.8.

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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 Floodplain Management	<p>Exec. Order 11988 (1977)</p> <p>Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 40 CFR Part 6, App. A</p>	<p>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.</p>	<p>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.</p>	<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 practicable alternatives with less adverse effects on the floodplain – e.g., SED 10. 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 the Revised CMS Report, Sections 6.6.5.3 and 6.6.8.</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)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 would include excavated Housatonic River sediments and bank soils with PCBs $\geq$ 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 allow 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 $< 3 \mu\text{g/L}$ 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. 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 would constitute 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 apply if, as expected, excavated materials do not constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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-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
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 apply if, as expected, excavated materials do not constitute RCRA hazardous waste. However, if some sediments removed in the wet did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such dredged sediments.	In the unlikely event that any sediments removed in the wet were found to constitute RCRA hazardous waste, any tanks used for < 90-day accumulation of such dredged 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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some materials did constitute such 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 any RCRA	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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).  Note: In addition to the requirements for waste piles, the requirements relating to tanks and surface impoundments are identified due to the possibility that such	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 any RCRA	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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 surface impoundments (if any) would meet the single liner/leachate collection requirements of §§ 264.251(a) and 264.221(a), they would not meet

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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
		types of facilities would be used at the temporary staging areas for holding of liquid sediments removed in the wet.	hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to these types of facilities used for staging of those materials.	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); and (b) while the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for temporary staging areas and thus, if applicable, 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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, if applicable, should be waived as technically impracticable to attain.

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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
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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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.
<b>State ARARs</b>				
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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 setbacks (~ 25 feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible for BMPs for bank remediation or in areas (if any) where there would be no practical alternative to siting the staging areas in or adjacent to wetlands. Stormwater BMPs would not be necessary or

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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
				practical for sediment excavation/dredging or capping, since those activities would take place within the River. Any applicable stormwater management requirements that could not practically be met should be waived as technically impracticable.
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	The vast majority of 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 L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 27 state-listed species. Thus, the prohibition on a “take” would not be met.
	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>Wastes that contain PCBs <math>\geq</math> 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>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 would constitute 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 non-PCB state hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
<p>Note: It is not expected that excavated/dredged materials would constitute non-PCB state hazardous waste. However, for <b>sediments</b>, 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 <b>bank soils</b>.</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 apply if, as expected, excavated materials do not constitute non-PCB state hazardous waste.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state 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
			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 apply to temporary staging areas if, as expected, excavated materials do not 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state 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-6.b.)	310 CMR 30.701(6), 30.703(2), 30.702, 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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.	These requirements would not apply to temporary staging areas if, as expected, excavated materials do not 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain (given the need for proximity to the river) or outside wetlands; (b) 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 (c) it is not certain whether some areas could be designed and constructed with a 200-foot buffer zone to

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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
				fenceline. Any requirements that could not feasibly be met should 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not 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, if applicable, 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements because they 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 these requirements, if applicable, 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
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.
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-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
<b>To Be Considered</b>				
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 were to 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
<b>Federal ARARs</b>				
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 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 and 3 exceedances in Reach 5B using rolling average approach). See Revised CMS Report, Section 6.7.4. Hence, this criterion would not be met under SED 7.</p> <p>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 Revised CMS Report, Sections 6.1.4 and 6.7.4.</p>
<b>State ARARs</b>				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	<p>Same as federal water quality criteria (unless MDEP establishes site-specific criterion or determines that naturally occurring background concentrations are higher).</p> <p>Note: Housatonic River in Massachusetts is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and pathogens.</p>	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)	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 not an ARAR as noted in next column. CT DEP has proposed to revise this criterion to 0.00000056 µg/L, but that revision has not been adopted.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and, in some stretches, e-coli.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Current CT human health criterion is not an ARAR 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>The current CT human health criterion is not an ARAR.</p>
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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-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 purported 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 (MDPH), 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.  Note: MDPH has also issued a state-wide fish consumption advisory for certain sensitive groups based on mercury in fish.	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 MDPH.
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 MDPH.

**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 (CDPH), 2006 Advisory for Eating Fish from Connecticut Waterbodies	<p>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.”</p> <p>Note: CDPH has also issued a state-wide advisory of one meal per month (for high-risk group) or one meal per week (for low-risk group) due to mercury in fish.</p>	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 CDPH.

**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
<b>Federal ARARs</b>				
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 practicable 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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. 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&amp;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 the Revised CMS Report (Sections 6.7.5.3 and 6.7.8). Hence, the prohibition on actions with such effects would not be met.</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.</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>Where SED 7 would have unavoidable adverse impacts on the aquatic ecosystem, these regulations would require a compensatory mitigation plan would be necessary to address those impacts. However, even if such a plan were implemented, substantial adverse impacts would remain. See Revised CMS Report, Sections 6.7.5.3 and 6.7.8.</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
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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some excavated materials did constitute such 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 any RCRA hazardous waste was staged at areas outside lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	In the unlikely event that some excavated materials were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. 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	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)	Action(s) To Be Taken To Achieve ARAR
		<p>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 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.</p>
<p><b>State ARARs</b></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 environmental regulatory programs (9.33).</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 7 would not comply with the prohibition on dredging in an ACEC. SED 7 would be designed to meet the other specified standards and requirements of these regulations. (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-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>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 dredged material and siting criteria.</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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. 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 Revised CMS Report, Sections 6.7.5.3 and 6.7.8). Under SED 7, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), and stormwater discharges would be controlled through BMPs. However, SED 7 would adversely affect estimated habitat of rare wildlife species, because the vast majority of remediation and supporting activities would occur within such habitat (see Figure S-7); and SED 7 would have substantial adverse impacts on biological conditions in the River. Hence, the prohibition on actions with such effects would not be met.</p> <p>Excavation/dredging activities under SED 7 would be designed to meet the specified dredging performance standards to the extent practical, but would not avoid adverse impacts on the aquatic ecosystem or minimize such impacts relative to other alternatives (e.g., SED 10).</p> <p>The temporary staging areas may not meet the requirements that intermediate 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-mapped Priority Habitat of rare species (see Figure S-7) and in the Upper Housatonic ACEC, and the permanence of their impacts would depend on the uncertain success</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
				of restoration. The staging areas would meet the other placement and siting requirements for intermediate facilities.
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 & 10.60 310 CMR 10.59	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are authorized as a “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 and 10.60 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>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>	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>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"> <li>▪ As noted above, there are practicable sediment and riverbank remediation alternatives that would be less damaging to resource areas (e.g., SED 10). Thus, the requirement that there be no such practicable alternative would not be met.</li> <li>▪ 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 the Revised CMS Report (Sections 6.7.5.3 and 6.7.8), these measures would not prevent substantial adverse impacts of SED 7 on resource areas. As discussed in the Revised CMS Report (Section 6.7.9.1), SED 7 would not be expected to affect 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.</li> <li>▪ SED 7 would adversely affect estimated habitat of rare wildlife species, because the vast majority of remediation and supporting activities would occur within such habitat (see Figure S-7). Thus, the prohibition on projects with an adverse</li> </ul>

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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>effect on such habitat would not be met.</p> <p>In addition, if SED 7 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., the prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands or impairs such wetlands within an ACEC (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</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 7.	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.
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	These requirements would not apply to any temporary staging areas if, as expected, excavated materials do not constitute state hazardous waste subject to these standards.	In the unlikely event that some excavated bank soils were found to constitute state hazardous waste subject to these regulations, 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, given the need for staging areas to be near the

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Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>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>Further, even if some excavated <b>sediments</b> did constitute such hazardous waste, these requirements would not apply to temporary staging areas for such <b>sediments</b>, 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 <b>bank soils</b> were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.</p>	<p>river. In such cases, that requirement should be waived as technically impracticable to attain. The requirement for floodproofing tanks, containers, and similar units used to store hazardous waste (if any) would be met.</p>
<p>Massachusetts Historical Commission Act and regulations</p>	<p>MGL c. 9, § 27C 950 CMR 71.07</p>	<p>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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, the state body, project proponent, and MHC must consider "prudent</p>	<p>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.</p>	<p>Extent to which SED 7 would have potential impact on property(ies) listed in the State Register would be determined – and, if it would, the substantive provisions of these regulations would be met – through the process identified in Phase IA CRA.</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
		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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) 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 7.	Not applicable.

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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
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.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	SED 7 would involve some construction activities in wetlands. Although there may be no practicable alternative (other than MNR) to some construction in wetlands, there are practicable alternatives with much less adverse effect on wetlands (e.g., SED 10). Hence, the requirement that there be no such practicable alternative would not be met.  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 the Revised CMS Report, Sections 6.7.5.3 and 6.7.8.

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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 Floodplain Management	Exec. Order 11988 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 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.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	<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 practicable alternatives with less adverse effects on the floodplain – e.g., SED 10. 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 the Revised CMS Report, Sections 6.7.5.3 and 6.7.8.</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
<b>Federal ARARs</b>				
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 would include excavated Housatonic River sediments and bank soils with PCBs $\geq$ 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 allow 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 $< 3 \mu\text{g/L}$ 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)	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 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. 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 would constitute 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 apply if, as expected, excavated/dredged materials do not constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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-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 apply if, as expected, excavated materials do not constitute RCRA hazardous waste. However, if some sediments removed in the wet did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such dredged sediments.	In the unlikely event that any sediments removed in the wet were found to constitute RCRA hazardous waste, any tanks used for < 90-day accumulation of such dredged 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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some excavated materials did constitute such 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 any RCRA	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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).  Note: In addition to the requirements for waste piles, the requirements relating to tanks and surface impoundments are identified due to the possibility that such types of facilities would be used at the	However, if any RCRA	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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 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)

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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
		temporary staging areas for holding of liquid sediments removed in the wet.	hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to these types of facilities used for staging of those materials.	for a double liner/leachate collection system at “new waste pile units” and “new surface impoundment units” (if applicable); and (b) while the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for temporary staging areas and thus, if applicable, 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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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.

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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
<b>State ARARs</b>				
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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 setbacks (~ 25 feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible for BMPs for bank remediation or in areas (if any) where there would be no practical alternative to siting the staging areas in adjacent to wetlands. Stormwater BMPs would not be necessary or practical for sediment excavation/dredging or capping, since those activities would take place within the River. Any applicable stormwater management requirements that could not practically be met should be waived as technically impracticable.

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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 Endangered Species Act (MESA) and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	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 L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 27 state-listed species. Thus, the prohibition on a “take” would not be met.
	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>Wastes that contain PCBs <math>\geq</math> 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>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 would constitute 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 non-PCB state hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
<p>Note: It is not expected that excavated materials would constitute non-PCB state hazardous waste. However, for <b>sediments</b>, 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 <b>bank soils</b>.</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 apply if, as expected, excavated materials do not constitute non-PCB state hazardous waste. However, if some	In the unlikely event that any excavated bank soils were found to constitute non-PCB state 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
			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 apply to temporary staging areas if, as expected, excavated materials do not 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state 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-7.b.)	310 CMR 30.701(6), 30.702, 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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.	These requirements would not apply to temporary staging areas if, as expected, excavated materials do not 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain (given the need for proximity to the river) or outside wetlands; (b) 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 (c) 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 should be waived as technically

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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
				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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not 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, if applicable, 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements because they 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 these requirements, if applicable, should be waived as technically impracticable.

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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 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.
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-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
<b>To Be Considered</b>				
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 were to 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.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table S-7.b.

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

**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
<b>Federal ARARs</b>				
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 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 Revised CMS Report, Section 6.8.4.</p> <p>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 Revised CMS Report, Sections 6.1.4 and 6.8.4.</p>
<b>State ARARs</b>				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	<p>Same as federal water quality criteria (unless MDEP establishes site-specific criterion or determines that naturally occurring background concentrations are higher).</p> <p>Note: Housatonic River in Massachusetts is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and pathogens.</p>	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)	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 not an ARAR as noted in next column. CT DEP has proposed to revise this criterion to 0.00000056 µg/L, but that revision has not been adopted.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and, in some stretches, e-coli.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Current CT human health criterion is not an ARAR 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>The current CT human health criterion is not an ARAR.</p>
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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 purported 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 (MDPH), 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.  Note: MDPH has also issued a state-wide fish consumption advisory for certain sensitive groups based on mercury in fish.	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 MDPH.
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 MDPH.

**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 (CDPH), 2006 Advisory for Eating Fish from Connecticut Waterbodies	<p>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.”</p> <p>Note: CDPH has also issued a state-wide advisory of one meal per month (for high-risk group) or one meal per week (for low-risk group) due to mercury in fish.</p>	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 CDPH.

**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
<b>Federal ARARs</b>				
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 practicable 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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. 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&amp;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 the Revised CMS Report (Sections 6.8.5.3 and 6.8.8). Hence, the prohibition on actions with such effects would not be met.</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.</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
	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).	Where SED 8 would have unavoidable adverse impacts on the aquatic ecosystem, these regulations would require a compensatory mitigation plan would be necessary to address those impacts. However, even if such a plan were implemented, substantial adverse impacts would remain. See Revised CMS Report, Sections 6.8.5.3 and 6.8.8.
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-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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some excavated materials did constitute such 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 any RCRA hazardous waste was staged at areas outside lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	In the unlikely event that some excavated materials were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. 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	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
		<p>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 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.</p>
<p><b>State ARARs</b></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 environmental regulatory programs (9.33).</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 8 would not comply with the prohibition on dredging in an ACEC. SED 8 would be designed to meet the other specified standards and requirements of these regulations. (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-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
<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 dredged material and siting criteria.</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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. 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 Revised CMS Report, Sections 6.8.5.3 and 6.8.8). Under SED 8, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), and stormwater discharges would be controlled through BMPs. However, SED 8 would adversely affect estimated habitat of rare wildlife species, because the vast majority of remediation and supporting activities would occur within such habitat (see Figure S-8); and SED 8 would have substantial adverse impacts on biological conditions in the River. Hence, the prohibition on actions with such effects would not be met.</p> <p>Excavation/dredging activities under SED 8 would be designed to meet the specified dredging performance standards to the extent practical, but would not avoid adverse impacts on the aquatic ecosystem or minimize such impacts relative to other alternatives (e.g., SED 10).</p> <p>The temporary staging areas may not meet the requirements that intermediate 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-mapped Priority Habitat of rare species (see Figure S-8) and in the Upper Housatonic ACEC, and the permanence of their impacts would depend on the uncertain success</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
				of restoration. The staging areas would meet the other placement and siting requirements for intermediate facilities.
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 & 10.60 310 CMR 10.59	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are authorized as a “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 and 10.60 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>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>	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>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"> <li>▪ As noted above, there are practicable sediment and riverbank remediation alternatives that would be less damaging to resource areas (e.g., SED 10). Thus, the requirement that there be no such practicable alternative would not be met.</li> <li>▪ 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 the Revised CMS Report (Sections 6.8.5.3 and 6.8.8), these measures would not prevent substantial adverse impacts of SED 8 on resource areas. As discussed in the Revised CMS Report (Section 6.8.9.1), SED 8 would not be expected to affect flood storage capacity of floodplain or to cause an increase in flood stage or velocities on the river.</li> <li>▪ SED 8 would adversely affect estimated habitat of rare wildlife species, because the vast majority of 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 not be met.</li> </ul> <p>In addition, if SED 8 was not considered a “limited project,” it would not meet some of the</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
				requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., the prohibition on work that results in loss of > 5000 square feet of bordering vegetated wetlands or impairs such wetlands within an ACEC (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).
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 8.	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.
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	These requirements would not apply to any temporary staging areas if, as expected, excavated materials do not constitute state hazardous waste subject to these standards. Further, even if some excavated <b>sediments</b> did constitute such hazardous waste, these requirements	In the unlikely event that some excavated bank soils were found to constitute state hazardous waste subject to these regulations, 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, given the need for staging areas to be near the river. In such cases, that requirement should be waived as technically impracticable to attain. The requirement for floodproofing tanks, containers, and similar units used to store

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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
		hazardous waste.	would not apply to temporary staging areas for such <b>sediments</b> , 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 <b>bank soils</b> were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	hazardous waste (if any) would be met.
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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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	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 – and, if it would, the substantive provisions of these regulations would be met – through the process identified in Phase IA CRA.

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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
		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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA– or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) 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 8.	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)	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.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	SED 8 would involve construction activities in wetlands. Although there may be no practicable alternative (other than MNR) to some construction in wetlands, there are practicable alternatives with much less adverse effect on wetlands (e.g., SED 10). Hence, the requirement that there be no such practicable alternative would not be met.  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 the Revised CMS Report, Sections 6.8.5.3 and 6.8.8.

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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
Executive Order for Floodplain Management	<p>Exec. Order 11988 (1977)</p> <p>Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 40 CFR Part 6, App. A</p>	<p>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.</p>	<p>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.</p>	<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 practicable alternatives with less adverse effects on the floodplain – e.g., SED 10. 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 the Revised CMS Report, Sections 6.8.5.3 and 6.8.8.</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
<b>Federal ARARs</b>				
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 would include excavated Housatonic River sediments and bank soils with PCBs $\geq$ 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 $< 3 \mu\text{g/L}$ 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. 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 would constitute 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 apply if, as expected, excavated materials do not constitute RCRA hazardous waste. However, if some excavated materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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-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 apply if, as expected, excavated materials do not constitute RCRA hazardous waste. However, if some sediments removed in the wet did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such dredged sediments.	In the unlikely event that any sediments removed in the wet were found to constitute RCRA hazardous waste, any tanks used for < 90-day accumulation of such dredged 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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some excavated materials did constitute such 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 any RCRA	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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).  Note: In addition to the requirements for waste piles, the requirements relating to tanks and surface impoundments are identified due to the possibility that such types of facilities would be used at the	However, if any RCRA	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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 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)

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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
		temporary staging areas for holding of liquid sediments removed in the wet.	hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to these types of facilities used for staging of those materials.	for a double liner/leachate collection system at “new waste pile units” and “new surface impoundment units” (if applicable); and (b) while the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for temporary staging areas and thus, if applicable, 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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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.

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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
<b>State ARARs</b>				
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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 setbacks (~ 25 feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible for BMPs for bank remediation or in areas (if any) where there would be no practical alternative to siting the staging areas in or adjacent to wetlands. Stormwater BMPs would not be necessary or practical for sediment excavation/dredging or capping, since those activities would take place within the River. Any applicable stormwater management requirements that could not practically be met should be waived as technically impracticable.

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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 Endangered Species Act (MESA) and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	The vast majority of 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 L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 27 state-listed species. Thus, the prohibition on a “take” would not be met.
	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.  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 sediments and bank soils would constitute 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 non-PCB state hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.

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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>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>		
<p>Note: It is not expected that excavated materials would constitute non-PCB state hazardous waste. However, for <b>sediments</b>, 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 <b>bank soils</b>.</p>				
<p>Massachusetts hazardous waste regulations for generators</p>	<p>310 CMR 30.321 - 30.324</p>	<p>Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).</p>	<p>These requirements would not apply if, as expected, excavated materials do not constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply.</p>	<p>In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, these requirements would be met prior to any off-site transport of such waste.</p>
<p>Massachusetts hazardous waste management regulations – general requirements</p>	<p>310 CMR 30.513, 30.514, 30.524, 30.560</p>	<p>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).</p>	<p>These requirements would not apply to temporary staging areas if, as expected, excavated materials do not constitute non-PCB state hazardous waste. However, if some</p>	<p>In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, these requirements would be met at staging areas for such waste.</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
			excavated bank soils did 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 S-8.b.)</p>	<p>310 CMR 30.701(6), 30.702, 30.703(2), 30.704(3), 30.705(3) &amp; (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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.</p>	<p>These requirements would not apply to temporary staging areas if, as expected, excavated materials do not 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>In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain (given the need for proximity to the river) or outside wetlands; (b) 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 (c) 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 should be waived as technically impracticable.</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>In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not</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)	Action(s) To Be Taken To Achieve ARAR
				<p>have such systems capable of preventing flow onto those areas, or controlling runoff, during a 100-year flood (see 30.641(2 &amp; (3))). To the extent that these requirements, if applicable, could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable.</p>
	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.	<p>In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements because they 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 these requirements, if applicable, should be waived as technically impracticable.</p>
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.	<p>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.</p>
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	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	Not applicable.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table S-8.b.

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

**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
		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.	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.
<b>To Be Considered</b>				
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 were to 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.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table S-8.b.

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

**Table S-9.a: Alternative SED 9 – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 9 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 Revised CMS Report, Section 6.9.4.</p> <p>Model indicates that SED 9 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 Revised CMS Report, Sections 6.1.4 and 6.9.4.</p>
<b>State ARARs</b>				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	<p>Same as federal water quality criteria (unless MDEP establishes site-specific criterion or determines that naturally occurring background concentrations are higher).</p> <p>Note: Housatonic River in Massachusetts is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and pathogens.</p>	Applicable to surface water of Housatonic River in Massachusetts.	Same as for federal water quality criteria.

**Table S-9.a: Alternative SED 9 – 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 not an ARAR as noted in next column. CT DEP has proposed to revise this criterion to 0.00000056 µg/L, but that revision has not been adopted.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and, in some stretches, e-coli.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Current CT human health criterion is not an ARAR 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 9 would achieve chronic aquatic life criterion in CT impoundments.</p> <p>The current CT human health criterion is not an ARAR.</p>
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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-9.a: Alternative SED 9 – 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 purported 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 (MDPH), 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.  Note: MDPH has also issued a state-wide fish consumption advisory for certain sensitive groups based on mercury in fish.	To be considered.	SED 9 includes continuation and maintenance of this advisory, including appropriate steps to inform anglers about the advisory, for as long as considered necessary by the MDPH.
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 9 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 MDPH.

**Table S-9.a: Alternative SED 9 – 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 (CDPH), 2006 Advisory for Eating Fish from Connecticut Waterbodies	<p>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.”</p> <p>Note: CDPH has also issued a state-wide advisory of one meal per month (for high-risk group) or one meal per week (for low-risk group) due to mercury in fish.</p>	To be considered.	SED 9 includes continuation and maintenance of these advisories, including appropriate steps to inform anglers about the advisories, for as long as considered necessary by the CDPH.

**Table S-9.b: Alternative SED 9 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
<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 practicable 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&amp;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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) SED 9 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 9 would not affect any federally listed T&amp;E species.</p> <p>(d) SED 9 would cause significant adverse effects on aquatic life, aquatic ecosystem, and recreational and aesthetic values, as described in the Revised CMS Report (Sections 6.9.5.3 and 6.9.8). Hence, the prohibition on actions with such effects would not be met.</p> <p>(e) SED 9 would include appropriate and practicable steps in an effort to minimize or mitigate potential adverse effects on aquatic ecosystem. Despite such steps, however, SED 9 would have substantial adverse effects on the aquatic ecosystem, as noted above.</p>

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**Table S-9.b: Alternative SED 9 – 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)	Where SED 9 would have unavoidable adverse impacts on the aquatic ecosystem, these regulations would require a compensatory mitigation plan would be necessary to address those impacts. However, even if such a plan were implemented, substantial adverse impacts would remain. See Revised CMS Report, Sections 6.9.5.3 and 6.9.8.
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-9.b: Alternative SED 9 – 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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some excavated materials did constitute such 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 any RCRA hazardous waste was staged at areas outside lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	In the unlikely event that some excavated materials were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. 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	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-9.b: Alternative SED 9 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		<p>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>		
Archaeological and Historic Preservation Act	16 USC 469	<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 9 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 9, it is anticipated that EPA would notify DOI as required.</p>
<b>State ARARs</b>				
Massachusetts Waterways Law and implementing regulations	MGL Ch. 91 310 CMR 9.00	<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 environmental regulatory programs (9.33).</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 9 would not comply with the prohibition on dredging in an ACEC. SED 9 would be designed to meet the other specified standards and requirements of these regulations. (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-9.b: Alternative SED 9 – 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 dredged material and siting criteria.</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 practicable sediment and riverbank remediation alternatives with less adverse impact on aquatic ecosystem – e.g., SED 10. Thus, the requirement that there be no such alternative would not be met.</p> <p>SED 9 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 Revised CMS Report, Sections 6.9.5.3 and 6.9.8). Under SED 9, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), and stormwater discharges would be controlled through BMPs. However, SED 9 would adversely affect estimated habitat of rare wildlife species, because most remediation and supporting activities would occur within such habitat (see Figure S-9); and SED 9 would have substantial adverse impacts on biological conditions in the River. Hence, the prohibition on actions with such effects would not be met.</p> <p>Excavation/dredging activities under SED 9 would be designed to meet the specified dredging performance standards to the extent practical, but would not avoid adverse impacts on the aquatic ecosystem or minimize such impacts relative to other alternatives (e.g., SED 10).</p> <p>The temporary staging areas may not meet the requirements that intermediate facilities cannot have a permanent adverse impact on a state-listed rare species or on an ACEC. Most temporary staging areas under SED 9 would be located in state-mapped Priority Habitat of rare species (see Figure S-9) and in the Upper Housatonic ACEC, and the permanence of their impacts would depend on the uncertain success</p>

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**Table S-9.b: Alternative SED 9 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				of restoration. The staging areas would meet the other placement and siting requirements for intermediate facilities.
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 & 10.60 310 CMR 10.59	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are authorized as a “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 and 10.60 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>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>	Applicable to SED 9 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>Since SED 9 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> <li>▪ As noted above, there are practicable sediment and riverbank remediation alternatives that would be less damaging to resource areas (e.g., SED 10). Thus, the requirement that there be no such practicable alternative would not be met.</li> <li>▪ SED 9 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 the Revised CMS Report (Sections 6.9.5.3 and 6.9.8), these measures would not prevent substantial adverse impacts of SED 9 on resource areas. As discussed in the Revised CMS Report (Section 6.9.9.1), SED 9 would not be expected to affect 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.</li> <li>▪ SED 9 would adversely affect estimated habitat of rare wildlife species, because most remediation and supporting activities would occur within such habitat (see Figure S-9). Thus, the prohibition on projects with an adverse effect on</li> </ul>

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**Table S-9.b: Alternative SED 9 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				<p>such habitat would not be met.</p> <p>In addition, if SED 9 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., the prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands or impairs such wetlands within an ACEC (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</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 9.	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.
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	These requirements would not apply to any temporary staging areas if, as expected, excavated materials do not constitute state hazardous waste subject to these standards.	In the unlikely event that some excavated bank soils were found to constitute state hazardous waste subject to these regulations, 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, given the need for staging areas to be near the

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**Table S-9.b: Alternative SED 9 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>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>Further, even if some excavated <b>sediments</b> did constitute such hazardous waste, these requirements would not apply to temporary staging areas for such <b>sediments</b>, 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-9.c). However, if some excavated <b>bank soils</b> were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.</p>	<p>river. In such cases, that requirement should be waived as technically impracticable to attain. The requirement for floodproofing tanks, containers, and similar units used to store hazardous waste (if any) would be met.</p>
<p>Massachusetts Historical Commission Act and regulations</p>	<p>MGL c. 9, § 27C 950 CMR 71.07</p>	<p>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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, the state body, project proponent, and MHC must consider "prudent</p>	<p>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.</p>	<p>Extent to which SED 9 would have potential impact on property(ies) listed in the State Register would be determined – and, if it would, the substantive provisions of these regulations would be met – through the process identified in Phase IA CRA.</p>

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**Table S-9.b: Alternative SED 9 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) 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 9.	Not applicable.

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**Table S-9.b: Alternative SED 9 – 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.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	SED 9 would involve some construction activities in wetlands. Although there may be no practicable alternative (other than MNR) to some construction in wetlands, there are practicable alternatives with much less adverse effect on wetlands (e.g., SED 10). Hence, the requirement that there be no such practicable alternative would not be met.  SED 9 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 the Revised CMS Report, Sections 6.9.5.3 and 6.9.8.

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**Table S-9.b: Alternative SED 9 – 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	<p>Exec. Order 11988 (1977)</p> <p>Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 40 CFR Part 6, App. A</p>	<p>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.</p>	<p>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.</p>	<p>SED 9 would involve construction of some 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 practicable alternatives with less adverse effects on the floodplain – e.g., SED 10. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>SED 9 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 harm to floodplain, as discussed in the Revised CMS Report, Sections 6.9.5.3 and 6.9.8.</p>

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**Table S-9.c: Alternative SED 9 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 would include excavated Housatonic River sediments and bank soils with PCBs $\geq$ 50 ppm).	It is anticipated that, if SED 9 is selected, these requirements would be met through EPA determination that SED 9 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 allow 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 $< 3 \mu\text{g/L}$ 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-9.c: Alternative SED 9 – 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-9.c: Alternative SED 9 – 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 9 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. 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 would constitute 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 apply if, as expected, excavated/dredged materials do not constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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-9.c: Alternative SED 9 – 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 apply if, as expected, excavated materials do not constitute RCRA hazardous waste. However, if some sediments removed in the wet did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such dredged sediments.	In the unlikely event that any sediments removed in the wet were found to constitute RCRA hazardous waste, any tanks used for < 90-day accumulation of such dredged 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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some excavated materials did constitute such 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 any RCRA	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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).  Note: In addition to the requirements for waste piles, the requirements relating to tanks and surface impoundments are identified due to the possibility that such types of facilities would be used at the	However, if any RCRA	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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 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)

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**Table S-9.c: Alternative SED 9 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		temporary staging areas for holding of liquid sediments removed in the wet.	hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to these types of facilities used for staging of those materials.	for a double liner/leachate collection system at “new waste pile units” and “new surface impoundment units” (if applicable); and (b) while the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for temporary staging areas and thus, if applicable, 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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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.

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**Table S-9.c: Alternative SED 9 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations  (Note: These were listed as location-specific ARAR in Table S-9.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-9.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-9.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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 9 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 setbacks (~ 25 feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible for BMPs for bank remediation or in areas (if any) where there would be no practical alternative to siting the staging areas in adjacent to wetlands. Stormwater BMPs would not be necessary or practical for sediment excavation/dredging or capping, since those activities would take place within the River. Any applicable stormwater management requirements that could not practically be met should be waived as technically impracticable.

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**Table S-9.c: Alternative SED 9 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	<p>A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.</p> <p>Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.</p>	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 remediation activities, as well as most access roads and temporary staging areas, in SED 9 would occur within Priority Habitat, as shown on Figure S-9. Based on the evaluations presented in Appendix L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 26 state-listed species. Thus, the prohibition on a “take” would not be met.
	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-9.c: Alternative SED 9 – 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>Wastes that contain PCBs <math>\geq</math> 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>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 would constitute 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 non-PCB state hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.
<p>Note: It is not expected that excavated materials would constitute non-PCB state hazardous waste. However, for <b>sediments</b>, 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 <b>bank soils</b>.</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 apply if, as expected, excavated materials do not constitute non-PCB state hazardous waste. However, if some	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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**Table S-9.c: Alternative SED 9 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			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 apply to temporary staging areas if, as expected, excavated materials do not 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state 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-9.b.)	310 CMR 30.701(6), 30.702, 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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.	These requirements would not apply to temporary staging areas if, as expected, excavated materials do not 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain (given the need for proximity to the river) or outside wetlands; (b) 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 (c) it is not certain whether some areas could be designed and constructed with a 200-foot buffer zone to fence-line. Any requirements that could not feasibly be met should be waived as technically impracticable.

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**Table S-9.c: Alternative SED 9 – 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 – 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not 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, if applicable, 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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements because they 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 these requirements, if applicable, should be waived as technically impracticable.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table S-9.b.

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

**Table S-9.c: Alternative SED 9 – 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 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 9 because implementation of SED 9 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.
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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\*\* ARARs consist only of the substantive requirements of the provisions cited in this column, not any administrative requirements included therein.

**Table S-9.c: Alternative SED 9 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<b>To Be Considered</b>				
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 9.
<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 were to 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.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table S-9.b.

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

**Table S-10.a: Alternative SED 10 – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 10 would not achieve chronic aquatic life criterion in MA, but would in CT. Where not achieved, this criterion should be waived under CERCLA and NCP on ground that actions necessary to achieve it would result in greater risk to the environment than SED 10 (CERCLA § 121(d)(4)(B); 40 CFR § 300.430(f)(1)(ii)(C)(2)). See Revised CMS Report, Section 6.10.4.</p> <p>Model also indicates that SED 10 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 Revised CMS Report, Sections 6.1.4 and 6.10.4.</p>
<b>State ARARs</b>				
Numeric Massachusetts water quality criteria for PCBs	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	<p>Same as federal water quality criteria (unless MDEP establishes site-specific criterion or determines that naturally occurring background concentrations are higher).</p> <p>Note: Housatonic River in Massachusetts is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and pathogens.</p>	Applicable to surface water of Housatonic River in Massachusetts.	Same as for federal water quality criteria.

**Table S-10.a: Alternative SED 10 – 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 not an ARAR as noted in next column. CT DEP has proposed to revise this criterion to 0.00000056 µg/L, but that revision has not been adopted.)</p> <p>Note: Housatonic River in Connecticut is listed on Impaired Waters List under § 303(d) of Clean Water Act due to PCBs and, in some stretches, e-coli.</p>	<p>Chronic aquatic life criterion is applicable to surface water of Housatonic River in Connecticut.</p> <p>Current CT human health criterion is not an ARAR 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 10 would achieve chronic aquatic life criterion in CT impoundments.</p> <p>The current CT human health criterion is not an ARAR.</p>
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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-10.a: Alternative SED 10 – 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 purported 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 (MDPH), 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.  Note: MDPH has also issued a state-wide fish consumption advisory for certain sensitive groups based on mercury in fish.	To be considered.	SED 10 includes continuation and maintenance of this advisory, including appropriate steps to inform anglers about the advisory, for as long as considered necessary by the MDPH.
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 10 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 MDPH.

**Table S-10.a: Alternative SED 10 – 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 (CDPH), 2006 Advisory for Eating Fish from Connecticut Waterbodies	<p>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.”</p> <p>Note: CDPH has also issued a state-wide advisory of one meal per month (for high-risk group) or one meal per week (for low-risk group) due to mercury in fish.</p>	To be considered.	SED 10 includes continuation and maintenance of these advisories, including appropriate steps to inform anglers about the advisories, for as long as considered necessary by the CDPH.

**Table S-10.b: Alternative SED 10 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 practicable 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 no sediment/riverbank remediation alternatives (apart from MNR) with less adverse impact on aquatic ecosystem than SED 10.</p> <p>(b) SED 10 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 10 would not affect any federally listed T&amp;E species.</p> <p>(d) While SED 10 would cause adverse effects on aquatic life, aquatic ecosystem, and recreational and aesthetic values, those effects would be less than those of all other sediment/riverbank alternatives involving removal. See Revised CMS Report, Sections 6.10.5.3 and 6.10.8.</p> <p>(e) SED 10 would include appropriate and practicable steps in an effort to minimize or mitigate potential adverse effects on aquatic ecosystem. Despite such steps, SED 10 would have adverse effects on the aquatic ecosystem, as noted above. However, those adverse impacts would be less than those of all other sediment/riverbank alternatives involving removal.</p>

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**Table S-10.b: Alternative SED 10 – 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)	Where SED 10 would have unavoidable adverse impacts on the aquatic ecosystem, these regulations would require a compensatory mitigation plan to address those impacts. Even if such a plan were implemented, adverse effects would occur. See Revised CMS Report, Sections 6.10.5.3 and 6.10.8. However, those adverse effects would be less than those of all other sediment/riverbank alternatives involving removal.
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-10.b: Alternative SED 10 – 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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some excavated materials did constitute such 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 any RCRA hazardous waste was staged at areas outside lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	In the unlikely event that some excavated materials were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. 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-10.b: Alternative SED 10 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(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 10 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 10, it is anticipated that EPA would notify DOI as required.
<b>State ARARs</b>				
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 in river, and placement of structures in river below high water mark to aid in excavation, address erosion, or restore habitat.	SED 10 would not comply with the prohibition on dredging in an ACEC. SED 4 would be designed to meet the other specified standards and requirements of these regulations. (The other relevant environmental regulatory programs referenced in Section 9.33 are discussed separately in these ARARs tables.)

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**Table S-10.b: Alternative SED 10 – 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 10.</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 dredged material and siting criteria.</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 no sediment/riverbank remediation alternatives (apart from MNR) with less adverse impact on wetlands than SED 10.</p> <p>SED 10 would include appropriate and practicable steps in an effort to avoid, minimize, or mitigate potential adverse effects on land under water and on wetlands. Further, under SED 10, there would be no discharge to Outstanding Resource Waters (including certified vernal pools), stormwater discharges would be controlled through BMPs, and it is unlikely that there would be substantial adverse impacts to the integrity of surface waters. However, SED 10 would adversely affect estimated habitat of rare wildlife species, because all excavation and supporting activities would occur within such habitat (see Figure S-10). Hence, the prohibition on actions with such effects would not be met.</p> <p>Excavation activities under SED 10 would be designed to meet the specified dredging performance standards to the extent practical, but would not avoid some adverse impacts on the aquatic ecosystem.</p> <p>The temporary staging areas may not meet the requirements that intermediate facilities cannot have a permanent adverse impact on a state-listed rare species or on an ACEC. All temporary staging areas under SED 10 would be located in state-mapped Priority Habitat of rare species (see Figure S-10) and in the Upper Housatonic ACEC, and the permanence of their impacts would depend on the uncertain success of restoration. The staging areas would meet the other placement and siting requirements for intermediate facilities.</p>

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**Table S-10.b: Alternative SED 10 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 & 10.60 310 CMR 10.59	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are authorized as a “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 and 10.60 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>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>	Applicable to SED 10 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>Since SED 10 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> <li>▪ There are no sediment/riverbank remediation alternatives (apart from MNR) with less adverse impact on wetlands than SED 10.</li> <li>▪ SED 10 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. In addition, SED 10 is not anticipated to produce any significant loss of flood storage capacity of floodplain or to cause an increase in flood stage or velocities on river.</li> <li>▪ SED 10 would adversely affect estimated habitat of rare wildlife species, because all excavation and supporting activities would occur within such habitat (see Figure S-10). Thus, the prohibition on projects with an adverse effect on such habitat would not be met. However, SED 10 would have less adverse impact on such habitat than the other sediment/riverbank alternatives involving removal.</li> </ul> <p>In addition, if SED 10 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., the prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands or impairs such wetlands within an ACEC (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a</p>

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**Table S-10.b: Alternative SED 10 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				Riverfront Area (with certain exceptions) (10.58(4)(d)1.).
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 10.	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.
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 apply to any temporary staging areas if, as expected, excavated materials do not constitute state hazardous waste subject to these standards. Further, even if some excavated <b>sediments</b> did constitute such hazardous waste, these requirements would not apply to temporary staging areas for such <b>sediments</b> , due to exemption from hazardous waste regulations for dredged materials temporarily stored at	In the unlikely event that some excavated bank soils were found to constitute state hazardous waste subject to these regulations, 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, given the need for staging areas to be near the river. In such cases, that requirement should be waived as technically impracticable to attain. The requirement for floodproofing tanks, containers, and similar units used to store hazardous waste (if any) would be met.

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**Table S-10.b: Alternative SED 10 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			<p>intermediate facility and managed under state water quality certification and § 404 of Clean Water Act (310 CMR 30.104(3)(f)) (see Table S-10.c). However, if some excavated <b>bank soils</b> were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.</p>	
<p>Massachusetts Historical Commission Act and regulations</p>	<p>MGL c. 9, § 27C 950 CMR 71.07</p>	<p>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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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.</p>	<p>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.</p>	<p>Extent to which SED 10 would have potential impact on property(ies) listed in the State Register would be determined – and, if it would, the substantive provisions of these regulations would be met – through the process identified in Phase IA CRA.</p>

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**Table S-10.b: Alternative SED 10 – 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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) 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 10.	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-10.b: Alternative SED 10 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	<p>Exec. Order 11990 (1977)</p> <p>Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A</p>	<p>A federal agency must avoid undertaking or providing assistance for 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>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.</p>	<p>There is no sediment/riverbank remediation alternative (apart from MNR) that would avoid construction in wetlands. However, SED 10 would have less adverse impact on wetlands than all other sediment/riverbank alternatives involving removal.</p> <p>SED 10 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.</p>
Executive Order for Floodplain Management	<p>Exec. Order 11988 (1977)</p> <p>Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 40 CFR Part 6, App. A</p>	<p>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.</p>	<p>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.</p>	<p>SED 10 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 no sediment/riverbank remediation alternatives (apart from MNR) with less adverse impact on the floodplain than SED 10.</p> <p>SED 10 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.</p>

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**Table S-10.c: Alternative SED 10 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 would include excavated Housatonic River sediments and bank soils with PCBs $\geq$ 50 ppm).	It is anticipated that, if SED 10 is selected, these requirements would be met through EPA determination that SED 10 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 allow 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 $< 3 \mu\text{g/L}$ 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-10.c: Alternative SED 10 – 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-10.c: Alternative SED 10 – 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 10 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. 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 would constitute 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 apply if, as expected, excavated materials do not constitute RCRA hazardous waste. However, if some excavated materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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-10.c: Alternative SED 10 – 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 apply if, as expected, excavated materials do not constitute RCRA hazardous waste. However, if some sediments removed in the wet did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such dredged sediments.	In the unlikely event that any sediments removed in the wet were found to constitute RCRA hazardous waste, any tanks used for < 90-day accumulation of such dredged 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 apply to any temporary staging areas if, as expected, excavated materials do not constitute RCRA hazardous waste. Further, even if some materials did constitute such 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 any RCRA hazardous waste was	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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).  Note: In addition to the requirements for waste piles, the requirements relating to tanks and surface impoundments are identified due to the possibility that such types of facilities would be used at the	such 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 any RCRA hazardous waste was	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would not apply, the 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), they would not meet the requirements of § 264.251(c) for a double liner/leachate

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**Table S-10.c: Alternative SED 10 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		temporary staging areas for holding of liquid sediments removed from Woods Pond in the wet.	staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to these types of facilities used for staging of those materials.	collection system at “new waste pile units” and “new surface impoundment units” (if applicable); and (b) while the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for short-term temporary staging areas and thus, if applicable, 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	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated materials were found to constitute RCRA hazardous waste, and if such materials were staged at areas outside Rest of River boundary to which AOC policy would 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.

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**Table S-10.c: Alternative SED 10 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations  (Note: Listed as location-specific ARAR in Table S-10.b, but also listed here at EPA's direction.)	314 CMR 9.01 - 9.08	Same as described for these regulations in Table S-10.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-10.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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 10 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 setbacks (~ 25 feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible for BMPs for bank remediation and in areas (if any) where there is no practical alternative to siting the staging areas in or adjacent to 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 should be waived as technically impracticable.

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**Table S-10.c: Alternative SED 10 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	All excavation and supporting activities in SED 10 would occur within Priority Habitat, as shown on Figure S-10. Based on the evaluations presented in Appendix L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 17 state-listed species. Thus, the prohibition on a “take” would not be met.
	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.  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 sediments and bank soils would constitute 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 non-PCB state hazardous waste. However, representative TCLP testing of sediments/soils subject to removal would be conducted during design to confirm that result.

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**Table S-10.c: Alternative SED 10 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		<p>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>		
<p>Note: It is not expected that the excavated materials would constitute non-PCB state hazardous waste. However, for <b>sediments</b>, 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 <b>bank soils</b>.</p>				
<p>Massachusetts hazardous waste regulations for generators</p>	<p>310 CMR 30.321 - 30.324</p>	<p>Pre-transport requirements for generators of hazardous waste (packaging, labeling, marking, placarding).</p>	<p>These requirements would not apply if, as expected, excavated materials do not constitute non-PCB state hazardous waste. However, if some excavated bank soils did constitute such hazardous waste, these requirements would apply.</p>	<p>In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, these requirements would be met prior to any off-site transport of such waste.</p>
<p>Massachusetts hazardous waste management regulations – general requirements</p>	<p>310 CMR 30.513, 30.514, 30.524, 30.560</p>	<p>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).</p>	<p>These requirements would not apply to temporary staging areas if, as expected, excavated materials do not constitute non-PCB state hazardous waste. However, if some</p>	<p>In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, these requirements would be met at staging areas for such waste.</p>

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**Table S-10.c: Alternative SED 10 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			excavated bank soils did 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 S-10.b.)</p>	<p>310 CMR 30.701(6), 30.702, 30.703(2), 30.704(3), 30.705(3) &amp; (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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.</p>	<p>These requirements would not apply to temporary staging areas if, as expected, excavated materials do not 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>In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain (given the need for proximity to the river) or outside wetlands; (b) 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 should be waived as technically impracticable to attain.</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>In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while these areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not</p>

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table S-10.b.

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

**Table S-10.c: Alternative SED 10 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				<p>have such systems capable of preventing flow onto those areas, or controlling runoff, during a 100-year flood (see 30.641(2 &amp; (3)). To the extent that these requirements, if applicable, could not practicably be met at particular temporary staging areas, they should be waived as technically impracticable to attain.</p>
	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.	In the unlikely event that any excavated bank soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements because they 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 these requirements, 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 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	This statute is not applicable or relevant and appropriate to SED 10 because implementation of SED 10 is not expected to have any adverse impact on endangered or	Not applicable.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table S-10.b.

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

**Table S-10.c: Alternative SED 10 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		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.	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.
<b>To Be Considered</b>				
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 10.
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups (EPA, 1995)</i>	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 were to 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.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table S-10.b.

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

**ARCADIS**



**AECOM**

Floodplain Alternative Tables

**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
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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 purported 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 fish consumption advisory (also covers frogs and turtles)	Massachusetts Department of Public Health (MDPH), Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	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.	Would 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 MDPH.
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.	Would 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 MDPH.

**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
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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 purported 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 fish consumption advisory (also covers frogs and turtles)	Massachusetts Department of Public Health (MDPH), Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	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 MDPH.
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 MDPH.

**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
<b>Federal ARARs</b>				
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 practicable alternative with less adverse impact on aquatic ecosystem (including wetlands); (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 (including wetlands), 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 no floodplain remediation alternatives (apart from no action) with less adverse impact on aquatic ecosystem (including wetlands) than FP 2 and FP 9 (which would have comparable impacts).</p> <p>(b) FP 2 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 2 would not affect any federally listed T&amp;E species.</p> <p>(d) While FP 2 would cause adverse impacts on wetlands (as part of aquatic ecosystem), those effects would be less than the effects of the other floodplain removal alternatives due to relatively small amount of wetlands affected (~ 1.5% of forested wetlands and &lt; 1% of other wetlands in PSA; see Revised CMS Report, Section 7.2.5.3).</p> <p>(e) FP 2 would include appropriate and practicable steps to minimize or mitigate potential adverse effects on wetlands. Despite such steps, FP 2 would have some adverse effects on wetlands, as noted above. However, those adverse impacts would be less than those of the other floodplain removal alternatives (except FP 9, which would have comparable effects).</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
	<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>Where FP 2 would have unavoidable adverse impacts on wetlands (as part of aquatic ecosystem) after all practical steps have been taken to avoid or minimize such impacts, these regulations would require a compensatory mitigation plan to address those impacts. Even if such a plan were implemented, adverse effects would occur. See Revised CMS Report, Sections 7.2.5.3 and 7.2.8. However, those adverse effects would be less than those of all other floodplain alternatives involving removal (except FP 9, which would have comparable effects).</p>
<p>Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains</p>	<p>40 CFR 264.1(j)(7)</p> <p>40 CFR 264.18(b)</p>	<p>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.</p>	<p>These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some excavated soils did constitute such 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 any RCRA hazardous waste was staged at areas outside</p>	<p>In the unlikely event that some excavated soils were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.</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
			lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	
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 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.		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).
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.

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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
<b>State ARARs</b>				
<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 FP 2.</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 (including wetlands); (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>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.</p>	<p>There are no floodplain remediation alternatives (apart from no action) with less adverse impact on wetlands (as part of aquatic ecosystem) than FP 2 and FP 9 (which would have comparable impacts). 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 adverse impacts to the integrity of surface waters. However, FP 2 would adversely affect estimated habitat of rare wildlife species because all excavation and most supporting activities would occur within such habitat (see Figure F-2). Hence, the prohibition on actions with such effects would not be met.</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 &amp; 10.60 310 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 authorized as a “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</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"> <li>▪ There are no floodplain remediation alternatives (apart from no action) with less impact on resource areas than FP 2 and FP 9 (which would have comparable effects).</li> <li>▪ 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</li> </ul>

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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>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 and 10.60 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>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>flood storage capacity of floodplain.</p> <ul style="list-style-type: none"> <li>▪ FP 2 would adversely affect estimated rare wildlife species habitat, because all excavation and most supporting activities would occur within such habitat (see Figure F-2). Thus, the prohibition on projects with an adverse effect on such habitat would not be met. However, FP 2 would have less adverse impact on such habitat than the other floodplain removal alternatives (except FP 9, which would have comparable effects).</li> </ul> <p>In addition, if FP 2 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., the prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands or that impairs such wetlands within an Area of Critical Environmental Concern (ACEC) (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</p>
Massachusetts standards for hazardous waste management facilities in floodplains	310 CMR 30.701	Location standards for hazardous waste management facilities in floodplains, including the requirement that no active portion of a waste pile may be constructed within 500-year floodplain.	These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not 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	In the unlikely event that some excavated soils were found to constitute state hazardous waste subject to these regulations, 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.

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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
			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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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 – and, if it would, the substantive provisions of these regulations would be met – through the process identified in Phase IA CRA.
	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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) preservation would be met.

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

**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
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	There is no floodplain remediation alternative (apart from no action) that would avoid some construction in wetlands. However, FP 2 would have less adverse impact on wetlands than all other floodplain removal alternatives (except FP 9, which would have comparable effects).  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)  Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 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.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	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 floodplain alternative that would avoid adverse effects on floodplain, and FP 2 would have less adverse impact on wetlands than all other floodplain removal alternatives (except FP 9, which would have comparable effects).  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.

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

**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
<b>Federal ARARs</b>				
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 would include excavated 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 allow 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.

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

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

**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. 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 would constitute 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 apply if, as expected, excavated soils do not constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that any excavated soils were found to constitute RCRA 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 F-2.b.

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

**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 apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some soils did constitute such waste, these	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.	requirements would not apply to staging areas within Rest of River boundary under EPA’s AOC policy, since those staging areas would be located in overall area of dispersed contamination. However, if any RCRA hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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 the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for short-term temporary staging areas and thus, if applicable, should be waived as technically impracticable to attain.

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

**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	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations  (Note: These were listed as location-specific ARAR in Table F-2.b, but are also listed here at EPA’s direction.)	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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\*\* ARARs consist only of the substantive requirements of the provisions cited in this column, not any administrative requirements included therein.

**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 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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 setbacks (~ 25 feet) from receiving waters and wetlands to the extent practical.
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in a state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	All excavation activities, as well as most 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 L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 18 state-listed species. Thus, the prohibition on a “take” would not be met.
	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.

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

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

**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>Wastes that contain PCBs <math>\geq</math> 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 would constitute 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 non-PCB state hazardous waste. 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 apply if, as expected, excavated soils do not constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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 F-2.b.

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

**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 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 apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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-2.b.)	310 CMR 30.701(6), 30.702, 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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.	These requirements would not apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain; (b) 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 (c) 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 should be waived as technically impracticable.

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

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

**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
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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while the staging areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not 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, if applicable, 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements since they 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 these requirements, if applicable, should be waived as technically impracticable.

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

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

**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.
<b>To Be Considered</b>				
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 were to 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.

\* 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-3.a: Alternative FP 3 – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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 purported 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 fish consumption advisory (also covers frogs and turtles)	Massachusetts Department of Public Health (MDPH), Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	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 MDPH.
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 MDPH.

**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
<b>Federal ARARs</b>				
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 practicable alternative with less adverse impact on aquatic ecosystem, including wetlands; (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 (including wetlands), 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 practicable floodplain remediation alternatives with less adverse impact on wetlands – e.g., FP 2 and FP 9. 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&amp;E species.</p> <p>(d) FP 3 would cause significant adverse effects on wetlands, as described in the Revised CMS Report (Sections 7.3.5.3 and 7.3.8). Hence, the prohibition on actions with such effects would not be met.</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.</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>Where FP 3 would have unavoidable adverse impacts on wetlands (as part of aquatic ecosystem), these regulations would require a compensatory mitigation plan to address those impacts. However, even if such a plan were implemented, substantial adverse impacts would remain. See Revised CMS Report, Sections 7.3.5.3 and 7.3.8.</p>
<p>Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains</p>	<p>40 CFR 264.1(j)(7)</p> <p>40 CFR 264.18(b)</p>	<p>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.</p>	<p>These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some excavated soils did constitute such 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 any RCRA hazardous waste was staged at areas outside</p>	<p>In the unlikely event that some excavated soils were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.</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
			lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	
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 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.	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).
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.

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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
<b>State ARARs</b>				
<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 FP 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 (including wetlands); (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>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.</p>	<p>(a) As noted above, there are practicable floodplain remediation alternatives with less adverse impact on wetlands (e.g., FP 2 and FP 9). Hence, the requirement that there be no such alternative would not be met.</p> <p>(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 Revised CMS Report, Sections 7.3.5.3 and 7.3.8).</p> <p>(c) FP 3 would adversely affect estimated rare wildlife species habitat, because all excavation and most supporting activities would occur within such habitat (see Figure F-3). In addition, FP 3 would involve discharges of dredged or fill material to a number of certified vernal pools in the PSA, which constitute Outstanding Resource Waters. Thus, the prohibition on actions that would affect these types of areas would not be met.</p> <p>(d) Stormwater discharges would be controlled through BMPs.</p> <p>(e) FP 3 would cause substantial long-term adverse impacts to the integrity of surface waters – e.g., through its impacts on vernal pools. Thus, the prohibition on actions with such impacts would not be met.</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>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 &amp; 10.60 310 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 authorized as a “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 and 10.60 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>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"> <li>▪ Since there are practicable floodplain remediation alternatives that would be less damaging to resource areas (e.g., FP 2 and FP 9), the requirement that there be no such practicable alternative would not be met.</li> <li>▪ 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 the Revised CMS Report (Sections 7.3.5.3 and 7.3.8), 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.</li> <li>▪ FP 3 would adversely affect estimated rare wildlife species habitat, because all excavation and most supporting activities would occur within such habitat (see Figure F-3). Thus, the prohibition on projects with an adverse effect on such habitat would not be met.</li> </ul> <p>In addition, if FP 3 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands or that impairs such wetlands within an ACEC (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</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 standards for hazardous waste management facilities in floodplains	310 CMR 30.701	Location standards for hazardous waste management facilities in floodplains, including the requirement that no active portion of a waste pile may be constructed within 500-year floodplain.	These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute state hazardous waste subject to these standards (see Table F-3.c). However, if some excavated soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	In the unlikely event that some excavated soils were found to constitute state hazardous waste subject to these regulations, 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.
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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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 – and, if it would, the substantive provisions of these regulations would be met – through the process identified in Phase IA CRA.

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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
	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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) preservation would be met.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	FP 3 would involve construction in wetlands. While there may be no practicable alternative (other than no action) to some work in wetlands, there are practicable alternatives with less adverse impact on wetlands – e.g., FP 2 and FP 9. Hence, the requirement that there be no such alternative would not be met.  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 the Revised CMS Report, Sections 7.3.5.3 and 7.3.8.

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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
Executive Order for Floodplain Management	<p>Exec. Order 11988 (1977)</p> <p>Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 40 CFR Part 6, App. A</p>	<p>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.</p>	<p>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.</p>	<p>FP 3 would involve excavation of soils and construction of access roads and staging areas in the floodplain. While there may be no practicable alternative (other than no action) that would avoid any effect on the floodplain, there are practicable alternatives with fewer adverse effects on the floodplain – e.g., FP 2 and FP 9. 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 the Revised CMS Report, Sections 7.3.5.3 and 7.3.8.</p>

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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
<b>Federal ARARs</b>				
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 would include excavated floodplain soils with PCBs $\geq$ 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 allow 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 $\mu$ g/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 excavated 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)	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 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. 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 would constitute 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 apply if, as expected, excavated soils do not constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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 apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some soils did constitute such waste, these	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.	requirements would not apply to staging areas within Rest of River boundary under EPA’s AOC policy, since those staging areas would be located in overall area of dispersed contamination. However, if any RCRA hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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 the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for short-term temporary staging areas and thus, if applicable, 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	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations  (Note: Listed as location-specific ARAR in Table F-3.b, but also listed here at EPA's direction.)	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.

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

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

**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
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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 setbacks (~ 25 feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible in areas where the soil removal would take place within or adjacent to wetlands or in areas (if any) where there is no practical alternative to siting the staging areas in or adjacent to wetlands. In such cases, the setback requirement should be waived as technically impracticable to meet.
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A  321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	All excavations and most 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 L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 26 state-listed species. Thus, the prohibition on a “take” would not 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)	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.  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 would constitute 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 non-PCB state hazardous waste. 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 apply if, as expected, excavated soils do not constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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 apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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), 30.702, 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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.	These requirements would not apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain or outside wetlands; (b) 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 (c) 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 should be waived as technically impracticable.

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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 – 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while the staging areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not 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, if applicable, 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements since they 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 these requirements, if applicable, should be waived as technically impracticable.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs 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
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.
<b>To Be Considered</b>				
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 were to 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)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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 purported 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 fish consumption advisory (also covers frogs and turtles)	Massachusetts Department of Public Health (MDPH), Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	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 MDPH.
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 MDPH.

**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
<b>Federal ARARs</b>				
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 practicable alternative with less adverse impact on aquatic ecosystem, including wetlands; (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 (including wetlands), 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 practicable floodplain remediation alternatives with less adverse impact on wetlands – e.g., FP 2 and FP 9. 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&amp;E species.</p> <p>(d) FP 4 would cause significant adverse effects on wetlands, as described in the Revised CMS Report (Sections 7.4.5.3 and 7.4.8). Hence, the prohibition on actions with such effects would not be met.</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.</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
	<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>Where FP 4 would have unavoidable adverse impacts on wetlands (as part of aquatic ecosystem), these regulations would require a compensatory mitigation plan to address those impacts. However, even if such a plan were implemented, substantial adverse impacts would remain. See Revised CMS Report, Sections 7.4.5.3 and 7.4.8.</p>
<p>Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains</p>	<p>40 CFR 264.1(j)(7)</p> <p>40 CFR 264.18(b)</p>	<p>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.</p>	<p>These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some excavated soils did constitute such 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 any RCRA hazardous waste was staged at areas outside</p>	<p>In the unlikely event that some excavated soils were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.</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
			lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	
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 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.	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).
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.

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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
<b>State ARARs</b>				
<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 FP 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 (including wetlands); (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>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.</p>	<p>(a) As noted above, there are practicable floodplain remediation alternatives with less adverse impact on wetlands (e.g., FP 2 and FP 9). Hence, the requirement that there be no such alternative would not be met.</p> <p>(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 Revised CMS Report, Sections 7.4.5.3 and 7.4.8).</p> <p>(c) FP 4 would adversely affect estimated rare wildlife species habitat, because all excavation and most supporting activities would occur within such habitat (see Figure F-4). In addition, FP 4 would involve discharges of dredged or fill material to a number of certified vernal pools in the PSA, which constitute Outstanding Resource Waters. Thus, the prohibition on actions that would affect these types of areas would not be met.</p> <p>(d) Stormwater discharges would be controlled through BMPs.</p> <p>(e) FP 4 would cause substantial long-term adverse impacts to the integrity of surface waters – e.g., through its impacts on vernal pools. Thus, the prohibition on actions with such impacts would not be met.</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
<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 &amp; 10.60 310 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 authorized as a “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 and 10.60 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>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"> <li>▪ Since there are practicable floodplain remediation alternatives that would be less damaging to resource areas (e.g., FP 2 and FP 9), the requirement that there be no such practicable alternative would not be met.</li> <li>▪ 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 the Revised CMS Report (Sections 7.4.5.3 and 7.4.8), 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.</li> <li>▪ FP 4 would adversely affect estimated rare wildlife species habitat, because all excavation and most supporting activities would occur within such habitat (see Figure F-4). Thus, the prohibition on projects with an adverse effect on such habitat would not be met.</li> </ul> <p>In addition, if FP 4 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands or that impairs such wetlands within an ACEC (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</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
Massachusetts standards for hazardous waste management facilities in floodplains	310 CMR 30.701	Location standards for hazardous waste management facilities in floodplains, including the requirement that no active portion of a waste pile may be constructed within 500-year floodplain.	These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute state hazardous waste subject to these standards (see Table F-4.c). However, if some excavated soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	In the unlikely event that some excavated soils were found to constitute state hazardous waste subject to these regulations, 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.
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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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 – and, if it would, the substantive provisions of these regulations would be met – through the process identified in Phase IA CRA.

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

**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
	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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) preservation would be met.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	FP 4 would involve construction in wetlands. While there may be no practicable alternative (other than no action) to some work in wetlands, there are practicable alternatives with less adverse impact on wetlands – e.g., FP 2 and FP 9. Hence, the requirement that there be no such alternative would not be met.  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 the Revised CMS Report, Sections 7.4.5.3 and 7.4.8.

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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	<p>Exec. Order 11988 (1977)</p> <p>Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 40 CFR Part 6, App. A</p>	<p>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.</p>	<p>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.</p>	<p>FP 4 would involve excavation of soils and construction of access roads and staging areas in the floodplain. While there may be no practicable alternative (other than no action) that would avoid any effect on the floodplain, there are practicable alternatives with fewer adverse effects on the floodplain – e.g., FP 2 and FP 9. 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 the Revised CMS Report, Sections 7.4.5.3 and 7.4.8.</p>

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

**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
<b>Federal ARARs</b>				
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 would include excavated floodplain soils with PCBs $\geq$ 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 $\mu$ g/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-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
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 excavated 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. 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 would constitute 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 apply if, as expected, excavated soils do not constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that any excavated soils were found to constitute RCRA 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 F-4.b.

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

**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 – 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 apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some soils did constitute such waste, these	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.	requirements would not apply to staging areas within Rest of River boundary under EPA’s AOC policy, since those staging areas would be located in overall area of dispersed contamination. However, if any RCRA hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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 the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for short-term temporary staging areas and thus, if applicable, should be waived as technically impracticable to attain.

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

**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	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations  (Note: Listed as location-specific ARAR in Table F-4.b, but also listed here at EPA's direction.)	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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\*\* ARARs consist only of the substantive requirements of the provisions cited in this column, not any administrative requirements included therein.

**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
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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 setbacks (~ 25-feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible in areas where the soil removal would take place within or adjacent to wetlands or in areas (if any) where there is no practical alternative to siting the staging areas in or adjacent to wetlands. In such cases, the setback requirement should be waived as technically impracticable to meet.
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A  321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	All excavations and most 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 L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 26 state-listed species. Thus, the prohibition on a “take” would not 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
	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.  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 would constitute 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 non-PCB state hazardous waste. 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 apply if, as expected, excavated soils do not constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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 F-4.b.

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

**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 apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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), 30.702, 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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.	These requirements would not apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain or outside wetlands; (b) 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 (c) 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 should be waived as technically impracticable.

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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 – 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while the staging areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not 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, if applicable, 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements since they 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 these requirements, if applicable, should be waived as technically impracticable.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs 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
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.
<b>To Be Considered</b>				
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)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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 purported 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 fish consumption advisory (also covers frogs and turtles)	Massachusetts Department of Public Health (MDPH), Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	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 MDPH.
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 MDPH.

**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
<b>Federal ARARs</b>				
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 practicable alternative with less adverse impact on aquatic ecosystem, including wetlands; (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 (including wetlands), 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 practicable floodplain remediation alternatives with less adverse impact on wetlands – e.g., FP 2 and FP 9. 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&amp;E species.</p> <p>(d) FP 5 would cause significant adverse effects on wetlands, as described in the Revised CMS Report (Sections 7.5.5.3 and 7.5.8). Hence, the prohibition on actions with such effects would not be met.</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.</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>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>Where FP 5 would have unavoidable adverse impacts on wetlands (as part of aquatic ecosystem), these regulations would require a compensatory mitigation plan to address those impacts. However, even if such a plan were implemented, substantial adverse impacts would remain. See Revised CMS Report, Sections 7.5.5.3 and 7.5.8.</p>
<p>Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains</p>	<p>40 CFR 264.1(j)(7)</p> <p>40 CFR 264.18(b)</p>	<p>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.</p>	<p>These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some excavated soils did constitute such 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 any RCRA hazardous waste was staged at areas outside</p>	<p>In the unlikely event that some excavated soils were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.</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
			lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	
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 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.	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).
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.

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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
<b>State ARARs</b>				
<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 FP 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 (including wetlands); (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>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.</p>	<p>(a) As noted above, there are practicable floodplain remediation alternatives with less adverse impact on wetlands (e.g., FP 2 and FP 9). Hence, the requirement that there be no such alternative would not be met.</p> <p>(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 Revised CMS Report, Sections 7.5.5.3 and 7.5.8).</p> <p>(c) FP 5 would adversely affect estimated rare wildlife species habitat, because all excavation and most supporting activities would occur within such habitat (see Figure F-5). In addition, FP 5 would involve discharge of dredged or fill material to at least one certified vernal pool in the PSA, which constitutes an Outstanding Resource Water. Thus, the prohibition on actions that would affect these types of areas would not be met.</p> <p>(d) Stormwater discharges would be controlled through BMPs.</p> <p>(e) FP 5 would cause substantial long-term adverse impacts to the integrity of surface waters – e.g., through its impacts on vernal pools. Thus, the prohibition on actions with such impacts would not be met.</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>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 – 10.58 &amp; 10.50 310 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 authorized as a “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 and 10.60 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>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"> <li>▪ Since there are practicable floodplain remediation alternatives that would be less damaging to resource areas (e.g., FP 2 and FP 9), the requirement that there be no such practicable alternative would not be met.</li> <li>▪ 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 the Revised CMS Report (Sections 7.5.5.3 and 7.5.8), 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.</li> <li>▪ FP 5 would adversely affect estimated rare wildlife species habitat, because all excavation and most supporting activities would occur within such habitat (see Figure F-5). Thus, the prohibition on projects with an adverse effect on such habitat would not be met.</li> </ul> <p>In addition, if FP 5 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands or that impairs such wetlands within an ACEC (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</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 standards for hazardous waste management facilities in floodplains	310 CMR 30.701	Location standards for hazardous waste management facilities in floodplains, including the requirement that no active portion of a waste pile may be constructed within 500-year floodplain.	These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute state hazardous waste subject to these standards (see Table F-5.c). However, if some excavated soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	In the unlikely event that some excavated soils were found to constitute state hazardous waste subject to these regulations, 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.
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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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 – and, if it would, the substantive provisions of these regulations would be met -- through the process identified in Phase IA CRA.

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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
	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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) preservation would be met.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	FP 5 would involve construction in wetlands. While there may be no practicable alternative (other than no action) to some work in wetlands, there are practicable alternatives with less adverse impact on wetlands – e.g., FP 2 and FP 9. Hence, the requirement that there be no such alternative would not be met.  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 the Revised CMS Report, Sections 7.5.5.3 and 7.5.8.

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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
Executive Order for Floodplain Management	<p>Exec. Order 11988 (1977)</p> <p>Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 40 CFR Part 6, App. A</p>	<p>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.</p>	<p>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.</p>	<p>FP 5 would involve excavation of soils and construction of access roads and staging areas in the floodplain. While there may be no practicable alternative (other than no action) that would avoid any effect on the floodplain, there are practicable alternatives with fewer adverse effects on the floodplain – e.g., FP 2 and FP 9. 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 the Revised CMS Report, Sections 7.5.5.3 and 7.5.8.</p>

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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
<b>Federal ARARs</b>				
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 would include excavated 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.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs 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)	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 excavated 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-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)	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 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. 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 would constitute 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 apply if, as expected, excavated soils do not constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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)	Actions(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 apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some soils did constitute such waste, these	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.	requirements would not apply to staging areas within Rest of River boundary under EPA’s AOC policy, since those staging areas would be located in overall area of dispersed contamination. However, if any RCRA hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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 the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for short-term temporary staging areas and thus, if applicable, should be waived as technically impracticable to attain.

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

**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	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations  (Note: Listed as location-specific ARAR in Table F-5.b, but also listed here at EPA's direction.)	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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\*\* ARARs consist only of the substantive requirements of the provisions cited in this column, not any administrative requirements included therein.

**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
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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 setbacks (~ 25 feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible in areas where the soil removal would take place within or adjacent to wetlands or in areas (if any) where there is no practical alternative to siting the staging areas in or adjacent to wetlands. In such cases, the setback requirement should be waived as technically impracticable to meet.
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A  321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provisions (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR,	Applicable to activities in state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	All excavation and most 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 L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 21 state-listed species. Thus, the prohibition on a “take” would not 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)	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.  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 would constitute 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 non-PCB state hazardous waste. 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 apply if, as expected, excavated soils do not constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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
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 apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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), 30.702, 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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.	These requirements would not apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain or outside wetlands; (b) 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 (c) 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 should be waived as technically impracticable.

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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
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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while the staging areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not 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, if applicable, 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements since they 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 these requirements, if applicable, should be waived as technically impracticable.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs 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)	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.
<b>To Be Considered</b>				
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 were to 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)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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 purported 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 fish consumption advisory (also covers frogs and turtles)	Massachusetts Department of Public Health (MDPH), Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	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 MDPH.
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 MDPH.

**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
<b>Federal ARARs</b>				
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 practicable alternative with less adverse impact on aquatic ecosystem, including wetlands; (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 (including wetlands), 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 practicable floodplain remediation alternatives with less adverse impact on wetlands – e.g., FP 2 and FP 9. 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&amp;E species.</p> <p>(d) FP 6 would cause significant adverse effects on wetlands, as described in the Revised CMS Report (Sections 7.6.5.3 and 7.6.8). Hence, the prohibition on actions with such effects would not be met.</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.</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>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>Where FP 6 would have unavoidable adverse impacts on wetlands (as part of aquatic ecosystem), these regulations would require a compensatory mitigation plan to address those impacts. However, even if such a plan were implemented, substantial adverse impacts would remain. See Revised CMS Report, Sections 7.6.5.3 and 7.6.8.</p>
<p>Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains</p>	<p>40 CFR 264.1(j)(7)</p> <p>40 CFR 264.18(b)</p>	<p>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.</p>	<p>These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some excavated soils did constitute such 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 any RCRA hazardous waste was staged at areas outside</p>	<p>In the unlikely event that some excavated soils were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.</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
			lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	
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 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.	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).
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.

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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
<b>State ARARs</b>				
<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 FP 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 (including wetlands); (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>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.</p>	<p>(a) As noted above, there are practicable floodplain remediation alternatives with less adverse impact on wetlands (e.g., FP 2 and FP 9). Hence, the requirement that there be no such alternative would not be met.</p> <p>(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 Revised CMS Report, Sections 7.6.5.3 and 7.6.8).</p> <p>(c) FP 6 would adversely affect estimated rare wildlife species habitat, because virtually all excavation and most supporting activities would occur within such habitat (see Figure F-6). In addition, FP 6 would involve discharge of dredged or fill material to at least one certified vernal pool in the PSA, which constitutes an Outstanding Resource Water. Thus, the prohibition on actions that would affect these types of areas would not be met.</p> <p>(d) Stormwater discharges would be controlled through BMPs.</p> <p>(e) FP 6 would cause substantial long-term adverse impacts to the integrity of surface waters – e.g., through its impacts on vernal pools. Thus, the prohibition on actions with such impacts would not be met.</p>
<p>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR 10.53(3)(q)</p>	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are authorized as a “limited project” if they: (a) have no practicable alternative, consistent with the MCP, that would be less</p>	<p>Applicable to FP 6 response actions that take place in or within 100 feet (buffer zone) of stream/pond banks or</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"> <li>▪ Since there are practicable floodplain</li> </ul>

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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>310 CMR 10.54 – 10.58 &amp; 10.60</p> <p>310 CMR 10.59</p>	<p>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 and 10.60 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>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>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>remediation alternatives that would be less damaging to resource areas (e.g., FP 2 and FP 9), the requirement that there be no such practicable alternative would not be met.</p> <ul style="list-style-type: none"> <li>▪ 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 the Revised CMS Report (Sections 7.6.5.3 and 7.6.8), these measures would not prevent adverse impacts on resource areas. FP 6 is not anticipated to have any significant effect on flood storage capacity of floodplain.</li> <li>▪ FP 6 would adversely affect estimated rare wildlife species habitat, because virtually all excavation and most supporting activities would occur within such habitat (see Figure F-6). Thus, the prohibition on projects with an adverse effect on such habitat would not be met.</li> </ul> <p>In addition, if FP 6 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands or that impairs such wetlands within an ACEC (10.55(4)) and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</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
Massachusetts standards for hazardous waste management facilities in floodplains	310 CMR 30.701	Location standards for hazardous waste management facilities in floodplains, including the requirement that no active portion of a waste pile may be constructed within 500-year floodplain.	These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute state hazardous waste subject to these standards (see Table F-6.c). However, if some excavated soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	In the unlikely event that some excavated soils were found to constitute state hazardous waste subject to these regulations, 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.
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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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 – and, if it would, the substantive provisions of these regulations would be met -- through the process identified in Phase IA CRA.

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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
	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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) preservation would be met.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	FP 6 would involve construction in wetlands. While there may be no practicable alternative (other than no action) to some work in wetlands, there are practicable alternatives with much less adverse impact on wetlands – e.g., FP 2 and FP 9. Hence, the requirement that there be no such alternative would not be met.  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 the Revised CMS Report, Sections 7.6.5.3 and 7.6.8.

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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	<p>Exec. Order 11988 (1977)</p> <p>Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 40 CFR Part 6, App. A</p>	<p>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.</p>	<p>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.</p>	<p>FP 6 would involve excavation of soils and construction of access roads and staging areas in the floodplain. While there may be no practicable alternative (other than no action) that would avoid any effect on the floodplain, there are practicable alternatives with many fewer adverse effects on the floodplain – e.g., FP 2 and FP 9. 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 the Revised CMS Report, Sections 7.6.5.3 and 7.6.8.</p>

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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
<b>Federal ARARs</b>				
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 would include excavated floodplain soils with PCBs $\geq$ 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 allow 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 $\mu$ g/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 excavated 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. 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 would constitute 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 apply if, as expected, excavated soils do not constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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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\*\* ARARs consist only of the substantive requirements of the provisions cited in this column, not any administrative requirements included therein.

**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 – 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 apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some soils did constitute such waste, these	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.	requirements would not apply to staging areas within Rest of River boundary under EPA's AOC policy, since those staging areas would be located in overall area of dispersed contamination. However, if any RCRA hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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 the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for short-term temporary staging areas and thus, if applicable, 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)	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	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations  (Note: Listed as location-specific ARAR in Table F-6.b, but also listed here at EPA's direction.)	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
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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 setbacks (~ 25 feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible in the many areas where the soil removal would take place within or adjacent to wetlands or in areas (if any) where there is no practical alternative to siting the staging areas in or adjacent to wetlands. In such cases, the setback requirement should be waived as technically impracticable to meet.
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A  321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	Virtually all of the excavations and most of 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 L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 24 state-listed species. Thus, the prohibition on a “take” would not 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)	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.  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 would constitute 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 non-PCB state hazardous waste. 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 apply if, as expected, excavated soils do not constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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 apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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), 30.702, 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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.	These requirements would not apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain or outside wetlands; (b) 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 (c) 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 should be waived as technically impracticable.

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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 – 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while the staging areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not 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, if applicable, 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements since they 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 these requirements, if applicable, should be waived as technically impracticable.

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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
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.
<b>To Be Considered</b>				
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 were to 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.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table F-6.b.

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

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

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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 purported 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 fish consumption advisory (also covers frogs and turtles)	Massachusetts Department of Public Health (MDPH), Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	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 MDPH.
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 MDPH.

**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
<b>Federal ARARs</b>				
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 practicable alternative with less adverse impact on aquatic ecosystem, including wetlands; (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 (including wetlands), 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 practicable floodplain remediation alternatives with less adverse impact on wetlands – e.g., FP 2 and FP 9. 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&amp;E species.</p> <p>(d) FP 7 would cause significant adverse effects on wetlands, as described in the Revised CMS Report (Sections 7.7.5.3 and 7.7.8). Hence, the prohibition on actions with such effects would not be met.</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.</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
	<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>Where FP 7 would have unavoidable adverse impacts on wetlands (as part of aquatic ecosystem), these regulations would require a compensatory mitigation plan to address those impacts. However, even if such a plan were implemented, substantial adverse impacts would remain. See Revised CMS Report, Sections 7.7.5.3 and 7.7.8.</p>
<p>Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains</p>	<p>40 CFR 264.1(j)(7)</p> <p>40 CFR 264.18(b)</p>	<p>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.</p>	<p>These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some excavated soils did constitute such 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 any RCRA hazardous waste was staged at areas outside</p>	<p>In the unlikely event that some excavated soils were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.</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
			lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	
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 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.	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).
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.

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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
<b>State ARARs</b>				
<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 FP 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 (including wetlands); (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>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.</p>	<p>(a) As noted above, there are practicable floodplain remediation alternatives with less adverse impact on wetlands (e.g., FP 2 and FP 9). Hence, the requirement that there be no such alternative would not be met.</p> <p>(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 Revised CMS Report, Sections 7.7.5.3 and 7.7.8).</p> <p>(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). In addition, FP 7 would involve discharges of dredged or fill material to a number of certified vernal pools in the PSA, which constitute Outstanding Resource Waters. Thus, the prohibition on actions that would affect these types of areas would not be met.</p> <p>(d) Stormwater discharges would be controlled through BMPs.</p> <p>(e) FP 7 would cause substantial long-term adverse impacts to the integrity of surface waters – e.g., through its impacts on vernal pools. Thus, the prohibition on actions with such impacts would not be met.</p>
<p>Massachusetts Wetlands Protection Act and regulations</p>	<p>MGL c. 131, § 40 310 CMR</p>	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are authorized as a “limited project” if they: (a) have no practicable alternative,</p>	<p>Applicable to FP 7 response actions that take place in or within 100 feet (buffer zone) of</p>	<p>Since FP 7 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</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
	<p>10.53(3)(q) 310 CMR 10.54 – 10.58 &amp; 10.60 310 CMR 10.59</p>	<p>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 and 10.60 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>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>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>	<ul style="list-style-type: none"> <li>▪ Since there are practicable floodplain remediation alternatives that would be less damaging to resource areas. (e.g., FP 2 and FP 9), the requirement that there be no such practicable alternative would not be met.</li> <li>▪ 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 the Revised CMS Report (Sections 7.7.5.3 and 7.7.8), these measures would not prevent adverse impacts on resource areas. FP 7 is not anticipated to have any significant effect on flood storage capacity of floodplain.</li> <li>▪ 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 projects with an adverse effect on such habitat would not be met.</li> </ul> <p>In addition, if FP 7 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands or that impairs such wetlands within an ACEC (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</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
Massachusetts standards for hazardous waste management facilities in floodplains	310 CMR 30.701	Location standards for hazardous waste management facilities in floodplains, including the requirement that no active portion of a waste pile may be constructed within 500-year floodplain.	These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute state hazardous waste subject to these standards (see Table F-7.c). However, if some excavated soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	In the unlikely event that some excavated soils were found to constitute state hazardous waste subject to these regulations, 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.
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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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 – and, if it would, the substantive provisions of these regulations would be met -- through the process identified in Phase IA CRA.

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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
	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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) preservation would be met.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	FP 7 would involve construction in wetlands. While there may be no practicable alternative (other than no action) to some work in wetlands, there are practicable alternatives with much less adverse impact on wetlands – e.g., FP 2 and FP 9. Hence, the requirement that there be no such alternative would not be met.  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 the Revised CMS Report, Sections 7.7.5.3 and 7.7.8.

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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
Executive Order for Floodplain Management	<p>Exec. Order 11988 (1977)</p> <p>Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 40 CFR Part 6, App. A</p>	<p>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.</p>	<p>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.</p>	<p>FP 7 would involve excavation of soils and construction of access roads and staging areas in the floodplain. While there may be no practicable alternative (other than no action) that would avoid any effect on the floodplain, there are practicable alternatives with many fewer adverse effects on the floodplain – e.g., FP 2 and FP 9. 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 the Revised CMS Report, Sections 7.7.5.3 and 7.7.8.</p>

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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
<b>Federal ARARs</b>				
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 would include excavated floodplain soils with PCBs $\geq$ 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 allow 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 $\mu$ g/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-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
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 excavated 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. 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 would constitute 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 apply if, as expected, excavated soils do not constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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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\*\* ARARs consist only of the substantive requirements of the provisions cited in this column, not any administrative requirements included therein.

**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 – 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 apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some soils did constitute such waste, these	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.	requirements would not apply to staging areas within Rest of River boundary under EPA's AOC policy, since those staging areas would be located in overall area of dispersed contamination. However, if any RCRA hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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 the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for short-term temporary staging areas and thus, if applicable, 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)	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	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations  (Note: Listed as location-specific ARAR in Table F-7.b, but also listed here at EPA's direction.)	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
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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 setbacks (~ 25 feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible in the many areas where the soil removal would take place within or adjacent to wetlands or in areas (if any) where there is no practical alternative to siting the staging areas in or adjacent to wetlands. In such cases, the setback requirement should be waived as technically impracticable to meet.
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A  321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	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 L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 29 state-listed species. Thus, the prohibition on a “take” would not 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
	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.  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 would constitute 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 non-PCB state hazardous waste. 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 apply if, as expected, excavated soils do not constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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 apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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), 30.702, 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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.	These requirements would not apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain or outside wetlands; (b) 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 (c) 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 should be waived as technically impracticable.

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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 – 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while the staging areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not 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, if applicable, 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements since they 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 these requirements, if applicable, should be waived as technically impracticable.

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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
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.
<b>To Be Considered</b>				
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 were to 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-8.a: Alternative FP 8 – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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-8.a: Alternative FP 8 – 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 purported 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 fish consumption advisory (also covers frogs and turtles)	Massachusetts Department of Public Health (MDPH), Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	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 8 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 MDPH.
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 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 MDPH.

**Table F-8.b: Alternative FP 8 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 practicable alternative with less adverse impact on aquatic ecosystem, including wetlands; (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 (including wetlands), 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 practicable floodplain remediation alternatives with less adverse impact on wetlands – e.g., FP 2 and FP 9. Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) FP 8 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 8 would not affect any federally listed T&amp;E species.</p> <p>(d) FP 8 would cause significant adverse effects on wetlands, as described in the Revised CMS Report (Sections 7.8.5.3 and 7.8.8). Hence, the prohibition on actions with such effects would not be met.</p> <p>(e) While FP 8 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.</p>

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**Table F-8.b: Alternative FP 8 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(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>Where FP 8 would have unavoidable adverse impacts on wetlands (as part of aquatic ecosystem), these regulations would require a compensatory mitigation plan to address those impacts. However, even if such a plan were implemented, substantial adverse impacts would remain. See Revised CMS Report, Sections 7.8.5.3 and 7.8.8.</p>
<p>Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains</p>	<p>40 CFR 264.1(j)(7)</p> <p>40 CFR 264.18(b)</p>	<p>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.</p>	<p>These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some excavated soils did constitute such 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 any RCRA hazardous waste was staged at areas outside</p>	<p>In the unlikely event that some excavated soils were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.</p>

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**Table F-8.b: Alternative FP 8 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	
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 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.	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).
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 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 FP 8, it is anticipated that EPA would notify DOI as required.

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**Table F-8.b: Alternative FP 8 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>State ARARs</b>				
<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 FP 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 (including wetlands); (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>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.</p>	<p>(a) As noted above, there are practicable floodplain remediation alternatives with less adverse impact on wetlands (e.g., FP 2 and FP 9). Hence, the requirement that there be no such alternative would not be met.</p> <p>(b) While FP 8 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 Revised CMS Report, Sections 7.8.5.3 and 7.8.8).</p> <p>(c) FP 8 would adversely affect estimated rare wildlife species habitat, because all excavation and most supporting activities would occur within such habitat (see Figure F-8). In addition, FP 8 would involve discharges of dredged or fill material to a number of certified vernal pools in the PSA, which constitute Outstanding Resource Waters. Thus, the prohibition on actions that would affect these types of areas would not be met.</p> <p>(d) Stormwater discharges would be controlled through BMPs.</p> <p>(e) FP 8 would cause substantial long-term adverse impacts to the integrity of surface waters – e.g., through its impacts on vernal pools. Thus, the prohibition on actions with such impacts would not be met.</p>

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**Table F-8.b: Alternative FP 8 – 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 &amp; 10.60 310 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 anticipated as a “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 and 10.60 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>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 8 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 8 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> <li>▪ Since there are practicable floodplain remediation alternatives that would be less damaging to resource areas (e.g., FP 2 and FP 9), the requirement that there be no such practicable alternative would not be met.</li> <li>▪ FP 8 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 the Revised CMS Report (Sections 7.8.5.3 and 7.8.8), these measures would not prevent massive adverse impacts on resource areas. FP 8 is not anticipated to have any significant effect on flood storage capacity of floodplain.</li> <li>▪ FP 8 would adversely affect estimated rare wildlife species habitat, because all excavation and most supporting activities would occur within such habitat (see Figure F-8). Thus, the prohibition on projects with an adverse effect on such habitat would not be met.</li> </ul> <p>In addition, if FP 8 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands or that impairs such wetlands within an ACEC (10.55(4)) and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</p>

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**Table F-8.b: Alternative FP 8 – 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 the requirement that no active portion of a waste pile may be constructed within 500-year floodplain.	These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute state hazardous waste subject to these standards (see Table F-8.c). However, if some excavated soils were found to constitute such hazardous waste, these requirements would apply to temporary staging areas for such waste.	In the unlikely event that some excavated soils were found to constitute state hazardous waste subject to these regulations, 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.
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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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 8 would have potential impact on property(ies) listed in the State Register would be determined – and, if it would, the substantive provisions of these regulations would be met -- through the process identified in Phase IA CRA.

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**Table F-8.b: Alternative FP 8 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) preservation would be met.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	FP 8 would involve construction in wetlands. While there may be no practicable alternative (other than no action) to some work in wetlands, there are practicable alternatives with much less adverse impact on wetlands – e.g., FP 2 and FP 9. Hence, the requirement that there be no such alternative would not be met.  FP 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 the Revised CMS Report, Sections 7.8.5.3 and 7.8.8.

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**Table F-8.b: Alternative FP 8 – 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	<p>Exec. Order 11988 (1977)</p> <p>Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 40 CFR Part 6, App. A</p>	<p>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.</p>	<p>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.</p>	<p>FP 8 would involve excavation of soils and construction of access roads and staging areas in the floodplain. While there may be no practicable alternative (other than no action) that would avoid any effect on the floodplain, there are practicable alternatives with many fewer adverse effects on the floodplain – e.g., FP 2 and FP 9. Hence, the requirement that there be no such practicable alternative would not be met.</p> <p>FP 8 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 the Revised CMS Report, Sections 7.8.5.3 and 7.8.8.</p>

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**Table F-8.c: Alternative FP 8 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 would include excavated floodplain soils with PCBs $\geq$ 50 ppm).	It is anticipated that, if FP 8 is selected, these requirements would be met through an EPA determination that FP 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 allow 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 $< 3 \mu\text{g/L}$ 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-8.c: Alternative FP 8 – 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 excavated 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-8.c: Alternative FP 8 – 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 8 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. 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 would constitute 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 apply if, as expected, excavated soils do not constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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-8.c: Alternative FP 8 – 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 – 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 apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some soils did constitute such waste, these	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.	requirements would not apply to staging areas within Rest of River boundary under EPA’s AOC policy, since those staging areas would be located in overall area of dispersed contamination. However, if any RCRA hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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 the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for short-term temporary staging areas and thus, if applicable, should be waived as technically impracticable to attain.

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**Table F-8.c: Alternative FP 8 – 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	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations  (Note: Listed as location-specific ARAR in Table F-8.b, but also listed here at EPA's direction.)	314 CMR 9.01 - 9.08	Same as described for these regulations in Table F-8.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-8.b.

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**Table F-8.c: Alternative FP 8 – 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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 8 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 setbacks (~ 25 feet) from receiving waters and wetlands where practicable, but setbacks would not be feasible in the many areas where the soil removal would take place within or adjacent to wetlands or in areas (if any) where there is no practical alternative to siting the staging areas in or adjacent to wetlands. In such cases, the setback requirement should be waived as technically impracticable to meet.
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A  321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	All of the excavations and most of the access roads and temporary staging areas in FP 8 would occur within Priority Habitat, as shown on Figure F-8. Based on the evaluations presented in Appendix L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 26 state-listed species. Thus, the prohibition on a “take” would not be met.

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**Table F-8.c: Alternative FP 8 – 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.  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 would constitute 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 non-PCB state hazardous waste. 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 apply if, as expected, excavated soils do not constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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**Table F-8.c: Alternative FP 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 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 apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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-8.b.)	310 CMR 30.701(6), 30.702, 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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.	These requirements would not apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain or outside wetlands; (b) 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 (c) 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 should be waived as technically impracticable.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table F-8.b.

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

**Table F-8.c: Alternative FP 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 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while the staging areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not 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, if applicable, 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements since they 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 these requirements, if applicable, should be waived as technically impracticable.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table F-8.b.

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

**Table F-8.c: Alternative FP 8 – 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.
<b>To Be Considered</b>				
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 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 soils were to 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.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table F-8.b.

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

**Table F-9.a: Alternative FP 9 – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly 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 <a href="http://www.epa.gov/irisweb/iris/index.html">http://www.epa.gov/irisweb/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly 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 purported 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-9.a: Alternative FP 9 – 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 purported 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 fish consumption advisory (also covers frogs and turtles)	Massachusetts Department of Public Health (MDPH), Center for Environmental Health, Freshwater Fish Consumption Advisory List (2007)	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 9 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 MDPH.
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 9 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 MDPH.

**Table F-9.b: Alternative FP 9 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
<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 practicable alternative with less adverse impact on aquatic ecosystem (including wetlands); (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&amp;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 (including wetlands), 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 no floodplain remediation alternatives (apart from no action) with less adverse impact on aquatic ecosystem (including wetlands) than FP 2 and FP 9 (which would have comparable impacts).</p> <p>(b) FP 9 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 9 would not affect any federally listed T&amp;E species.</p> <p>(d) While FP 9 would cause adverse impacts on wetlands (as part of aquatic ecosystem), those effects would be less than the effects of all other floodplain removal alternatives (except FP 2, which would have comparable effects) due to relatively small amount of wetlands affected (~ 1.7% of forested wetlands and &lt; 1% of other wetlands in PSA; see Revised CMS Report, Section 7.9.5.3).</p> <p>(e) FP 9 would include appropriate and practicable steps to minimize or mitigate potential adverse effects on wetlands. Despite such steps, FP 9 would have some adverse effects on wetlands, as noted above. However, those adverse impacts would be less than those of all other floodplain alternatives involving removal (except FP 2, which would have comparable effects).</p>

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**Table F-9.b: Alternative FP 9 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(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>Where FP 9 would have unavoidable adverse impacts on wetlands (as part of aquatic ecosystem) after all practical steps have been taken to avoid or minimize such impacts, these regulations would require a compensatory mitigation plan to address those impacts. Even if such a plan were implemented, adverse effects would occur. See Revised CMS Report, Sections 7.9.5.3 and 7.9.8. However, those adverse effects would be less than those of all other floodplain alternatives involving removal (except FP 2, which would have comparable effects).</p>
<p>Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains</p>	<p>40 CFR 264.1(j)(7)</p> <p>40 CFR 264.18(b)</p>	<p>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.</p>	<p>These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some excavated soils did constitute such 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 any RCRA hazardous waste was staged at areas outside</p>	<p>In the unlikely event that some excavated soils were found to constitute RCRA hazardous waste, these requirements would be met at any staging areas for such materials within 100-year floodplain but outside Rest of River boundary and not subject to AOC policy. For any such staging areas, procedures would be instituted to remove any hazardous waste safely before flood waters can reach those areas.</p>

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**Table F-9.b: Alternative FP 9 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			lateral boundary of Rest of River to which AOC policy would not apply, these requirements would be relevant and appropriate to such staging areas in 100-year floodplain.	
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 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.		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).
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 9 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 9, it is anticipated that EPA would notify DOI as required.

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**Table F-9.b: Alternative FP 9 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>State ARARs</b>				
<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 FP 9.</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 (including wetlands); (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>Applicable to discharges of dredged or fill material to wetlands that constitute waters of the U.S. in MA.</p>	<p>There are no floodplain remediation alternatives (apart from no action) with less adverse impact on wetlands (as part of aquatic ecosystem) than FP 2 and FP 9 (which would have comparable impacts). FP 9 would include appropriate and practicable steps to avoid, minimize, or mitigate potential adverse effects on wetlands. Further, under FP 9, 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 adverse impacts to the integrity of surface waters. However, FP 9 would adversely affect estimated habitat of rare wildlife species because the great majority of excavation and supporting activities would occur within such habitat (see Figure F-9). Hence, the prohibition on actions with such effects would not be met.</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 &amp; 10.60 310 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 authorized as a “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</p>	<p>Applicable to FP 9 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 9 involves response actions, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> <li>▪ There are no floodplain remediation alternatives (apart from no action) with less impact on resource areas than FP 2 and FP 9 (which would have comparable effects).</li> <li>▪ FP 9 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 9 is not anticipated to have any significant effect on</li> </ul>

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**Table F-9.b: Alternative FP 9 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
		<p>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 and 10.60 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>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>flood storage capacity of floodplain.</p> <ul style="list-style-type: none"> <li>▪ FP 9 would adversely affect estimated rare wildlife species habitat, because the great majority of excavation and supporting activities would occur within such habitat (see Figure F-9). Thus, the prohibition on projects with an adverse effect on such habitat would not be met. However, FP 9 would have less adverse impact on such habitat than the other floodplain removal alternatives (except FP 2, which would have comparable effects).</li> </ul> <p>In addition, if FP 9 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., the prohibition on work that results in loss of &gt; 5000 square feet of bordering vegetated wetlands (10.55(4)) or that impairs such wetlands within an ACEC (10.55(4)), and potentially the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</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 the requirement that no active portion of a waste pile may be constructed within 500-year floodplain.</p>	<p>These requirements would not apply to any temporary staging areas if, as expected, excavated soils do not constitute state hazardous waste subject to these standards (see Table F-9.c). However, if some excavated soils were found to constitute such hazardous waste, these requirements would apply to temporary</p>	<p>In the unlikely event that some excavated soils were found to constitute state hazardous waste subject to these regulations, 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.</p>

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**Table F-9.b: Alternative FP 9 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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 9 would have potential impact on property(ies) listed in the State Register would be determined – and, if it would, the substantive provisions of these regulations would be met – through the process identified in Phase IA CRA.
	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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during clearing or excavation activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) preservation would be met.

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**Table F-9.b: Alternative FP 9 – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	There is no floodplain remediation alternative (apart from no action) that would avoid some construction in wetlands. However, FP 9 would have less adverse impact on wetlands than all other floodplain removal alternatives (except FP 2, which would have comparable effects).  FP 9 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)  Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 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.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	FP 9 would involve excavation of soils and construction of access roads and staging areas in the floodplain. However, apart from no action, there is no floodplain alternative that would avoid any adverse effects on floodplain, and FP 9 would have less adverse impact on wetlands than all other floodplain removal alternatives (except FP 2, which would have comparable effects).  FP 9 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.

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**Table F-9.c: Alternative FP 9 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 would include excavated floodplain soils with PCBs $\geq$ 50 ppm).	It is anticipated that, if FP 9 is selected, these requirements would be met through an EPA determination that FP 9 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 allow 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 $\mu$ g/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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\*\* ARARs consist only of the substantive requirements of the provisions cited in this column, not any administrative requirements included therein.

**Table F-9.c: Alternative FP 9 – 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 excavated 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-9.c: Alternative FP 9 – 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 9 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. 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 would constitute 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 apply if, as expected, excavated soils do not constitute RCRA hazardous waste. However, if some excavated soils did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.	In the unlikely event that 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-9.c: Alternative FP 9 – 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 – 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 apply to any temporary staging areas if, as expected, excavated soils do not constitute RCRA hazardous waste. Further, even if some soils did constitute such waste, these	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.	requirements would not apply to staging areas within Rest of River boundary under EPA's AOC policy, since those staging areas would be located in overall area of dispersed contamination. However, if any RCRA hazardous waste was staged at areas outside the lateral Rest of River boundary to which AOC policy would not apply, these requirements would be relevant and appropriate to waste piles used for staging of those materials.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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 the waste pile 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)). These requirements, which were developed for permanent hazardous waste storage units, are not practical for short-term temporary staging areas and thus, if applicable, should be waived as technically impracticable to attain.

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**Table F-9.c: Alternative FP 9 – 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	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would not apply, the temporary staging areas for such waste would not meet these requirements since they 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 these requirements, 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.	In the unlikely event that any excavated soils were found to constitute RCRA hazardous waste, and if such soils were staged at areas outside Rest of River boundary to which AOC policy would 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.
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations  (Note: These were listed as location-specific ARAR in Table F-9.b, but are also listed here at EPA's direction.)	314 CMR 9.01 - 9.08	Same as described for these regulations in Table F-9.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-9.b.

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**Table F-9.c: Alternative FP 9 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as to 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 9 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 setbacks (~ 25 feet) from receiving waters and wetlands to the extent practical.
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity in mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.  Note: MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in a state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	The great majority of the excavation activities, as well as access roads and temporary staging areas, in FP 9 would occur within Priority Habitat, as shown on Figure F-9. Based on the evaluations presented in Appendix L to this Revised CMS Report, these activities and facilities would result in a “take” of at least 18 state-listed species. Thus, the prohibition on a “take” would not be met.
	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-9.c: Alternative FP 9 – 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>Wastes that contain PCBs <math>\geq</math> 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 would constitute 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 non-PCB state hazardous waste. 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 apply if, as expected, excavated soils do not constitute non-PCB state hazardous waste. However, if some excavated soils did constitute such hazardous waste, these requirements would apply.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, these requirements would be met prior to any off-site transport of such waste.

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

**Table F-9.c: Alternative FP 9 – 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 apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state 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-9.b.)	310 CMR 30.701(6), 30.702, 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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of an existing private drinking water well, or (g) without a 200-foot buffer zone to fenceline.	These requirements would not apply to temporary staging areas if, as expected, excavated soils do not 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these standards except that: (a) it may not be practical in some cases to site such staging areas outside 500-year floodplain; (b) 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 (c) 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 should be waived as technically impracticable.

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**Table F-9.c: Alternative FP 9 – 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 – 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would meet these requirements except that: (a) it may not be practical for some staging areas to meet the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.); and (b) while the staging areas would contain run-on and runoff control systems capable of handling a 100-year precipitation storm event, some staging areas in the floodplain would not 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, if applicable, 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.	In the unlikely event that any excavated soils were found to constitute non-PCB state hazardous waste, waste piles used for such waste at temporary staging areas would not meet these requirements since they 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 these requirements, if applicable, should be waived as technically impracticable.

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**Table F-9.c: Alternative FP 9 – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(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.
<b>To Be Considered</b>				
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 9.
<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 were to 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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Treatment/Disposition  
Alternative Tables

**Table T-1: Alternative TD 1 (Off-Site Disposal) – Potential ARARs**

Statute/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
None. ARARs apply only to on-site activities and thus are not relevant to the off-site transport and disposal of sediments and soils. To the extent that ARARs are relevant to the construction of access roads and staging areas, those requirements are addressed in the evaluation of alternatives for sediments and floodplain soils.				

**Table T-2.a: Alternative TD 2 (Local In-Water CDF) – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
Clean Water Act, Ambient Water Quality Criteria	<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.  Human health criterion based on human consumption of water and organisms: 0.000064 µg/L.	Relevant and appropriate to surface water in Rest of River.	It is not expected that the placement or presence of PCB-containing sediments in the CDF(s) would have an appreciable long-term effect on the water column PCB concentrations in the river and thus on attainment of the water quality criteria, since the CDF(s) would be enclosed by sheetpiles on the river side and berms on the land side and would be built to withstand high-flow events, and since the solids and associated PCBs in the water flowing through the permeable berms would be expected to be filtered out in the berms (and additional filter dams if needed) before that water is redirected into the river. Regarding attainment of these criteria generally, see the chemical-specific tables on the SED alternatives.
<b>State ARARs</b>				
Numeric Massachusetts water quality criteria	<i>Massachusetts Surface Water Quality Standards</i> , 314 CMR 4.05(5)(e)	Same as federal water quality criteria (unless Massachusetts Department of Environmental Protection [MDEP] 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 criteria.
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/iris/webp/iris/index.html">http://www.epa.gov/iris/webp/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly associated with exposure to PCBs.	To be considered.	May be considered by EPA in selecting disposition option for sediments.

**Table T-2.a: Alternative TD 2 (Local In-Water CDF) – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Reference Doses	EPA's IRIS <a href="http://www.epa.gov/iris/webp/iris/index.html">http://www.epa.gov/iris/webp/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly associated with exposure to PCBs.	To be considered.	May be considered by EPA in selecting disposition option for sediments.
<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 purported carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing EPA's Cancer Slope Factors. May be considered by EPA in selecting disposition option for sediments.
<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.	May be considered by EPA in selecting disposition option for sediments.
<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.	May be considered by EPA in selecting disposition option for sediments.
<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 purported 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 disposition option for sediments.

**Table T-2.b: Alternative TD 2 (Local In-Water CDF) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 practicable 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 the discharges of dredge or fill material resulting from construction of Confined Disposal Facility(ies) (CDF(s)) in Woods Pond and/or backwaters and from the disposal of hydraulically dredged sediments in the CDF(s).	<p>(a) The requirement that there be no practicable alternative with less adverse impact on aquatic ecosystem would not be met.</p> <p>(b) It is not expected that placement or presence of PCB-containing sediments in the CDF(s) would have an appreciable long-term effect on attainment of the state water quality criteria, for reasons given in Table T-2.a.</p> <p>(c) Review of available information indicates that there are no federally listed T&amp;E species in the areas that would be affected by CDF(s). Thus, the CDF(s) would not jeopardize the existence of such species.</p> <p>(d) The CDF(s) would not be expected to cause significant degradation of Housatonic River water, since they would be enclosed by sheetpiles on the river side and berms on the land side and would be built to withstand high-flow events, and since the solids and associated PCBs in the water flowing through the permeable berms would be expected to be filtered out in the berms (and additional filter dams if needed) before that water is redirected into the river.</p> <p>(e) To minimize or mitigate adverse effects on aquatic ecosystem, TD 2 would include: (i) implementation of measures (e.g., water column monitoring, visual observations for leaks or breaches) to prevent impacts on the river water during pumping of sediments into CDF(s); (ii) upon completion, placement of soil covers over CDF(s) and planting them with appropriate vegetation; and (iii) if necessary, development of an appropriate wetlands mitigation plan. However, it would not be feasible to provide complete flood storage</p>

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**Table T-2.b: Alternative TD 2 (Local In-Water CDF) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				<p>compensation for the loss of flood storage capacity resulting from CDF(s) due to the large volume required and the lack of any suitable places to obtain that volume of compensation at the appropriate elevations/areas without creating other adverse effects on the river or floodplain (i.e., a large hole). Thus, if the required steps were considered to include such a requirement, that requirement would not be met.</p>
	<p>33 CFR Part 332 (ACOE) 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 construction of CDF(s) and disposal of sediments in CDF(s)</p>	<p>These regulations would require a compensatory mitigation plan to address the unavoidable adverse impacts of the CDF(s) on the aquatic ecosystem. However, even if such a plan were implemented, considerable adverse impacts would remain. See Revised CMA Report, Sections 9.2.5.3 and 9.2.7.</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 construction of CDF(s) and disposal of sediments in CDF(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 creation of CDF(s).</p>

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**Table T-2.b: Alternative TD 2 (Local In-Water CDF) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
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 creation of CDF(s).	Would be attained through consultation by EPA with U.S. Fish and Wildlife Service and MA Department of Fish and Game.
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 (including archaeological) 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.	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.	It is anticipated that these requirements would be met through: consultation by EPA with the State Tribal Historic Preservation Office (and, if applicable, any pertinent Tribal Historic Preservation Office); evaluation of the CDF location(s) to determine the "area of potential effects" of the CDF(s) and the potential for that area to contain properties included or eligible for inclusion in NRHP; determination of whether the CDF(s) would have an adverse impact on such a property; and if so, evaluation – and, as appropriate, implementation – of alternatives to avoid, or measures to minimize or mitigate, the adverse impacts.

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**Table T-2.b: Alternative TD 2 (Local In-Water CDF) – 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.	If it is determined that TD 2 could cause the loss or destruction of archaeological or historic data, it is anticipated that EPA would notify DOI as required.
<b>State ARARs</b>				
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. Includes standards governing engineering and construction of fill and structures to be placed in waterbodies (§ 9.37). Also requires compliance with other specified environmental regulatory programs (§ 9.33).	Applicable to construction of CDF(s) and disposal of sediments in CDF(s).	CDF(s) would be designed and constructed to meet the applicable standards for construction in waterways (§ 9.37). (The other relevant environmental regulatory programs referenced in § 9.33 are discussed separately in these ARARs tables.)
Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act)	314 CMR 9.06	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 wetlands; (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under Wetlands Protection Act; (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 discharge of dredged or fill material resulting from construction of CDF(s) and disposal of sediments in CDF(s).	(a) The requirement that there be no practicable alternative with less adverse impact on aquatic ecosystem would not be met.  (b) To minimize adverse effects on land under water and wetlands, TD 2 would include: (i) measures to prevent impacts on the river water during construction of CDF(s) and pumping of sediments into CDF(s); and (ii) upon completion, placement of soil covers over CDF(s) and planting them with appropriate vegetation.  (c) The backwater areas identified for potential CDF(s) and a portion of the area of Woods Pond identified for a potential CDF are within, and would adversely affect, the state-mapped estimated habitat of rare wildlife species (as shown on Figure T-2).

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**Table T-2.b: Alternative TD 2 (Local In-Water CDF) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				<p>Thus, the prohibition on actions with adverse effects on such habitat would not be met.</p> <p>(d) Stormwater discharges would be controlled with BMPs during construction and filling of CDF(s) and following closure.</p> <p>(e) It is not expected that the CDF(s) would cause substantial long-term effects on Housatonic River water for reasons given above.</p>
	314 CMR 9.07(1)	Prohibits disposal of dredged material if a feasible alternative exists that involves reuse, recycling, or contaminant destruction and/or detoxification. Lists factors to be considered in evaluating feasibility of such an alternative.	Applicable to disposal of dredged material in CDF(s)	This requirement would be met because, based on evaluation of the various TD alternatives, there is no feasible alternative that involves reuse, recycling, or contaminant destruction and/or detoxification, considering the factors listed in this provision.
	314 CMR 9.07(8)	Standards for confined disposal of dredged sediments, including requirements that: (a) there must be no practicable alternative with less impact on aquatic ecosystem; (b) appropriate and practicable steps must be taken to avoid, minimize, or mitigate adverse environmental impacts; and (c) a confined disposal facility must meet specified siting criteria and design standards.	Applicable to creation of CDF(s).	The requirement that there be no practicable alternative with less adverse impact on aquatic ecosystem would not be met. Steps to minimize or mitigate adverse environmental effects are discussed above. Based on current information, it appears that the CDF(s) would meet the specified siting criteria except that: (a) the backwater CDF area(s) and a majority of the Woods Pond CDF area are within state-mapped Priority Habitat of rare species (see Figure T-2) and would adversely affect that habitat; (b) a portion of the most northern backwater that might be used for a CDF would be located within, and thus have some adverse effect on, a state Wildlife Management Area; and (c) due to the location of the CDF(s) within the Upper Housatonic Area of Critical Environmental Concern (ACEC), the prohibition on confined disposal facilities within an ACEC would not be met. The CDF(s) would meet the specified design standards except that they would not have an impervious cover or prevent run-on from a 25-year flood, since it is not their purpose to prevent any infiltration of precipitation or run-on water into the CDF(s).

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**Table T-2.b: Alternative TD 2 (Local In-Water CDF) – 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 &amp; 10.60 310 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 authorized as a “limited project” if they: (a) have no practicable alternative, consistent with the Massachusetts Contingency Plan (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 to resource areas, 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 and 10.60 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>Applicable to construction of CDF(s) and disposal of sediments in CDF(s).</p>	<p>Since TD 2 would be a response action, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> <li>▪ The requirement that there be no practicable alternative with less adverse impact on resource areas would not be met.</li> <li>▪ Steps to minimize or mitigate impacts to resource areas are discussed above. Given the impacts of the CDF(s) on river hydrology and the resulting permanent reduction in existing flood storage capacity in Woods Ponds and/or the backwaters, it is uncertain whether TD 2 would meet the requirements to minimize hydrological changes and to provide compensatory flood storage. The applicability of the latter requirement is unclear, since it applies where flood storage capacity is lost as a result of projects within floodplain areas but not specifically within the waterbodies themselves. However, if it is applicable, it would not be feasible to provide complete flood storage compensation due to the large volume required and the lack of any suitable places to obtain that volume of compensation at the appropriate elevations/areas without creating other adverse effects on the river or floodplain, as discussed above. Thus, that requirement, if applicable, would not be met.</li> <li>▪ The backwater CDF area(s) and a portion of the CDF area in Woods Pond are within, and would adversely affect, state-mapped estimated habitat of rare wildlife species (as shown on Figure T-2). Thus, the prohibition on actions with adverse effects on such habitat would not be met.</li> </ul> <p>In addition, if TD 2 was not considered a “limited project,” it would not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., prohibition on impairing the water-carrying capacity and the fish and wildlife habitat of land under water and banks (10.56(4), 10.54(4)).</p>

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**Table T-2.b: Alternative TD 2 (Local In-Water CDF) – 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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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 projects in areas where the work would have an area of potential impact on property(ies) listed in State Register.	An evaluation would be made through consultation with the MHC (and, if applicable, any pertinent Tribal Historic Preservation Office) as to whether the construction or operation of the CDF(s) would adversely affect any property listed in the State Register of Historic Places. If it would, the 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. Further, any person conducting any activity (including construction activity) who discovers unmarked human remains suspected of being more than 100 years old must cease activity and report the discovery to state archaeologist for evaluation.	Applicable to excavations or construction on state or local government lands in MA – or, in the case of unmarked human remains, any lands in MA.	If, during construction activities, any archaeological, paleontological, or historical site or object is discovered on state or local government lands, or any unmarked human remains potentially over 100 years old are discovered, these requirements for notification and (if applicable) preservation would be met.

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**Table T-2.b: Alternative TD 2 (Local In-Water CDF) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA.	The requirement that there be no practicable alternative with less adverse impact on wetlands would not be met. To minimize harm to wetlands, soil cover(s) would be placed over CDF(s) upon completion and planted with appropriate vegetation.

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**Table T-2.c: Alternative TD 2 (Local In-Water CDF) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
Toxic Substances Control Act (TSCA) regulations on disposal of PCB Remediation Waste	40 CFR 761.50(d)(4) 40 CFR 761.61(b) & (c) 40 CFR 761.75	Section 761.75(b) establishes standards and requirements for chemical waste landfills used for disposal of PCBs, including siting, design, operation, and monitoring requirements. Any of these requirements may be waived by EPA under § 761.75(c)(4) if EPA finds it not necessary to protect against unreasonable risk of injury to health or the environment. In addition, § 761.61(c) allows for risk based approval of alternate method of disposal of non-liquid PCB Remediation Waste if EPA finds that such method will not pose an unreasonable risk of injury to health or the environment. As another alternative, dredged material with < 50 mg/kg may be disposed of in accordance with permit under § 404 of Clean Water Act or equivalent (§ 761.61(b)(3)).	Applicable to disposal of PCB Remediation Waste in CDF(s).	The CDF(s) would not meet several of the substantive requirements of § 761.75(b) for a PCB chemical waste landfill (which were not developed for an in-water CDF). These include the requirements relating to soil characteristics or a bottom liner, hydrologic conditions, flood protection, and leachate collection. However, the requirements of the TSCA regulations could be met through an EPA determination that the CDF(s) meet(s) the substantive criteria for a waiver of the § 761.75(b) requirements under § 761.75(c)(4) or for a risk-based approval under § 761.61(c).
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 handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act – NPDES regulations (stormwater discharges)	40 CFR 122.26(c)(1)(ii)(C) 40 CFR 122.44(k)	Best management practices must be employed to control pollutants in stormwater discharges during construction activities.	Applicable to stormwater discharges to river during construction and filling of CDF.	Stormwater discharges during construction and operation of the CDF(s) would be controlled with BMPs.

\* This table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-2.b, although some of those requirements (e.g., EPA's regulations under Section 404 of Clean Water Act, Massachusetts water quality certification regulations, including its standards for confined disposal) could also be considered action-specific ARARs for TD 2.

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**Table T-2.c: Alternative TD 2 (Local In-Water CDF) – Potential Action-Specific ARARs \***

Authority/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 steps set forth in the regulations must be followed.	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 there are no federally listed T&E species or their habitat in the areas that would be affected by CFD(s), and thus TD 2 would not adversely affect any such 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 to be placed in the CDF(s) would constitute hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that the sediments to be placed in the CDF(s) would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of those sediments/soils would be conducted during design to confirm that result.
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 apply to the CDF(s) because the sediments are not expected to constitute RCRA hazardous waste and, even if they did, the CDF(s) would be located in overall area of dispersed contamination and thus not subject to these regulations under EPA's Area of Contamination (AOC) policy.	Not applicable assuming these requirements do not apply. In the unlikely event that sediments to be placed in CDF(s) were found to constitute RCRA hazardous waste and the AOC policy were determined not to apply, these requirements would be met, except that they would not prevent wash-out from a 100-year flood during filling, since the berm elevations would not be high enough to keep the water out of the active CDF(s) in such a flood.

\* This table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-2.b, although some of those requirements (e.g., EPA's regulations under Section 404 of Clean Water Act, Massachusetts water quality certification regulations, including its standards for confined disposal) could also be considered action-specific ARARs for TD 2.

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**Table T-2.c: Alternative TD 2 (Local In-Water CDF) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
RCRA requirements for hazardous waste management facilities – technical requirements for surface impoundments and landfills	40 CFR Part 264, Subpart K (surface impoundments) 40 CFR Part 264, Subpart N (landfills) 40 CFR 264.111 40 CFR 264.117	Design, operating, closure, and post-closure requirements for disposal of hazardous waste in surface impoundments and landfills.	Same as above	Not applicable assuming these requirements do not apply. In the unlikely event that sediments to be placed in CDF(s) were found to constitute RCRA hazardous waste and the AOC policy were determined not to apply, the CDF(s) would not meet certain of these RCRA requirements, which were not developed for an in-water CDF. These include the requirements for a double liner/leachate collection system and for run-on and runoff control systems – which would be inconsistent with purpose of CDF(s) to act as filtration systems that allow water to pass through permeable berms.
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	Not applicable assuming these requirements do not apply. In the unlikely event that sediments to be placed in CDF(s) were found to constitute RCRA hazardous waste and the AOC policy were determined not to apply, these requirements could be met at the CDF(s).

\* This table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-2.b, although some of those requirements (e.g., EPA's regulations under Section 404 of Clean Water Act, Massachusetts water quality certification regulations, including its standards for confined disposal) could also be considered action-specific ARARs for TD 2.

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**Table T-2.c: Alternative TD 2 (Local In-Water CDF) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
RCRA land disposal restrictions	40 CFR Part 268	Establishes prohibitions and restrictions on, and treatment standards for, land disposal of certain hazardous wastes unless location of disposition is part of Corrective Action Management Unit (CAMU) under § 264.552 (which must be on contiguous property under control of owner where waste originated) or part of AOC under EPA's AOC policy. Includes specific alternate treatment standards for contaminated soil (which includes sediments under the definition of soil in § 268.2(k)); these are set forth in § 268.49. Under these standards, treatment would not be required if concentrations are less than 10 times the Universal Treatment Standards. Otherwise, treatment would be required to achieve 90% reduction in total concentrations for non-metals and in leachate concentrations for metals.	Same as above.	Not applicable assuming these requirements do not apply. In the unlikely event that sediments to be placed in CDF(s) were found to constitute RCRA hazardous waste and the AOC policy were determined not to apply, and to the extent (if any) that the sediments would require treatment under the alternate standards for contaminated soil in § 268.49, the placement of such wastes in the CDF(s) would not meet that requirement, because TD 2 would not involve treatment.
<b>State ARARs</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 incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as provide a setback from receiving waters and wetlands, in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during construction and operation of CDF(s).	Stormwater discharges during construction and operation of the CDF(s) would be controlled with BMPs. Those BMPs would meet these stormwater management standards, except that they could not feasibly include a setback from the receiving waters since the CDF(s) would be within the water.

\* This table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-2.b, although some of those requirements (e.g., EPA's regulations under Section 404 of Clean Water Act, Massachusetts water quality certification regulations, including its standards for confined disposal) could also be considered action-specific ARARs for TD 2.

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**Table T-2.c: Alternative TD 2 (Local In-Water CDF) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity within mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of a state-listed species.  Note: The MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in a state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	The backwater areas identified for CDF(s) and the majority of the Woods Pond area identified for a CDF are within mapped Priority Habitat, as shown on Figure T-2. Based on the evaluations presented in Appendix L to this Revised CMS Report, the construction and operation of the CDF(s) in those areas would result in a “take” of state-listed species (with the number dependent on the CDF location(s)). Thus, the prohibition on a “take” would not be met.
	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 ≥ 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	Applicable to determining whether excavated sediments and bank soils would constitute hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated sediments to be placed in the CDF(s) would constitute non-PCB state hazardous waste. However, representative TCLP testing of sediments would be conducted during design to confirm that result.

\* This table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-2.b, although some of those requirements (e.g., EPA’s regulations under Section 404 of Clean Water Act, Massachusetts water quality certification regulations, including its standards for confined disposal) could also be considered action-specific ARARs for TD 2.

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

**Table T-2.c: Alternative TD 2 (Local In-Water CDF) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		<p>constitute state hazardous wastes on other grounds are referred to in this table as “non-PCB state hazardous waste.”)</p> <p>The Massachusetts hazardous waste regulations exempt dredged material that is placed in a confined disposal facility under 314 CMR 9.07 and managed in accordance with a state water quality certification and the requirements of a permit under § 404 of Clean Water Act.</p> <p>In addition, under the Massachusetts Contingency Plan (MCP), the on-site disposal of contaminated media constituting hazardous waste as part of a remedial action under the MCP (including its “adequately regulated” provisions) is exempt from the state hazardous waste regulations unless MDEP determines that compliance with those regulations is required (310 CMR 40.0033(5)).</p>		
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 apply to the CDF(s) if, as expected, the sediments to be placed in the CDF(s) do not constitute non-PCB state hazardous waste. Further, even if some sediments did constitute such hazardous waste, the CDF(s) should be exempt from these requirements under the exemptions described above.	Not applicable assuming these requirements do not apply. In the unlikely event that sediments to be placed in CDF(s) were found to constitute non-PCB state hazardous waste and the above-mentioned exemptions were determined not to apply, these requirements would be met.

\* This table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-2.b, although some of those requirements (e.g., EPA’s regulations under Section 404 of Clean Water Act, Massachusetts water quality certification regulations, including its standards for confined disposal) could also be considered action-specific ARARs for TD 2.

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

**Table T-2.c: Alternative TD 2 (Local In-Water CDF) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste management regulations – location standards for hazardous waste surface impoundments and landfills	310 CMR 30.701(6), 30.702, 30.703(2)-(4), 30.704, 30.705(1), (3) & (6), 30.706	Location standards for hazardous waste surface impoundments and landfills, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in watershed of Class A surface waters, (c) in wetlands, (d) in any waterbody, (e) within ½ mile or a delineated Zone 2 of a public water supply well, (f) on land overlying an actual, planned, or potential public underground drinking water source, (g) within 1000 feet of a private drinking water well, (h) without a 200-foot buffer zone to fenceline, or (i) for landfills, within flow path of groundwater that constitutes an actual or potential public or private drinking water source. Potential public drinking water source is defined as groundwater capable of yielding ≥ 100 gallons per minute (gpm) and having < 10,000 mg/L of total dissolved solids (TDS); potential private drinking water source is defined as groundwater capable of yielding 2 to 100 gpm and having < 10,000 mg/L of TDS.	Same as above.	Not applicable assuming these requirements do not apply. In the unlikely event that sediments to be placed in CDF(s) were found to constitute non-PCB state hazardous waste and the above-mentioned exemptions were determined not to apply, the CDF(s) would not meet some of these standards (i.e., the prohibition on hazardous waste surface impoundments and landfills within 500-year floodplain or in wetlands or waterbodies) and potentially others (e.g., the prohibitions on location within 1000 feet of private drinking water well or over or in the flow path of a potential public drinking water source or in the flow path of an actual or potential private drinking water source), which would be investigated in design.

\* This table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-2.b, although some of those requirements (e.g., EPA's regulations under Section 404 of Clean Water Act, Massachusetts water quality certification regulations, including its standards for confined disposal) could also be considered action-specific ARARs for TD 2.

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**Table T-2.c: Alternative TD 2 (Local In-Water CDF) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste management regulations – technical requirements for hazardous waste surface impoundments and landfills	310 CMR 30.602 310 CMR 30.610 (surface impoundments) 310 CMR 30.620 (landfills) 310 CMR 30.580 310 CMR 30.590	Requirements for design, operation, closure and post-closure care of landfills used for disposal of hazardous waste.	Same as above.	Not applicable assuming these requirements do not apply. In the unlikely event that sediments to be placed in CDF(s) were found to constitute non-PCB state hazardous waste and the above-mentioned exemption were determined not to apply, the CDF(s) would not meet certain of these requirements (which were not developed for an in-water CDF). These include the requirements that the facility have a double liner, a bottom liner at least 4 feet above probable high groundwater table, a leak detection system, a run-on diversion/control system, and a runoff management system. These requirements would either be infeasible for an in-water CDF or inconsistent with purpose of CDF(s) to act as filtration systems that allow water to pass through permeable berms.
	310 CMR 30.660	Groundwater protection requirements for hazardous waste landfills, including monitoring system requirements; groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.	Same as above.	Not applicable assuming these requirements do not apply. In the unlikely event that sediments to be placed in CDF(s) were found to constitute non-PCB state hazardous waste and the above-mentioned exemption were determined not to apply, these requirements could be met at the CDF(s).

\* This table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-2.b, although some of those requirements (e.g., EPA's regulations under Section 404 of Clean Water Act, Massachusetts water quality certification regulations, including its standards for confined disposal) could also be considered action-specific ARARs for TD 2.

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

**Table T-2.c: Alternative TD 2 (Local In-Water CDF) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Massachusetts air pollution control requirements	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 activities generating dust during construction of CDF(s).	Would be attained through use of dust control measures and particulate and PCB monitoring during construction activities that could generate dust, along with response actions if certain action levels are exceeded.
<b>To Be Considered</b>				
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 mg/kg or greater.	To be considered.	Would be considered in the event of any new PCB spill that occurs during the construction or operation of the CDF(s).
<i>Use of Area of Contamination (AOC) Concept During RCRA Cleanups (EPA, 1995)</i>	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, the technical RCRA design and operating requirements for a hazardous waste landfill and the RCRA land disposal restrictions for hazardous waste would not apply to the CDF(s), even if sediments placed there were to constitute RCRA hazardous waste, because CDF(s) would be within the overall area of dispersed contamination.

\* This table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-2.b, although some of those requirements (e.g., EPA’s regulations under Section 404 of Clean Water Act, Massachusetts water quality certification regulations, including its standards for confined disposal) could also be considered action-specific ARARs for TD 2.

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

**Table T-3.a: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly associated with exposure to PCBs.	To be considered.	May be considered by EPA in selecting disposition option for removed sediments and soils.
Reference Doses	EPA's IRIS <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly associated with exposure to PCBs.	To be considered.	May be considered by EPA in selecting disposition option for removed sediments and soils.
<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 purported carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing EPA's Cancer Slope Factors. May be considered by EPA in selecting disposition option for removed sediments and soils.
<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.	May be considered by EPA in selecting disposition option for removed sediments and soils.
<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.	May be considered by EPA in selecting disposition option for removed sediments and soils.

**Table T-3.a: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<p><i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)</p>	<p>Report available from National Academies Press</p>	<p>Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and purported risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.</p>	<p>To be considered.</p>	<p>Should be considered by EPA in selecting disposition option for removed sediments and soils.</p>

**Table T-3.b: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 to waters of the United States: (a) there must be no practicable alternative with less adverse impact on aquatic ecosystem (including wetlands); (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.	The Massachusetts GIS wetlands mapping shows a small (0.4-acre) shrub swamp that would be within the maximum (but not minimum) operational footprint of an Upland Disposal Facility at the Woods Pond Site. It is unknown whether this wetland would constitute a water of the United States subject to these regulations (an issue that would be investigated during design). If it would, and if the facility operational footprint is large enough to impact this wetland, these regulations would be applicable to the filling of this wetland as part of TD 3.	If the operational footprint of an Upland Disposal Facility is large enough to affect the shrub swamp described in the prior column, and if that swamp is subject to these regulations:  (a) EPA would need to find that there is no practicable alternative with less adverse impact on wetlands, or waive that requirement.  (b) The facility would not cause or contribute to a violation of a state water quality standard or toxic effluent standard.  (c) Review of available information indicates that there are no federal T&E species in the area of this site. Thus, the facility would not jeopardize the existence of any such species.  (d) The use of this site would not cause significant degradation of waters of the U.S. apart from the filling of the small shrub swamp. If that is considered a significant adverse effect, the prohibition on actions with such effects would not be met.  (e) Appropriate and practicable steps would be taken during construction and use of the Upland Disposal Facility to minimize or mitigate potential adverse ecological effects, but could not avoid impacting the shrub swamp.

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**Table T-3.b: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – 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 involving discharge of dredge or fill material to waters of the United States will have unavoidable adverse impacts on the aquatic ecosystem after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation (as described in Table T-2.b).</p>	<p>Uncertain. If the operational footprint of an Upland Disposal Facility at this site is large enough to impact the small shrub swamp described above, and if that swamp is considered to constitute a water of the United States, these regulations would be applicable to the filling of all or part of this wetland as part of TD 3.</p>	<p>If the operational footprint of an Upland Disposal Facility is large enough to affect the shrub swamp described in the prior column, and if that swamp is subject to these regulations, an assessment would be made as to whether the impact on this wetland is significant enough to trigger the requirement for compensatory mitigation. If so, a compensatory mitigation plan would be necessary to address the unavoidable adverse impact of the Upland Disposal Facility on that wetland.</p>
<p>National Historic Preservation Act and regulations</p>	<p>16 USC 470f</p> <p>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 (including archaeological) 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>The majority of the Woods Pond Site has previously been disturbed such that it would not be expected to contain properties eligible for inclusion in the NRHP. However, this site would be evaluated through: consultation by EPA with the State and Historic Preservation Office (and, if applicable, any pertinent Tribal Historic Preservation Office); determination of the "area of potential effects" of the Upland Disposal Facility and the potential for that area to contain properties included or eligible for inclusion in NRHP; determination of whether the facility would have an adverse impact on such a property; and if so, evaluation – and, as appropriate, implementation – of alternatives to avoid, or measures to minimize or mitigate, the adverse impacts.</p>

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**Table T-3.b: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – 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.	While this site is unlikely to contain archaeological or historic data, if it is determined that construction of the Upland Disposal Facility at this site could cause the loss or destruction of such data, it is anticipated that EPA would notify DOI as required.
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act)	314 CMR 9.06	For discharge of dredged or fill material to waters of the U.S. in Massachusetts: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem (including wetlands); (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on wetlands; (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under Wetlands Protection Act; (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.	Uncertain. If the operational footprint of an Upland Disposal Facility at this site is large enough to impact the small shrub swamp mapped within the maximum operational footprint (as described above), and if that swamp is considered to constitute a water of the United States, these regulations would be applicable to the filling of this wetland as part of TD 3.	<p>If the operational footprint of an Upland Disposal Facility is large enough to affect the shrub swamp described in the prior column, and if that swamp constitutes a water of the U.S.:</p> <p>(a) EPA would need to find that there is no practicable alternative with less adverse impact on wetlands, or waive that requirement.</p> <p>(b) Appropriate and practicable steps would be taken during construction and use of the Upland Disposal Facility to minimize or mitigate potential adverse ecological effects, but could not avoid impacting the shrub swamp.</p> <p>(c) The facility would not adversely affect estimated habitat of rare wildlife species because the Woods Pond Site is not within the state-mapped estimated habitat of any state-listed wildlife species.</p> <p>(d) Stormwater discharges would be controlled with BMPs during construction and use of the Upland Disposal Facility and following closure.</p>

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**Table T-3.b: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				(e) It is not expected that the facility would cause substantial long-term adverse impacts to the integrity of surface water.
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 - 10.58 & 10.60 310 CMR 10.59	<p>Under 310 CMR 10.53(3)(q), actions in resource areas responding to the release or threat of release of hazardous materials are authorized as a “limited project” if they: (a) have no practicable alternative, consistent with the Massachusetts Contingency Plan (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 to resource areas, 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 and 10.60 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>	Uncertain. If the operational footprint of an Upland Disposal Facility at this site is large enough to impact the small shrub swamp described above, and if that swamp would constitute a resource area under this statute and regulations, these requirements would be applicable to the portion of the facility impacting this wetland.	<p>If the operational footprint of an Upland Disposal Facility is large enough to affect the shrub swamp described in the prior column, and if that swamp constitutes a resource area under these regulations, then:</p> <p>(a) EPA would need to find that there is no practicable alternative with less adverse impact on resource areas, or waive the requirement that there be no such alternative.</p> <p>(b) Appropriate and practicable steps would be taken during construction and use of the Upland Disposal Facility to minimize or mitigate potential adverse effects on the resource area, but could not avoid impacting the shrub swamp.</p> <p>(c) The facility would not adversely affect estimated habitat of rare wildlife species because the Woods Pond Site is not within the state-mapped estimated habitat of any state-listed wildlife species.</p> <p>(d) If the implementation of TD 3 at the Woods Pond Site were not considered a “limited project,” it appears that it would meet or could be designed to meet the requirements of 310 CMR 10.54 – 10.58 and 10.60.</p>

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**Table T-3.b: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – 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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by 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 listed in the State Register, 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 projects in areas where the work would have an area of potential impact on property(ies) listed in State Register.	An evaluation would be made through consultation with the MHC (and, if applicable, any pertinent Tribal Historic Preservation Office) as to whether the construction or operation of the Upland Disposal Facility at the Lane Site would adversely affect any property listed in the State Register of Historic Places. If it would, the substantive provisions of these regulations would be met.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA. Thus, if the operational footprint of an Upland Disposal Facility at this site is large enough to impact the small	If the operational footprint of an Upland Disposal Facility is large enough to affect the shrub swamp described above, and if that swamp is subject to this Executive Order, EPA would need to find that there is no practicable alternative with less adverse impact on wetlands and that the project includes all practicable measures to minimize harm to wetlands, or else waive those requirements.

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**Table T-3.b: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			shrub swamp described above, and if that swamp is found to meet the definition of a wetland under this Order, this Order would be applicable to EPA..	

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**Table T-3.c: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
Toxic Substances Control Act (TSCA) regulations on disposal of PCB Remediation Waste in landfill	40 CFR 761.50(d)(4) 40 CFR 761.61(b) & (c) 40 CFR 761.75	Section 761.75(b) establishes standards and requirements for chemical waste landfills used for disposal of PCBs, including siting, design, operation, and monitoring requirements. Any of these requirements may be waived by EPA under § 761.75(c)(4) if EPA finds that that requirement is not necessary to protect against unreasonable risk of injury to health or the environment. In addition, § 761.61(c) allows for risk-based approval of alternate method of disposal of non-liquid PCB Remediation Waste if EPA finds that such method will not pose an unreasonable risk of injury to health or the environment. As another alternative, dredged material with < 50 mg/kg may be disposed of in accordance with permit under § 404 of Clean Water Act or equivalent (§ 761.61(b)(3)).	Applicable to disposal of PCB Remediation Waste in local Upland Disposal Facility.	Construction and operation of local Upland Disposal Facility at Woods Pond Site would meet the siting, design, and operation requirements of § 761.75, with the following qualifications: (a) While the site would not meet the location requirements of § 761.75(b)(1) relating to the permeability and characteristics of the existing soil, the facility would include a liner with equivalent impermeability, as allowed (with EPA approval) under § 761.75(b)(2). (b) The site may not meet certain of the hydrologic requirements of § 761.75(b)(3) relating to the depth of the groundwater table or its connection to surface water, which would be investigated during design. However, the facility would have a double liner and leachate collection system to prevent impacts to groundwater. Even if any of these specific requirements could not be met, construction and operation of the facility could still meet the TSCA regulations through an EPA determination that the facility meets the substantive criteria for a waiver of that requirement under § 761.75(c)(4) or for a risk-based approval of the facility location and design under § 761.61(c).
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 handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.

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**Table T-3.c: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Clean Water Act – NPDES regulations (storm water 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 and operation of Upland Disposal Facility.	Would be attained through use of BMPs, including stormwater diversion berms, stormwater detention basins, and drainage swales, to control erosion from stormwater discharges during construction and operation of Upland Disposal Facility and following closure of that facility.
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 steps set forth in the regulations must be followed.	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 the area of the Woods Pond Site identified for potential use for Upland Disposal Facility does not contain any federally listed T&E species or their critical habitat, and thus construction of facility would not adversely affect such species or 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 soils to be placed in Upland Disposal Facility would constitute a hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that the excavated sediments and soils to be placed in the Upland Disposal Facility would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of those sediments/soils would be conducted during design to confirm that result.

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**Table T-3.c: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – 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 – 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 Upland Disposal Facility if, as expected, the excavated sediments and soils do not constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to disposal facility.	In the unlikely event that some materials to be placed in the Upland Disposal Facility were found to constitute RCRA hazardous waste, these requirements would be met.
RCRA requirements for hazardous waste management facilities – technical requirements for landfills	40 CFR Part 264, Subpart N 40 CFR 264.111 40 CFR 264.117	Design, operating, closure, and post-closure requirements for disposal of hazardous waste in landfills.	Same as above.	In the unlikely event that some materials to be placed in the Upland Disposal Facility were found to constitute RCRA hazardous waste, the Upland Disposal Facility would meet these requirements, including requirements for double liner/leachate collection system.
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.	In the unlikely event that some materials to be placed in the Upland Disposal Facility were found to constitute RCRA hazardous waste, the Upland Disposal Facility would have groundwater monitoring system and program consistent with these requirements.

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**Table T-3.c: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
RCRA requirements for hazardous waste management facilities – technical requirements for tanks	40 CFR 264, Subpart J	Design, operating, closure, and post-closure requirements for storage or disposal of hazardous waste in tanks.	Relevant and appropriate to storage of leachate that constitutes RCRA hazardous waste (if any) in tanks.	If these requirements apply and if leachate stored in tanks at the Upland Disposal Facility should constitute RCRA hazardous waste, these requirements would be met.
RCRA land disposal restrictions	40 CFR Part 268	Establishes prohibitions and restrictions on, and treatment standards for, land disposal of certain hazardous wastes unless location of disposition is part of Corrective Action Management Unit (CAMU) under § 264.552 or part of Area of Contamination (AOC) under EPA's AOC policy. Includes specific alternate treatment standards for contaminated soil (which includes sediments under the definition of soil in § 268.2(k)); these are set forth in § 268.49. Under these standards, treatment would not be required if concentrations are less than 10 times the Universal Treatment Standards. Otherwise, treatment would be required to achieve 90% reduction in total concentrations for non-metals and in leachate concentrations for metals.	<p>These restrictions would not be expected to apply if, as expected, the excavated materials to be placed in the Upland Disposal Facility do not constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these restrictions would be applicable to disposal of such materials.</p> <p>Note: CAMU concept unlikely to apply since Woods Pond Site is not on contiguous property under control of owner where waste originated (see § 264.552). AOC policy unlikely to apply to Woods Pond Site since it is not within overall area of dispersed contamination.</p>	In the unlikely event that some materials to be placed in the Upland Disposal Facility were found to constitute RCRA hazardous waste, <u>and</u> if they would require treatment under the alternate standards for contaminated soil in § 268.49, placement of such waste in that facility would not meet these restrictions, because TD 3 would not involve treatment. In that case, either the treatment requirement should be waived as technically impracticable for TD 3 or the materials could not be placed in the Upland Disposal Facility.

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**Table T-3.c: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>State ARARs</b>				
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	<p>A proposed activity in a designated Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.</p> <p>Note: While the MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” under certain conditions, that provision is not an ARAR, as discussed in the Revised CMS Report (Section 5.4).</p>	Applicable to activities in a State-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species.	Would be attained because the area of the Woods Pond Site identified for potential use for Upland Disposal Facility does not include any state-mapped Priority Habitat, as shown on Figure T-3, and GE is not aware of any other information indicating the presence of a state-listed species within this area.
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 <math>\geq</math> 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, under the Massachusetts Contingency Plan (MCP), the on-site disposal of contaminated media constituting hazardous waste as part of a remedial action under the MCP (including its “adequately regulated” provisions) is exempt from the state hazardous waste</p>	Applicable to determining whether excavated sediments or soils would constitute hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated sediments or soils to be placed in the Upland Disposal Facility would constitute non-PCB state hazardous waste. However, representative TCLP testing of those sediments/soils would be conducted during design to confirm that result.

\* This table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-3.b.

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**Table T-3.c: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		regulations unless MDEP determines that compliance with those regulations is required (310 CMR 40.0033(5)).		
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 apply to Upland Disposal Facility if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under the MCP unless MDEP determines otherwise. However, if some materials did constitute such hazardous waste and the facility was not exempt under the MCP, these requirements would be applicable to the disposal facility.	In the unlikely event that materials to be placed in the Upland Disposal Facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, these requirements would be met.
Massachusetts hazardous waste management regulations – location standards for hazardous waste landfills	310 CMR 30.701(6), 30.702, 30.703(2)-(4), 30.704, 30.705(1), (3) & (6), 30.706	Location standards for hazardous waste landfills, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in watershed of Class A surface waters, (c) in wetlands, (d) in any waterbody, (e) within ½ mile or a delineated Zone 2 of a public water supply well, (f) on land overlying or in flow path of an actual, planned, or potential public underground drinking water source,	Same as above.	In the unlikely event that materials to be placed in the Upland Disposal Facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the facility at Woods Pond Site would meet these standards, except that: (a) it would be within ½ mile of an existing public drinking water well in an adjacent campground; and (b) it could potentially be located within 1000 feet of a private drinking water well or over or within flow path of a potential public

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**Table T-3.c: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		(g) within 1000 feet or in flow path of private drinking water well, (h) in flow path of potential private underground drinking water source, or (i) without a 200-foot buffer zone to fenceline. Potential public drinking water source is defined as groundwater capable of yielding $\geq 100$ gpm and having $< 10,000$ mg/L of TDS; potential private drinking water source is defined as groundwater capable of yielding 2 to 100 gpm and having $< 10,000$ mg/L of TDS.		drinking water source or within flow path of an existing private drinking water well or a potential private drinking water source – all of which would be investigated during design.
Massachusetts hazardous waste management regulations – technical requirements for hazardous waste landfills	310 CMR 30.602 310 CMR 30.620 310 CMR 30.580 310 CMR 30.590	Requirements for design, operation, closure and post-closure care of landfills used for disposal of hazardous waste.	Same as above.	In the unlikely event that materials to be placed in the Upland Disposal Facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the facility would meet these requirements, including double liner/leachate collection system requirement.
	310 CMR 30.660	Groundwater protection requirements for hazardous waste landfills, including monitoring system requirements; groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.		In the unlikely event that materials to be placed in the Upland Disposal Facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the facility would have groundwater monitoring system and program consistent with these requirements.
Massachusetts air pollution control requirements	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 activities generating dust.	Would be attained through use of dust control measures during construction and operation of the facility and through monthly air monitoring for PCBs and daily air monitoring for particulate matter during facility operations, along with response actions if certain action levels are exceeded.

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**Table T-3.c: Alternative TD 3 (Local Upland Disposal) at Woods Pond Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<b>To Be Considered</b>				
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 mg/kg or greater.	To be considered for any new PCB spills that occur during the work.	Would be considered in the event of any new PCB spill that occurs during the construction or operation of the Upland Disposal Facility.

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**Table T-3.d: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly associated with exposure to PCBs.	To be considered.	May be considered by EPA in selecting disposition option for removed sediments and soils.
Reference Doses	EPA's IRIS <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly associated with exposure to PCBs.	To be considered.	May be considered by EPA in selecting disposition option for removed sediments and soils.
<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 purported carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing EPA's Cancer Slope Factors. May be considered by EPA in selecting disposition option for removed sediments and soils.
<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.	May be considered by EPA in selecting disposition option for removed sediments and soils.
<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.	May be considered by EPA in selecting disposition option for removed sediments and soils.

**Table T-3.d: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<p><i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)</p>	<p>Report available from National Academies Press</p>	<p>Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and purported risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.</p>	<p>To be considered.</p>	<p>Should be considered by EPA in selecting disposition option for removed sediments and soils.</p>

**Table T-3.e: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
<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 to waters of the United States: (a) there must be no practicable 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&amp;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>The maximum operational footprint for an Upland Disposal Facility at the Forest Street Site would require building a new crossing of small stream (Goose Pond Brook) in the southern portion of the site for an access road, and doing so may involve discharge of dredge or fill material to that stream. If so, these regulations would be applicable to that discharge.</p>	<p>If the construction of an Upland Disposal Facility at the Forest Street Site would require discharge of dredge or fill material to a stream in the course of building a new stream crossing:</p> <p>(a) EPA would need to find that there is no practicable alternative with less adverse impact on the aquatic ecosystem, or waive that requirement.</p> <p>(b) This activity would not be expected to cause or contribute to a violation of a state water quality standard or toxic effluent standard.</p> <p>(c) Review of available information indicates that there are no federal T&amp;E species in the area of this site. Thus, the facility would not jeopardize the existence of any such species.</p> <p>(d) The construction and use of this stream crossing would not be expected to cause significant degradation of waters of the U.S.</p> <p>(e) Appropriate and practicable steps would be taken during construction of the stream crossing, including use of erosion and sedimentation control measures, to minimize or mitigate potential adverse effects on the aquatic ecosystem.</p>

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**Table T-3.e: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
	33 CFR Part 332 (ACOE) 40 CFR Part 203, Subpart J (EPA)	Compensatory mitigation regulations: If project involving discharge of dredge or fill material to waters of the United States will have unavoidable adverse impacts on the aquatic ecosystem after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation (as described in Table T-2.b).	If construction of an Upland Disposal Facility at this site would require building a new stream crossing that would involve a discharge of dredge or fill material to that stream, these regulations would be applicable to that discharge.	If these regulations are applicable, they would be met, because the building of a stream crossing would not be expected to cause any unavoidable loss of or long-term adverse impacts to the aquatic ecosystem, and thus no compensatory mitigation would be necessary.
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 (including archaeological) 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.	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.	Forest Street Site would be evaluated through: consultation by EPA with the State and Historic Preservation Office (and, if applicable, any pertinent Tribal Historic Preservation Office); determination of the "area of potential effects" of the Upland Disposal Facility and the potential for that area to contain properties included or eligible for inclusion in NRHP; determination of whether the facility would have an adverse impact on such a property; and if so, evaluation – and, as appropriate, implementation – of alternatives to avoid, or measures to minimize or mitigate, the adverse impacts.

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**Table T-3.e: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – 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.	If it is determined that construction of the Upland Disposal Facility at this site could cause the loss or destruction of archaeological or historic data, it is anticipated that EPA would notify DOI as required.
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act)	314 CMR 9.06	For discharge of dredged or fill material to waters of the U.S. in Massachusetts: (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 wetlands; (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under Wetlands Protection Act; (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.	If construction of an Upland Disposal Facility at the Forest Street Site would require building a new stream crossing that would involve a discharge of dredge or fill material to that stream, these regulations would be applicable to that discharge.	If the construction of an Upland Disposal Facility at the Forest Street Site would require discharge of dredge or fill material to a stream in the course of building a stream crossing:  (a) EPA would need to find that there is no practicable alternative with less adverse impact on the aquatic ecosystem, or waive that requirement.  (b) Appropriate and practicable steps would be taken during construction of the stream crossing, including use of erosion and sedimentation control measures, to minimize or mitigate potential adverse effects on the aquatic ecosystem.  (c) This activity would not adversely affect estimated habitat of rare wildlife species because the stream crossing location is not within the state-mapped estimated habitat of any state-listed wildlife species.  (d) Stormwater discharges would be controlled with BMPs during construction and use of the stream crossing.

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**Table T-3.e: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				(e) It is not expected that the stream crossing would cause substantial long-term adverse impacts to the integrity of surface water.
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 - 10.58 & 10.60 310 CMR 10.59	Under 310 CMR 10.53(3)(q), actions in resource areas responding to the release or threat of release of hazardous materials are authorized as a “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 to resource areas, 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 and 10.60 would apply.  In either case, under 310 CMR 10.59, the action must have no adverse effect on estimated habitat of rare wildlife species.	The maximum operational footprint for an Upland Disposal Facility at the Forest Street Site would require building a new stream crossing of Goose Pond Brook and would be within the 100-foot buffer of that stream. In addition, portions of both the minimum and maximum operational footprints for the facility would be within the 200-foot Riverfront Area of Goose Pond Brook (which is a resource area under this Act). Thus, the requirements of this Act and regulations would be applicable to the construction activities within these resource areas.	(a) EPA would need to find that there is no practicable alternative with less adverse impact on resource areas, or waive the requirement that there be no such alternative.  (b) Appropriate and practicable steps would be taken during construction, including use of erosion and sedimentation control measures, to minimize or mitigate potential adverse effects on the resource area(s).  (c) Construction activities would not adversely affect estimated habitat of rare wildlife species because they would not occur within or affect the state-mapped estimated habitat of any state-listed wildlife species.  (d) If the construction activities in resource areas were not considered a “limited project,” they might not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., the requirement to maintain a 100-foot wide area of undisturbed vegetation along the stream in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).

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**Table T-3.e: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – 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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by 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 listed in the State Register, 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 projects in areas where the work would have an area of potential impact on property(ies) listed in State Register.	An evaluation would be made through consultation with the MHC (and, if applicable, any pertinent Tribal Historic Preservation Office) as to whether the construction or operation of the Upland Disposal Facility at the Forest Street Site would adversely affect any property listed in the State Register of Historic Places. If it would, the substantive provisions of these regulations would be met.
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA. Thus, if construction of an Upland Disposal Facility at this site would require building a new stream crossing, this Order would be applicable to EPA.	If this Order is applicable, EPA would need to find that there is no practicable alternative with less adverse impact on wetlands or else to waive that requirement. The construction of a stream crossing would implement all practicable measures, including erosion and sedimentation controls, to minimize harm to wetlands.

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**Table T-3.f: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
TSCA regulations on disposal of PCB Remediation Waste in landfill	40 CFR 761.50(d)(4) 40 CFR 761.61(b) & (c) 40 CFR 761.75	Section 761.75(b) establishes standards and requirements for chemical waste landfills used for disposal of PCBs, including siting, design, operation, and monitoring requirements. Any of these requirements may be waived by EPA under § 761.75(c)(4) if EPA finds that that requirement is not necessary to protect against unreasonable risk of injury to health or the environment. In addition, § 761.61(c) allows for risk-based approval of alternate method of disposal of non-liquid PCB Remediation Waste if EPA finds that such method will not pose an unreasonable risk of injury to health or the environment. As another alternative, dredged material with < 50 mg/kg may be disposed of in accordance with permit under § 404 of Clean Water Act or equivalent (§ 761.61(b)(3)).	Applicable to disposal of PCB Remediation Waste in local Upland Disposal Facility.	Construction and operation of local Upland Disposal Facility at Forest Street Site would meet the siting, design, and operation requirements of § 761.75, with the following qualifications: (a) While the site would not meet the location requirements of § 761.75(b)(1) relating to the permeability and characteristics of the existing soil, the facility would include a liner with equivalent impermeability, as allowed (with EPA approval) under § 761.75(b)(2). (b) The site may not meet certain of the hydrologic requirements of § 761.75(b)(3) relating to the depth of the groundwater table or its connection to surface water (which would be investigated during design); however, the facility would have a double liner and leachate collection system to prevent impacts to groundwater. (c) The site would not meet the topography requirement of § 761.75(b)(5) that a TSCA landfill be located in an area of low to moderate relief to minimize erosion, landslides, and slumping; however, controls would be implemented to minimize such occurrences. To the extent that any of these specific requirements could not be met, construction and operation of the facility could still meet the TSCA regulations through an EPA determination that the facility meets the substantive criteria for a waiver of that requirement under § 761.75(c)(4) or for a risk-based approval of the facility location and design under § 761.61(c).
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 handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.

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**Table T-3.f: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Clean Water Act – NPDES regulations (storm water 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 and operation of Upland Disposal Facility.	Would be attained through use of BMPs, including stormwater diversion berms, stormwater detention basins, and drainage swales, to control erosion from stormwater discharges during construction and operation of Upland Disposal Facility and following closure of that facility.
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 steps set forth in the regulations must be followed.	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 the area of the Forest Street Site identified for potential use for Upland Disposal Facility does not contain any federally listed T&E species or their critical habitat, and thus construction of facility would not adversely affect such species or 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 soils to be placed in Upland Disposal Facility would constitute hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that the excavated sediments and soils to be placed in the Upland Disposal Facility would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of those sediments/soils would be conducted during design to confirm that result.

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**Table T-3.f: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – 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 – 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 Upland Disposal Facility if, as expected, the excavated sediments and soils do not constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to disposal facility.	In the unlikely event that some materials to be placed in the Upland Disposal Facility were found to constitute RCRA hazardous waste, these requirements would be met.
RCRA requirements for hazardous waste management facilities – technical requirements for landfills	40 CFR Part 264, Subpart N 40 CFR 264.111 40 CFR 264.117	Design, operating, closure, and post-closure requirements for disposal of hazardous waste in landfills.	Same as above.	In the unlikely event that some materials to be placed in the Upland Disposal Facility were found to constitute RCRA hazardous waste, the Upland Disposal Facility would meet these requirements, including requirements for double liner/leachate collection system.
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.	In the unlikely event that some materials to be placed in the Upland Disposal Facility were found to constitute RCRA hazardous waste, the Upland Disposal Facility would have groundwater monitoring system and program consistent with these requirements.

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**Table T-3.f: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA requirements for hazardous waste management facilities – technical requirements for tanks	40 CFR 264, Subpart J	Design, operating, closure, and post-closure requirements for storage or disposal of hazardous waste in tanks.	Relevant and appropriate to storage of leachate that constitutes RCRA hazardous waste (if any) in tanks.	If these requirements apply and if leachate stored in tanks at the Upland Disposal Facility should constitute RCRA hazardous waste, these requirements would be met.
RCRA land disposal restrictions	40 CFR Part 268	Establishes prohibitions and restrictions on, and treatment standards for, land disposal of certain hazardous wastes unless location of disposition is part of Corrective Action Management Unit (CAMU) under § 264.552 or part of Area of Contamination (AOC) under EPA's AOC policy. Includes specific alternate treatment standards for contaminated soil (which includes sediments under the definition of soil in § 268.2(k)); these are set forth in § 268.49. Under these standards, treatment would not be required if concentrations are less than 10 times the Universal Treatment Standards. Otherwise, treatment would be required to achieve 90% reduction in total concentrations for non-metals and in leachate concentrations for metals.	These restrictions would not be expected to apply if, as expected, the excavated materials to be placed in the Upland Disposal Facility do not constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these restrictions would be applicable to disposal of such materials.  Note: CAMU concept unlikely to apply since Forest Street Site is not on contiguous property under control of owner where waste originated (see § 264.552). AOC policy unlikely to apply to Forest Street Site since it is not within overall area of dispersed contamination.	In the unlikely event that some materials to be placed in the Upland Disposal Facility were found to constitute RCRA hazardous waste, <u>and</u> if they would require treatment under the alternate standards for contaminated soil in § 268.49, placement of such waste in that facility would not meet these restrictions, because TD 3 would not involve treatment. In that case, either the treatment requirement should be waived as technically impracticable for TD 3 or the materials could not be placed in the Upland Disposal Facility.

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**Table T-3.f: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>State ARARs</b>				
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	<p>A proposed activity in a designated Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of such a species.</p> <p>Note: While the MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” under certain conditions, that provision is not an ARAR, as discussed in the Revised CMS Report (Section 5.4).</p>	Applicable to activities in a State-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species.	Would be attained because the area of the Forest Street Site identified for potential use for Upland Disposal Facility does not include any state-mapped Priority Habitat, as shown on Figure T-3, and GE is not aware of any other information indicating the presence of a state-listed species within this area.
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 <math>\geq</math> 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, under the Massachusetts Contingency Plan (MCP), the on-site disposal of contaminated media constituting hazardous waste as part of a remedial action under the MCP (including its “adequately regulated” provisions) is exempt from the state hazardous waste regulations unless MDEP determines that</p>	Applicable to determining whether excavated sediments or soils would constitute hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated sediments or soils to be placed in the Upland Disposal Facility would constitute non-PCB state hazardous waste. However, representative TCLP testing of those sediments/soils would be conducted during design to confirm that result.

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**Table T-3.f: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		compliance with those regulations is required (310 CMR 40.0033(5)).		
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 apply to the Upland Disposal Facility if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under the MCP unless MDEP determines otherwise. However, if some materials did constitute such hazardous waste and the facility was not exempt under the MCP, these requirements would be applicable to the disposal facility.	In the unlikely event that materials to be placed in the Upland Disposal Facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, these requirements would be met.
Massachusetts hazardous waste management regulations – location standards for hazardous waste landfills	310 CMR 30.701(6), 30.702, 30.703(2)-(4), 30.704, 30.705(1), (3) & (6), 30.706	Location standards for hazardous waste landfills, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in watershed of Class A surface waters, (c) in wetlands, (d) in any waterbody, (e) within ½ mile or a delineated Zone 2 of a public water supply well, (f) on land overlying or in flow path of an actual, planned, or potential public underground drinking water source, (g) within 1000 feet or in flow path of private drinking water well, (h) in flow path	Same as above.	In the unlikely event that materials to be placed in the Upland Disposal Facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the facility at Forest Street Site would meet these standards, except that it could potentially be located within 1000 feet of a private drinking water well or over or within flow path of a potential public drinking water source or within flow path of an existing private drinking water well or a potential private drinking water source – all of which are matters that would be investigated during design.

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**Table T-3.f: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		of potential private underground drinking water source, or (i) without a 200-foot buffer zone to fenceline. Potential public drinking water source is defined as groundwater capable of yielding $\geq 100$ gpm and having $< 10,000$ mg/L of TDS; potential private drinking water source is defined as groundwater capable of yielding 2 to 100 gpm and having $< 10,000$ mg/L of TDS.		
Massachusetts hazardous waste management regulations – technical requirements for hazardous waste landfills	310 CMR 30.602 310 CMR 30.620 310 CMR 30.580 310 CMR 30.590	Requirements for design, operation, closure and post-closure care of landfills used for disposal of hazardous waste.	Same as above.	In the unlikely event that materials to be placed in the Upland Disposal Facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the facility would meet these requirements, including double liner/leachate collection system requirement.
	310 CMR 30.660	Groundwater protection requirements for hazardous waste landfills, including monitoring system requirements; groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.		In the unlikely event that materials to be placed in the Upland Disposal Facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the facility would have groundwater monitoring system and program consistent with these requirements.
Massachusetts air pollution control requirements	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 activities generating dust.	Would be attained through use of dust control measures during construction and operation of the facility and through monthly air monitoring for PCBs and daily air monitoring for particulate matter during facility operations, along with response actions if certain action levels are exceeded.

\* This table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-3.e.

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**Table T-3.f: Alternative TD 3 (Local Upland Disposal) at Forest Street Site – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<b>To Be Considered</b>				
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 mg/kg or greater.	To be considered for any new PCB spills that occur during the work.	Would be considered in the event of any new PCB spill that occurs during the construction or operation of the Upland Disposal Facility.

\* This table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-3.e.

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**Table T-3.g: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly associated with exposure to PCBs.	To be considered.	May be considered by EPA in selecting disposition option for removed sediments and soils.
Reference Doses	EPA's IRIS <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly associated with exposure to PCBs.	To be considered.	May be considered by EPA in selecting disposition option for removed sediments and soils.
<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 purported carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing EPA's Cancer Slope Factors. May be considered by EPA in selecting disposition option for removed sediments and soils.
<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.	May be considered by EPA in selecting disposition option for removed sediments and soils.
<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.	May be considered by EPA in selecting disposition option for removed sediments and soils.

**Table T-3.g: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – 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 purported 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 disposition option for removed sediments and soils.

**Table T-3.h: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 to waters of the United States: (a) there must be no practicable alternative with less adverse impact on aquatic ecosystem (including wetlands); (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.	The maximum (but not minimum) operational footprint for an Upland Disposal Facility at the Rising Pond Site would impact a small (0.5-acre) forested wetland. It is unknown whether this wetland would constitute a water of the United States subject to these regulations (an issue that would be investigated during design). If it would, these regulations would be applicable to any filling of this wetland as part of TD 3.	If the operational footprint of the Upland Disposal Facility is large enough to impact the small wetland described in the prior column, and if that wetland constitutes a water of the U.S.:  (a) EPA would need to find that there is no practicable alternative with less adverse impact on wetlands, or waive that requirement.  (b) The facility would not cause or contribute to a violation of a state water quality standard or toxic effluent standard.  (c) Review of available information indicates that there are no federal T&E species in the area of this site. Thus, the facility would not jeopardize the existence of any such species.  (d) The use of this site would not cause significant degradation of waters of the U.S. apart from the filling of the wetland. If that is considered a significant adverse effect, the prohibition on actions with such effects would not be met.  (e) Appropriate and practicable steps would be taken during construction and use of the Upland Disposal Facility to minimize or mitigate potential adverse ecological effects, but could not avoid impacting the wetland described above.

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**Table T-3.h: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – 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 involving discharge of dredge or fill material to waters of the United States will have unavoidable adverse impacts on the aquatic ecosystem after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation (as described in Table T-2.b).</p>	<p>Uncertain. If the operational footprint of the Upland Disposal Facility at this site is large enough to impact the small wetland described above, and if that wetland is considered to constitute a water of the United States, these regulations would be applicable to the filling of this wetland as part of TD 3.</p>	<p>If the operational footprint of the Upland Disposal Facility is large enough to impact the small wetland described above, and if that wetland is subject to these regulations, an assessment would be made as to whether the impact on this wetland is significant enough to trigger the requirement for compensatory mitigation. If so, a compensatory mitigation plan would be necessary to address the unavoidable adverse impact of the Upland Disposal Facility on that wetland.</p>
<p>National Historic Preservation Act and regulations</p>	<p>16 USC 470f</p> <p>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 (including archaeological) 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>Rising Pond Site would be evaluated through: consultation by EPA with the State Historic Preservation Office (and, if applicable, any pertinent Tribal Historic Preservation Office); determination of whether the "area of potential effects" of the Upland Disposal Facility would include the Rising Paper Mill (which is listed in NRHP) or other properties included or eligible for inclusion in NRHP; determination of whether the facility would have an adverse impact on such a property; and if so, evaluation – and, as appropriate, implementation – of alternatives to avoid, or measures to minimize or mitigate, the adverse impacts.</p>

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**Table T-3.h: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – 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.	If it is determined that construction of the Upland Disposal Facility at the Rising Pond Site could cause the loss or destruction of archaeological or historic data, it is anticipated that EPA would notify DOI as required.
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act)	314 CMR 9.06	For discharge of dredged or fill material to waters of the U.S. in Massachusetts: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem (including wetlands); (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on wetlands; (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under Wetlands Protection Act; (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.	Uncertain. If the operational footprint of the Upland Disposal Facility at this site is large enough to impact the small wetland described above, and if that wetland is considered to constitute a water of the United States, these regulations would be applicable to the filling of this wetland as part of TD 3.	<p>If the operational footprint of the Upland Disposal Facility is large enough to impact the small wetland described in the prior column, and if that wetland constitutes a water of the U.S.:</p> <p>(a) EPA would need to find that there is no practicable alternative with less adverse impact on wetlands, or waive that requirement.</p> <p>(b) Appropriate and practicable steps would be taken during construction and use of the Upland Disposal Facility to minimize or mitigate potential adverse ecological effects, but could not avoid impacting the wetland described above.</p> <p>(c) The operational footprint of the facility may adversely affect estimated habitat of rare wildlife species given that the maximum operational footprint is within the state-mapped estimated habitat of a state-listed wildlife species (wood turtle). If it does, the prohibition on projects with an adverse effect on such habitat would not be met.</p>

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**Table T-3.h: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				<p>(d) Stormwater discharges would be controlled with BMPs during construction and use of the Upland Disposal Facility and following closure.</p> <p>(e) It is not expected that the facility would cause substantial long-term adverse impacts to the integrity of surface 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 &amp; 10.60 310 CMR 10.59</p>	<p>Under 310 CMR 10.53(3)(q), actions in resource areas responding to the release or threat of release of hazardous materials are authorized as a “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 to resource areas, 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 and 10.60 would apply. In either case, under 310 CMR 10.59, the action must have no adverse effect on estimated habitat of rare wildlife species.</p>	<p>The maximum (but not minimum) operational footprint for an Upland Disposal Facility at this site would impact the small forested wetland described above and, if the adjacent section of Rising Pond is determined to constitute a river under this Act, would impact a portion of the 200-foot Riverfront Area (a resource area under this Act). Under that footprint, these regulations would be applicable to construction activities in those areas.</p>	<p>If the operational footprint of the Upland Disposal Facility is large enough to impact the small wetland and Riverfront Area described in the prior column, then:</p> <p>(a) EPA would need to find that there is no practicable alternative with less adverse impact on resource areas, or waive the requirement that there be no such alternative.</p> <p>(b) Appropriate and practicable steps would be taken during construction and use of the Upland Disposal Facility to minimize or mitigate potential adverse effects on the resource area(s), but could not avoid impacting the small wetland.</p> <p>(c) The operational footprint of the facility may adversely affect estimated habitat of rare wildlife species given that the maximum operational footprint is within the state-mapped estimated habitat of a state-listed wildlife species (wood turtle). If it does, the prohibition on projects with an adverse effect on such habitat would not be met.</p> <p>(d) In addition, if the implementation of TD 3 at the Rising Pond Site were not considered a “limited project,” it might not meet some of the requirements of 310 CMR 10.54 – 10.58 and 10.60 – e.g., the prohibition on loss of &gt; 5000</p>

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**Table T-3.h: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
				square feet of bordering vegetated wetlands (10.55(4)(a)&(b)), the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.) – depending on the size of the operational footprint and the types and size of resource areas affected.
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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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 projects in areas where the work would have an area of potential impact on property(ies) listed in State Register.	An evaluation would be made through consultation with the MHC (and, if applicable, any pertinent Tribal Historic Preservation Office) as to whether the construction or operation of the Upland Disposal Facility at the Rising Pond Site would adversely affect the Rising Paper Mill, which is listed in the State Register of Historic Places, or any other properties listed in that Register. If it would, the substantive provisions of these regulations would be met.

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**Table T-3.h: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA. Thus, if the operational footprint of the Upland Disposal Facility at this site is large enough to impact the small wetland described above, and if that wetland is found to meet the definition of a wetland under this Order, this Order would be applicable to EPA.	If the operational footprint of the Upland Disposal Facility is large enough to impact the small wetland described above, and if that wetland is subject to this Executive Order, EPA would need to find that there is no practicable alternative with less adverse impact on wetlands and that the project includes all practicable measures to minimize harm to wetlands, or else waive those requirements.

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**Table T-3.i: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – Potential Action-Specific ARARs**

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
TSCA regulations on disposal of PCB Remediation Waste in landfill	40 CFR 761.50(d)(4) 40 CFR 761.61(b) & (c) 40 CFR 761.75	Section 761.75(b) establishes standards and requirements for chemical waste landfills used for disposal of PCBs, including siting, design, operation, and monitoring requirements. Any of these requirements may be waived by EPA under § 761.75(c)(4) if EPA finds that that requirement is not necessary to protect against unreasonable risk of injury to health or the environment. In addition, § 761.61(c) allows for risk-based approval of alternate method of disposal of non-liquid PCB Remediation Waste if EPA finds that such method will not pose an unreasonable risk of injury to health or the environment. As another alternative, dredged material with < 50 mg/kg may be disposed of in accordance with permit under § 404 of Clean Water Act or equivalent (§ 761.61(b)(3)).	Applicable to disposal of PCB Remediation Waste in local Upland Disposal Facility.	Construction and operation of local Upland Disposal Facility at Rising Pond Site would meet the siting, design, and operation requirements of § 761.75 with the following qualifications: (a) While the site would not meet the location requirements of § 761.75(b)(1) relating to the permeability and characteristics of the existing soil, the facility would include a liner with equivalent impermeability, as allowed (with EPA approval) under § 761.75(b)(2). (b) The site may not meet certain of the hydrologic requirements of § 761.75(b)(3) relating to the depth of the groundwater table or its connection to surface water, which would be investigated during design. However, the facility would have a double liner and leachate collection system to prevent impacts to groundwater. Even if any of these specific requirements could not be met, construction and operation of the facility could still meet the TSCA regulations through an EPA determination that the facility meets the substantive criteria for a waiver of that requirement under § 761.75(c)(4) or for a risk-based approval of the facility location and design under § 761.61(c).
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 handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.

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**Table T-3.i: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – Potential Action-Specific ARARs**

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Clean Water Act – NPDES regulations (storm water 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 and operation of Upland Disposal Facility.	Would be attained through use of BMPs, including stormwater diversion berms, stormwater detention basins, and drainage swales, to control erosion from stormwater discharges during construction and operation of Upland Disposal Facility and following closure of that facility.
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 steps set forth in the regulations must be followed.	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 the area of Rising Pond Site identified for potential use for Upland Disposal Facility does not contain any federally listed T&E species or their critical habitat, and thus construction of facility would not adversely affect such species or 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 soils to be placed in Upland Disposal Facility would constitute hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that the excavated sediments and soils to be placed in the Upland Disposal Facility would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of those sediments/soils would be conducted during design to confirm that result.

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**Table T-3.i: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – 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 the Upland Disposal Facility if, as expected, the excavated sediments and soils do not constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to the disposal facility.	In the unlikely event that some materials to be placed in the Upland Disposal Facility were found to constitute RCRA hazardous waste, these requirements would be met.
RCRA requirements for hazardous waste management facilities – technical requirements for landfills	40 CFR Part 264, Subpart N 40 CFR 264.111 40 CFR 264.117	Design, operating, closure, and post-closure requirements for disposal of hazardous waste in landfills.	Same as above.	In the unlikely event that some materials to be placed in the Upland Disposal Facility were found to constitute RCRA hazardous waste, the Upland Disposal Facility would meet these requirements, including requirements for double liner/leachate collection system.
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.	In the unlikely event that some materials to be placed in the Upland Disposal Facility were found to constitute RCRA hazardous waste, the Upland Disposal Facility would have groundwater monitoring system and program consistent with these requirements.

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**Table T-3.i: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – Potential Action-Specific ARARs**

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
RCRA requirements for hazardous waste management facilities – technical requirements for tanks	40 CFR 264, Subpart J	Design, operating, closure, and post-closure requirements for storage or disposal of hazardous waste in tanks.	Relevant and appropriate to storage of leachate that constitutes RCRA hazardous waste (if any) in tanks.	If these requirements apply and if leachate stored in tanks at Upland Disposal Facility should constitute RCRA hazardous waste, these requirements would be met.
RCRA land disposal restrictions	40 CFR Part 268	Establishes prohibitions and restrictions on, and treatment standards for, land disposal of certain hazardous wastes unless location of disposition is part of Corrective Action Management Unit (CAMU) under § 264.552 or part of AOC under EPA's AOC policy. Includes specific alternate treatment standards for contaminated soil (which includes sediments under the definition of soil in § 268.2(k)); these are set forth in § 268.49. Under these standards, treatment would not be required if concentrations are less than 10 times the Universal Treatment Standards. Otherwise, treatment would be required to achieve 90% reduction in total concentrations for non-metals and in leachate concentrations for metals	<p>These restrictions would not be expected to apply if, as expected, the excavated materials to be placed in the Upland Disposal Facility do not constitute RCRA hazardous waste. However, if some such materials did constitute RCRA hazardous waste, these restrictions would be applicable to disposal of such materials.</p> <p>Note: CAMU concept unlikely to apply since Rising Pond Site is not on contiguous property under control of owner where waste originated (see § 264.552). AOC policy unlikely to apply to Rising Pond Site since it is not within overall area of dispersed contamination.</p>	In the unlikely event that some materials to be placed in the Upland Disposal Facility were found to constitute RCRA hazardous waste, <u>and</u> if they would require treatment under the alternate standards for contaminated soil in § 268.49, placement of such waste in that facility would not meet these restrictions, because TD 3 would not involve treatment. In that case, either the treatment requirement should be waived as technically impracticable for TD 3 or the materials could not be placed in the Upland Disposal Facility.

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**Table T-3.i: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – Potential Action-Specific ARARs**

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>State ARARs</b>				
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity within mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of a state-listed species. The MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in a state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	The maximum (but not minimum) operational footprint for an Upland Disposal Facility at this site includes a portion of mapped Priority Habitat for the state-listed wood turtle (see Figure T-3) and would adversely impact that habitat and species. Thus, depending on the size of the operational footprint, implementation of TD 3 at this site could result in a “take” of that state-listed species. In that event, the prohibition on a “take” would not be met
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.”)  Note also that, under the Massachusetts Contingency Plan (MCP), the on-site	Applicable to determining whether excavated sediments or soils would constitute hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated sediments or soils to be placed in the Upland Disposal Facility would constitute non-PCB state hazardous waste. However, representative TCLP testing of those sediments/soils would be conducted during design to confirm that result.

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**Table T-3.i: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – Potential Action-Specific ARARs**

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		disposal of contaminated media constituting hazardous waste as part of a remedial action under the MCP (including its “adequately regulated” provisions) is exempt from the state hazardous waste regulations unless MDEP determines that compliance with those regulations is required (310 CMR 40.0033(5)).		
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 apply to Upland Disposal Facility if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under the MCP unless MDEP determines otherwise. However, if some materials did constitute such hazardous waste and the facility was not exempt under the MCP, these requirements would be applicable to the disposal facility.	In the unlikely event that materials to be placed in the Upland Disposal Facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, these requirements would be met.

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**Table T-3.i: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – 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 – location standards for hazardous waste landfills	310 CMR 30.701(6), 30.702, 30.703(2)-(4), 30.704, 30.705(1), (3) & (6), 30.706	Location standards for hazardous waste landfills, including that active portion of such facility may not be constructed (a) in 500-year floodplain, (b) in watershed of Class A surface waters, (c) in wetlands, (d) in any waterbody, (e) within ½ mile or a delineated Zone 2 of a public water supply well, (f) on land overlying or in flow path of an actual, planned, or potential public underground drinking water source, (g) within 1000 feet or in flow path of private drinking water well, (h) in flow path of potential private underground drinking water source, or (i) without a 200-foot buffer zone to fenceline. Potential public drinking water source is defined as groundwater capable of yielding ≥ 100 gpm and having < 10,000 mg/L of TDS; potential private drinking water source is defined as groundwater capable of yielding 2 to 100 gpm and having < 10,000 mg/L of TDS.	Same as above.	In the unlikely event that materials to be placed in the Upland Disposal Facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the facility at the Rising Pond Site would meet these standards, except that it could potentially be located within 1000 feet or in the flow path of a private drinking water well or over or within flow path of a potential public drinking water source or within flow path of a potential private drinking water source – which are matters that would be investigated during design. If any of these standards were found to apply and could not be met at this location, it would be necessary to obtain a waiver of such standard(s) as technically impracticable to attain.
Massachusetts hazardous waste management regulations – technical requirements for hazardous waste landfills	310 CMR 30.602 310 CMR 30.620 310 CMR 30.580 310 CMR 30.590	Requirements for design, operation, closure and post-closure care of landfills used for disposal of hazardous waste.	Same as above.	In the unlikely event that materials to be placed in the Upland Disposal Facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the facility would meet these requirements, including double liner/leachate collection system requirement.
	310 CMR 30.660	Groundwater protection requirements for hazardous waste landfills, including monitoring system requirements; groundwater protection standards (i.e., maximum contaminant levels), and potential alternate limits.		In the unlikely event that materials to be placed in the Upland Disposal Facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the facility would have groundwater monitoring system and program consistent with these requirements.

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**Table T-3.i: Alternative TD 3 (Local Upland Disposal) at Rising Pond Site – 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 requirements	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 activities generating dust.	Would be attained through use of dust control measures during construction and operation of the facility and through monthly air monitoring for PCBs and daily air monitoring for particulate matter during facility operations, along with response actions if certain action levels are exceeded.
<b>To Be Considered</b>				
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 mg/kg or greater.	To be considered for any new PCB spills that occur during the work.	Would be considered in the event of any new PCB spill that occurs during the construction or operation of the Upland Disposal Facility.

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**Table T-4.a: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly associated with exposure to PCBs.	To be considered.	May be considered by EPA in selecting treatment/disposition option for removed sediments and soils.
Reference Doses	EPA's IRIS <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly associated with exposure to PCBs.	To be considered.	May be considered by EPA in selecting treatment/disposition option for removed sediments and soils.
<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 purported carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing EPA's Cancer Slope Factors. May be considered by EPA in selecting treatment/disposition option for removed sediments and soils.
<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.	May be considered by EPA in selecting treatment/disposition option for removed sediments and soils.
<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.	May be considered by EPA in selecting treatment/disposition option for removed sediments and soils.

**Table T-4.a: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<p><i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)</p>	<p>Report available from National Academies Press</p>	<p>Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and purported risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.</p>	<p>To be considered.</p>	<p>Should be considered by EPA in selecting treatment/disposition option for removed sediments and soils.</p>

**Table T-4.b: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 to waters of the United States: (a) there must be no practicable alternative with less adverse impact on aquatic ecosystem (including wetlands); (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.	The Massachusetts GIS wetlands mapping shows a small (0.75-acre) wetland within the footprint of the identified location for a chemical extraction facility on GE-owned property at the DeVos site and another wetland that would be crossed by an access road. It is uncertain whether these wetlands would constitute waters of the United States subject to these regulations (an issue that would be investigated during design). If they would, these regulations would be applicable to the discharge of dredge or fill material to this wetland in connection with construction of the chemical extraction facility and the access road.	If this alternative and location were selected and the small wetlands described in the prior column are subject to these regulations:  (a) EPA would need to find that there is no practicable alternative with less adverse impact on wetlands, or to waive that requirement.  (b) The facility would not cause or contribute to a violation of a state water quality standard or toxic effluent standard.  (c) Review of available information indicates that there are no federal T&E species in the area of this site. Thus, the facility would not jeopardize the existence of any such species.  (d) The use of this site would not cause significant degradation of waters of the U.S. apart from the impact on the small wetlands mentioned above. If that is considered a significant adverse effect, the prohibition on actions with such effects would not be met.  (e) Appropriate and practicable steps would be taken during construction and operation of the chemical extraction facility and access road to minimize or mitigate potential adverse ecological effects, but the impacts on the small wetlands mentioned above could not be avoided.

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**Table T-4.b: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – 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 involving discharge of dredge or fill material to waters of the United States will have unavoidable adverse impacts on the aquatic ecosystem after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation (as described in Table T-2.b).</p>	<p>Uncertain. If the small wetlands described above are considered to constitute waters of the United States, these regulations would be applicable to the discharge of dredge or fill material to these wetlands in connection with construction of the chemical extraction facility and access road.</p>	<p>If this alternative and location were selected and the small wetlands described above are subject to these regulations, an assessment would be made as to whether the impact on these wetlands are significant enough to trigger the requirement for compensatory mitigation. If so, these regulations would require a compensatory mitigation plan to address the unavoidable adverse impact of the chemical extraction facility on those wetlands.</p>
<p>Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains</p>	<p>40 CFR 264.1(j)(7)</p> <p>40 CFR 264.18(b)</p>	<p>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.</p>	<p>These requirements would not apply to treatment facility if, as expected, the excavated sediments and soils do not constitute RCRA hazardous waste. However, if they did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.</p>	<p>In the unlikely event that some materials to be treated were found to constitute RCRA hazardous waste, these requirements would be met by floodproofing the facility to prevent washout by a 100-year flood.</p>

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**Table T-4.b: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
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 (including archaeological) 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.	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.	The location of the chemical treatment facility would be evaluated through: consultation by EPA with the State Historic Preservation Office (and, if applicable, any pertinent Tribal Historic Preservation Office); determination of the "area of potential effects" of the facility and the potential for that area to contain properties included or eligible for inclusion in NRHP; determination of whether the facility would have an adverse impact on such a property; and if so, evaluation – and, as appropriate, implementation – of alternatives to avoid, or measures to minimize or mitigate, the adverse impacts.
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.	If it is determined that TD 4 could cause the loss or destruction of archaeological or historic data, it is anticipated that EPA would notify DOI as required.

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**Table T-4.b: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>State ARARs</b>				
<p>Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act)</p>	<p>314 CMR 9.06</p>	<p>For discharge of dredged or fill material to waters of the U.S. in Massachusetts: (a) no such discharge is allowed if there is a practicable alternative with less adverse impact on aquatic ecosystem (including wetlands); (b) appropriate and practicable steps must be taken to avoid and minimize adverse effects on land under water and on wetlands; (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under Wetlands Protection Act; (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>Uncertain. If the small wetlands that would be affected by the treatment facility and access road at this site (as described above) are considered to constitute waters of the United States, these regulations would be applicable to the discharge of dredge or fill material to these wetlands in connection with construction of the chemical extraction facility and access road.</p>	<p>If this alternative and location were selected and the small wetlands described above are subject to these regulations:</p> <p>(a) EPA would need to find that there is no practicable alternative with less adverse impact on wetlands, or to waive that requirement.</p> <p>(b) Appropriate and practicable steps would be taken during construction and operation of the chemical extraction facility and access road to minimize or mitigate potential adverse ecological effects, but the impacts on the small wetlands mentioned above could not be avoided.</p> <p>(c) The treatment facility (including the portion in the wetland area) would be located within, and would adversely affect, estimated habitat of rare wildlife species (see Figure T-4). Thus, the prohibition on discharges with an adverse effect on such habitat would not be met.</p> <p>(d) Stormwater discharges would be controlled with BMPs during construction and operation of the chemical extraction facility and access road.</p> <p>(e) It is not expected that the facility would cause substantial long-term adverse impacts to the integrity of river water.</p>

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**Table T-4.b: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 - 10.58 & 10.60 310 CMR 10.59	<p>Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are authorized as a “limited project” if they: (a) have no practicable alternative, consistent with the Massachusetts Contingency Plan (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 to resource areas, 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 and 10.60 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>	Applicable to construction and operation of treatment facility, which would be located within 100-year floodplain and, in part, within a Riverfront Area (200 feet from River), which are resource areas under these regulations, and would affect small wetlands (described above), which may also be resource areas under these regulations.	<p>Since TD 4 would be a response action, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> <li>▪ Given the selected location, EPA would need to find that there is no practicable alternative that would be less damaging to resource areas, or to waive the requirement that there be no such practicable alternative.</li> <li>▪ Practicable measures would be implemented to minimize harm to floodplain, including erosion and sedimentation control measures during construction and operation of the treatment facility and removal of facility structures, staging areas, and access roads and restoration of those areas upon completion of treatment operations. There would be no long-term impact on flood storage capacity of floodplain, but there would be a short-term impact, which would require flood storage compensation.</li> <li>▪ The treatment facility would be located within, and would adversely affect, estimated rare wildlife species habitat (see Figure T-4). Thus, the prohibition on projects with an adverse effect on such habitat would not be met.</li> </ul> <p>In addition, if TD 4 was not considered a “limited project,” it might not meet some of the requirements of 310 CMR 10.54 -10.58 and 10.60 – e.g., the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</p>

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**Table T-4.b: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – 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 apply to treatment facility if, as expected, excavated sediments and soils do not constitute state hazardous waste subject to these standards. Further, even if they did constitute such hazardous waste, the facility may be exempt from these requirements under MCP (as described in Table T-4.c). However, if some materials did constitute such hazardous waste and the facility was not exempt, these requirements would be applicable to the treatment facility.	In the unlikely event that some materials to be treated were found to constitute state hazardous waste and treatment facility is not exempt, waste piles used for staging at treatment facility would not meet the requirement that hazardous waste piles may not be located within 500-year floodplain. Any tanks or similar units used to store such waste at the facility would be floodproofed against a 100-year flood.
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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in the State Register, 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	Applicable to State; relevant and appropriate to state-authorized projects in areas where the work would have an area of potential impact on property(ies) listed in State Register.	An evaluation would be made through consultation with the MHC (and, if applicable, any pertinent Tribal Historic Preservation Office) as to whether the construction or operation of the treatment facility at the DeVos site would adversely affect any property listed in the State Register of Historic Places. If it would, the substantive provisions of these regulations would be met.

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**Table T-4.b: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		agreement among those parties; and if there is no agreement, project cannot proceed until state body or project proponent responds to the MHC.		
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	Exec. Order 11990 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A	A federal agency must avoid undertaking or providing assistance for construction in wetlands unless: (a) there is no practicable alternative; and (b) the proposed action includes all practicable measures to minimize harm to wetlands.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA. Thus, if the small wetlands described above are found to meet the definition of wetlands under this Order, this Order would be applicable to EPA.	If this alternative and location were selected and the small wetlands described above are subject to this Executive Order, EPA would need to find that there is no practicable alternative, and that the project includes all practicable measures to minimize harm to wetlands, or else would need to waive those requirements.
Executive Order for Floodplain Management	Exec. Order 11988 (1977)  Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 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.	Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA, and would apply here since the identified location for the chemical extraction facility would be	If this alternative and location were selected, EPA would need to find that there is no practicable alternative that would avoid impacts on the floodplain, or to waive the requirement that there be no such practicable alternative.  Practicable measures would be implemented to minimize harm to floodplain, including erosion and sedimentation control measures during construction and operation of the treatment facility and removal of facility structures, staging areas, and access roads and restoration of those areas upon completion of treatment operations. There would be no long-term impact on flood storage

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**Table T-4.b: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			situated within the 100-year floodplain.	capacity of floodplain. However, there would be a short-term impact while the facility was in place, and so flood storage compensation would be necessary.

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**Table T-4.c: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
Toxic Substances Control Act (TSCA) regulations on cleanup and disposal of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61	Regulations specify methods for disposal of PCB Remediation Waste (e.g., incineration, approved TSCA landfill). Disposal includes actions relating to destroying, degrading, or decontaminating PCB-containing materials. There are no specific provisions for chemical treatment. Regulations allow risk-based approval of cleanup or disposal method (§ 761.61(c)) based on demonstration that such method will not pose an unreasonable risk of injury to health or the environment.	Applicable to treatment of PCB Remediation Waste, since they apply to disposal and disposal includes actions relating to destroying, degrading, or decontaminating materials containing PCBs.	Since there are no specific requirements relating to chemical treatment of PCB-containing wastes, it would be necessary to obtain EPA's determination that the chemical extraction process meets the substantive criteria for a risk-based approval under § 761.61(c).
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 handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act – NPDES regulations (storm water 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 and operation of treatment facility.	Would be attained through use of BMPs, including stormwater diversion berms, stormwater detention basins, and drainage swales, to control erosion from stormwater discharges during construction and operation of treatment facility.

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**Table T-4.c: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – 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 steps set forth in the regulations must be followed.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because area identified for chemical extraction facility does not contain any federally listed T&E species or their critical habitat, and thus facility would not adversely affect such species or 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 § 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 and soils to be treated at treatment facility would constitute hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated sediments or soils to be treated would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of sediments/soils would be conducted during design to confirm that result.
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 apply if, as expected, the excavated sediments and soils do not constitute RCRA hazardous waste. However, if some materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such materials.	In the unlikely event that some materials to be treated were found to constitute RCRA hazardous waste, any tanks or containment buildings used for < 90-day accumulation of those materials would meet these requirements.

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**Table T-4.c: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – 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 apply if, as expected, the excavated sediments and soils do not constitute RCRA hazardous waste. However, if some materials did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to storage/ treatment facility for such materials (other than < 90-day accumulation units).	In the unlikely event that some materials to be treated were found to constitute RCRA hazardous waste, these requirements would be met.
RCRA regulations for hazardous waste management facilities – technical requirements for storage and treatment of hazardous waste	40 CFR Part 264, Subparts J, L, X, and DD	Design, operating, closure, and (if necessary) post-closure requirements for storage of hazardous waste in tanks (Subpart J), waste piles outside structures (Subpart L), miscellaneous units (Subpart X), and containment buildings (Subpart DD).	Same as above.	In the unlikely event that some materials to be treated were found to constitute RCRA hazardous waste, any tanks, waste piles, containment buildings, or miscellaneous units used for treatment of such waste or for temporary staging of such waste before treatment (other than < 90-day accumulation units) would meet these requirements.
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.	In the unlikely event that some materials to be treated were found to constitute RCRA hazardous waste, the treatment facility, including the staging areas for such waste before treatment, would have groundwater monitoring system and program consistent with these requirements.

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**Table T-4.c: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – 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 – air emission standards for process vents	40 CFR Part 264, Subpart AA	Air emission standards for process vents, closed vent systems, and control devices at facilities that treat hazardous wastes having total organic concentrations of 10 ppm or greater using distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping.	These requirements would not apply if, as expected, the excavated sediments and soils do not constitute RCRA hazardous waste. However, if some materials did constitute RCRA hazardous waste, and if treatment facility uses solvent extraction, and if materials to be treated by solvent extraction contain total organic concentrations $\geq$ 10 mg/kg, these requirements would be relevant and appropriate.	In the unlikely event that some materials to be treated were found to constitute RCRA hazardous waste, and if the treatment facility uses solvent extraction, and if the materials to be treated by solvent extraction contain total organic concentrations $\geq$ 10 ppm, these emission standards for process vents would be met.
<b>State ARARs</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 must incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as provide a setback from receiving waters and wetlands, in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during construction and operation of the treatment facility.	Stormwater discharges during construction and operation of the treatment facility would be controlled with BMPs, which would be designed to meet the specified stormwater management standards. These stormwater systems would include setbacks from receiving waters and wetlands.

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**Table T-4.c: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts Endangered Species Act (MESA) and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity within mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of a state-listed species. The MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” 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. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.	Applicable to activities in a state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	The area identified for the treatment facility is within state-mapped Priority Habitat, as shown on Figure T-4. The construction of the facility in this location would result in a “take” of at least 3 state-listed species, as shown in Appendix L. Thus, the prohibition on a “take” would not be met.
	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 air pollution control requirements	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 activities generating dust.	Would be attained through use of dust control measures during construction and operation of the facility and through monthly air monitoring for PCBs and daily air monitoring for particulate matter during treatment facility operations (if expected to generate dust), along with response actions if certain action levels are exceeded.

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**Table T-4.c: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – 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>Wastes that contain PCBs <math>\geq</math> 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>In addition, under the Massachusetts Contingency Plan (MCP), the on-site treatment of contaminated media constituting hazardous waste as part of a remedial action under the MCP (including its "adequately regulated" provisions) is exempt from the state hazardous waste regulations unless MDEP determines that compliance with those regulations is required (310 CMR 40.0033(5)).</p>	Applicable to determining whether excavated sediments and bank soils would constitute hazardous waste under state law.	Based on prior experience at other portions of this site, it is not anticipated that excavated sediments or soils to be treated at the treatment facility would constitute non-PCB state hazardous waste. However, representative TCLP testing of sediments/soils would be conducted during design to confirm that result.
Massachusetts hazardous waste management regulations – requirements for less than 90-day accumulation of hazardous waste	310 CMR 30.340 – 30.343	Allows on-site accumulation of hazardous waste for less than 90 days in containers or tanks, provided generator complies with requirements specified or referenced in these regulations.	These requirements would not apply to treatment facility if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under MCP unless MDEP determines	In the unlikely event that materials to be treated were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, any tanks used for < 90-day accumulation of such materials would meet these requirements.

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

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

**Table T-4.c: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			<p>otherwise. However, if some materials did constitute such hazardous waste and the facility was not exempt under MCP, these requirements would be applicable to &lt; 90-day on-site accumulation of such materials.</p>	
<p>Massachusetts hazardous waste management regulations – general requirements</p>	<p>310 CMR 30.513, 30.514, 30.524, 30.560</p>	<p>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).</p>	<p>These requirements would not apply to treatment facility if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under MCP unless MDEP determines otherwise. However, if some materials did constitute such hazardous waste and the facility was not exempt under MCP, these requirements would be applicable to the treatment facility .</p>	<p>In the unlikely event that materials to be treated were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, these requirements would be met.</p>

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**Table T-4.c: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – 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 treat or store hazardous waste</p> <p>(Note: Some of these regulations were also listed as location-specific ARAR in Table T-4.b.)</p>	<p>310 CMR 30.701(6), 30.702, 30.703(2), 30.704(3), 30.705(3) &amp; (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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of a private drinking water well, or (g) without a 200-foot buffer zone to fenceline. Potential public drinking water source is defined as groundwater capable of yielding ≥ 100 gpm and having &lt; 10,000 mg/L of TDS.</p>	<p>These requirements would not apply to treatment facility if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under MCP unless MDEP determines otherwise. However, if some materials did constitute such hazardous waste and the facility was not exempt under MCP, these requirements would be applicable to the staging piles for such waste at the treatment facility.</p>	<p>In the unlikely event that materials to be treated were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the temporary staging piles used for such waste at a treatment facility located at DeVos site would meet these location standards, except for the following : (a) the prohibition on waste piles within 500-year floodplain; (b) the requirement for a 200-foot buffer zone to the fenceline (since there would not be a 200-foot buffer between the facility and the River); and (c) potentially the prohibition on waste piles on land overlying a potential public drinking water source (an issue to be investigated in design).</p>
	<p>310 CMR 30.701(2)</p>	<p>For treatment or storage facility (other than surface impoundment or waste pile) that does not receive hazardous waste from off-site sources, portion in 100-year floodplain must be floodproofed.</p>	<p>These requirements would not apply if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under MCP unless MDEP determines otherwise. However, if some materials did constitute such hazardous waste and the facility was not exempt under MCP, these requirements would be</p>	<p>In the unlikely event that materials to be treated were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, any tanks or miscellaneous units used to treat or store such waste would be floodproofed against a 100-year flood.</p>

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**Table T-4.c: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – Potential Action-Specific ARARs \***

Statute/Regulation	Citation **	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			applicable to tanks or miscellaneous units used to store or treat such waste.	
Massachusetts hazardous waste management regulations – technical requirements for treatment and storage of hazardous waste	310 CMR 30.602 310 CMR 30.690 310 CMR 30.580	Requirements for design, operation, and closure of tanks used to store or treat hazardous waste.	Same as above.	In the unlikely event that materials to be treated were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, any tanks used to store or treat such waste at the treatment facility would meet these requirements.
	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.	These requirements would not apply if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under MCP unless MDEP determines otherwise. However, if some materials did constitute such hazardous waste and the facility was not exempt under MCP, these requirements would be applicable to the staging piles for such waste at the treatment facility.	In the unlikely event that materials to be treated were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the temporary staging piles for such waste at treatment facility would meet these requirements, except potentially for the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.) – an issue that would be investigated during design.

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**Table T-4.c: Alternative TD 4 (Chemical Extraction) (Assumed to Take Place at DeVos Site) – 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.	In the unlikely event that materials to be treated were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the staging areas for such waste before treatment would have groundwater monitoring system and program consistent with these requirements.
Massachusetts requirements for storage and handling of flammable liquids	527 CMR 6.05, 6.07	Requirements for installation of liquefied petroleum (LP) gas systems.	Applicable to storage of LP gas (i.e., propane, propylene, butanes, and/or butylenes) if used as extraction fluid in chemical treatment.	Would be met if LP gas used.
	527 CMR 14.03, 14.04, 14.07	Requirements for storage and handling of flammable liquids.	Applicable to storage and handling of flammable liquids if used as extraction fluids in chemical treatment.	Would be met if flammable liquids used.
Massachusetts tank regulations	527 CMR 9.03, 9.04	Requirements for design and operation of above-ground storage tanks of > 10,000 gallons for any liquids other than water (527 CMR 9.03) and for above-ground storage tanks ≤ 10,000 gallons for flammable (Class I) liquids (527 CMR 9.04).	Applicable to above-ground storage of any non-water liquids in > 10,000 gallon tanks or storage of flammable liquids in ≤ 10,000 gallon tanks.	Would be met for these types of tanks.
<b>To Be Considered</b>				
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 mg/kg or greater.	To be considered for any new PCB spills that occur during the work.	Would be considered in the event of any new PCB spill that occurs during construction of the treatment facility or treatment operations.

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**Table T-5.a: Alternative TD 5 (Thermal Desorption [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal and State ARARs</b>				
None				
<b>To Be Considered</b>				
Cancer Slope Factors	EPA's Integrated Risk Information System (IRIS) <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate carcinogenic risk purportedly associated with exposure to PCBs.	To be considered.	May be considered by EPA in selecting treatment/disposition option for removed sediments and soils.
Reference Doses	EPA's IRIS <a href="http://www.epa.gov/iriswebp/iris/index.html">http://www.epa.gov/iriswebp/iris/index.html</a>	Guidance values used to evaluate non-carcinogenic hazards purportedly associated with exposure to PCBs.	To be considered.	May be considered by EPA in selecting treatment/disposition option for removed sediments and soils.
<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 purported carcinogenicity of PCBs. It includes revised Cancer Slope Factors for PCBs based on the pathway of exposure.	To be considered.	Considered in establishing EPA's Cancer Slope Factors. May be considered by EPA in selecting treatment/disposition option for removed sediments and soils.
<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.	May be considered by EPA in selecting treatment/disposition option for removed sediments and soils.
<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.	May be considered by EPA in selecting treatment/disposition option for removed sediments and soils.

**Table T-5.a: Alternative TD 5 (Thermal Desorption [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Chemical-Specific ARARs**

Authority/Regulation	Citation	Synopsis of Criteria	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
<p><i>Health Risks from Dioxin and Related Compounds: Evaluation of the EPA Reassessment</i> (National Research Council, 2006)</p>	<p>Report available from National Academies Press</p>	<p>Evaluation by National Academy of Sciences' National Research Council of EPA's reassessment of exposures to and purported risks of dioxin and dioxin-like congeners (including PCBs), including use of linear, no threshold extrapolation procedure.</p>	<p>To be considered.</p>	<p>Should be considered by EPA in selecting treatment/disposition option for removed sediments and soils.</p>

**Table T-5.b: Alternative TD 5 (Thermal Desorption [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
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 to waters of the United States: (a) there must be no practicable alternative with less adverse impact on aquatic ecosystem (including wetlands); (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.	The Massachusetts GIS wetlands mapping shows a small (0.75-acre) wetland within the footprint of the identified location for a thermal desorption facility on GE-owned property at the DeVos site and another wetland that would be crossed by an access road. It is uncertain whether these wetlands would constitute waters of the United States subject to these regulations (an issue that would be investigated during design). If they would, these regulations would be applicable to the discharge of dredge or fill material to this wetland in connection with construction of the facility and the access road.	If this alternative and location were selected and the small wetlands described in the prior column are subject to these regulations:  (a) EPA would need to find that there is no practicable alternative with less adverse impact on wetlands, or to waive that requirement.  (b) The facility would not cause or contribute to a violation of a state water quality standard or toxic effluent standard.  (c) Review of available information indicates that there are no federal T&E species in the area of this site. Thus, the facility would not jeopardize the existence of any such species.  (d) The use of this site would not cause significant degradation of waters of the U.S. apart from the impact on the small wetlands mentioned above. If that is considered a significant adverse effect, the prohibition on actions with such effects would not be met.  (e) Appropriate and practicable steps would be taken during construction and operation of the thermal desorption facility and access road to minimize or mitigate potential adverse ecological effects, but the impacts on the small wetlands mentioned above could not be avoided.

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**Table T-5.b: Alternative TD 5 (Thermal Desorption [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(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 involving discharge of dredge or fill material to waters of the United States will have unavoidable adverse impacts on the aquatic ecosystem after all appropriate and practicable steps have been taken to avoid or minimize the impacts, responsible party must implement compensatory mitigation (as described in Table T-2.b).</p>	<p>Uncertain. If the small wetlands described above are considered to constitute waters of the United States, these regulations would be applicable to the discharge of dredge or fill material to these wetlands in connection with construction of the thermal desorption facility and access road.</p>	<p>If this alternative and location were selected and the small wetlands described above are subject to these regulations, an assessment would be made as to whether the impact on these wetlands is significant enough to trigger the requirement for compensatory mitigation. If so, these regulations would require a compensatory mitigation plan to address the unavoidable adverse impact of the thermal desorption facility on those wetlands.</p>
<p>Resource Conservation and Recovery Act (RCRA) requirements for hazardous waste facilities in floodplains</p>	<p>40 CFR 264.1(j)(7)</p> <p>40 CFR 264.18(b)</p>	<p>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.</p>	<p>These requirements would not apply to treatment facility if, as expected, the excavated sediments and soils do not constitute RCRA hazardous waste. However, if they did constitute RCRA hazardous waste, these requirements would be relevant and appropriate.</p>	<p>In the unlikely event that some materials to be treated were found to constitute RCRA hazardous waste, these requirements would be met by floodproofing the facility to prevent washout by a 100-year flood.</p>

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**Table T-5.b: Alternative TD 5 (Thermal Desorption [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
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 (including archaeological) 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.	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.	The location of the thermal desorption facility would be evaluated through: consultation by EPA with the State Historic Preservation Office (and, if applicable, any pertinent Tribal Historic Preservation Office); determination of the "area of potential effects" of the facility and the potential for that area to contain properties included or eligible for inclusion in NRHP; determination of whether the facility would have an adverse impact on such a property; and if so, evaluation – and, as appropriate, implementation – of alternatives to avoid, or measures to minimize or mitigate, the adverse impacts.
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.	If it is determined that TD 5 could cause the loss or destruction of archaeological or historic data, it is anticipated that EPA would notify DOI as required.

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**Table T-5.b: Alternative TD 5 (Thermal Desorption [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>State ARARs</b>				
Massachusetts Clean Water Act – water quality certification regulations (under § 401 of federal Clean Water Act)	314 CMR 9.06	For discharge of dredged or fill material to waters of the U.S. in Massachusetts: (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 wetlands; (c) there must be no discharge that would adversely affect estimated habitat of rare wildlife species under Wetlands Protection Act; (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.	Uncertain. If the small wetlands that would be affected by the treatment facility and access road at this site (as described above) are considered to constitute waters of the United States, these regulations would be applicable to the discharge of dredge or fill material to these wetlands in connection with construction of the thermal desorption facility and access road.	<p>If this alternative and location were selected and the small wetlands described above are subject to these regulations:</p> <p>(a) EPA would need to find that there is no practicable alternative with less adverse impact on wetlands, or to waive that requirement.</p> <p>(b) Appropriate and practicable steps would be taken during construction and operation of the thermal desorption facility and access road to minimize or mitigate potential adverse ecological effects, but the impacts on the small wetlands mentioned above could not be avoided.</p> <p>(c) The treatment facility (including the portion in the wetland area) would be located within, and would adversely affect, estimated habitat of rare wildlife species (see Figure T-4). Thus, the prohibition on discharges with an adverse effect on such habitat would not be met.</p> <p>(d) Stormwater discharges would be controlled with BMPs during construction and operation of the thermal desorption facility and access road.</p> <p>(e) It is not expected that the facility would cause substantial long-term adverse impacts to the integrity of river water.</p>
Massachusetts Wetlands Protection Act and regulations	MGL c. 131, § 40 310 CMR 10.53(3)(q) 310 CMR 10.54 - 10.58 & 10.60	Under 310 CMR 10.53(3)(q), actions responding to the release or threat of release of hazardous materials are authorized as a “limited project” if they: (a) have no practicable alternative, consistent with the Massachusetts Contingency Plan (MCP), that would be less damaging to	Applicable to construction and operation of thermal desorption facility, which would be located within 100-year floodplain and, in part, within a Riverfront Area (200 feet from River),	<p>Since TD 5 would be a response action, the requirements for “limited projects” would appear to apply. Under those requirements:</p> <ul style="list-style-type: none"> <li>▪ Given the selected location, EPA would need to find that there is no practicable alternative that would be less damaging to resource areas, or to</li> </ul>

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**Table T-5.b: Alternative TD 5 (Thermal Desorption [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
	310 CMR 10.59	<p>resource areas; and (b) avoid or minimize impacts to resource areas, including, to the maximum extent practicable, minimizing hydrological changes to resource areas, 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 and 10.60 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>which are resource areas under these regulations, and would affect small wetlands (described above), which may also be resource areas under these regulations.</p>	<p>waive the requirement that there be no such practicable alternative.</p> <ul style="list-style-type: none"> <li>▪ Practicable measures would be implemented to minimize harm to floodplain, including erosion and sedimentation control measures during construction and operation of the desorption facility and removal of facility structures, staging areas, and access roads and restoration of those areas upon completion of thermal desorption operations. There would be no long-term impact on flood storage capacity of floodplain, but there would be a short-term impact, which would require flood storage compensation.</li> <li>▪ The thermal desorption facility would be located within, and would adversely affect, estimated rare wildlife species habitat (see Figure T-4). Thus, the prohibition on projects with an adverse effect on such habitat would not be met.</li> </ul> <p>In addition, if TD 5 was not considered a “limited project,” it may not meet some of the requirements of 310 CMR 10.54 -10.58 and 10.60 – e.g., the requirement to maintain a 100-foot wide area of undisturbed vegetation along the river in a Riverfront Area (with certain exceptions) (10.58(4)(d)1.).</p> <p>In addition, a portion of the treated material from the thermal desorption process would be used as backfill in the floodplain. This activity would meet the requirements of these regulations. The material to be used would be shown, through sampling and comparison to MCP Method 1 standards or other appropriate standards for unrestricted areas, to pose no significant risk to health or the environment. It would also be amended with organic material to support</p>

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**Table T-5.b: Alternative TD 5 (Thermal Desorption [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Action(s) To Be Taken To Achieve ARAR
				vegetative growth. Further, since this material would be used as backfill for floodplain excavations, its use would not affect the flood storage capacity of the floodplain.
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 apply to treatment facility if, as expected, excavated sediments and soils do not constitute state hazardous waste subject to these standards. Further, even if they did constitute such hazardous waste, the facility may be exempt from these requirements under MCP (as described in Table T-5.c). However, if some materials did constitute such hazardous waste and the facility was not exempt, these requirements would be applicable to the treatment facility.	In the unlikely event that some materials to be treated were found to constitute state hazardous waste and treatment facility is not exempt, waste piles used for staging at treatment facility would not meet the requirement that hazardous waste piles may not be located within 500-year floodplain. Any tanks or similar units used to store such waste at the facility would be floodproofed against a 100-year flood.
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 that could cause a change in the historical, architectural, archaeological, or cultural qualities possessed by a property listed in the State Register of Historic Places. If MHC determines that the project will have an adverse impact on a property listed in	Applicable to State; relevant and appropriate to state-authorized projects in areas where the work would have an area of potential impact on property(ies) listed in State Register.	An evaluation would be made through consultation with the MHC (and, if applicable, any pertinent Tribal Historic Preservation Office) as to whether the construction or operation of the thermal desorption facility at the DeVos site would adversely affect any property listed in the State Register of Historic Places. If it would, the substantive provisions of these regulations would be met.

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**Table T-5.b: Alternative TD 5 (Thermal Desorption [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Location-Specific ARARs**

Statute/Regulation	Citation *	Synopsis of Requirements	Status (Applicability/ Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		<p>the State Register, 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.</p>		
<b>To Be Considered</b>				
Executive Order for Wetlands Protection	<p>Exec. Order 11990 (1977)</p> <p>Procedures for implementing this Order are set forth in 40 CFR 6.302(a) and 40 CFR Part 6, App. A</p>	<p>A federal agency must avoid undertaking or providing assistance for 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>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA. Thus, if the small wetlands described above are found to meet the definition of wetlands under this Order, this Order would be applicable to EPA.</p>	<p>If this alternative and location were selected and the small wetlands described above are subject to this Executive Order, EPA would need to find that there is no practicable alternative with less adverse impact on wetlands and that the project includes all practicable measures to minimize harm to wetlands, or else would need to waive those requirements.</p>

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**Table T-5.b: Alternative TD 5 (Thermal Desorption [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – 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	<p>Exec. Order 11988 (1977)</p> <p>Procedures for implementing this Order are set forth in 40 CFR 6.302(b) and 40 CFR Part 6, App. A</p>	<p>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.</p>	<p>Since this Executive Order was not formally promulgated after notice-and-comment rulemaking, it is to be considered (TBC), rather than an ARAR. However, as an order of the President, it is applicable to and binding on EPA, and would apply here since the identified location for the thermal desorption facility would be situated within the 100-year floodplain.</p>	<p>If this alternative and location were selected, EPA would need to find that there is no practicable alternative that would avoid any impact on the floodplain, or to waive the requirement that there be no such practicable alternative.</p> <p>Practicable measures would be implemented to minimize harm to floodplain, including erosion and sedimentation control measures during construction and operation of the treatment facility and removal of facility structures, staging areas, and access roads and restoration of those areas upon completion of treatment operations. There would be no long-term impact on flood storage capacity of floodplain. However, there would be a short-term impact while the facility was in place, and so flood storage compensation would be necessary.</p> <p>In addition, a portion of treated material from the thermal desorption process would be used as backfill in the floodplain. This material would be sampled for PCBs, as well as amended with organic material, to ensure that it would not cause harm within the floodplain.</p>

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**Table T-5.c: Alternative TD 5 (Thermal Desorption) [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability /Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>Federal ARARs</b>				
TSCA regulations on cleanup and disposal of PCB Remediation Waste	40 CFR 761.50 40 CFR 761.61(b) & (c)	Regulations specify methods for disposal of non-liquid PCBs (which includes actions to destroy or degrade PCBs). They include disposal in incinerator meeting requirements of § 761.70 (or equivalent disposal method approved under § 761.60(e)) and disposal in chemical waste landfill meeting requirements of § 761.75. In addition, § 761.61(c) allows for risk-based approval of alternate disposal method if EPA finds that such method will not pose an unreasonable risk of injury to health or the environment.	Applicable to disposal of PCB Remediation Waste (which includes actions to destroy or degrade PCBs) in thermal desorption facility.	Thermal desorption facility would not meet regulations' definition of incinerator (i.e., engineered device using controlled flame combustion to thermally degrade PCBs), and on-site reuse is not explicitly authorized. It is anticipated that, if TD 5 were selected, these TSCA requirements would be met through EPA's determination that the thermal desorption process and facility meet the substantive criteria for a risk-based approval under § 761.61(c).
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 handling of PCB-containing materials.	Would be attained through use of proper decontamination procedures.
Clean Water Act – NPDES regulations (storm water 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 and operation of treatment facility.	Would be attained through use of BMPs, including stormwater diversion berms, stormwater detention basins, and drainage swales, to control erosion from stormwater discharges during construction and operation of treatment facility.

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**Table T-5.c: Alternative TD 5 (Thermal Desorption) [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Action-Specific ARARs \***

Authority/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 steps set forth in the regulations must be followed.	Applicable to EPA; relevant and appropriate to federally authorized actions (if any) that are likely to jeopardize continued existence of a federally listed T&E species or result in destruction or adverse modification of critical habitat.	Would be attained because area identified for thermal desorption facility does not contain any federally listed T&E species or their critical habitat, and thus facility would not adversely affect such species or 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 § 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 and soils at thermal desorption facility would constitute hazardous waste.	Based on prior experience at other portions of this site, it is not anticipated that excavated sediments or soils to be treated at thermal desorption facility would constitute RCRA characteristic hazardous waste. However, representative TCLP testing of sediments/soils would be conducted during design to confirm that result.
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 apply if, as expected, the excavated sediments and soils do not constitute RCRA hazardous waste. However, if some materials to be treated did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to < 90-day on-site accumulation of such materials.	In the unlikely event that some materials to be treated were found to constitute RCRA hazardous waste, any tanks or containment buildings used for < 90-day accumulation of those materials would meet these requirements.

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**Table T-5.c: Alternative TD 5 (Thermal Desorption) [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Action-Specific ARARs \***

Authority/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 apply if, as expected, the excavated sediments and soils do not constitute RCRA hazardous waste. However, if some materials to be treated did constitute RCRA hazardous waste, these requirements would be relevant and appropriate to storage/ treatment facility for such materials (other than < 90-day accumulation units).	In the unlikely event that some materials to be treated were found to constitute RCRA hazardous waste, these requirements would be met.
RCRA regulations for hazardous waste management facilities – technical requirements for storage and treatment of hazardous waste	40 CFR Part 264, Subparts J, L, X, and DD	Design, operating, closure, and (if necessary) post-closure requirements for storage or treatment of hazardous waste in tanks (Subpart J), waste piles outside structures (Subpart L), miscellaneous units (Subpart X), and containment buildings (Subpart DD).	Same as above.	In the unlikely event that some materials to be treated were found to constitute RCRA hazardous waste, any tanks, waste piles, containment buildings, or miscellaneous units used for treatment of such waste or for temporary staging of such waste before treatment (other than < 90-day accumulation units) would meet these requirements.
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.	In the unlikely event that some materials to be treated were found to constitute RCRA hazardous waste, the treatment facility, including the staging areas for such waste before treatment, would have groundwater monitoring system and program consistent with these requirements.

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**Table T-5.c: Alternative TD 5 (Thermal Desorption) [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability /Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
<b>State ARARs</b>				
Massachusetts air pollution control regulations	310 CMR 7.00	Section 7.01(1) prohibits person operating an air contamination source from creating a condition of air pollution. Other provisions establish specific requirements for particular pollutants or types of facilities – e.g., emission limitations and requirements for facility that emits volatile and/or halogenated organic compounds (7.18); reasonably available control technology requirements for source of nitrogen oxides (7.19); emission limitations, fuel requirements, and operational requirements for emergency generators (7.26(42)).	Applicable to thermal desorption facility.	Thermal desorption facility would meet general requirement of § 7.01(1) through appropriate air emission controls (to be specified in design) and ambient air monitoring. The facility would be designed to meet any of the specific requirements of these regulations that would apply to design and operation of a thermal desorption facility.
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 must incorporate stormwater BMPs to attenuate pollutants in stormwater discharges, as well as provide a setback from receiving waters and wetlands, in accordance with 10 specified stormwater management standards.	Applicable to stormwater discharges during construction and operation of thermal desorption facility.	Stormwater discharges during construction and operation of the treatment facility would be controlled with BMPs, which would be designed to meet the specified stormwater management standards. These stormwater systems would include setbacks from receiving waters and wetlands.
Massachusetts Endangered Species Act and regulations	MGL c. 131A 321 CMR 10.00, Parts I, II, & V	A proposed activity within mapped Priority Habitat for a state-listed rare species or other area where such a species has occurred may not result in a “take” of a state-listed species. The MESA regulations contain a provision (§ 10.23) authorizing the Mass. DFW to permit a “take” if the applicant has adequately addressed alternatives, an insignificant portion of the local population would be impacted, and the applicant agrees to	Applicable to activities in a state-mapped Priority Habitat in MA or other areas where information indicates the occurrence of a state-listed species (except that § 10.23 does not constitute an ARAR).	The area identified for the thermal desorption facility is within state-mapped Priority Habitat, as shown on Figure T-4. The construction of the facility in this location would result in a “take” of at least 3 state-listed species, as shown in Appendix L. Thus, the prohibition on a “take” would not be met.

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**Table T-5.c: Alternative TD 5 (Thermal Desorption) [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability /Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
		<p>carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the species. However, as discussed in the Revised CMS Report (Section 5.4), that provision is not an ARAR.</p>		
	321 CMR 10.00, Part IV	<p>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.</p>	<p>Would be applicable to activities affecting state-designated Significant Habitat in MA. However, no such habitat has been designated.</p>	<p>Not applicable.</p>
<p>Massachusetts hazardous waste regulations on identification of hazardous waste</p>	310 CMR 30.100	<p>Establishes criteria and lists for determining whether a waste is a hazardous waste under state law.</p> <p>Wastes that contain PCBs <math>\geq</math> 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>In addition, under the MCP, the on-site treatment of contaminated media constituting hazardous waste as part of a remedial action under the MCP (including its "adequately regulated" provisions) is exempt from the state hazardous waste regulations unless MDEP determines that compliance with those regulations is required (310 CMR 40.0033(5)).</p>	<p>Applicable to determining whether excavated sediments and bank soils would constitute hazardous waste under state law.</p>	<p>Based on prior experience at other portions of this site, it is not anticipated that excavated sediments or soils to be treated at the thermal desorption facility would constitute non-PCB state hazardous waste. However, representative TCLP testing of sediments/soils would be conducted during design to confirm that result.</p>

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**Table T-5.c: Alternative TD 5 (Thermal Desorption) [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability /Appropriateness)	Action(s) To Be Taken To Achieve ARAR
Massachusetts hazardous waste management regulations – requirements for less than 90-day accumulation of hazardous waste	310 CMR 30.340 – 30.343	Allows on-site accumulation of hazardous waste for less than 90 days in containers or tanks, provided generator complies with requirements specified or referenced in these regulations.	These requirements would not apply to thermal desorption facility if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under MCP unless MDEP determines otherwise. However, if some materials to be treated did constitute such hazardous waste and the facility was not exempt under MCP, these requirements would be applicable to < 90-day on-site accumulation of such materials.	In the unlikely event that materials to be treated at thermal desorption facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, any tanks used for < 90-day accumulation of such materials would meet these requirements.
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 apply to thermal desorption facility if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under MCP unless MDEP determines otherwise. However, if some materials to be treated did constitute such hazardous waste and the facility was not exempt under MCP, these requirements would be	In the unlikely event that materials to be treated at thermal desorption facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, these requirements would be met.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-5.b.

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

**Table T-5.c: Alternative TD 5 (Thermal Desorption) [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability /Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			applicable to the treatment facility.	
<p>Massachusetts hazardous waste management regulations – location standards for units used to treat or store hazardous waste</p> <p>(Note: Some of these regulations were also listed as location-specific ARAR in Table T-5.b.)</p>	<p>310 CMR 30.701(6), 30.702, 30.703(2), 30.704(3), 30.705(3) &amp; (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 watershed of Class A surface waters, (c) in wetlands, (d) within ½ mile of public water supply well, (e) on land overlying an actual, planned, or potential public underground drinking water source, (f) within 1000 feet of a private drinking water well, or (g) without a 200-foot buffer zone to fenceline. Potential public drinking water source is defined as groundwater capable of yielding ≥ 100 gpm and having &lt; 10,000 mg/L of TDS.</p>	<p>These requirements would not apply to thermal desorption facility if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under MCP unless MDEP determines otherwise. However, if some materials to be treated did constitute such hazardous waste and the facility was not exempt from these requirements under MCP, these requirements would be applicable to the staging piles for such waste at that facility.</p>	<p>In the unlikely event that materials to be treated at thermal desorption facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the temporary staging piles used for such waste at a thermal desorption facility at the DeVos site would meet these location standards, except for the following : (a) the prohibition on waste piles within 500-year floodplain; (b) the requirement for a 200-foot buffer zone to the fenceline (since there would not be a 200-foot buffer between the facility and the River); and (c) potentially the prohibition on waste piles on land overlying a potential public drinking water source (an issue to be investigated in design).</p>
	<p>310 CMR 30.701(2)</p>	<p>For storage facility (other than surface impoundment or waste pile) that does not receive hazardous waste from off-site sources, portion in 100-year floodplain must be floodproofed.</p>	<p>These requirements would not apply to thermal desorption facility if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under MCP unless MDEP determines otherwise. However, if some</p>	<p>In the unlikely event that materials to be treated at thermal desorption facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, any tanks or miscellaneous units used to treat or store such waste would be floodproofed against a 100-year flood.</p>

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**Table T-5.c: Alternative TD 5 (Thermal Desorption) [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability /Appropriateness)	Action(s) To Be Taken To Achieve ARAR
			materials to be treated did constitute such hazardous waste and the facility was not exempt from these requirements under MCP, these requirements would be applicable to tanks or miscellaneous units used to store or treat such waste.	
Massachusetts hazardous waste management regulations – technical requirements for storage and treatment of hazardous waste	310 CMR 30.602 310 CMR 30.690 310 CMR 30.580	Requirements for design, operation, and closure of tanks used to treat or store hazardous waste.	Same as above.	In the unlikely event that materials to be treated at desorption facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, any tanks used to store or treat such waste at the facility would meet these requirements.
	310 CMR 30.602 310 CMR 30.606 310 CMR 30.580	Requirements for design, construction, operation, closure, and post-closure care of facilities that treat hazardous waste in miscellaneous units (i.e., units that do not fall within any other category).	These requirements would not apply to thermal desorption facility if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under the MCP unless MDEP determines otherwise. However, if some materials to be treated did constitute such hazardous waste and the facility was not exempt from these requirements under the MCP, these requirements would be applicable to that facility.	In the unlikely event that materials to be treated at thermal desorption facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, any miscellaneous units used to treat such waste at the facility would meet these requirements.

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**Table T-5.c: Alternative TD 5 (Thermal Desorption) [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability /Appropriateness)	Action(s) To Be Taken To Achieve ARAR
	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.	These requirements would not apply to thermal desorption facility if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under MCP unless MDEP determines otherwise. However, if some materials to be treated did constitute such hazardous waste and the facility was not exempt from these requirements under MCP, these requirements would be applicable to the staging piles for such waste at the facility.	In the unlikely event that materials to be treated at thermal desorption facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the temporary staging piles for such waste at treatment facility would meet these requirements, except potentially for the requirement that liner must be a minimum of 4 feet above probable high groundwater table (30.641(1)(a)1.) – an issue that would be investigated during design.
	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.	These requirements would not apply to thermal desorption facility if, as expected, the excavated sediments and soils do not constitute non-PCB state hazardous waste. Further, even if they did constitute such waste, the facility would be exempt from these requirements under MCP unless MDEP determines otherwise. However, if some materials to be treated did constitute such hazardous waste and the facility was not exempt from these	In the unlikely event that materials to be treated at thermal desorption facility were found to constitute non-PCB state hazardous waste, and the facility is not exempt under the MCP, the staging areas for such waste before treatment would have groundwater monitoring system and program consistent with these requirements.

\* Except as otherwise noted, this table does not repeat the ARARs listed as potential Location-Specific ARARs in Table T-5.b.

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**Table T-5.c: Alternative TD 5 (Thermal Desorption) [Assumed to Take Place at DeVos Site] with Potential On-Site Reuse of Portion of Treated Material) – Potential Action-Specific ARARs \***

Authority/Regulation	Citation **	Synopsis of Requirements	Status (Applicability /Appropriateness)	Actions(s) To Be Taken To Achieve ARAR
			requirements under MCP, these requirements would be applicable to the staging piles for such waste at the facility.	
Massachusetts tank regulations	527 CMR 9.03, 9.04	Requirements for design and operation of above-ground storage tanks of > 10,000 gallons for any liquids other than water (527 CMR 9.03) and for above-ground storage tanks ≤ 10,000 gallons for flammable (Class I) liquids (527 CMR 9.04).	Applicable to above-ground storage of any non-water liquids in > 10,000 gallon tanks or storage of flammable liquids in ≤ 10,000 gallon tanks.	Would be met for these types of tanks.
Massachusetts regulations on beneficial use of solid waste	310 CMR 19.060	Requires demonstration that the materials to be reused are beneficial and pose an insignificant potential hazard to public health, safety, or the environment.	Relevant and appropriate to on-site reuse of treated material.	Under TD 5, a portion of treated material from the thermal desorption process would be used as backfill in the floodplain – a beneficial use. This material would be so used only if it is shown, through sampling and comparison to MCP Method 1 standards or other appropriate standards for unrestricted areas, to meet the requirement that it pose an insignificant risk.
<b>To Be Considered</b>				
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 mg/kg or greater.	To be considered for any new PCB spills that occur during the work.	Would be considered in the event of any new PCB spill that occurs during construction or operation of the thermal desorption facility.

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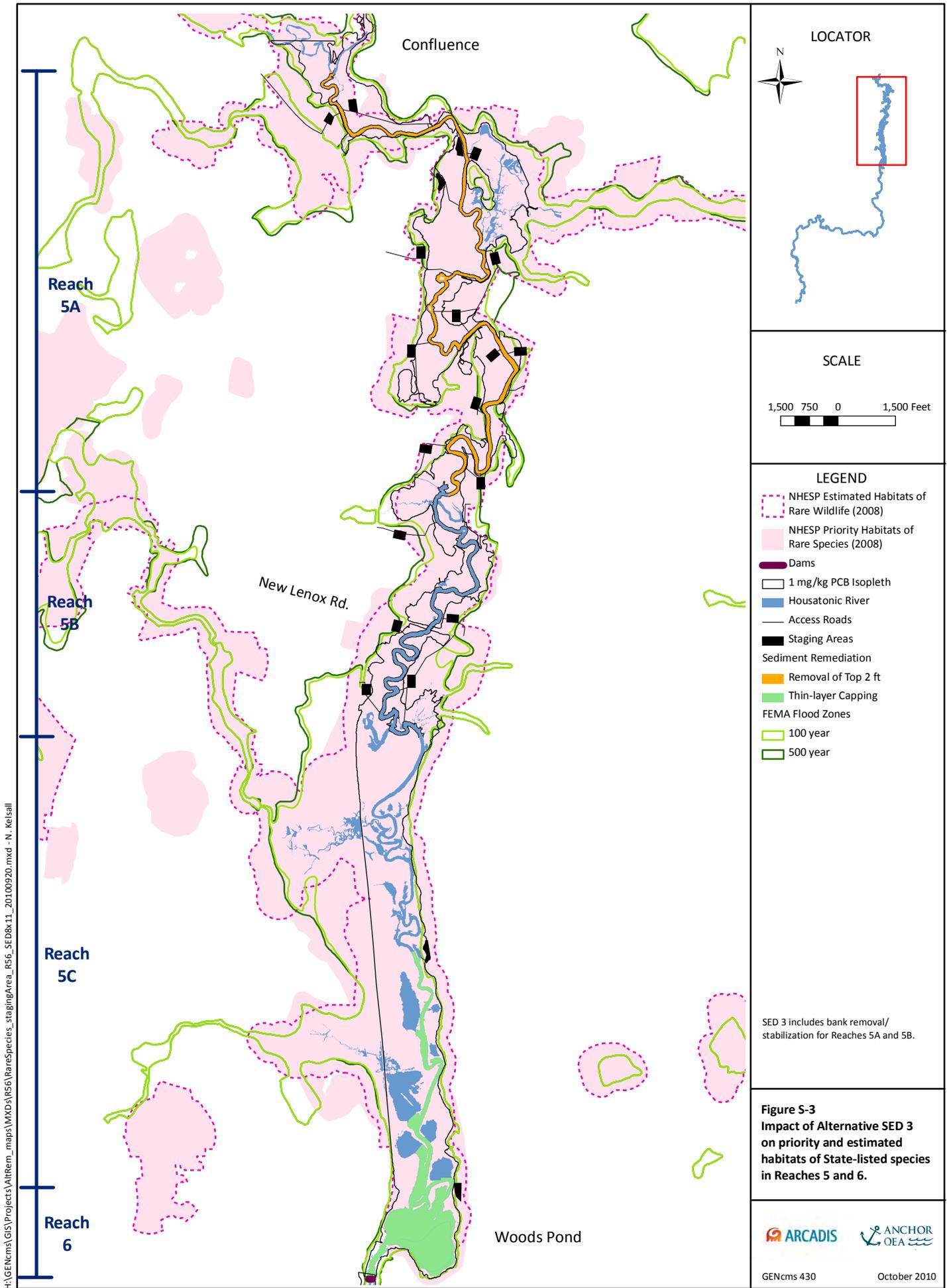
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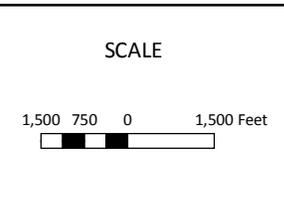
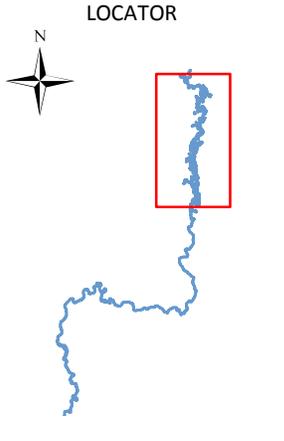


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Figures



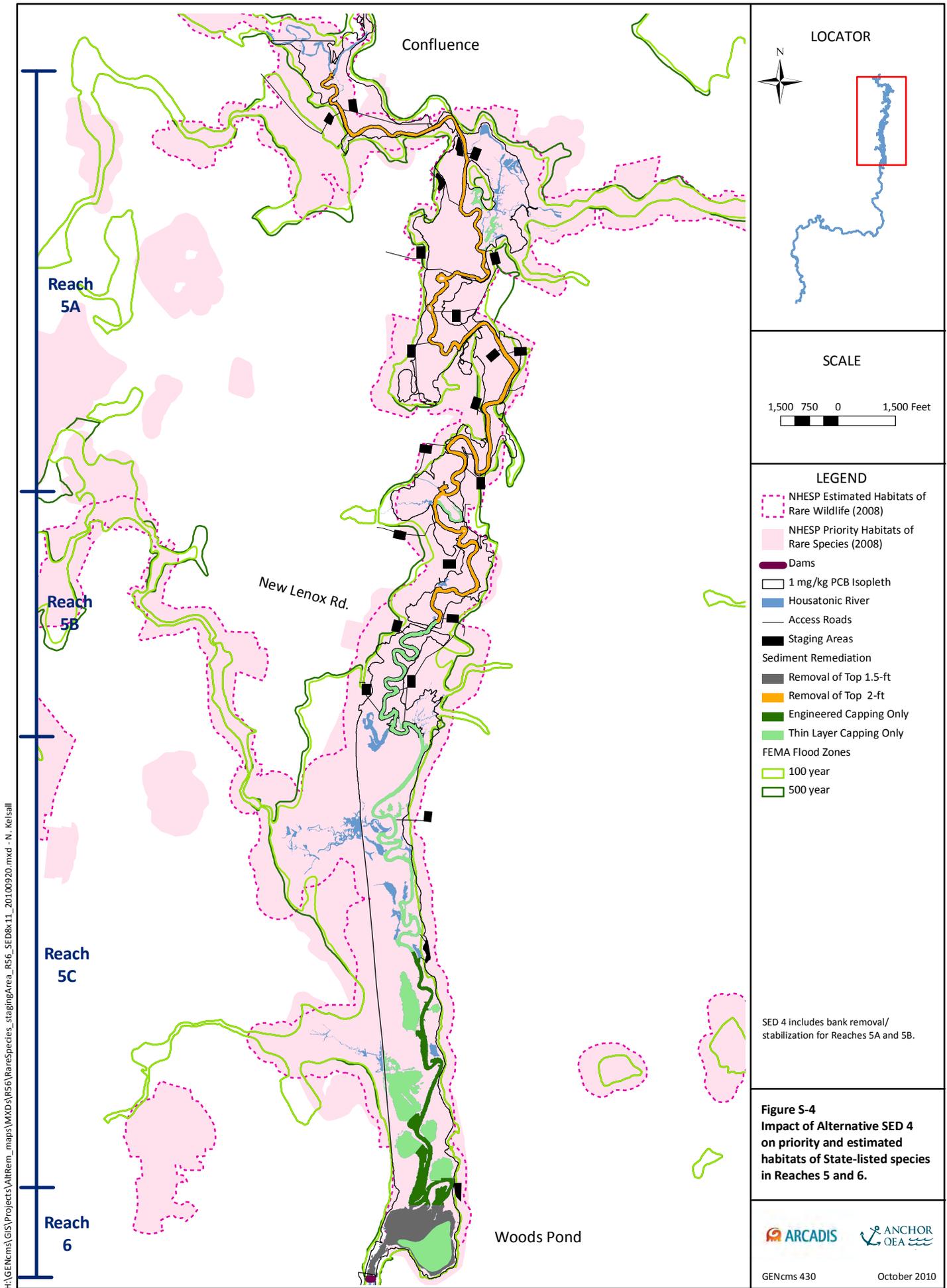
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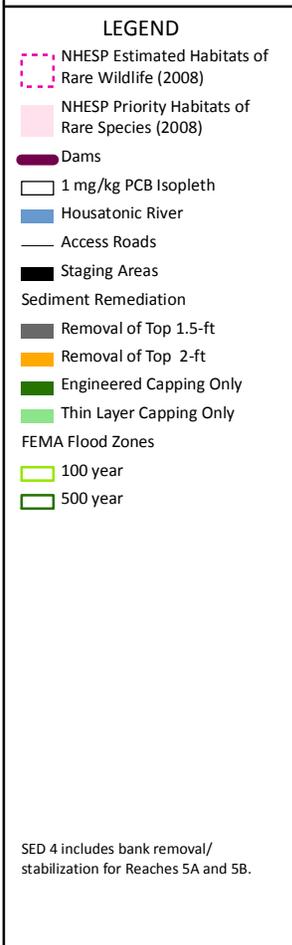
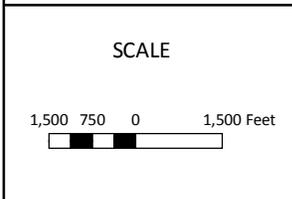
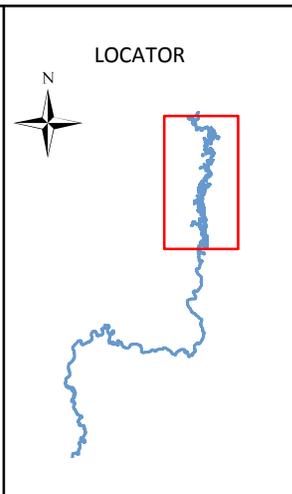
- LEGEND
- NHESP Estimated Habitats of Rare Wildlife (2008)
  - NHESP Priority Habitats of Rare Species (2008)
  - Dams
  - 1 mg/kg PCB Isopleth
  - Housatonic River
  - Access Roads
  - Staging Areas
  - Sediment Remediation
    - Removal of Top 2 ft
    - Thin-layer Capping
  - FEMA Flood Zones
    - 100 year
    - 500 year

SED 3 includes bank removal/stabilization for Reaches 5A and 5B.

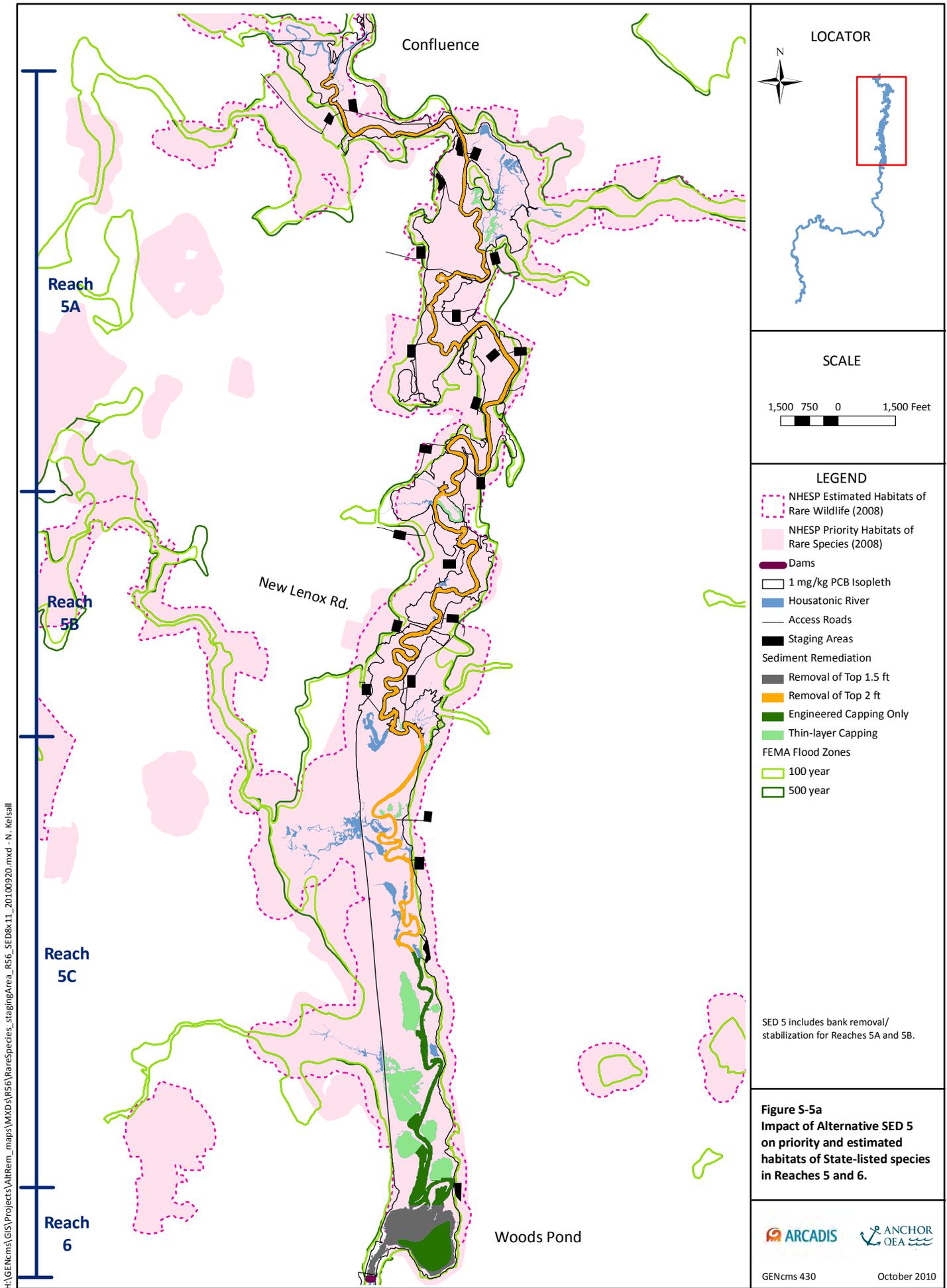
**Figure S-3**  
**Impact of Alternative SED 3**  
**on priority and estimated**  
**habitats of State-listed species**  
**in Reaches 5 and 6.**



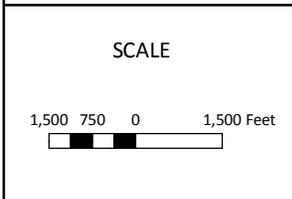
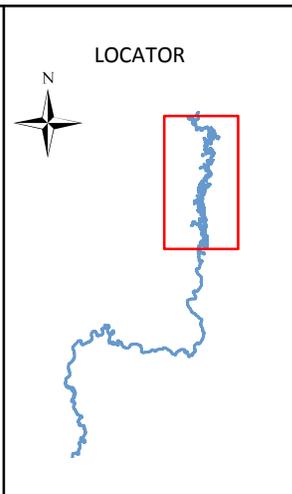
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**Figure S-4**  
**Impact of Alternative SED 4**  
**on priority and estimated**  
**habitats of State-listed species**  
**in Reaches 5 and 6.**



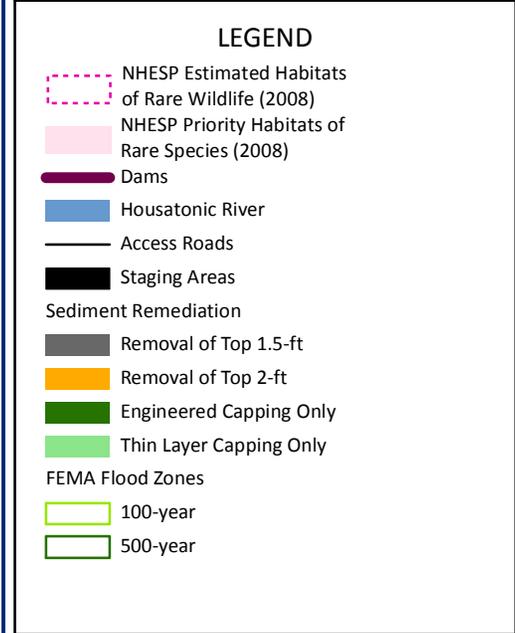
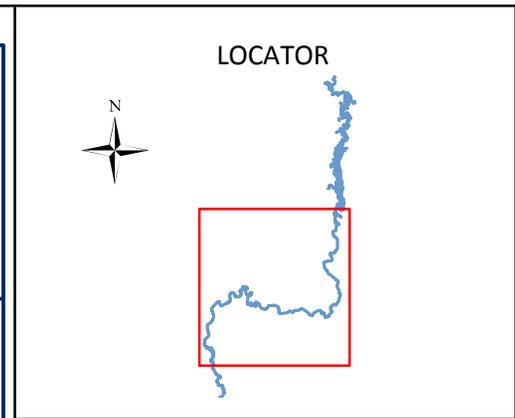
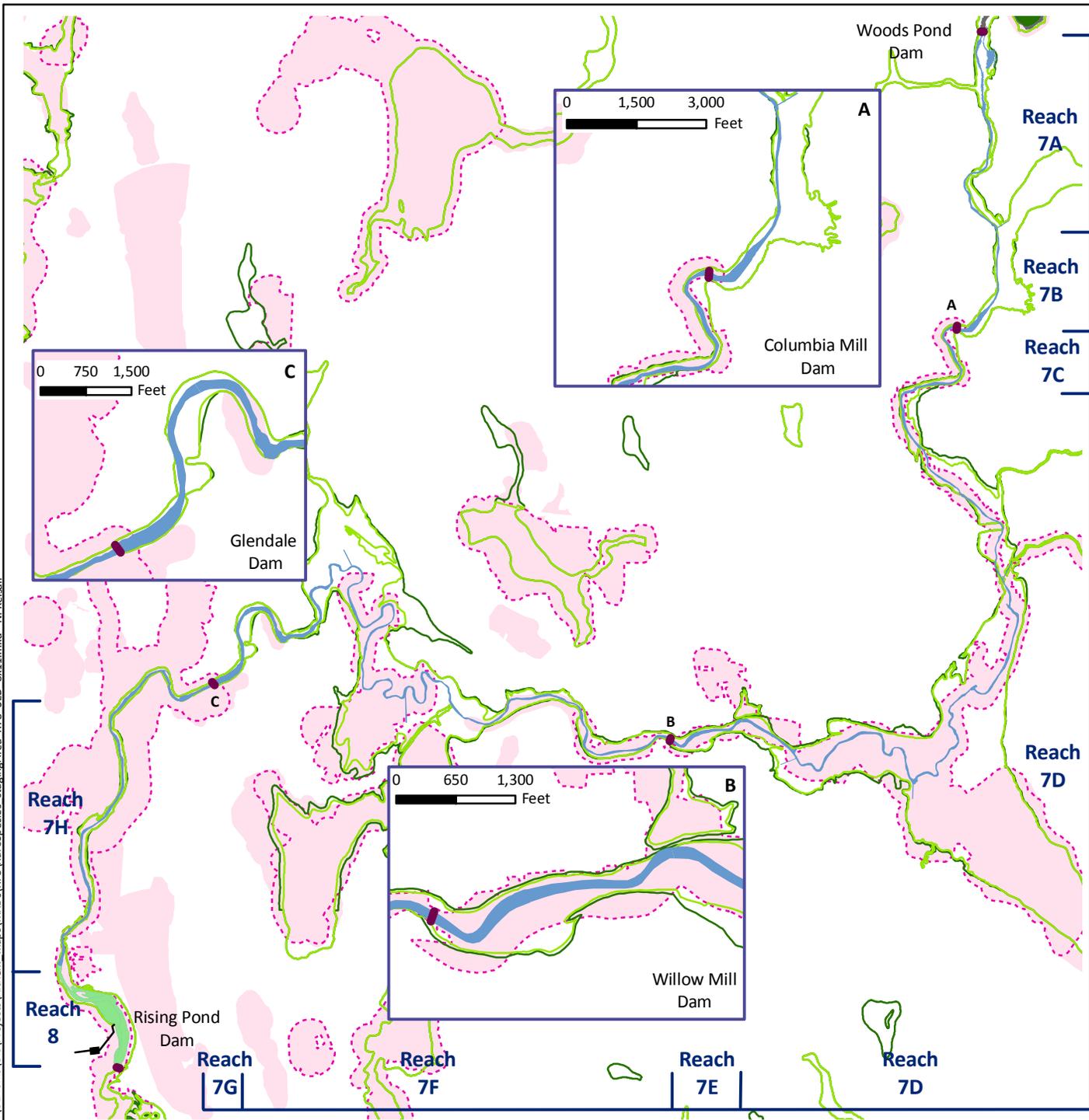
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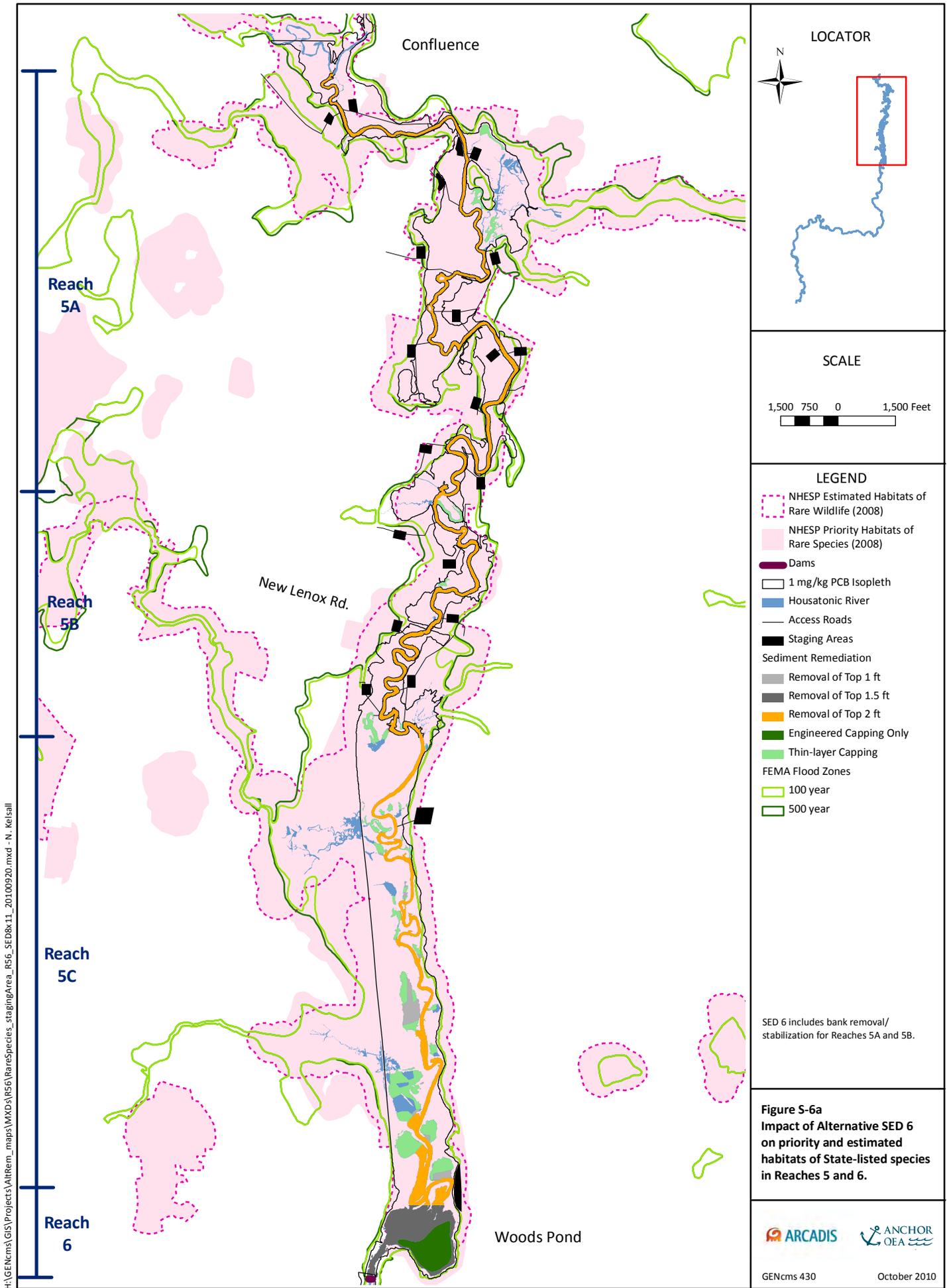
- LEGEND
- NHESP Estimated Habitats of Rare Wildlife (2008)
  - NHESP Priority Habitats of Rare Species (2008)
  - Dams
  - 1 mg/kg PCB Isoleth
  - Housatonic River
  - Access Roads
  - Staging Areas
  - Sediment Remediation
    - Removal of Top 1.5 ft
    - Removal of Top 2 ft
    - Engineered Capping Only
    - Thin-layer Capping
  - FEMA Flood Zones
    - 100 year
    - 500 year
- SED 5 includes bank removal/stabilization for Reaches 5A and 5B.

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

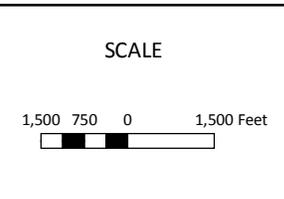
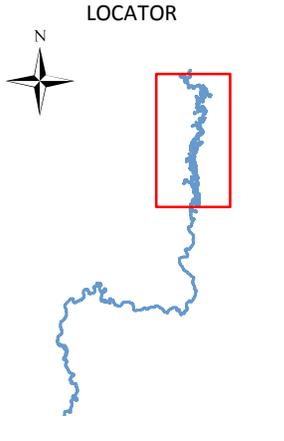
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**Figure S-5b**  
**Impact of Alternative SED 5**  
**on priority and estimated habitats of**  
**State-listed species in Reaches 7 and 8.**



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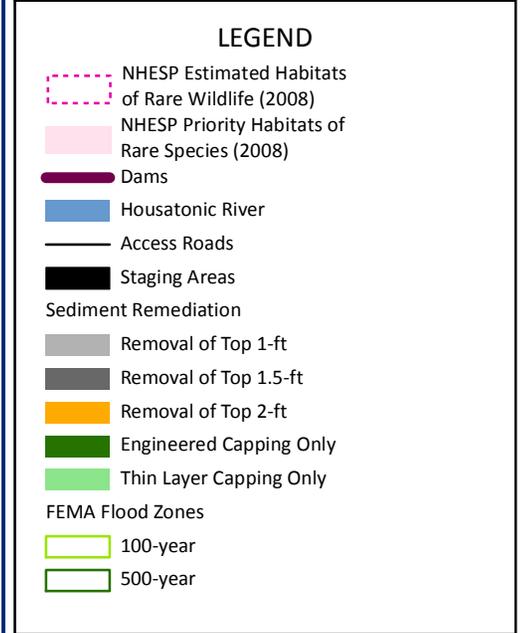
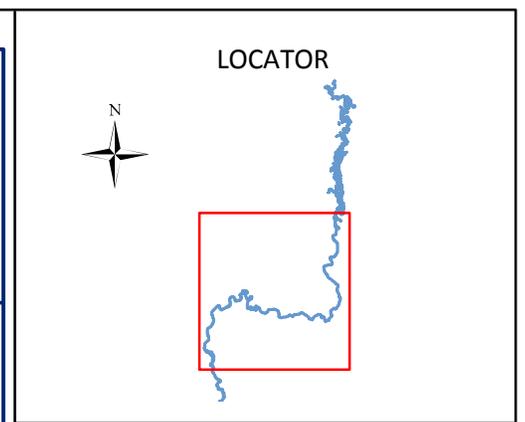
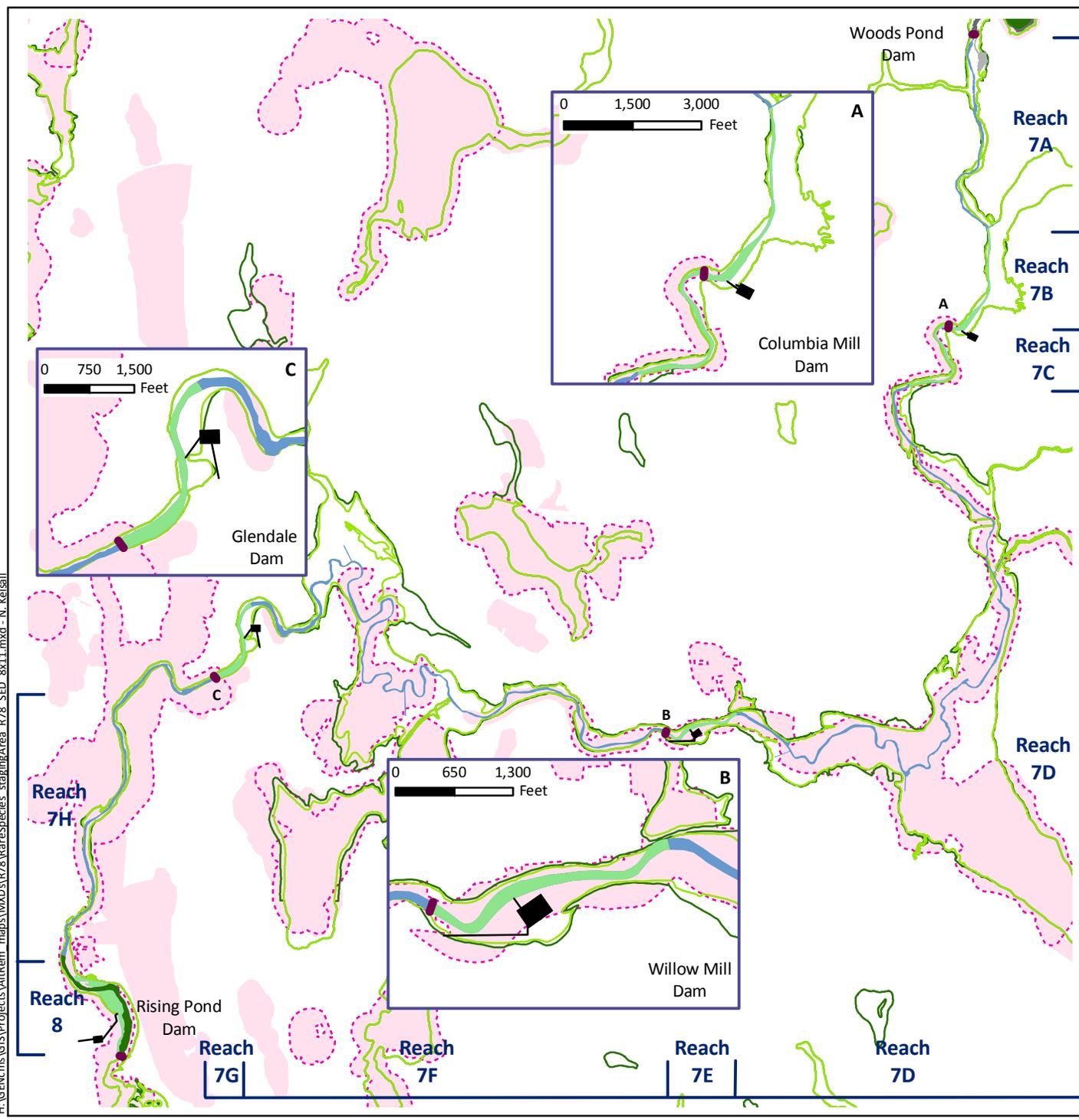


- LEGEND
- NHESP Estimated Habitats of Rare Wildlife (2008)
  - NHESP Priority Habitats of Rare Species (2008)
  - Dams
  - 1 mg/kg PCB Isoleth
  - Housatonic River
  - Access Roads
  - Staging Areas
  - Sediment Remediation
    - Removal of Top 1 ft
    - Removal of Top 1.5 ft
    - Removal of Top 2 ft
    - Engineered Capping Only
    - Thin-layer Capping
  - FEMA Flood Zones
    - 100 year
    - 500 year

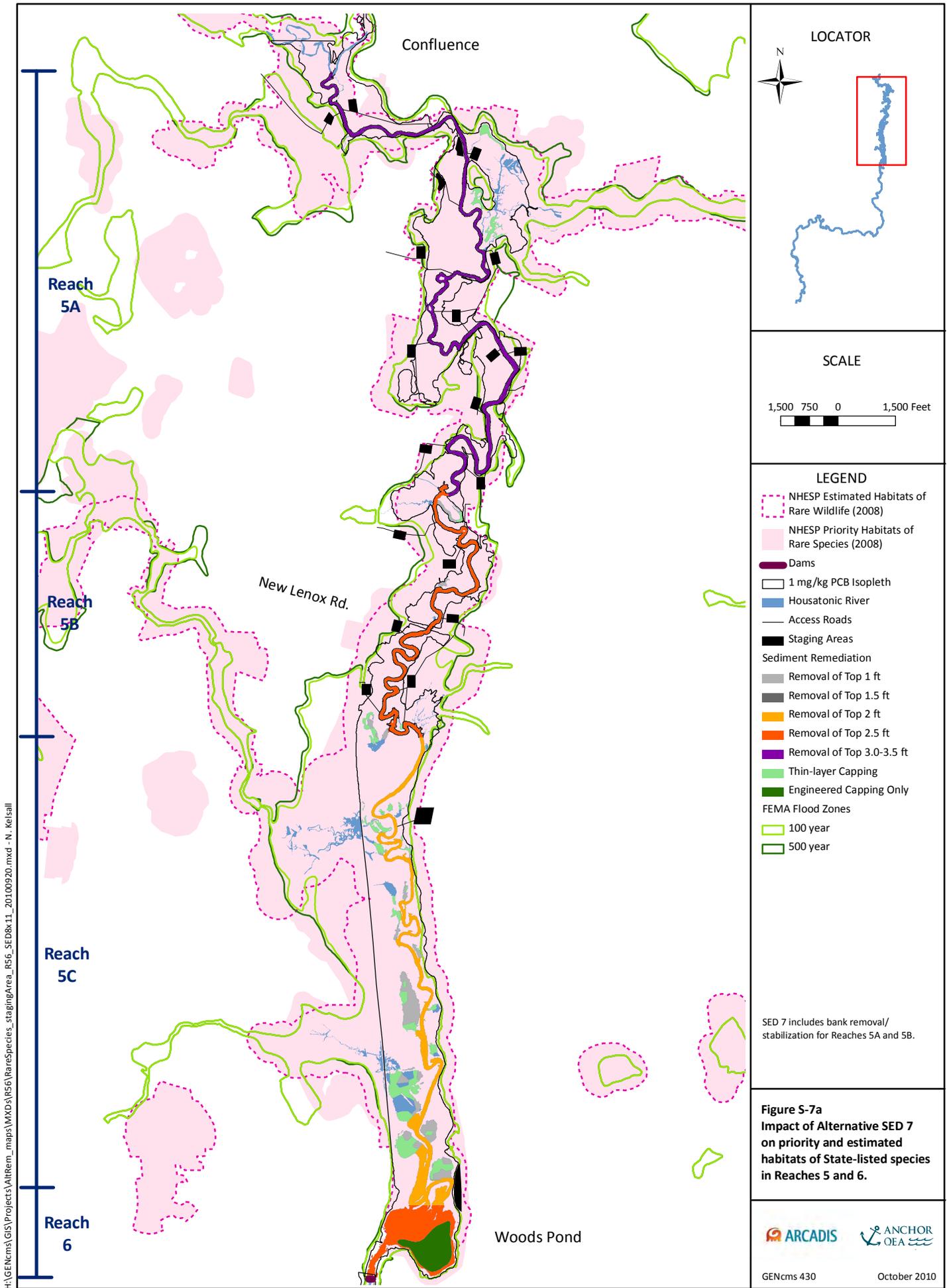
SED 6 includes bank removal/stabilization for Reaches 5A and 5B.

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

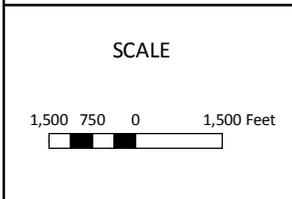
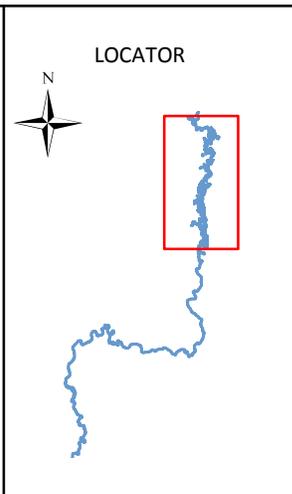
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**Figure S-6b**  
**Impact of Alternative SED 6**  
**on priority and estimated habitats of**  
**State-listed species in Reaches 7 and 8.**

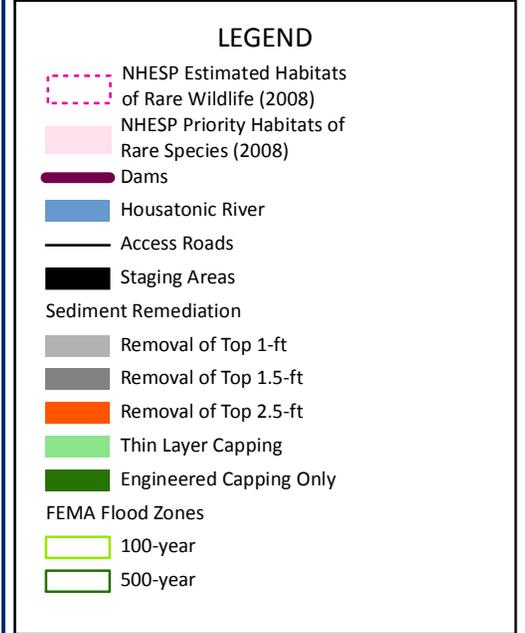
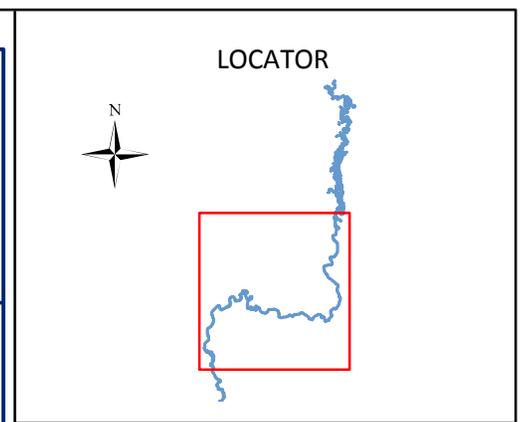
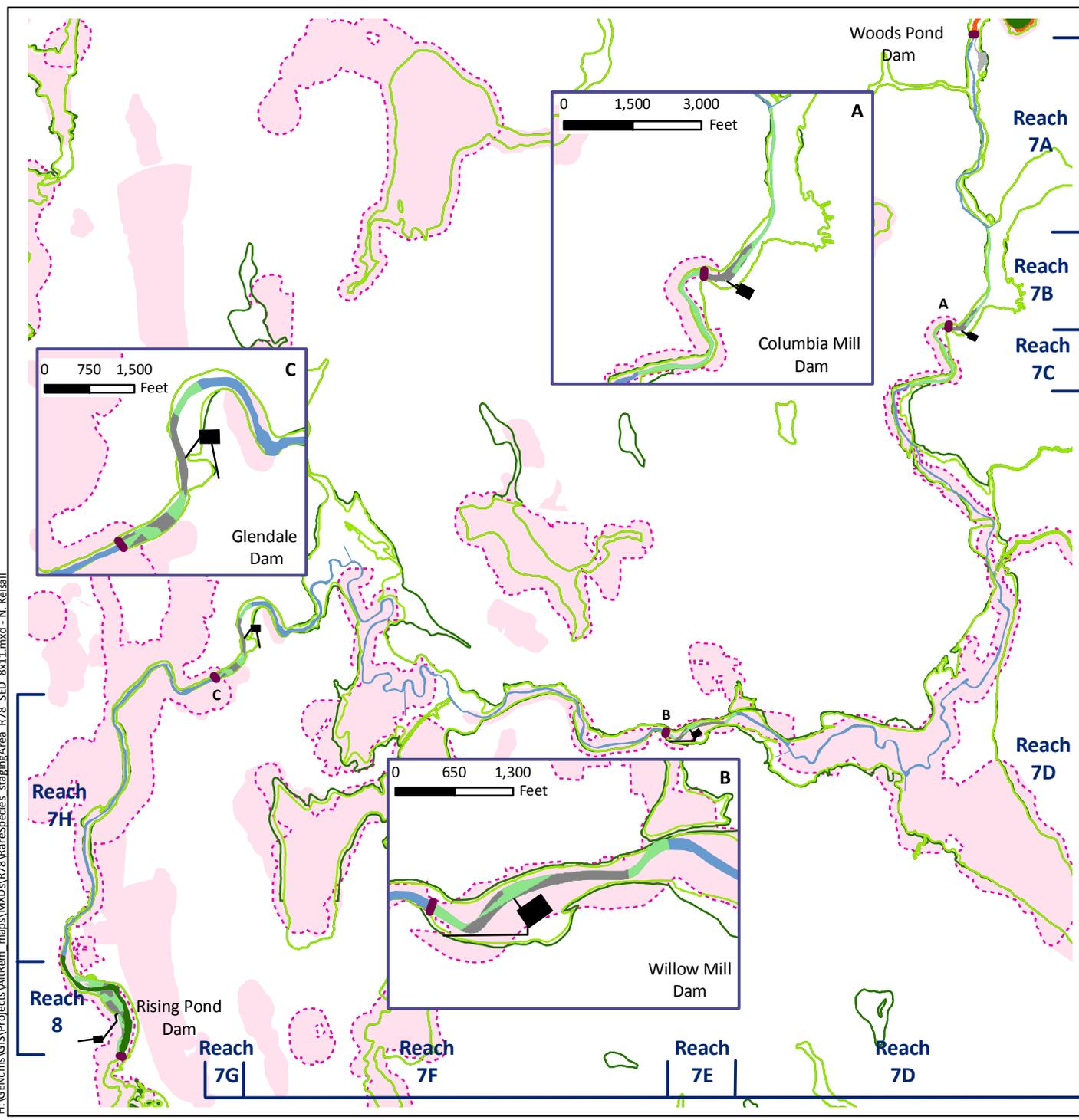


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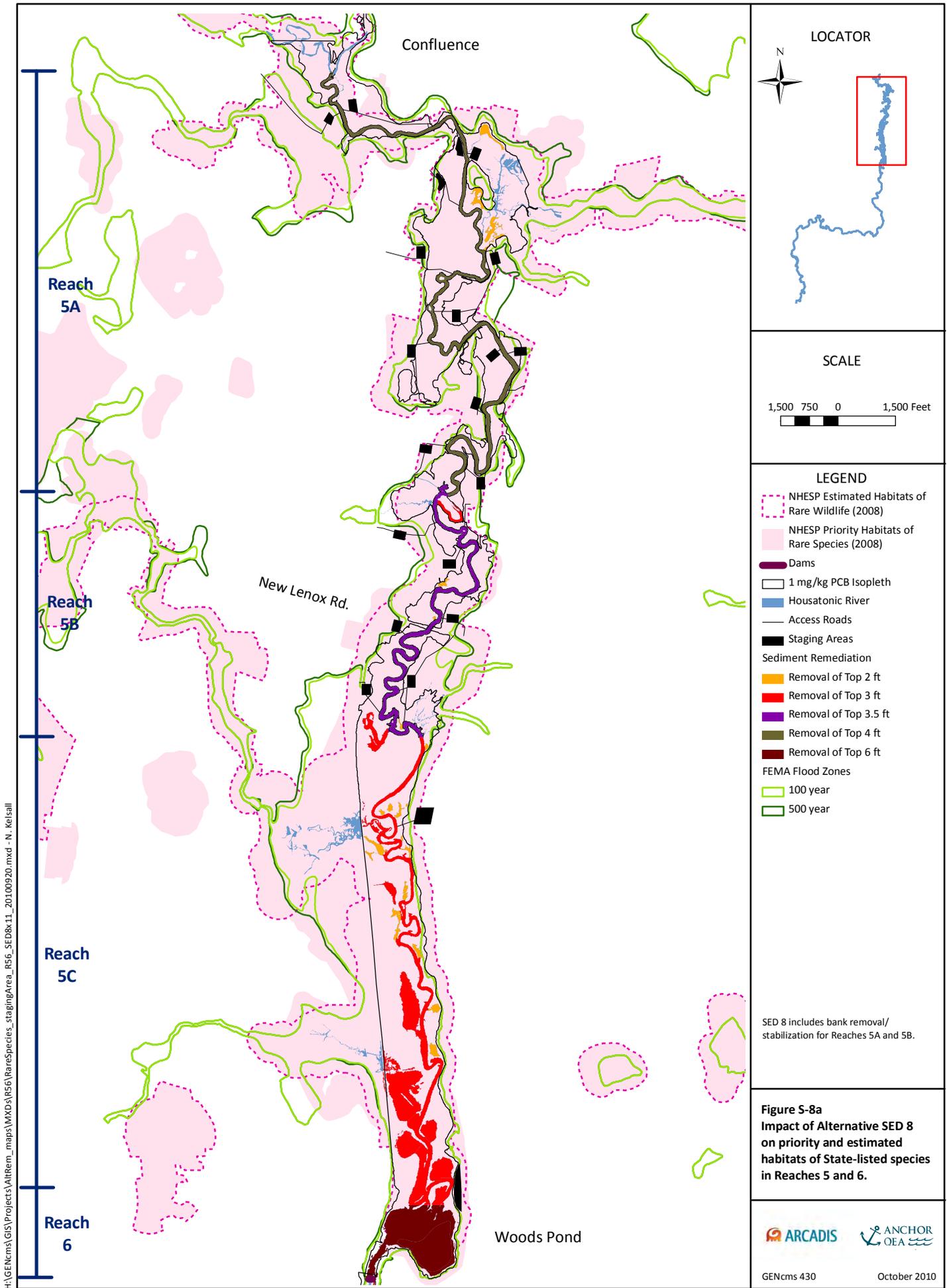


**Figure S-7a**  
**Impact of Alternative SED 7**  
**on priority and estimated**  
**habitats of State-listed species**  
**in Reaches 5 and 6.**

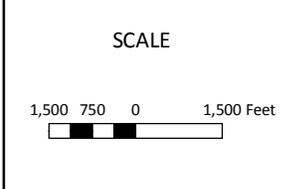
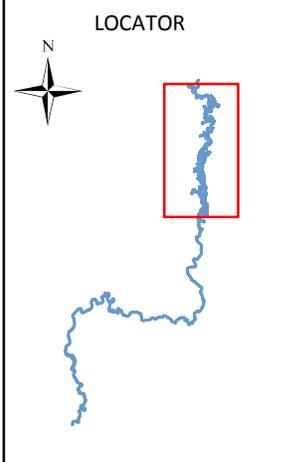
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**Figure S-7b**  
**Impact of Alternative SED 7**  
**on priority and estimated habitats of**  
**State-listed species in Reaches 7 and 8.**



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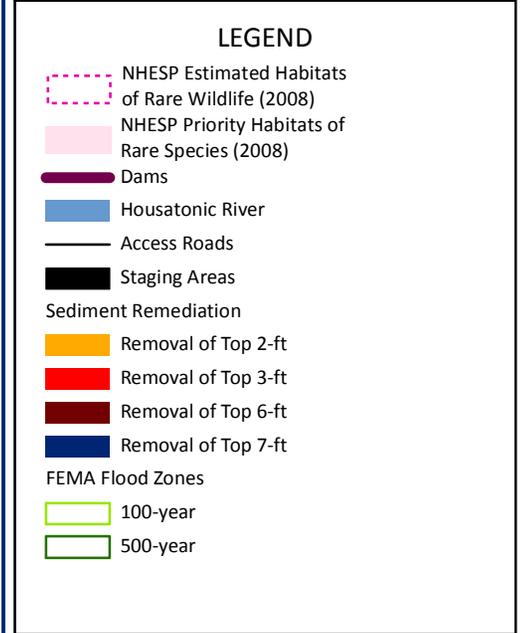
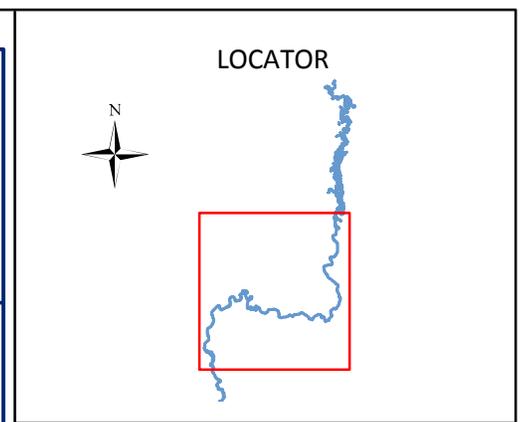
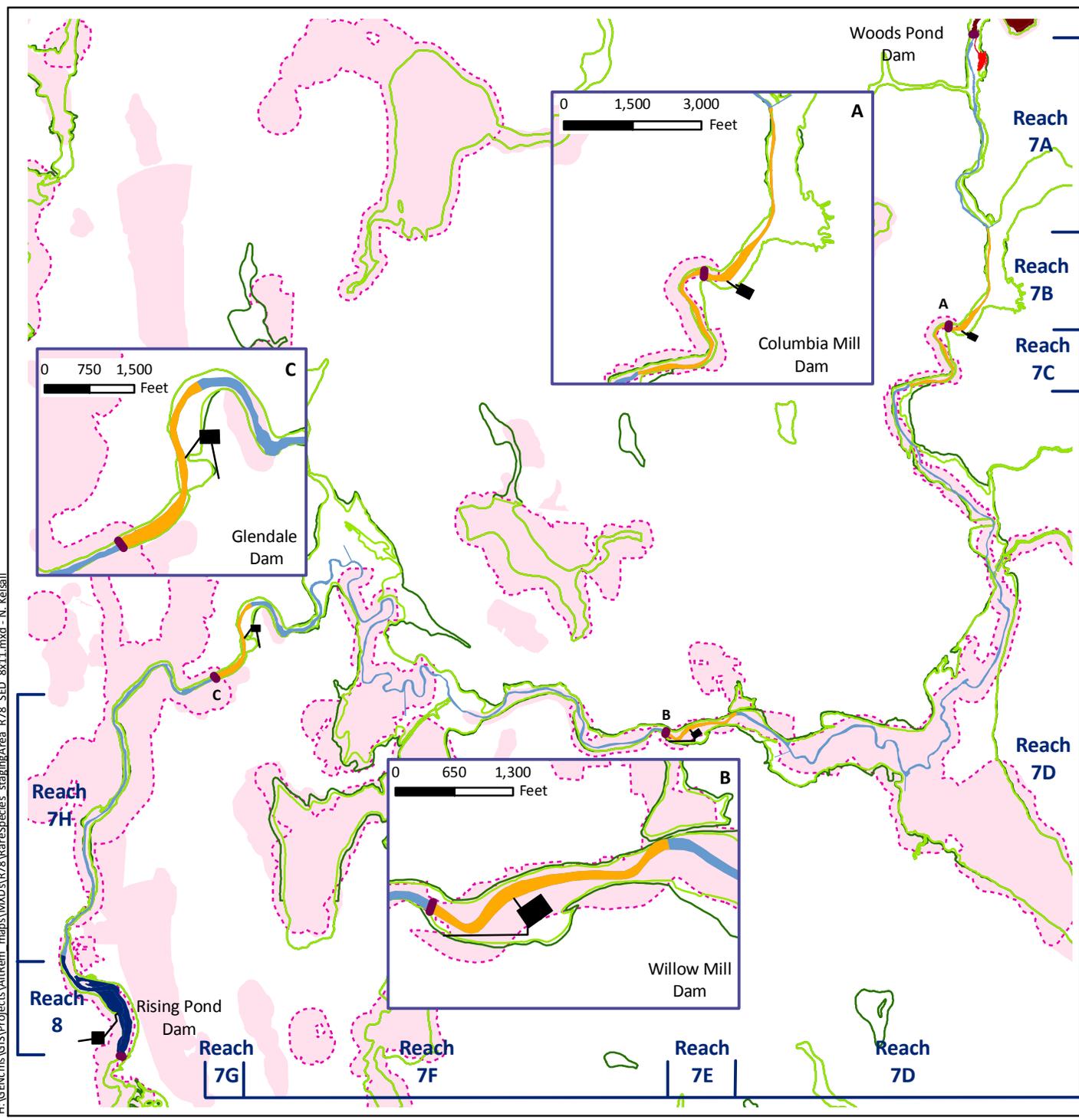


- LEGEND
- NHESP Estimated Habitats of Rare Wildlife (2008)
  - NHESP Priority Habitats of Rare Species (2008)
  - Dams
  - 1 mg/kg PCB Isoleth
  - Housatonic River
  - Access Roads
  - Staging Areas
  - Sediment Remediation
    - Removal of Top 2 ft
    - Removal of Top 3 ft
    - Removal of Top 3.5 ft
    - Removal of Top 4 ft
    - Removal of Top 6 ft
  - FEMA Flood Zones
    - 100 year
    - 500 year

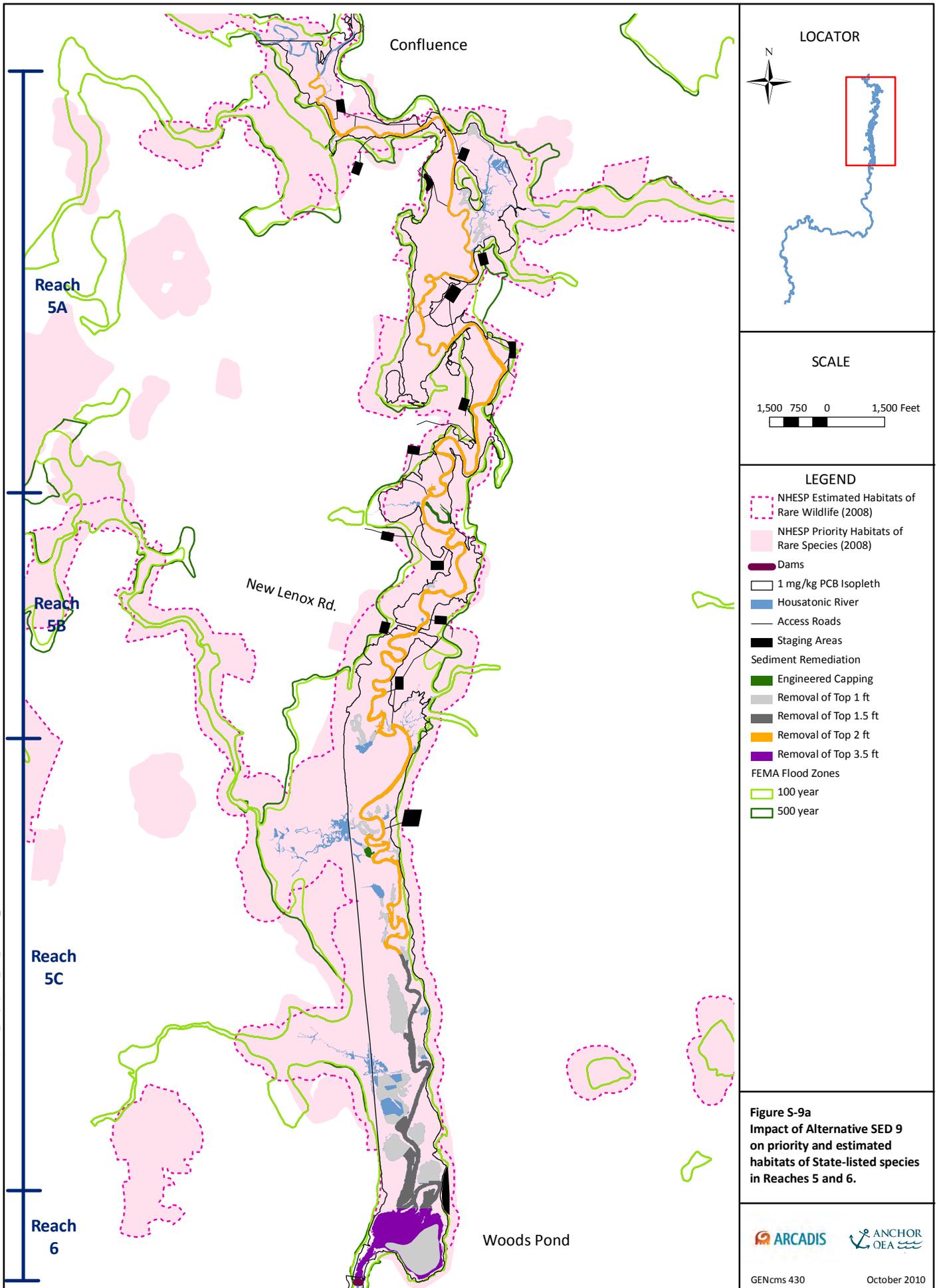
SED 8 includes bank removal/stabilization for Reaches 5A and 5B.

**Figure S-8a**  
**Impact of Alternative SED 8**  
**on priority and estimated**  
**habitats of State-listed species**  
**in Reaches 5 and 6.**

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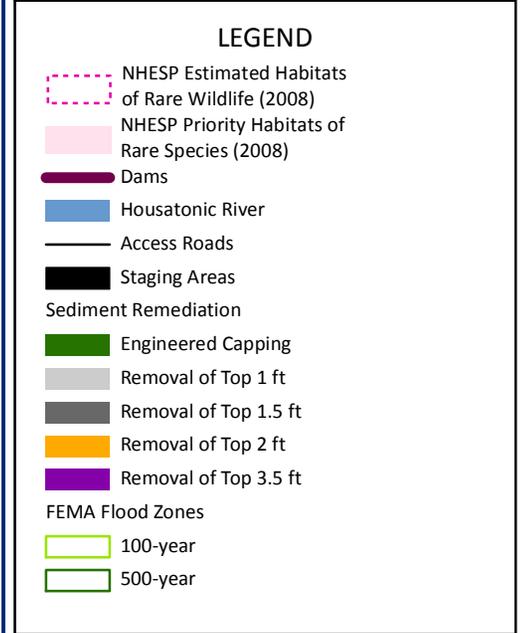
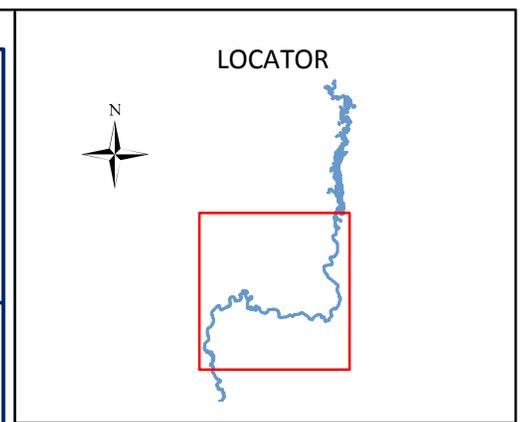
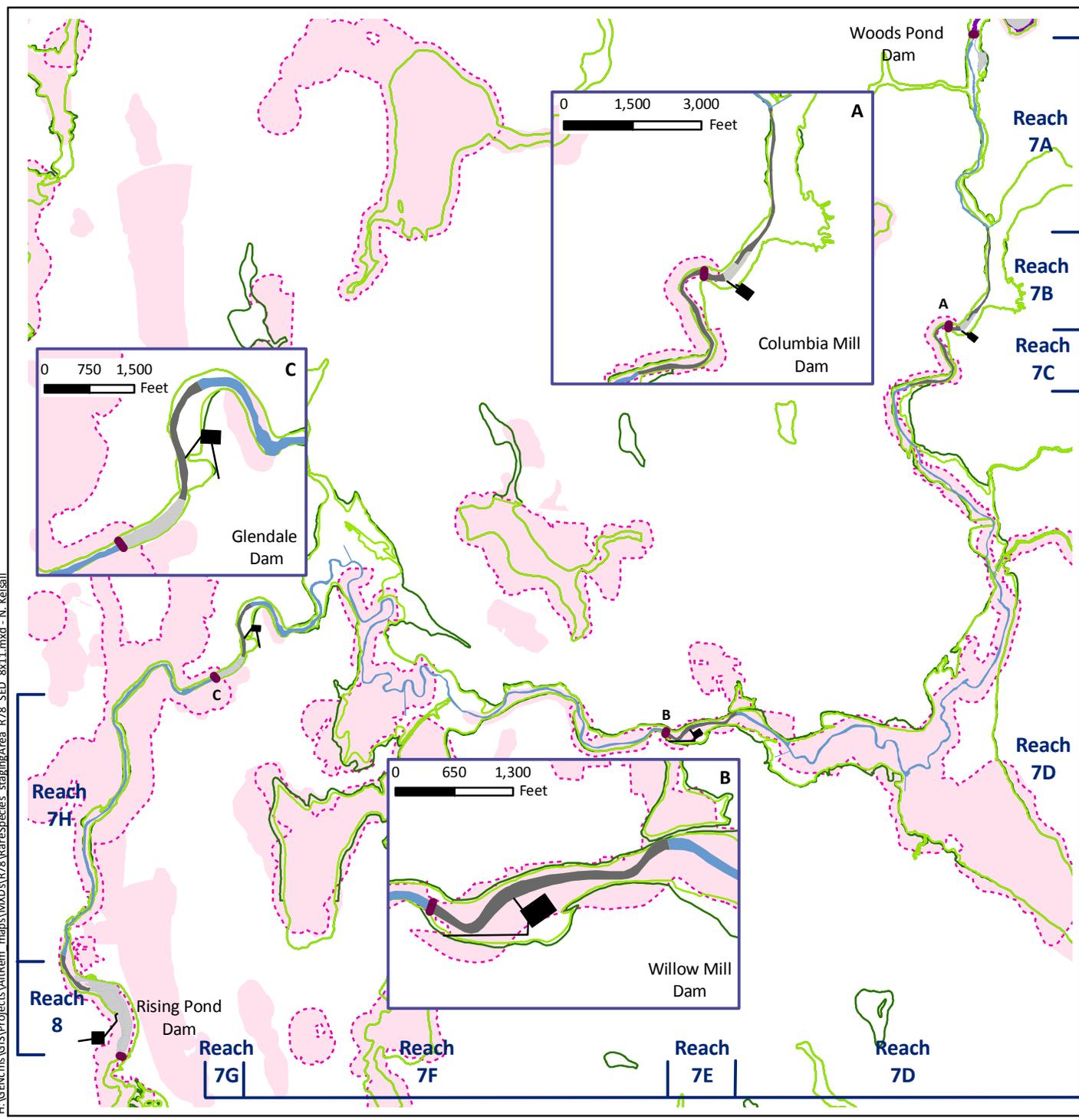


**Figure S-8b**  
**Impact of Alternative SED 8**  
 on priority and estimated habitats of  
 State-listed species in Reaches 7 and 8.

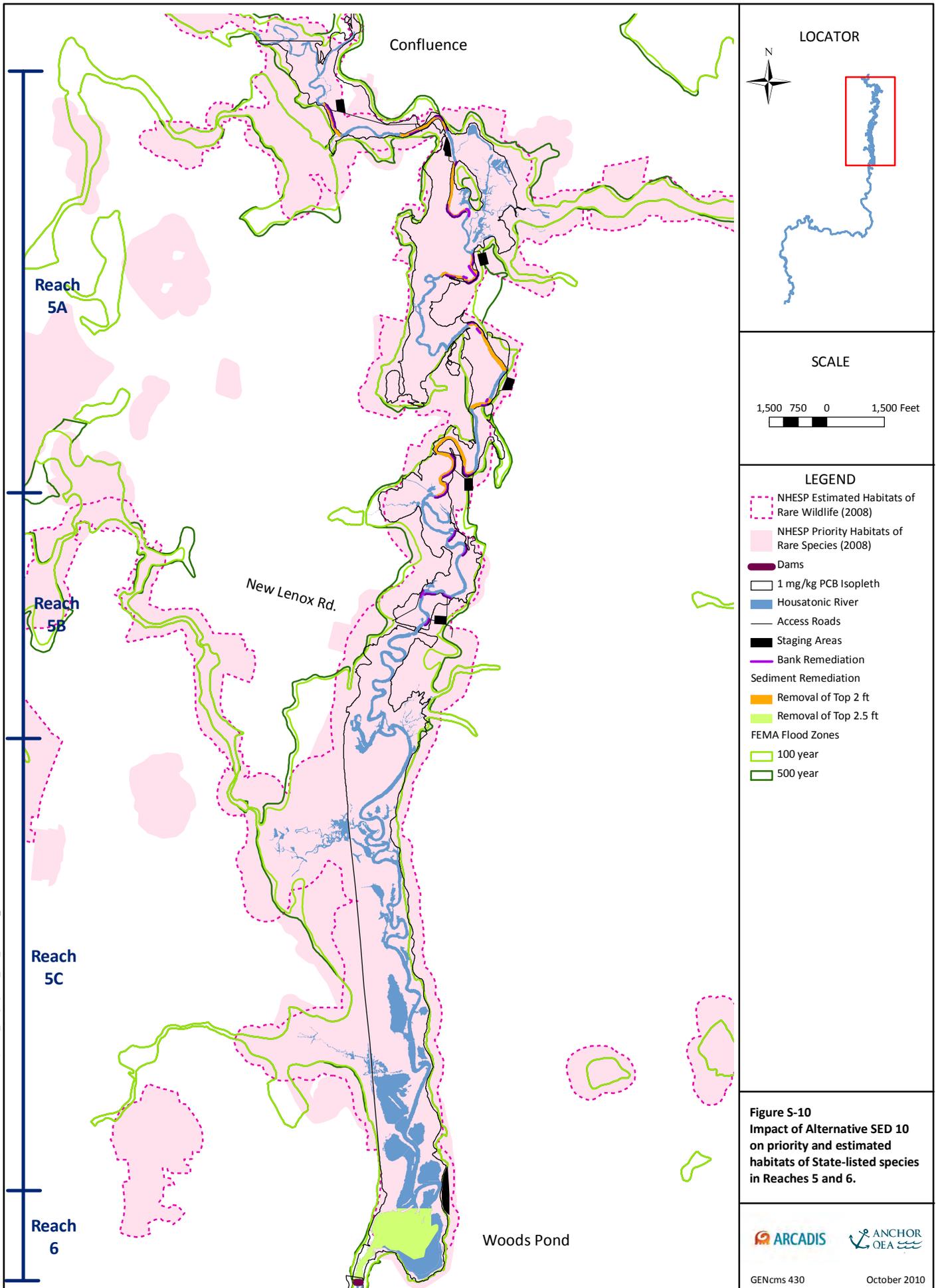


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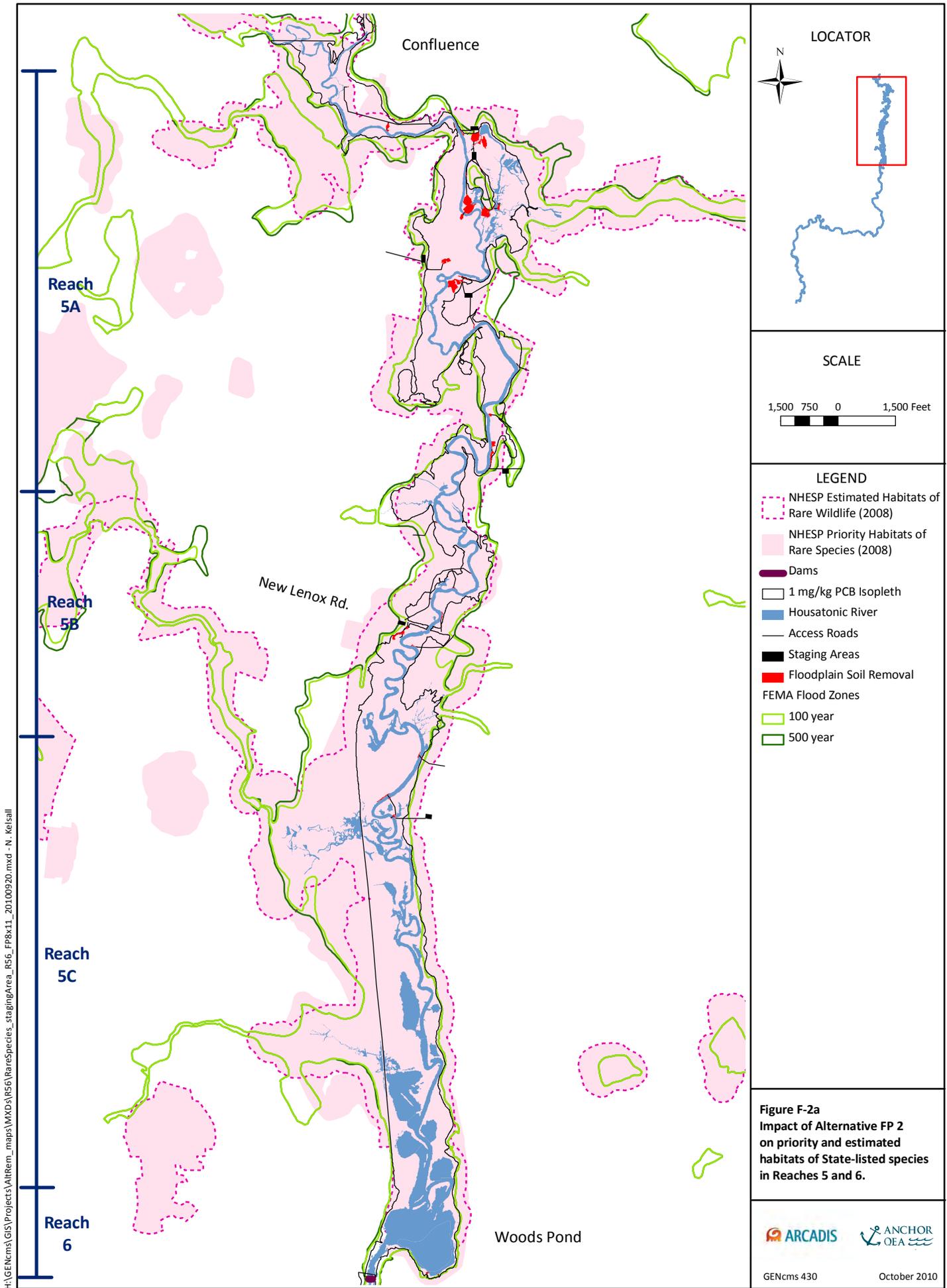
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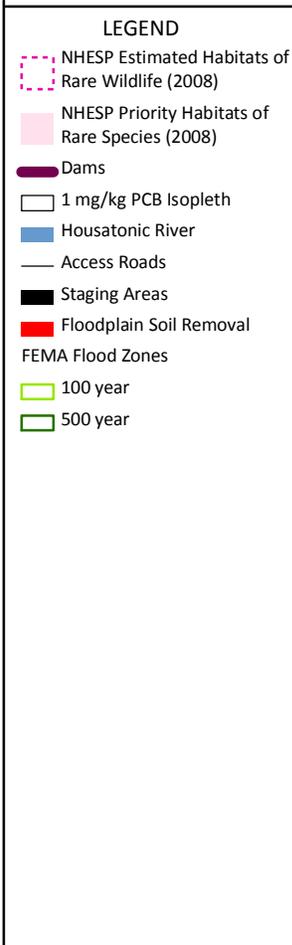
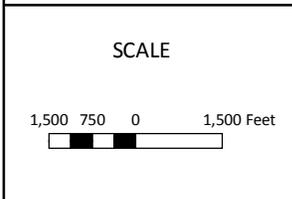
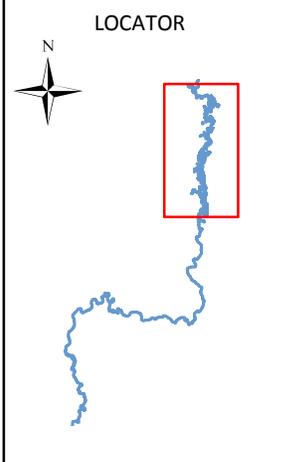
**Figure S-9b**  
**Impact of Alternative SED 9**  
**on priority and estimated habitats of**  
**State-listed species in Reaches 7 and 8.**



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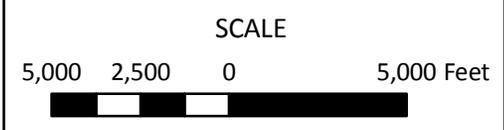
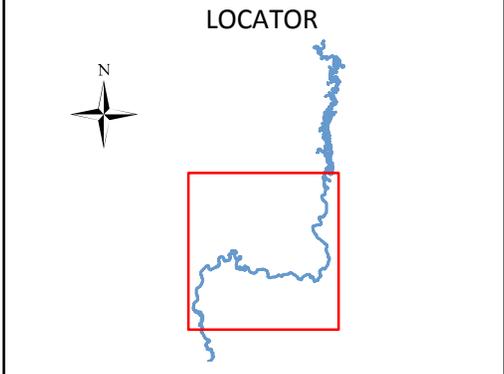
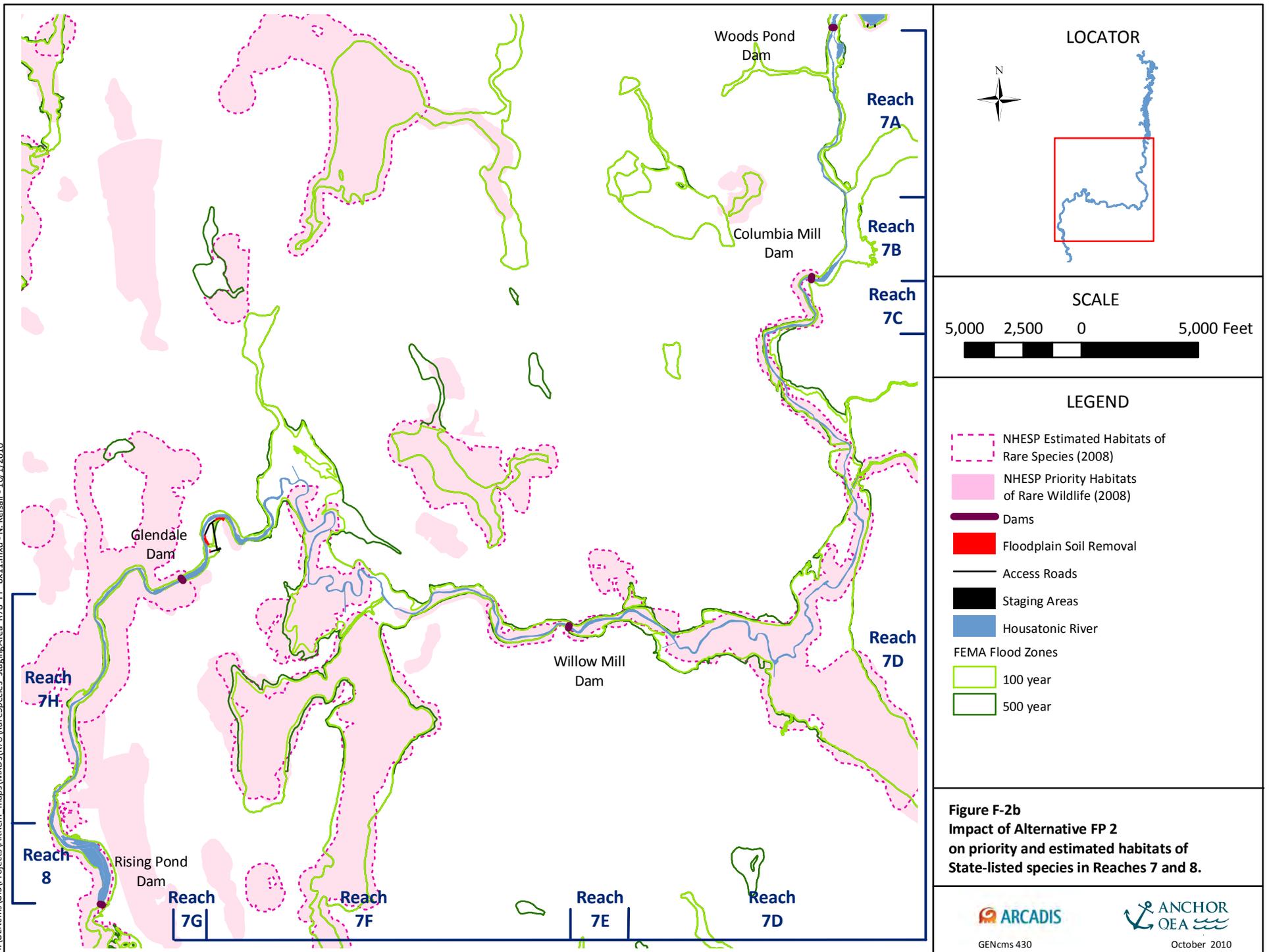


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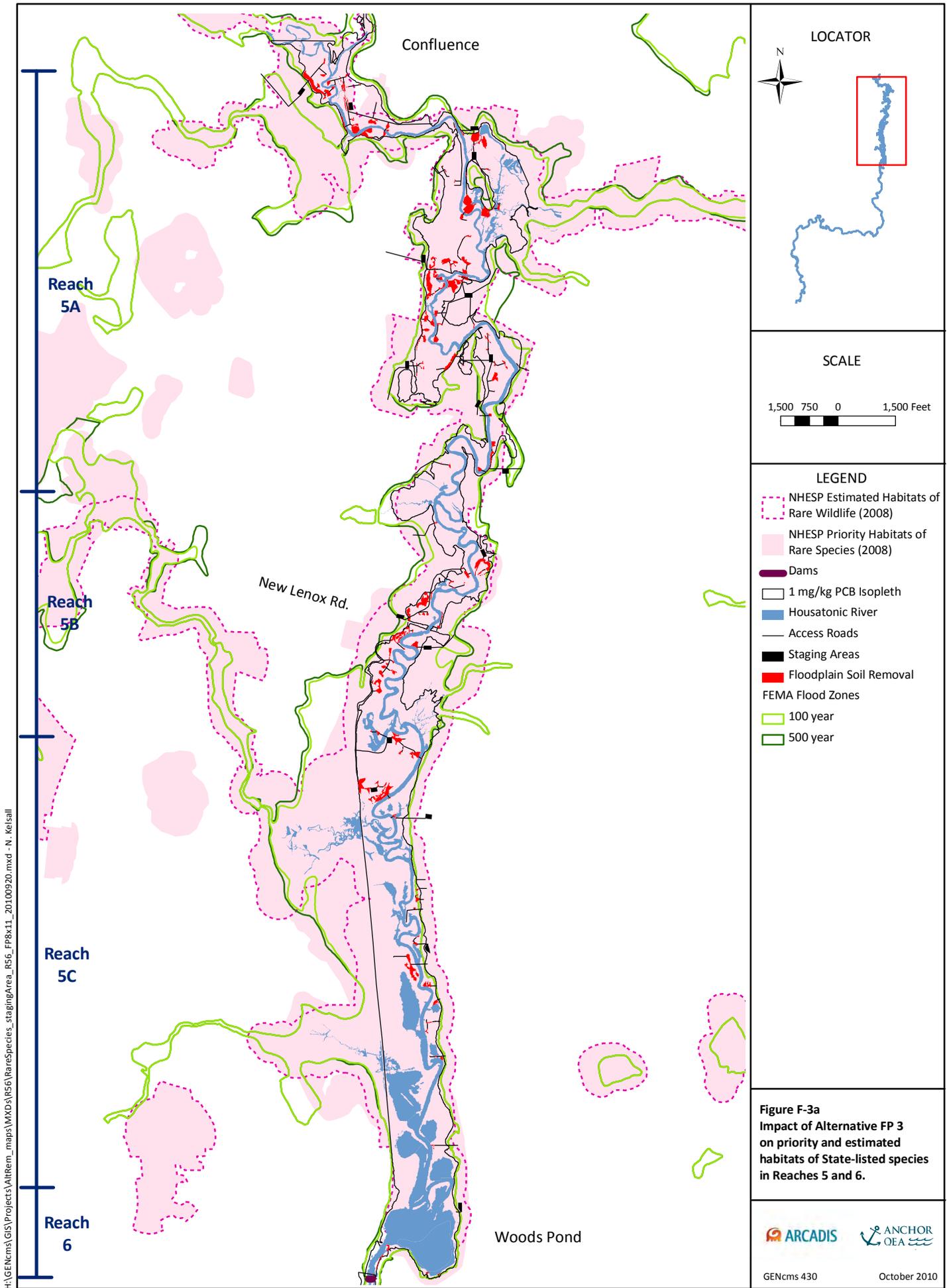


**Figure F-2a**  
**Impact of Alternative FP 2**  
**on priority and estimated**  
**habitats of State-listed species**  
**in Reaches 5 and 6.**

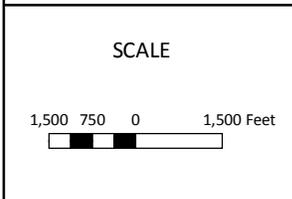
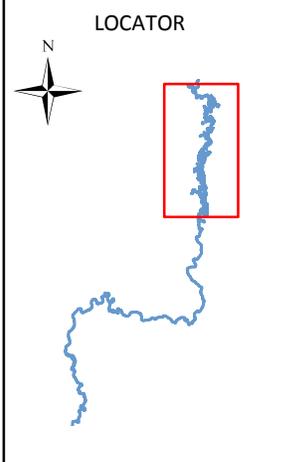
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**Figure F-2b**  
**Impact of Alternative FP 2**  
**on priority and estimated habitats of**  
**State-listed species in Reaches 7 and 8.**



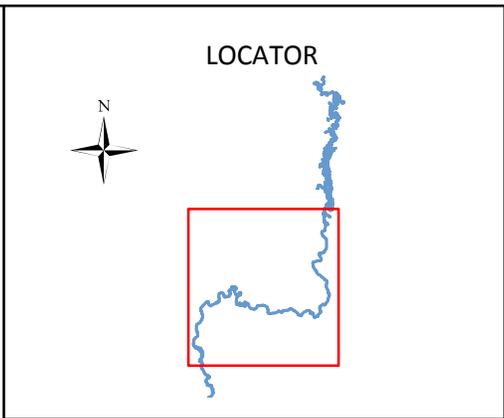
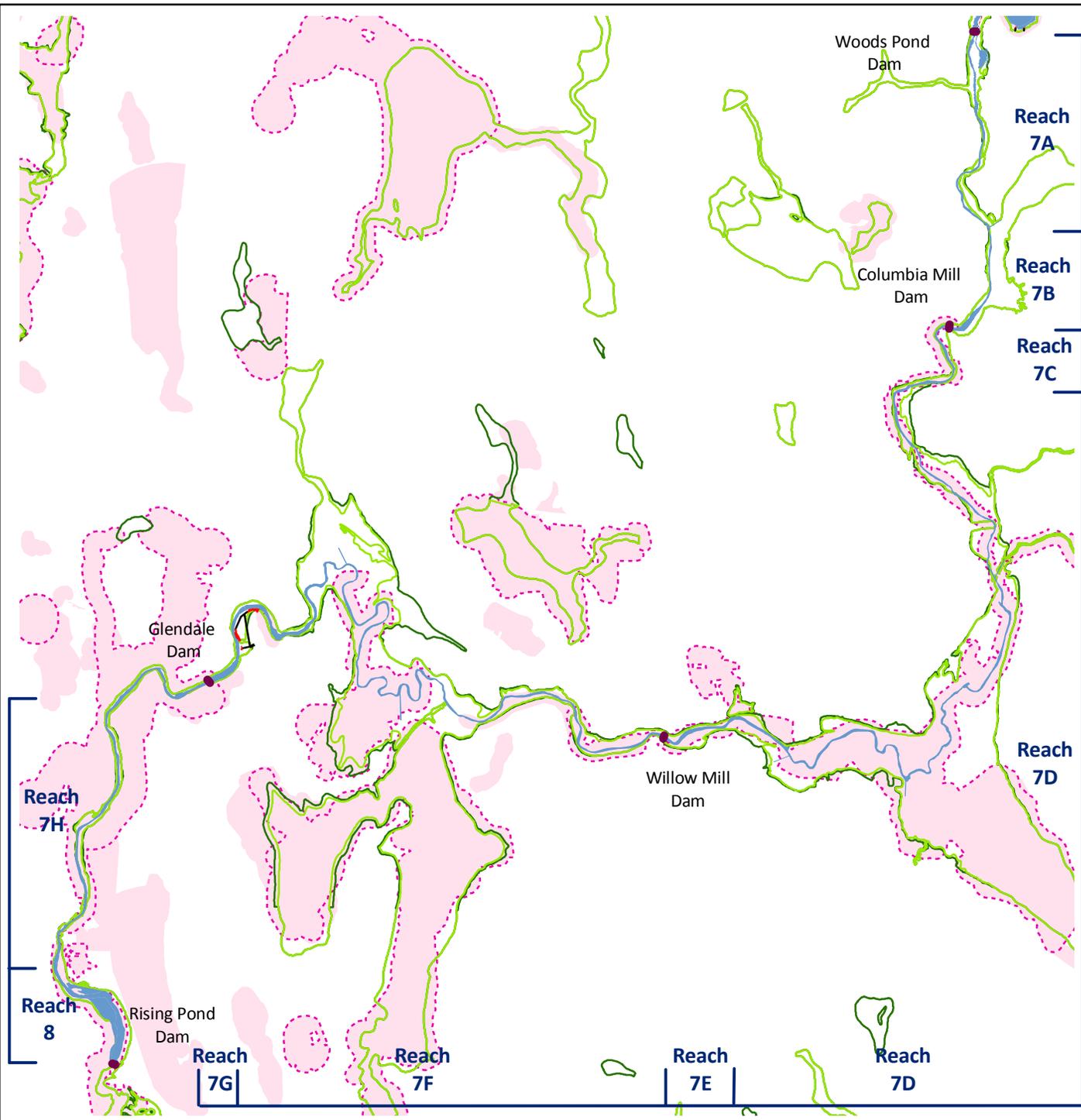
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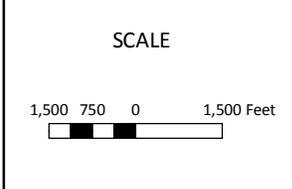
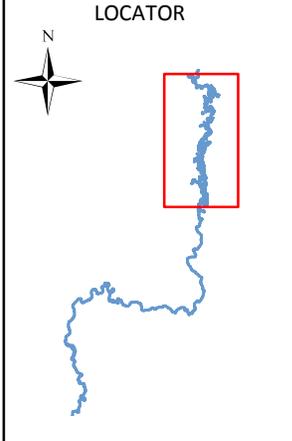
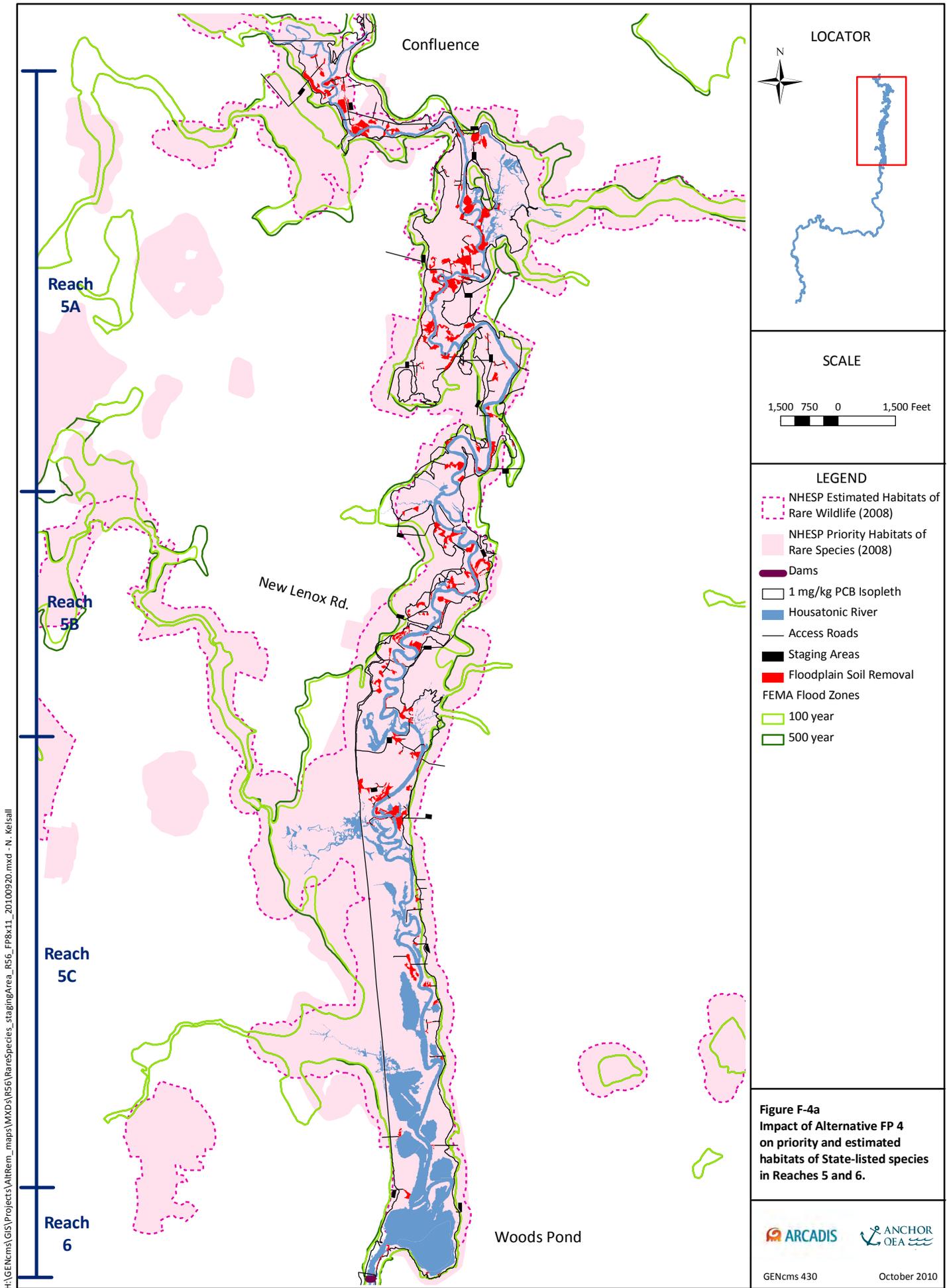
- LEGEND
- NHESP Estimated Habitats of Rare Wildlife (2008)
  - NHESP Priority Habitats of Rare Species (2008)
  - Dams
  - 1 mg/kg PCB Isoleth
  - Housatonic River
  - Access Roads
  - Staging Areas
  - Floodplain Soil Removal
  - FEMA Flood Zones
    - 100 year
    - 500 year

**Figure F-3a**  
**Impact of Alternative FP 3**  
**on priority and estimated**  
**habitats of State-listed species**  
**in Reaches 5 and 6.**

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**Figure F-3b**  
**Impact of Alternative FP 3**  
**on priority and estimated habitats of**  
**State-listed species in Reaches 7 and 8.**

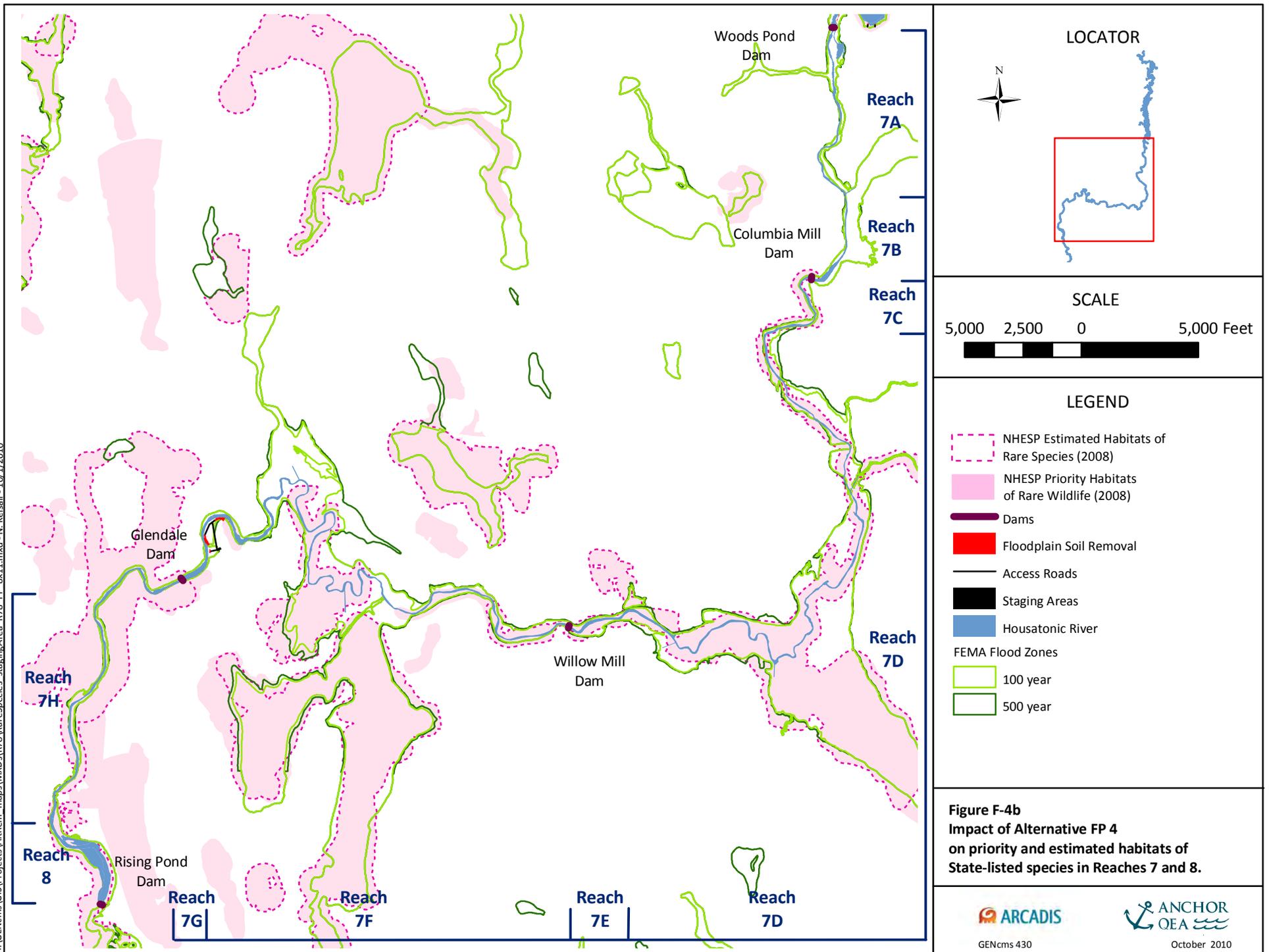


- LEGEND**
- NHESP Estimated Habitats of Rare Wildlife (2008)
  - NHESP Priority Habitats of Rare Species (2008)
  - Dams
  - 1 mg/kg PCB Isoleth
  - Housatonic River
  - Access Roads
  - Staging Areas
  - Floodplain Soil Removal
  - FEMA Flood Zones**
  - 100 year
  - 500 year

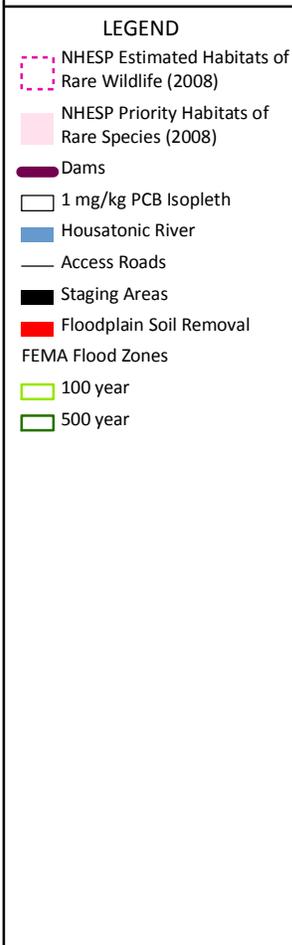
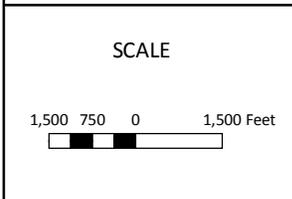
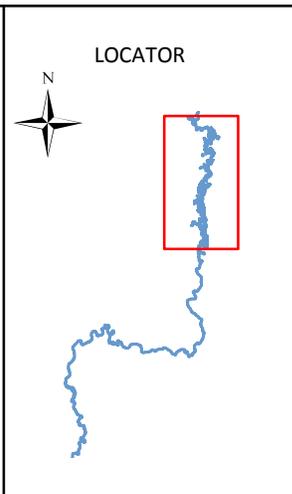
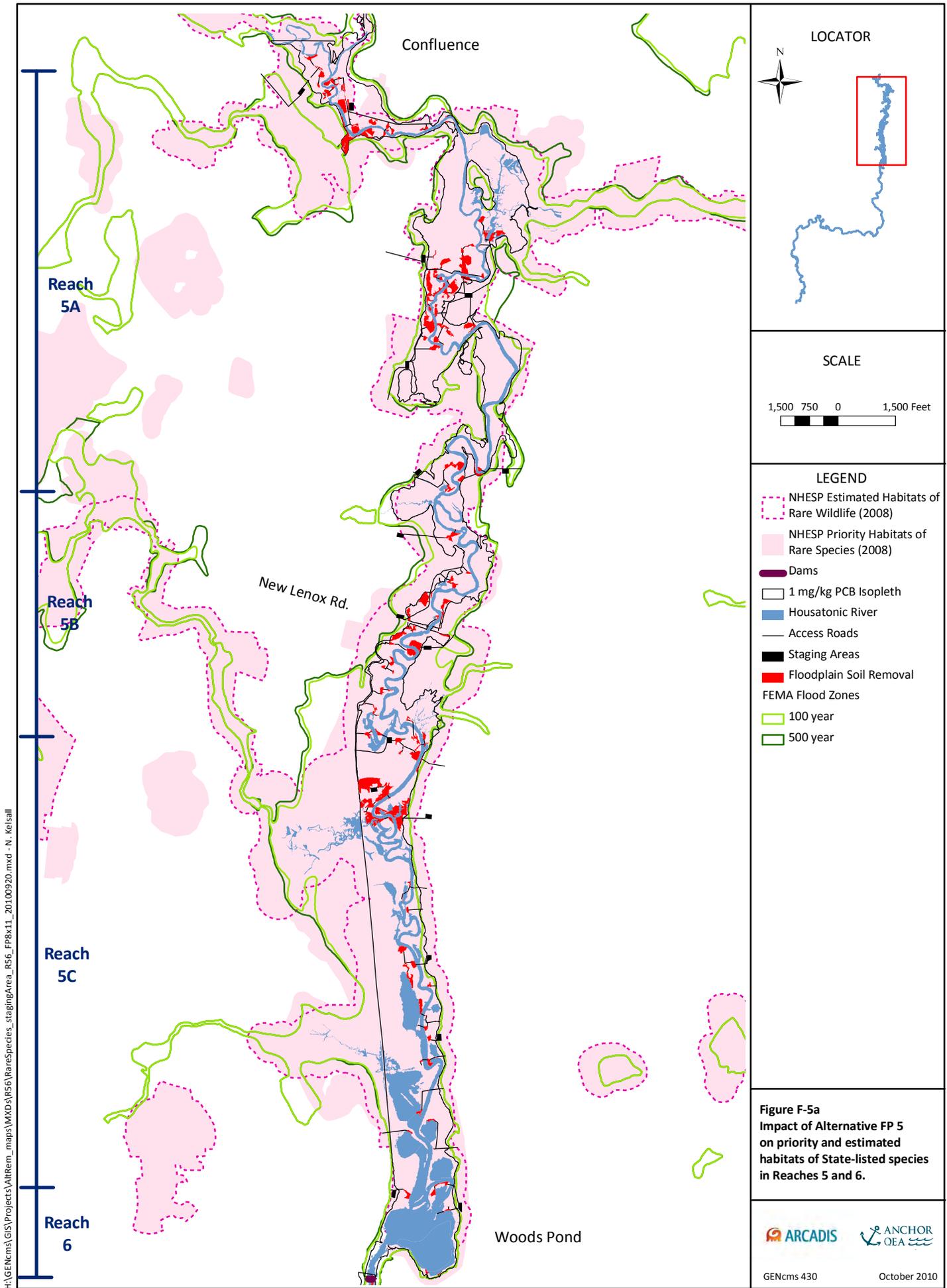
**Figure F-4a**  
**Impact of Alternative FP 4**  
**on priority and estimated**  
**habitats of State-listed species**  
**in Reaches 5 and 6.**

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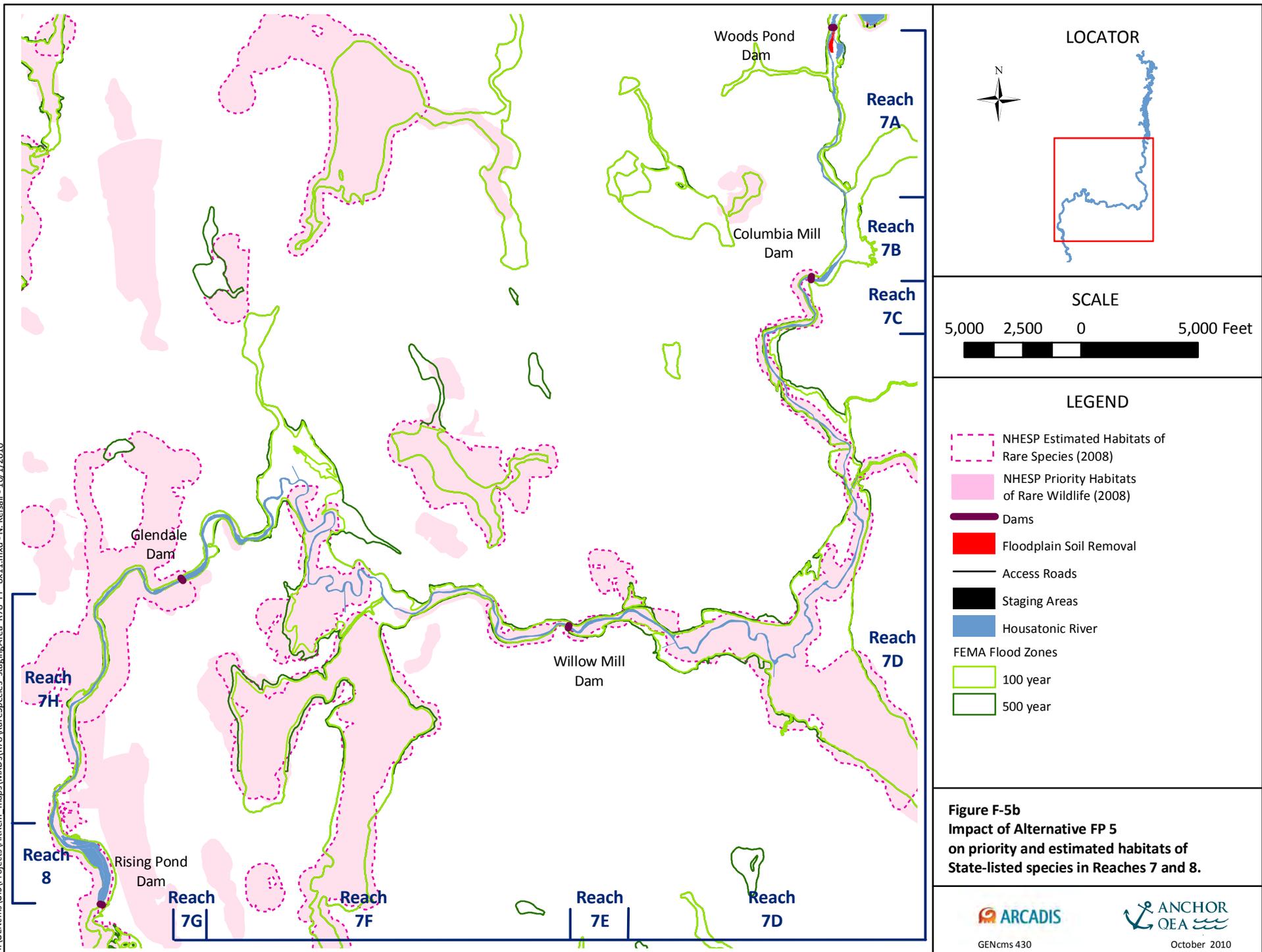
**Figure F-4b**  
**Impact of Alternative FP 4**  
**on priority and estimated habitats of**  
**State-listed species in Reaches 7 and 8.**



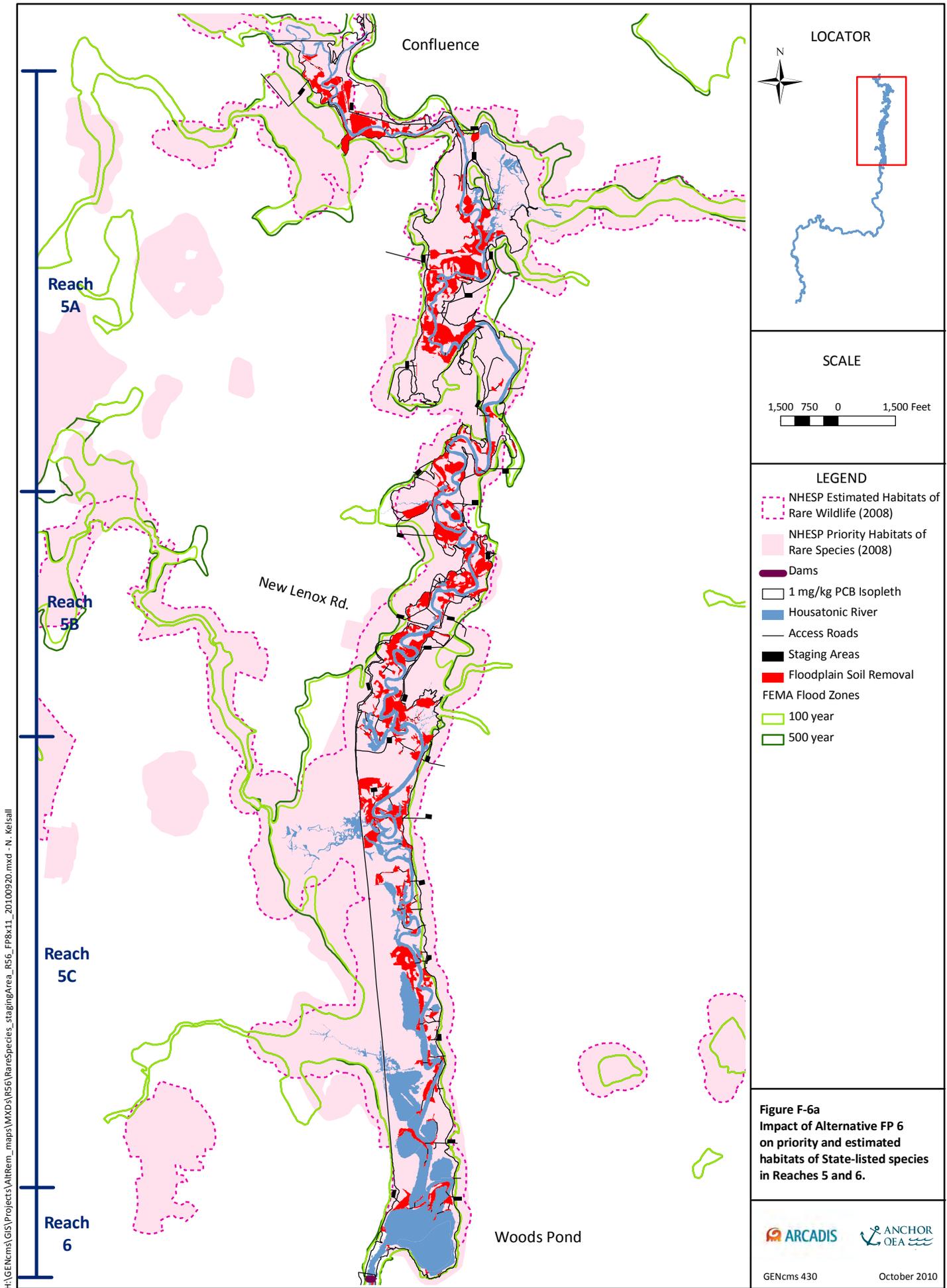
**Figure F-5a**  
**Impact of Alternative FP 5**  
**on priority and estimated**  
**habitats of State-listed species**  
**in Reaches 5 and 6.**

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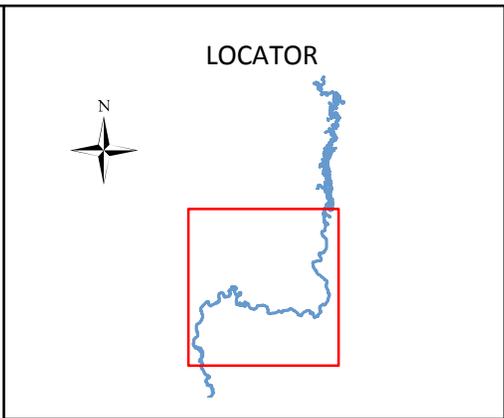
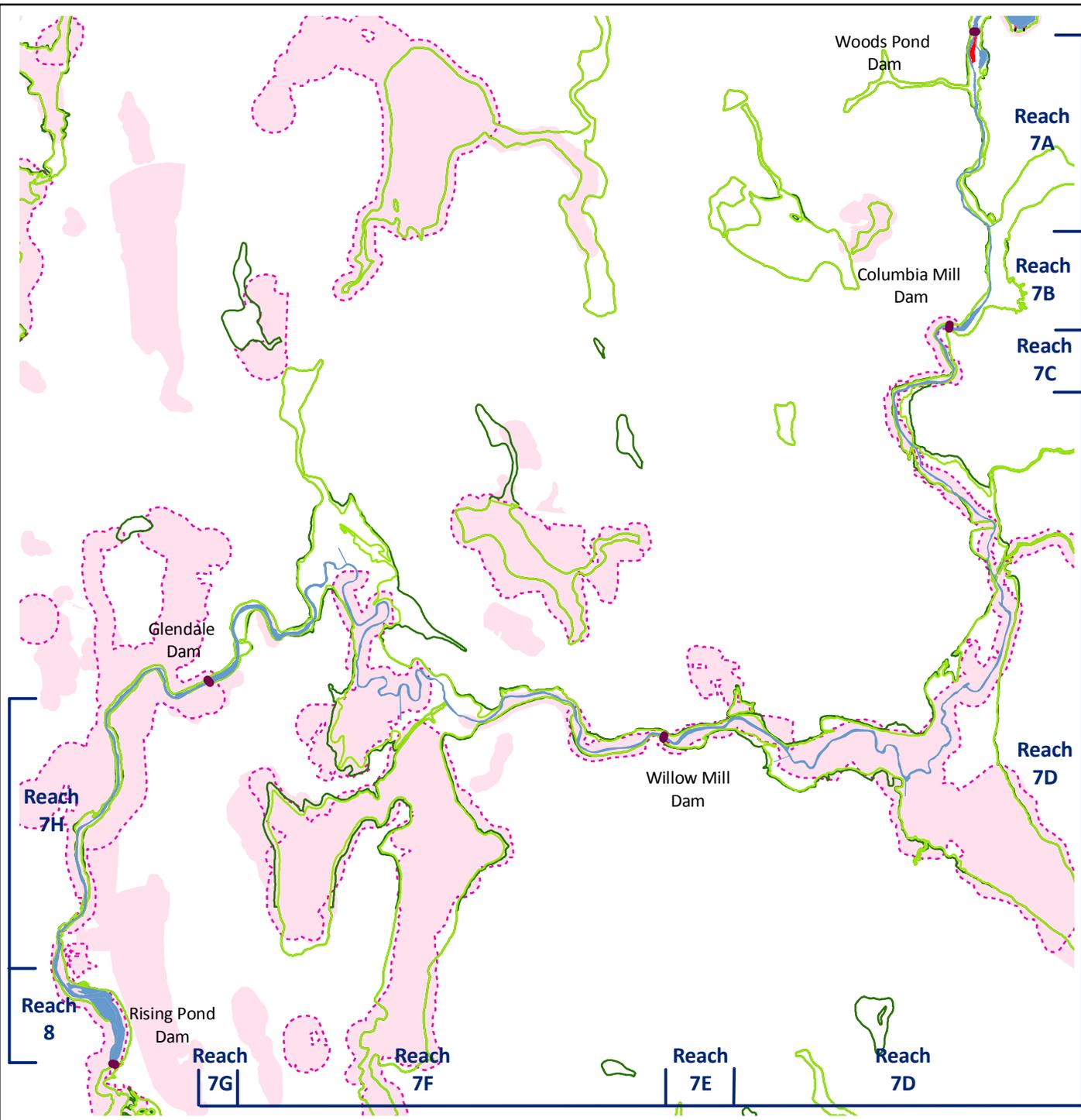
**Figure F-5b**  
**Impact of Alternative FP 5**  
**on priority and estimated habitats of**  
**State-listed species in Reaches 7 and 8.**



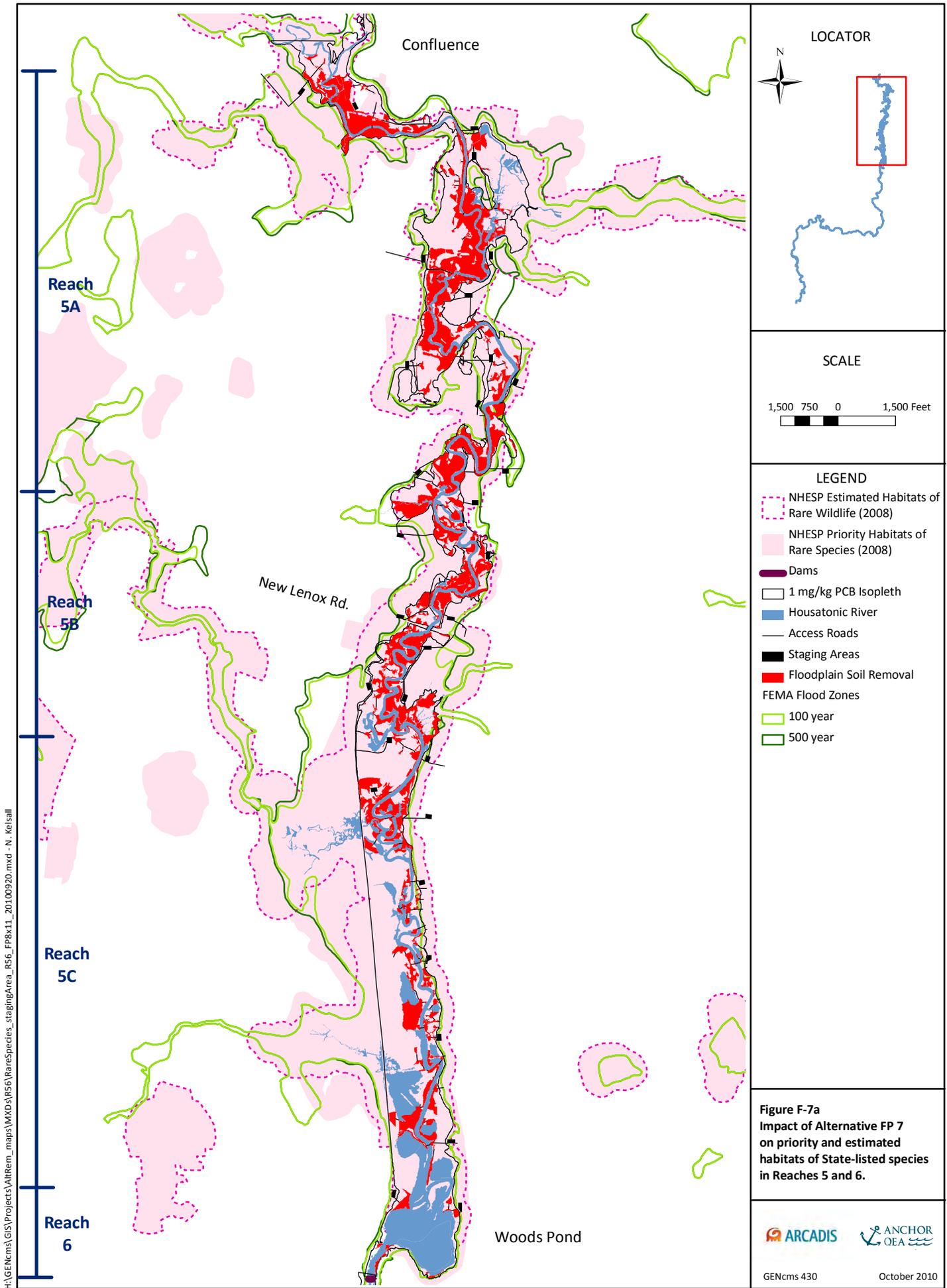
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**Figure F-6a**  
**Impact of Alternative FP 6**  
**on priority and estimated**  
**habitats of State-listed species**  
**in Reaches 5 and 6.**

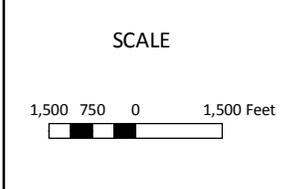
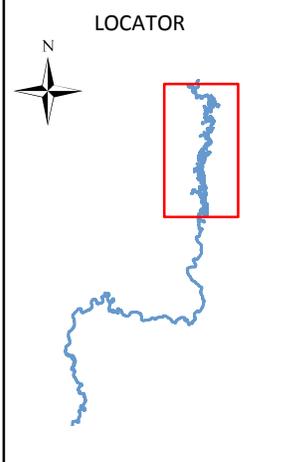
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**Figure F-6b**  
**Impact of Alternative FP 6**  
**on priority and estimated habitats of**  
**State-listed species in Reaches 7 and 8.**



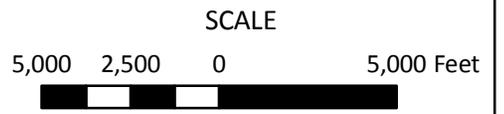
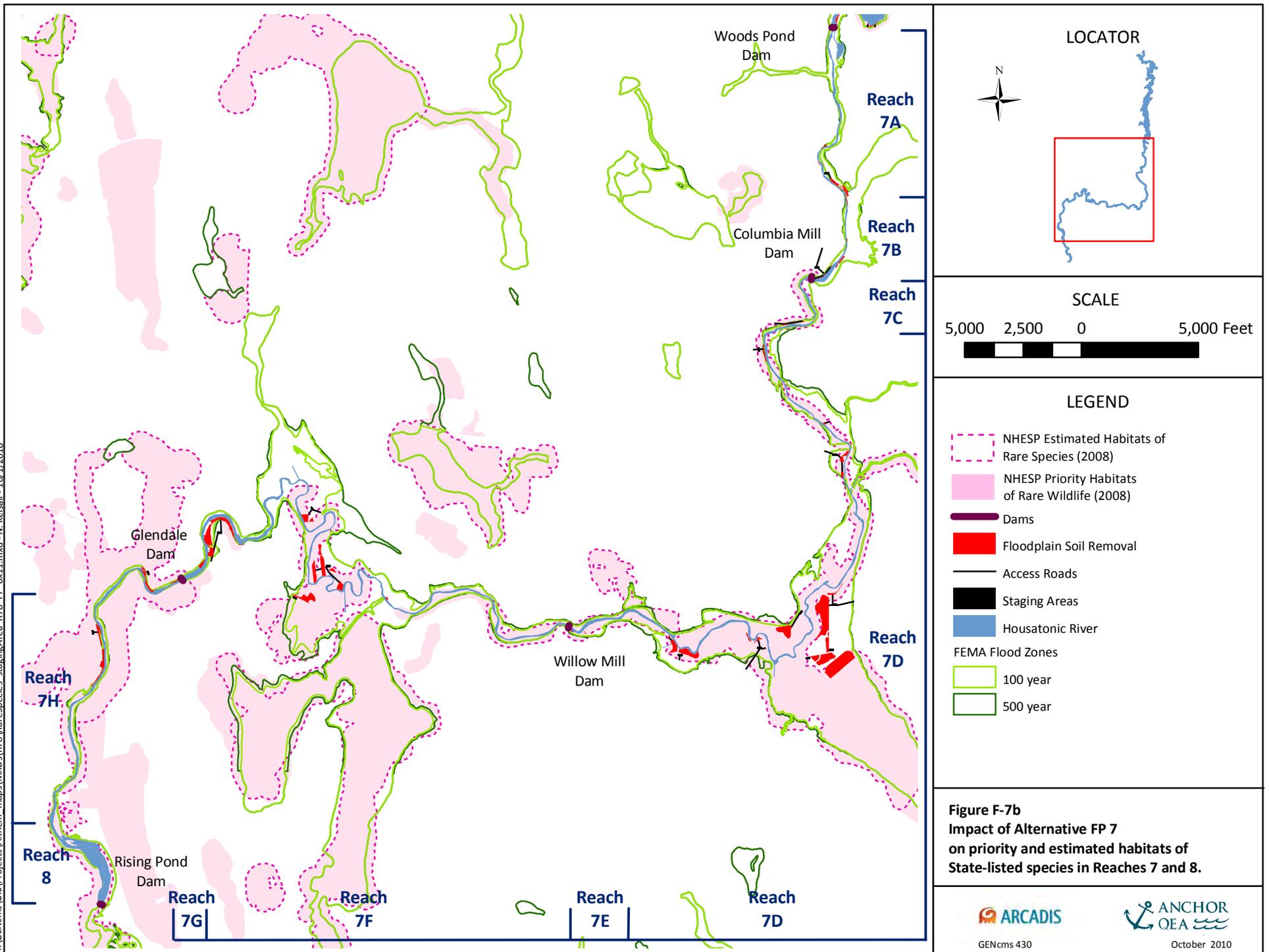
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- LEGEND
- NHESP Estimated Habitats of Rare Wildlife (2008)
  - NHESP Priority Habitats of Rare Species (2008)
  - Dams
  - 1 mg/kg PCB Isoleth
  - Housatonic River
  - Access Roads
  - Staging Areas
  - Floodplain Soil Removal
  - FEMA Flood Zones
    - 100 year
    - 500 year

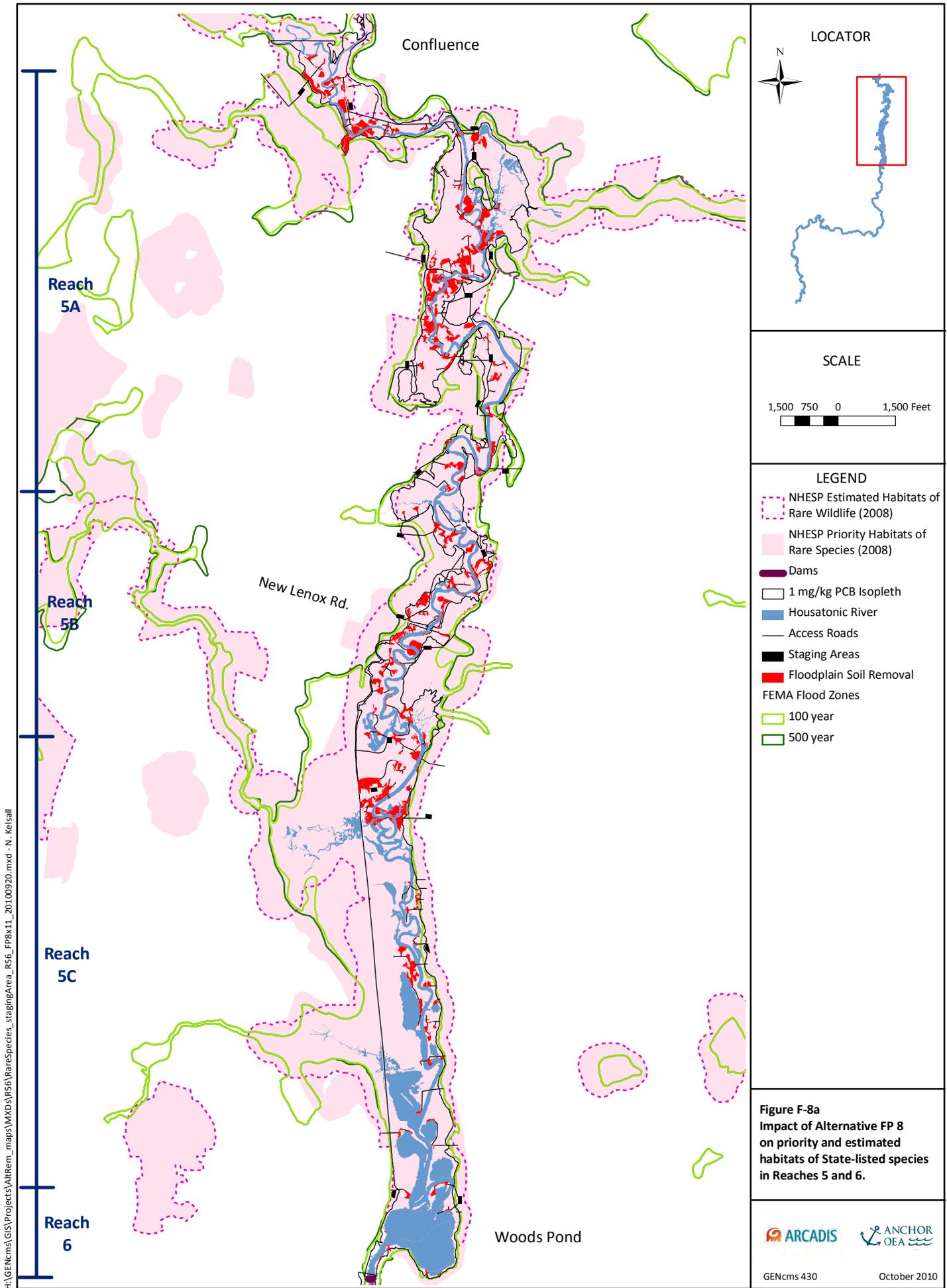
**Figure F-7a**  
**Impact of Alternative FP 7**  
**on priority and estimated**  
**habitats of State-listed species**  
**in Reaches 5 and 6.**

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- LEGEND**
- NHESP Estimated Habitats of Rare Species (2008)
  - NHESP Priority Habitats of Rare Wildlife (2008)
  - Dams
  - Floodplain Soil Removal
  - Access Roads
  - Staging Areas
  - Housatonic River
  - FEMA Flood Zones
    - 100 year
    - 500 year

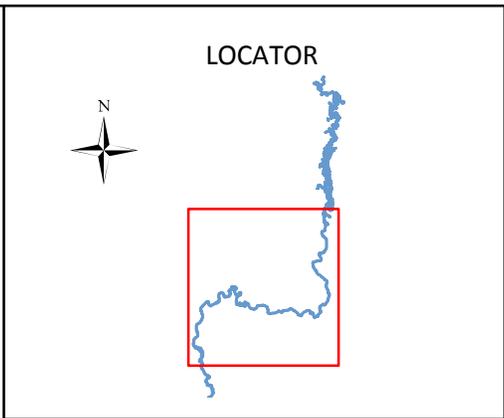
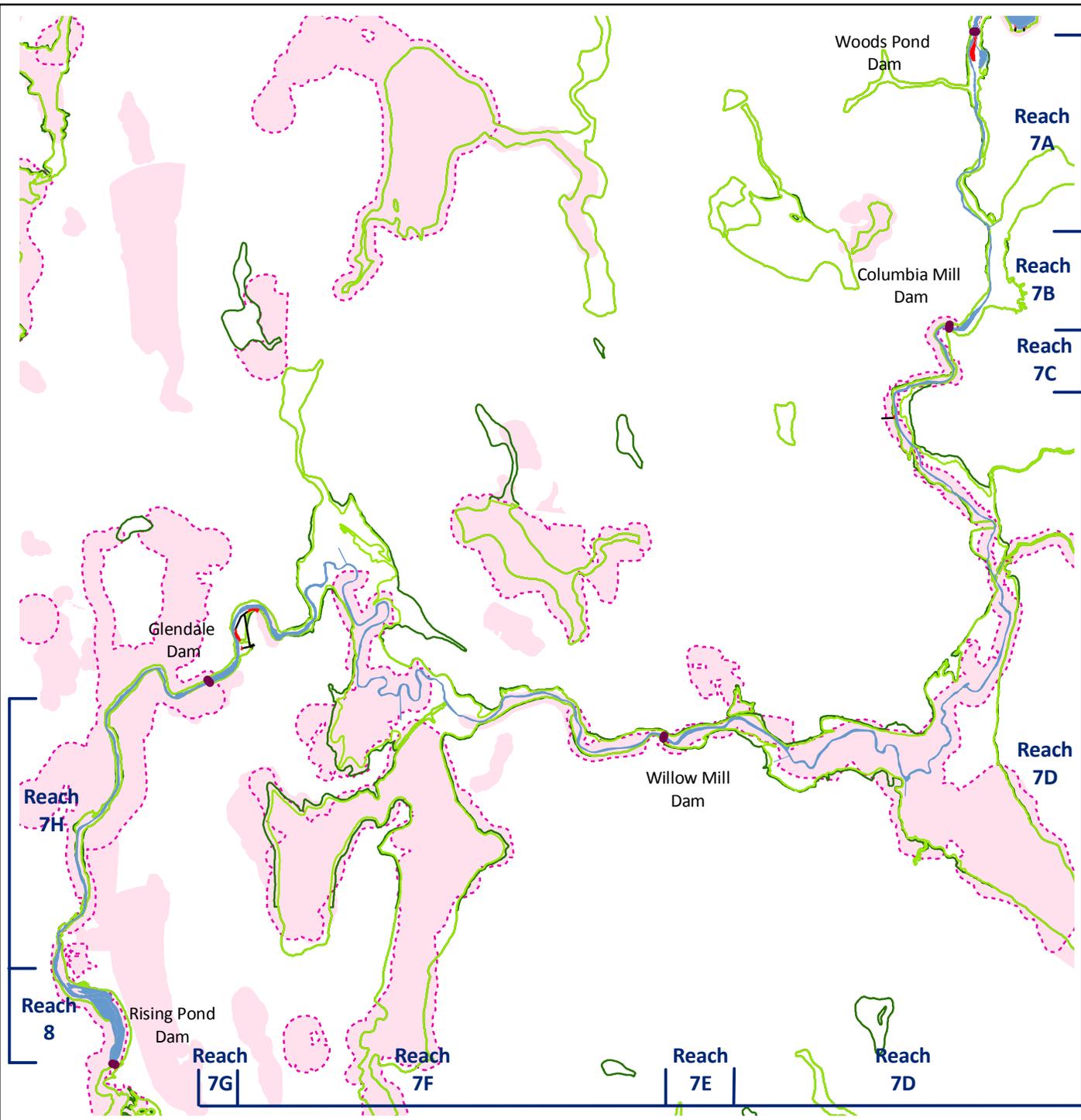
**Figure F-7b**  
**Impact of Alternative FP 7**  
**on priority and estimated habitats of**  
**State-listed species in Reaches 7 and 8.**



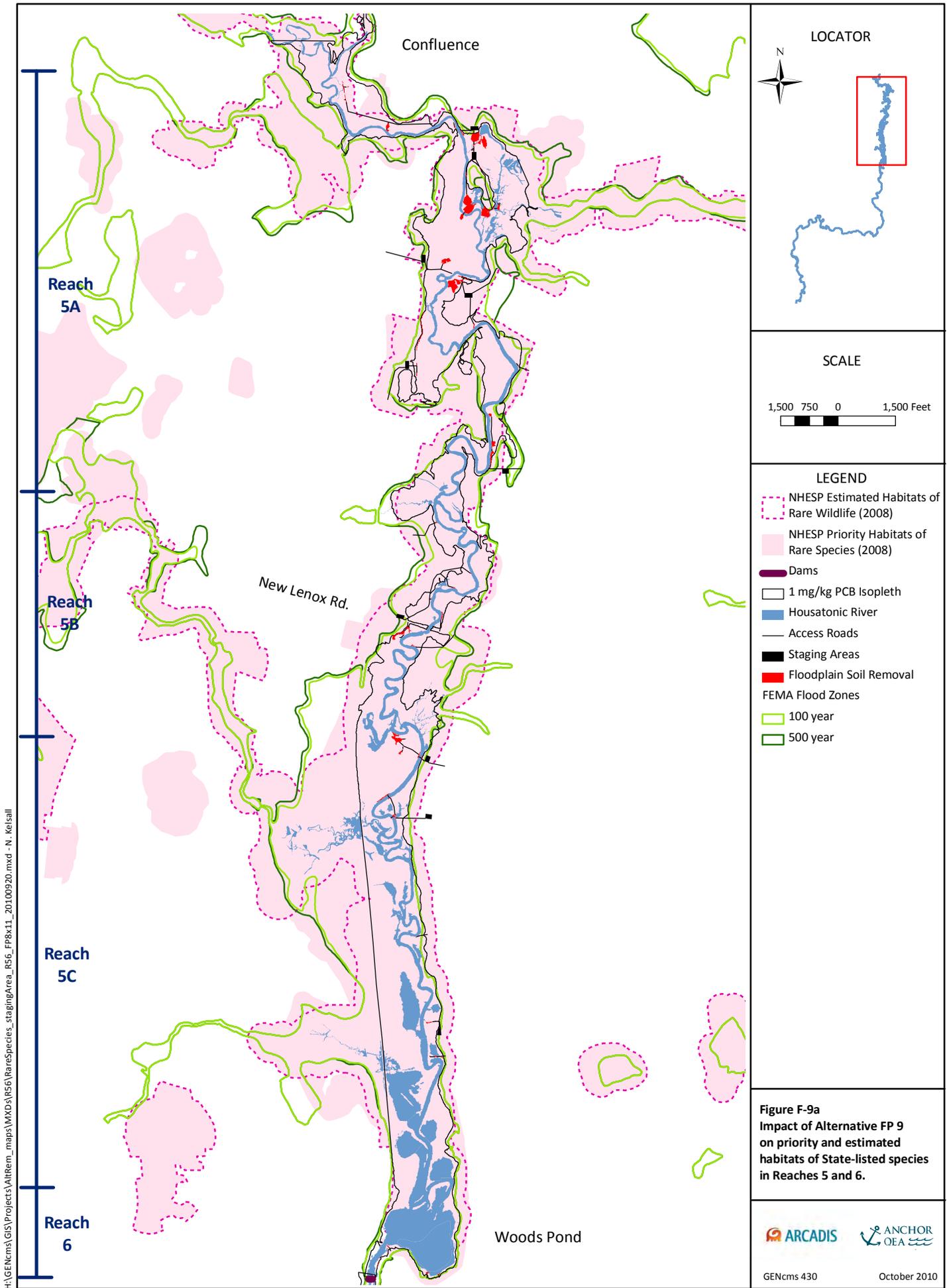
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**Figure F-8a**  
**Impact of Alternative FP 8**  
**on priority and estimated**  
**habitats of State-listed species**  
**in Reaches 5 and 6.**

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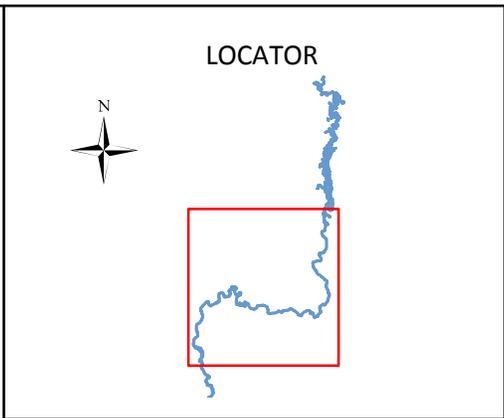
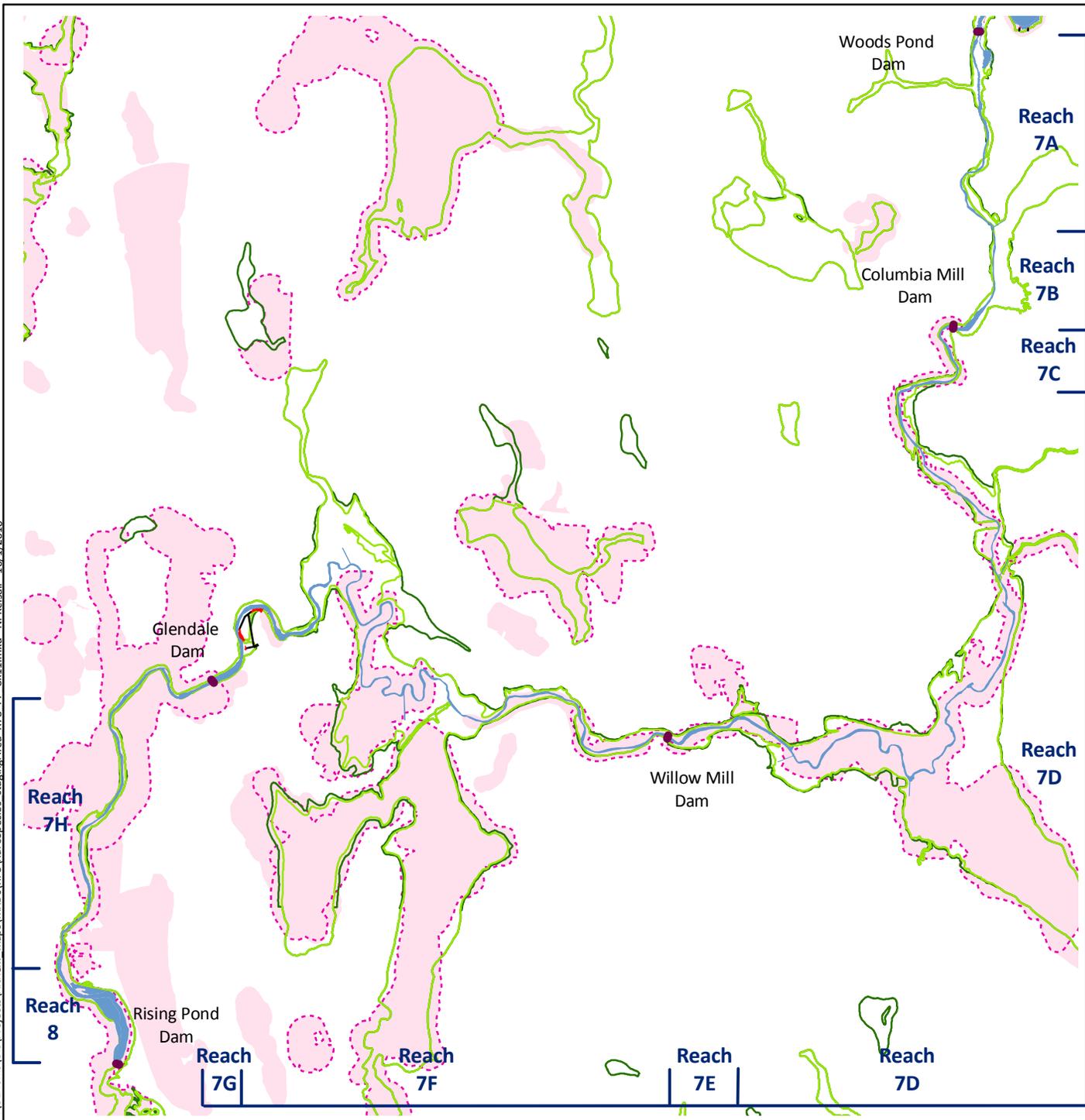


**Figure F-8b**  
**Impact of Alternative FP 8**  
**on priority and estimated habitats of**  
**State-listed species in Reaches 7 and 8.**

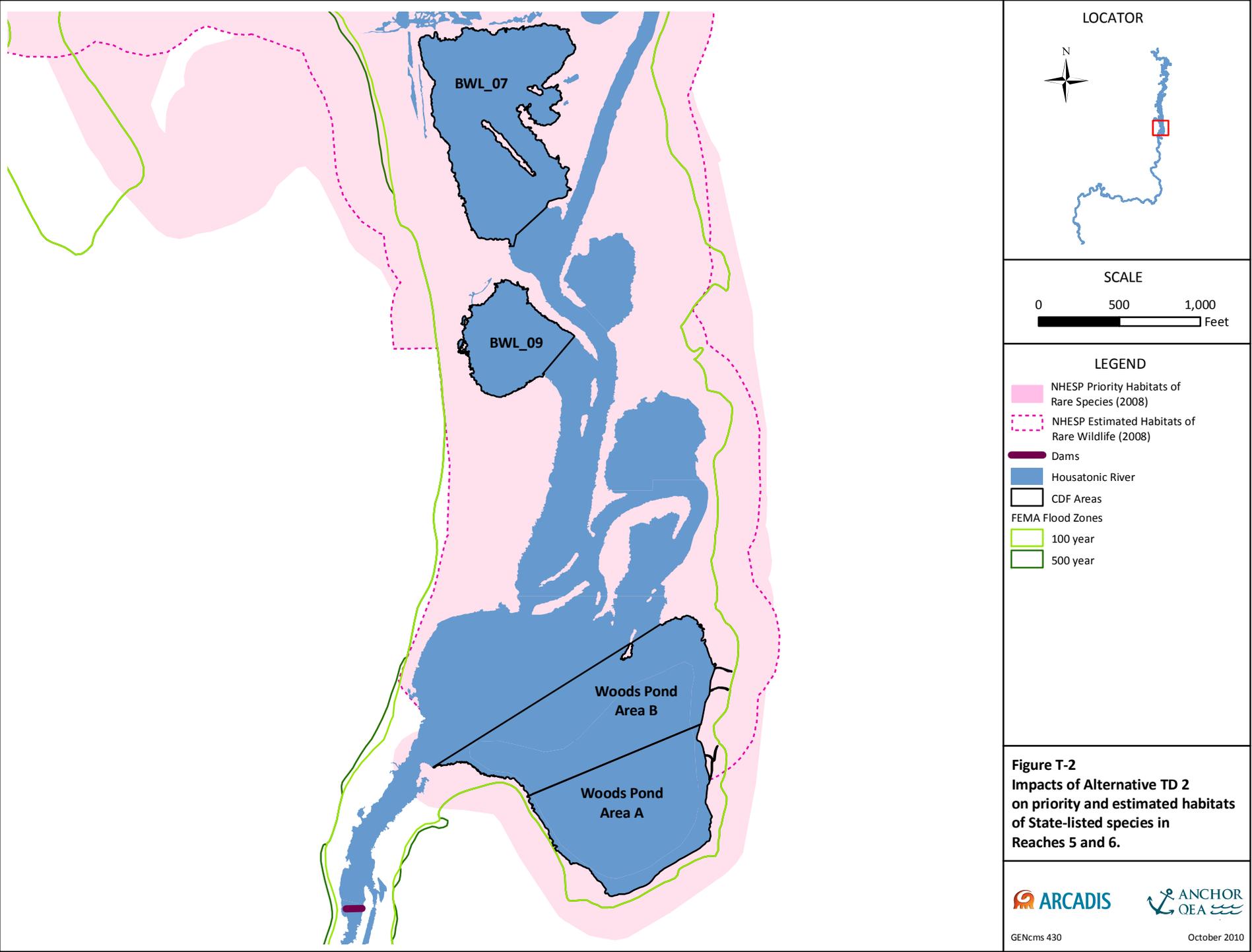


**Figure F-9a**  
**Impact of Alternative FP 9**  
**on priority and estimated**  
**habitats of State-listed species**  
**in Reaches 5 and 6.**

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**Figure F-9b**  
**Impact of Alternative FP 9**  
**on priority and estimated habitats of**  
**State-listed species in Reaches 7 and 8.**



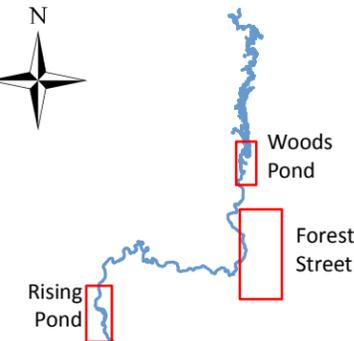
**Figure T-2**  
Impacts of Alternative TD 2  
on priority and estimated habitats  
of State-listed species in  
Reaches 5 and 6.

Woods Pond Site

Forest Street Site

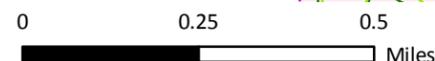
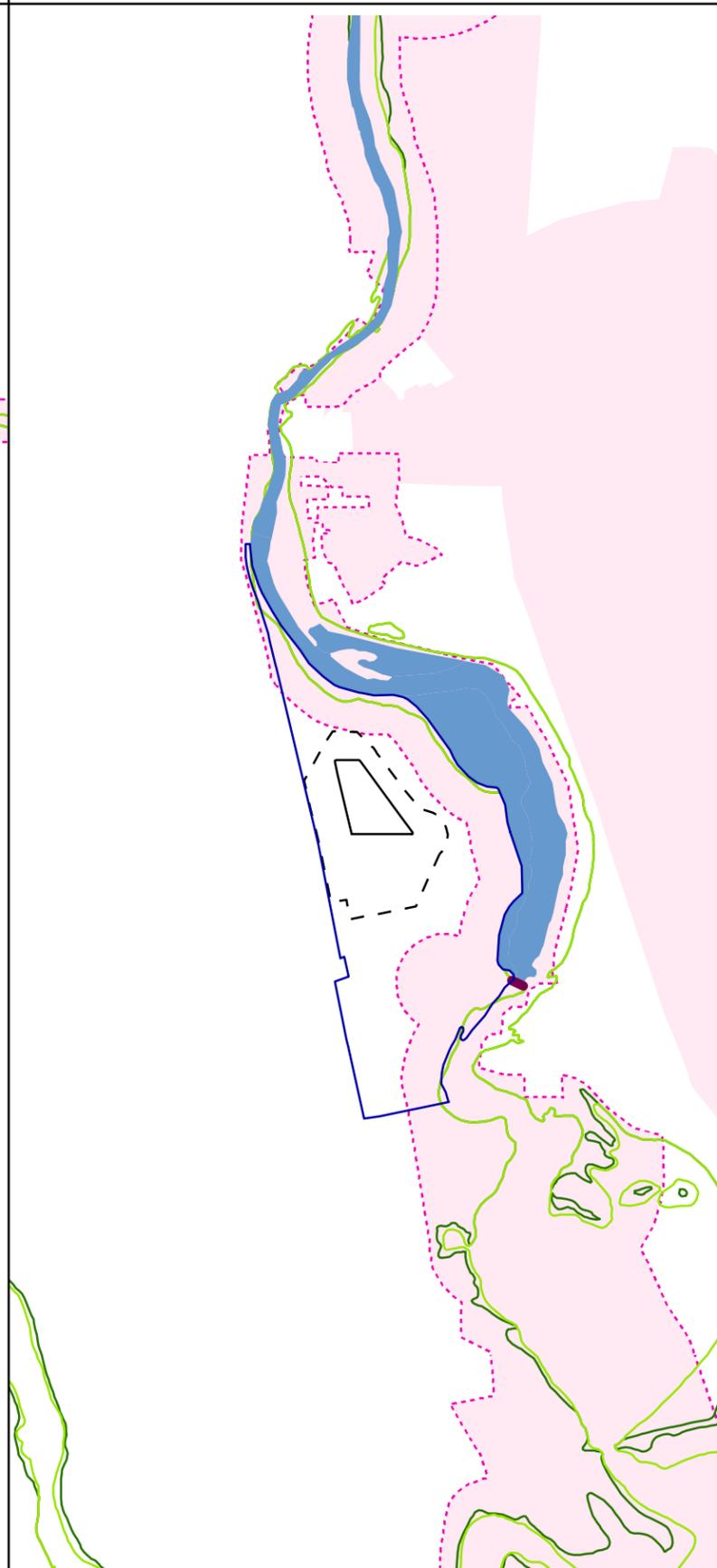
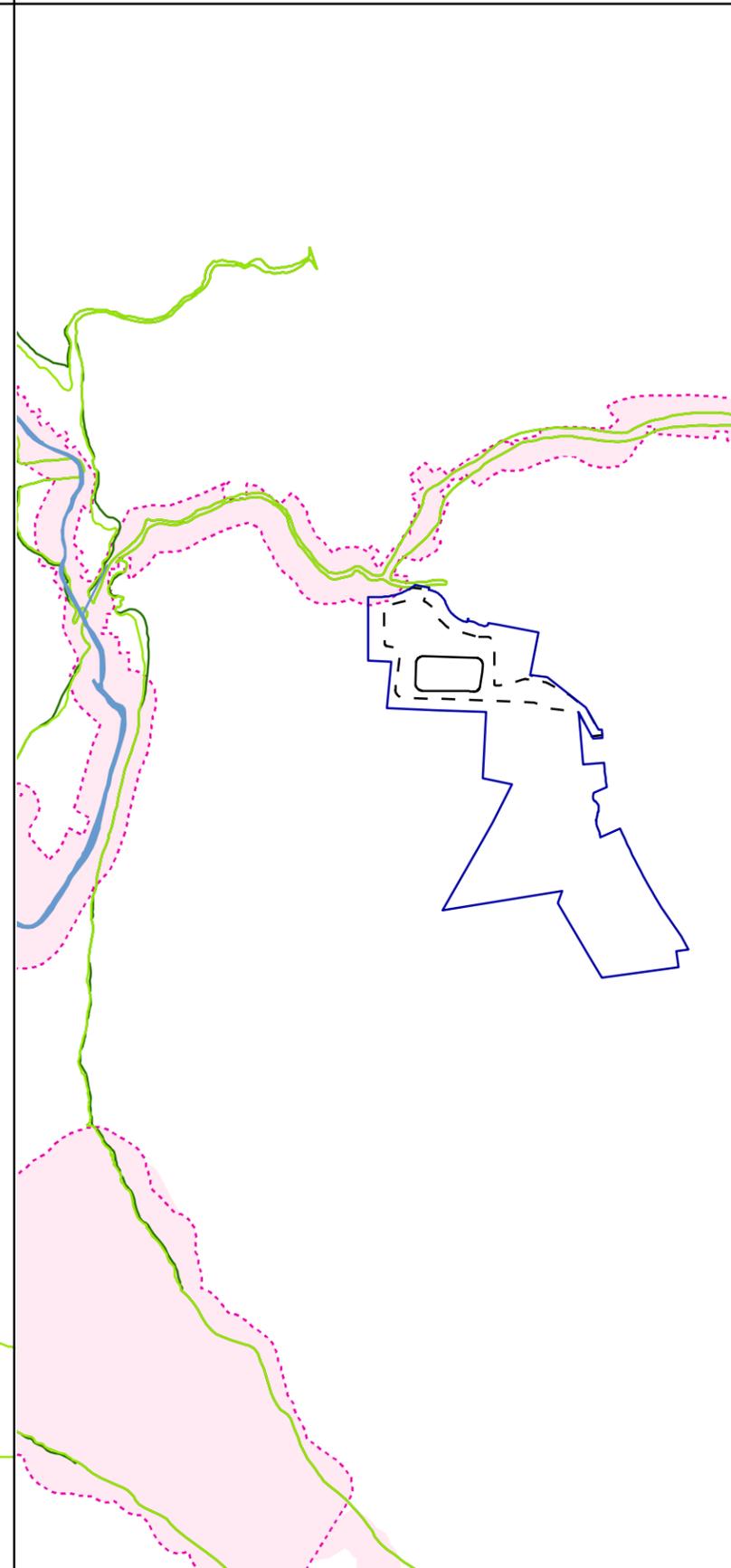
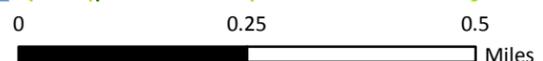
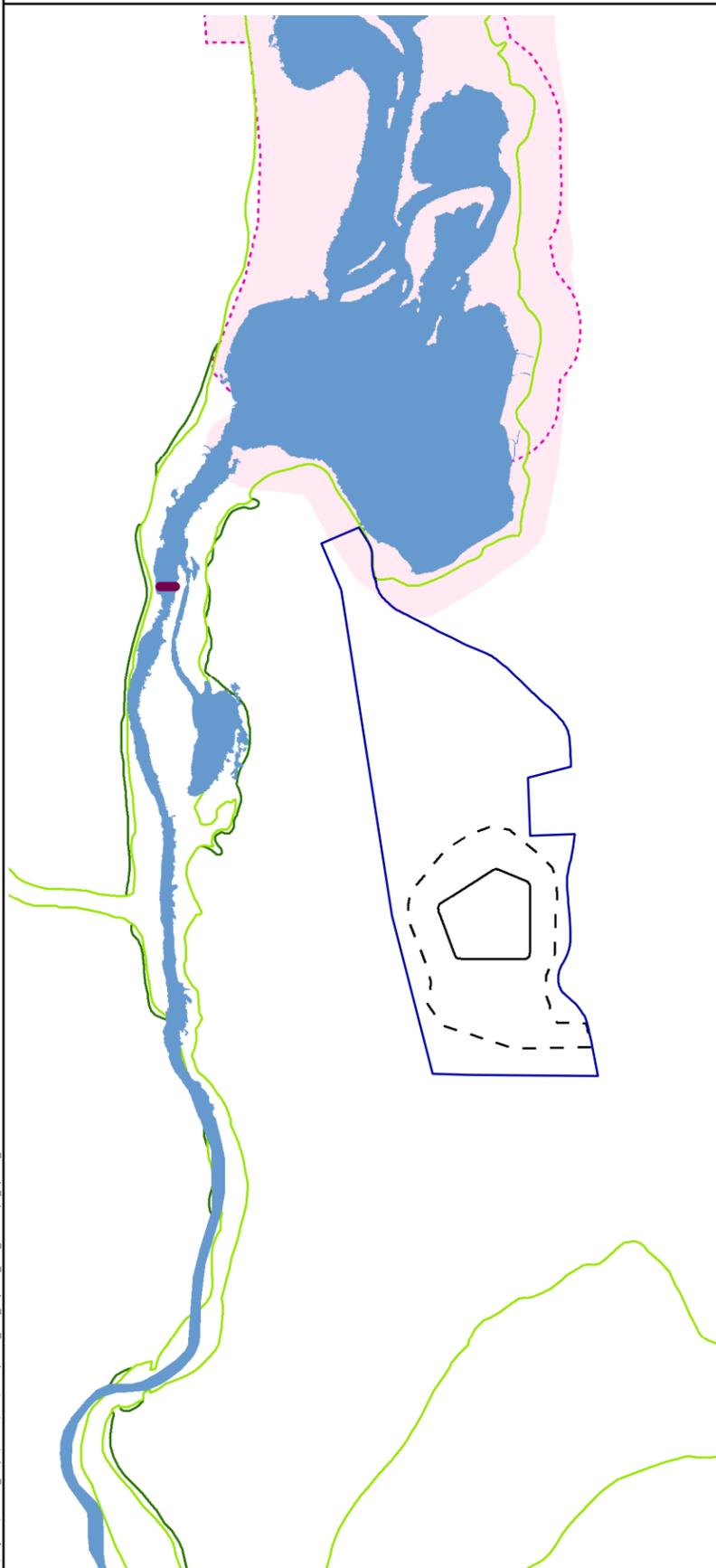
Rising Pond Site

LOCATOR



LEGEND

- NHESP Priority Habitats of Rare Species (2008)
- NHESP Estimated Habitats of Rare Wildlife (2008)
- Dams
- Housatonic River
- Approximate Property Boundary
- Treatment/Disposal Impact Areas**
- Approximate limit of operational area
- Approximate limit of landfill area
- FEMA Flood Zones**
- 100 year
- 500 year



**Figure T-3a**  
**Proximity of Alternative TD 3**  
**(minimum disposal volume) to**  
**priority and estimated habitats of**  
**State-listed species in**  
**Reaches 7 and 8.**



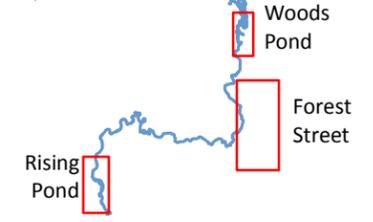
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Woods Pond Site

Forest Street Site

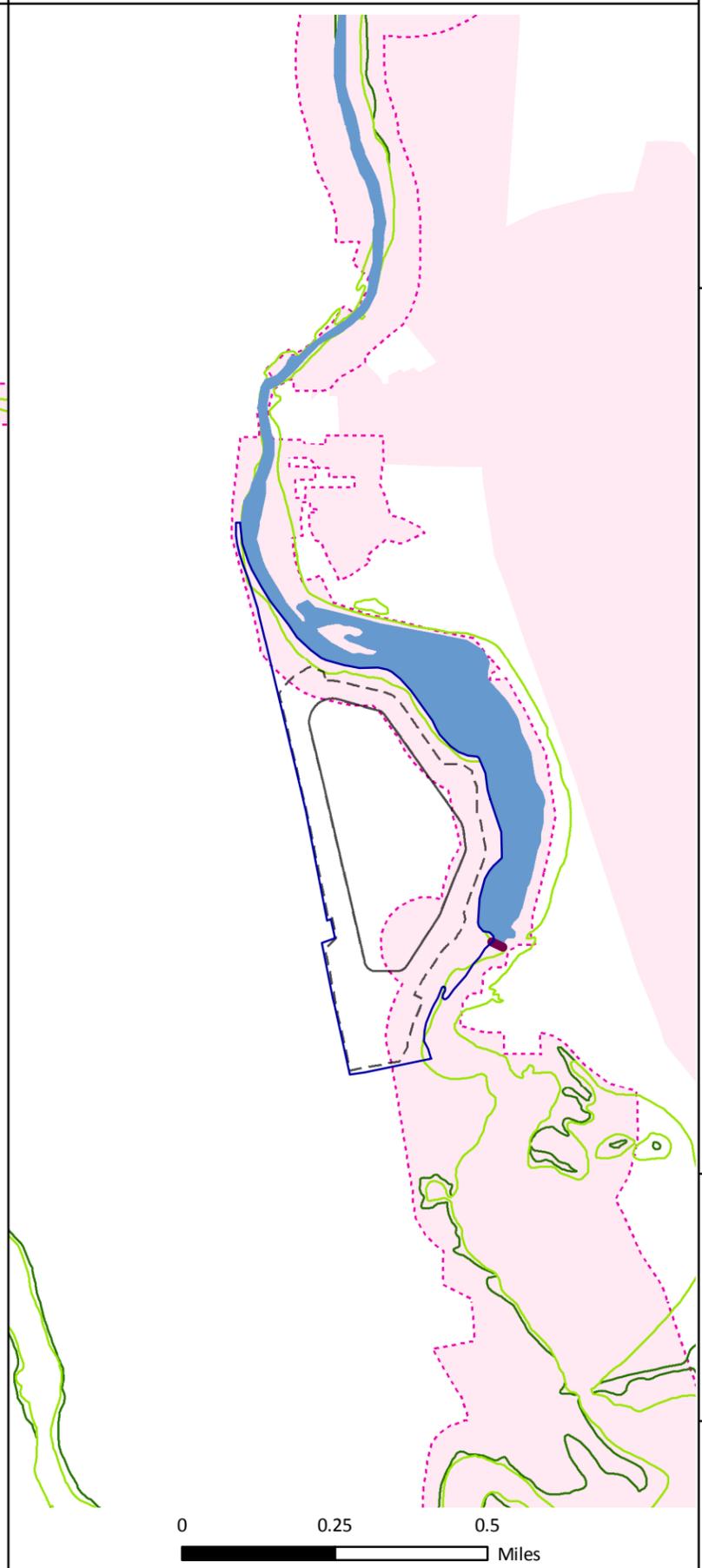
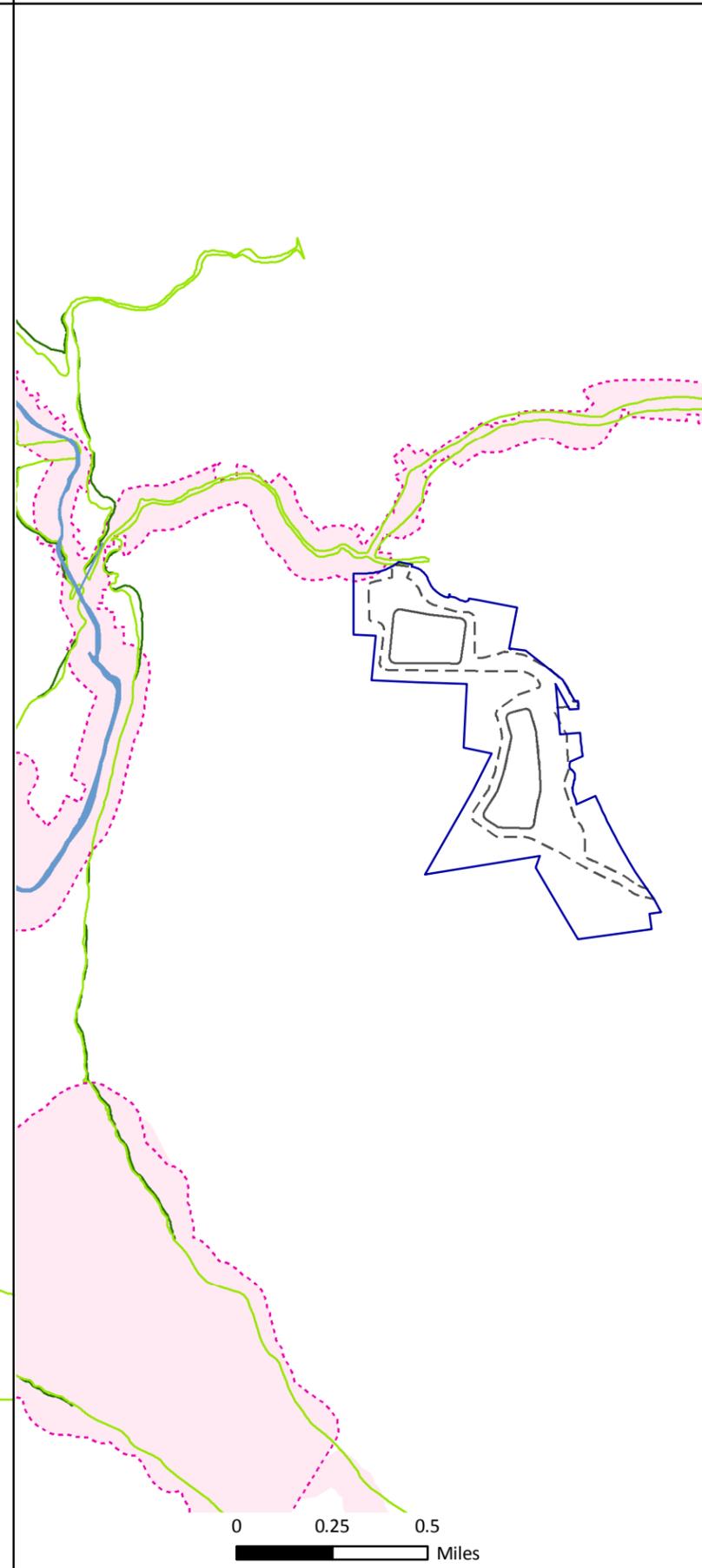
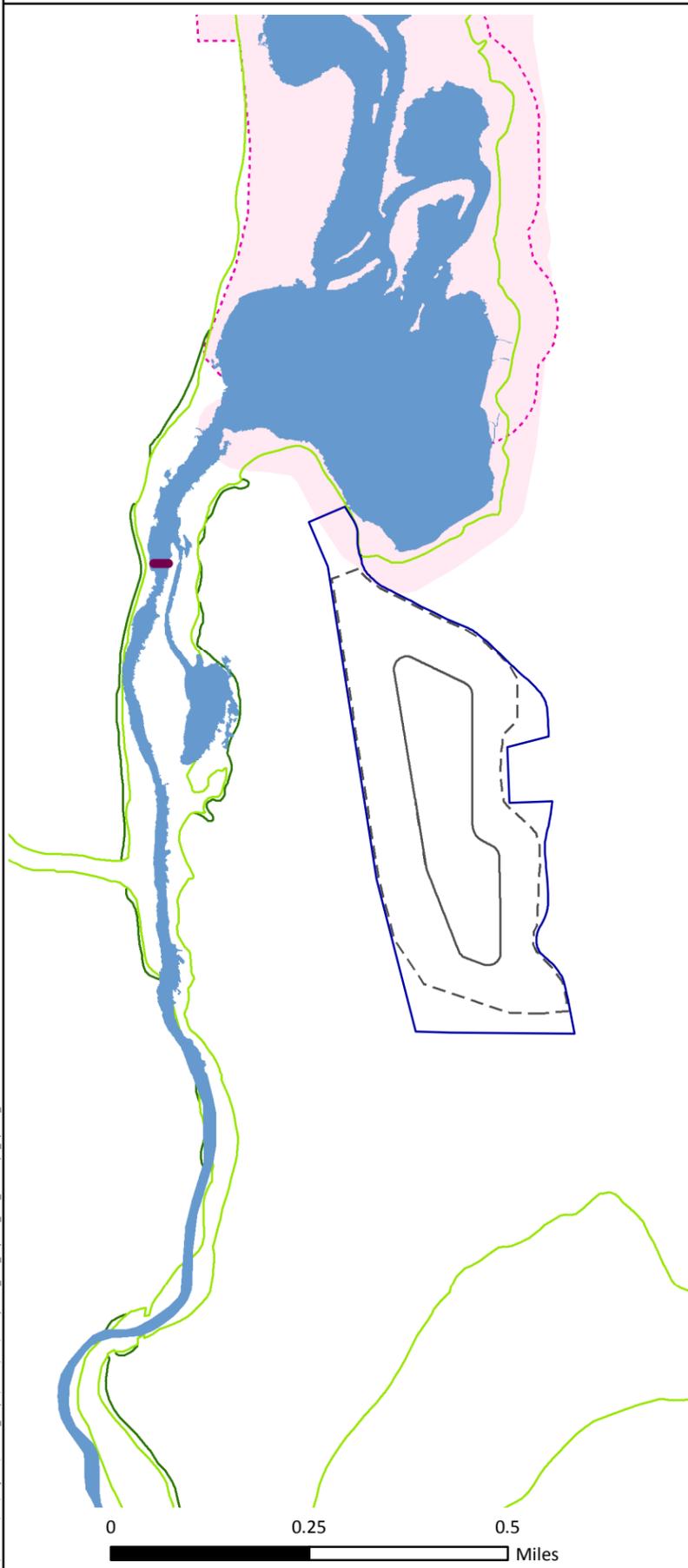
Rising Pond Site

LOCATOR



LEGEND

- NHESP Priority Habitats of Rare Species (2008)
- NHESP Estimated Habitats of Rare Wildlife (2008)
- Dams
- Housatonic River
- Approximate Property Boundary
- Treatment/Disposal Impact Areas**
- Approximate limit of operational area
- Approximate limit of landfill area
- FEMA Flood Zones**
- 100 year
- 500 year

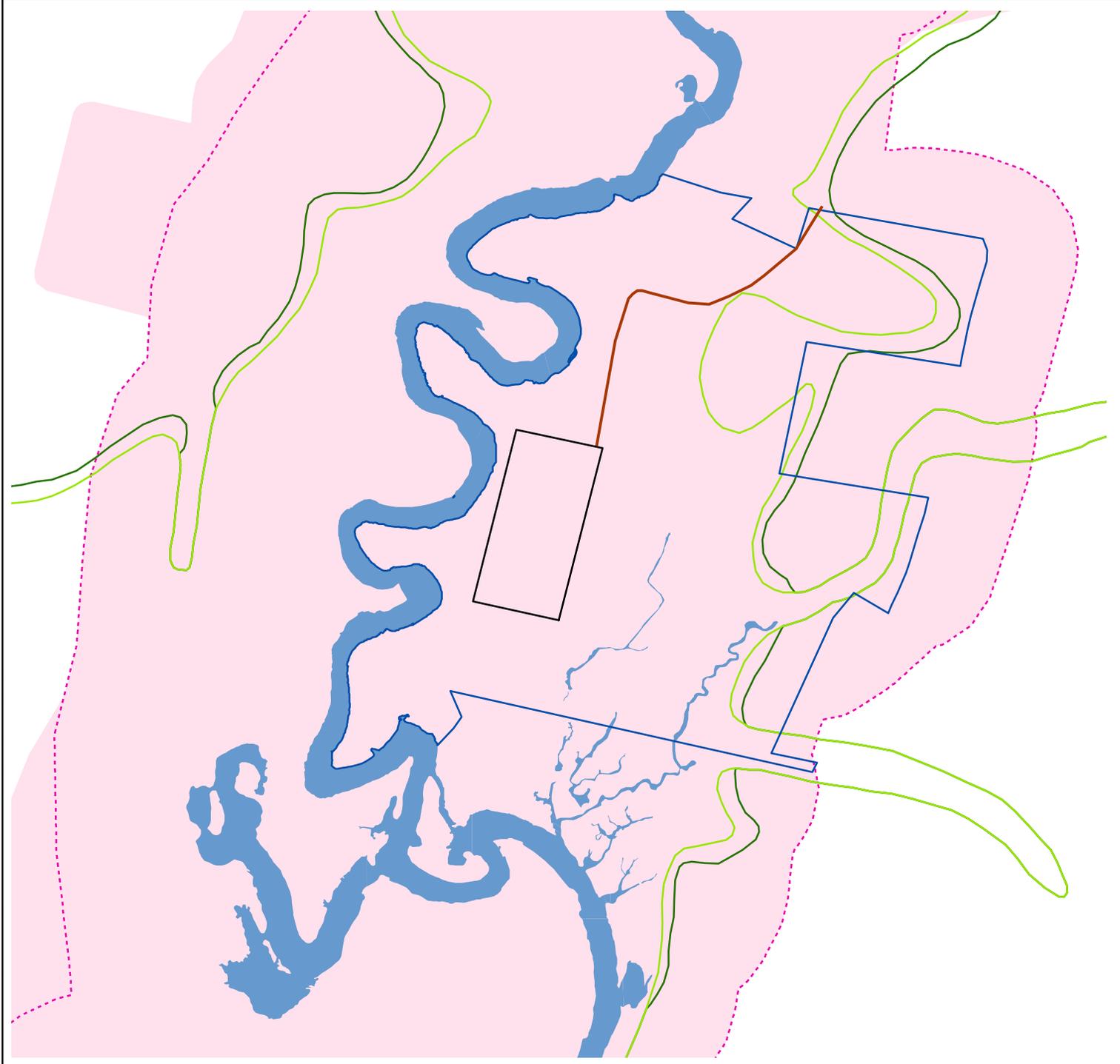


**Figure T-3b**  
**Proximity of Alternative TD 3**  
**(maximum disposal volume) to**  
**priority and estimated habitats of**  
**State-listed species in**  
**Reaches 7 and 8.**

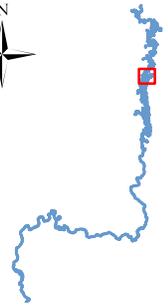


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LOCATOR



SCALE



LEGEND

- NHESP Priority Habitats of Rare Species (2008)
- NHESP Estimated Habitats of Rare Wildlife (2008)
- Dams
- Housatonic River
- Approximate Property Boundary
- Facility Road
- Facility Location
- FEMA Flood Zones
  - 100 year
  - 500 year

**Figure T-4**  
**Impacts of Alternatives**  
**TD 4 and TD 5 on priority and**  
**estimated habitats of State-listed**  
**species in Reach 5.**

