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Pittsfield, MA 01201

Re: GE/Housatonic River Site – Rest of River
Commonwealth of Massachusetts' Comments on
EPA's Proposed Cleanup Plan for Rest of River (June, 2014)

Dear Mr. Tagliaferro:

The Executive Office of Energy and Environmental Affairs (EEA) and its Department of Environmental Protection (DEP) and Department of Fish and Game (DFG) (collectively, the Commonwealth) hereby submit our comments on the Statement of Basis and the related Draft Modification to the Reissued RCRA Permit issued by the U.S. Environmental Protection Agency (EPA) in June 2014. EPA's Statement of Basis and Draft Modification to the Reissued RCRA Permit constitute EPA's "Proposed Cleanup Plan" for the remediation of the Rest of River portion of the GE/Housatonic River Site. At the outset, the Commonwealth wishes to express our appreciation of EPA's willingness to consider and address many of the Commonwealth's concerns and priorities for the remediation of this unique ecosystem that is located within a Commonwealth-designated Area of Critical Environmental Concern (ACEC) and includes one of the richest and most diverse array of state-listed species protected under the Massachusetts Endangered Species Act, M.G.L. c. 131A, (MESA) and the MESA regulations at 321 CMR 10.00.

While this comment letter is, by its very nature, a technical document, it is important that we, as representatives of the Commonwealth, reiterate our support for a "seat at the table" for the local communities. It is the local communities and the citizens therein that understand and appreciate the unique and vital interests that are both protected and impacted by the Proposed Cleanup Plan. In addition,

while it is discussed further below, we must highlight at the outset the critical issue of the disposal of the contaminated sediments generated by the remediation. We thank EPA for requiring the off-site disposal at existing licensed facilities that are approved to receive such material and are in compliance with EPA's off-site rule. As one of the most essential elements of the Proposed Cleanup Plan, the Commonwealth and the affected communities are seeking EPA's affirmation that off-site disposal will remain a legally binding requirement in the Final Cleanup Plan for Rest of River, as well as a more detailed explanation as to how it will be implemented in a manner that is most protective of our interests and concerns.

For the reasons discussed in more detail below, the Commonwealth supports EPA's Proposed Cleanup Plan for Rest of River. Consistent with the conceptual remedy outlined in EPA's May 2012 Status Report supported by the Commonwealth, the Proposed Cleanup Plan is protective of human health while employing a remediation framework developed in consultation with the Commonwealth and the State of Connecticut that is directed at preserving the dynamic character of the river ecosystem and avoiding, minimizing and mitigating remedy impacts to the affected wildlife and their habitats, with a particular focus on protecting state-listed species. As discussed in greater detail below, EPA's Proposed Cleanup Plan includes:

- the removal of a large mass of PCBs from Rest of River through the dredging of Woods Pond;
- a remediation approach for the riverbanks that addresses risks to human health while minimizing the disturbance of riverbanks consistent with the objectives of the Status Report, including establishing a hierarchy for reconstructing disturbed banks that identifies the use of bioengineering techniques as the most preferred approach;
- a remediation approach for floodplain areas and vernal pools based on the Commonwealth's mapping of core state-listed species habitat and the use of an adaptive management approach, to be implemented in consultation with the Commonwealth, which will guide the remediation of ecologically important vernal pools;
- approaches to integrate the cleanup with potential dam removal or impoundment use and maintenance within Reach 7;
- development and implementation of a restoration program to address impacts of the remediation to the full range of wildlife species and their habitats;
- the off-site disposal at existing off-site licensed facilities of contaminated soil and sediment generated by the remediation, including maximizing the use of rail to transport such contaminated material; and

- the use of a broader adaptive management approach that will guide the phased implementation of the remedy and take into account new information, changing conditions, and the availability of innovative technologies.

In short, the above summary of the key components of EPA's Proposed Cleanup Plan reflects the extent to which EPA has been responsive to the Commonwealth's concerns and interests.

I. Background

The Commonwealth has been commenting to EPA on the remediation of Rest of River since at least 2008, and we have been consistent in emphasizing how the unique ecological significance of the Housatonic River watershed needs to be considered in determining the right remedy for Rest of River. For example, in January 2011 the Commonwealth provided EPA with its comments on the Revised CMS that outlined our big picture perspective and priorities for cleanup of Rest of River.¹ The Commonwealth's comments began by identifying the larger Housatonic River watershed as one of the most biologically rich and unique regions of the Commonwealth. We highlighted the fact that the limestone bedrock creates an exceptional hydrological base, supporting rich, calcareous soils and wetlands found only in this region of the Commonwealth. These rich soils and wetlands of the valley floor, in turn, support a unique ecosystem that sustains many wildlife species found nowhere else in Massachusetts. More specifically, the Housatonic River watershed is home to 112 species of plants, 55 state-listed species, 17 high priority Natural Communities, 415 certified vernal pools and up to 786 potential vernal pools.

In addition to the wide range of state-listed species under MESA, the Housatonic River supports a substantial and highly productive fisheries resource. Thirty-seven species of fish have been found in the river and its supporting waters provide important, valuable and diverse recreational fisheries for both warm and coldwater species. Moreover, the Housatonic supports coldwater habitat including in the main stem of the Housatonic River and its direct tributaries. These coldwater fisheries are protected under 314 CMR 4.06 of the MA Surface Water Quality Standards ("MA WQS") as coldwater habitat. The MA WQS require that both the fish population and habitat be protected and maintained as designated for existing uses.

The Primary Study Area (the "PSA") for the Rest of River remediation extends from the confluence of the East and West Branches of the Housatonic River in

¹ Commonwealth of Massachusetts, Executive Office of Energy and Environmental Affairs, Letter from Richard K. Sullivan, Jr., Secretary, Executive Office of Energy and Environmental Affairs; Kenneth L. Kimmell, Commissioner, Massachusetts Department of Environmental Protection; and Mary Griffin, Commissioner, Massachusetts Department of Fish and Game to Susan Svirsky, USEPA Region I, Re: Housatonic River Rest of River; *Comments on Housatonic River Rest of River – Revised Corrective Measures Study Report – October 2010*, dated January 31, 2011.

Pittsfield, to Woods Pond in Lenox. This stretch of Housatonic River in the PSA is a low-gradient, large river that is free to migrate across hundreds of acres of protected open space and sculpt the floodplain. The meandering river is constantly reshaping the landscape creating an incredible diversity of habitats including oxbow wetlands, backwaters, sloughs, and vernal pools. The fertile soils, shifting banks and dynamic nature of the river are precisely what makes the Housatonic River an ecologically unique resource as compared to all other major rivers in the Commonwealth. The PSA also supports an abundance of diverse and ecologically sensitive wildlife resources including 25 state-listed species.

In addition, the Commonwealth, through DFG and the Division of Fisheries and Wildlife (DFW), owns one or both sides on approximately 85% of the land along river's bank in the PSA, including the 818 acre George Darey Wildlife Management Area (the "Darey WMA"). The Darey WMA is spread across multiple parcels consisting largely of river-front and floodplain and is one of western Massachusetts' most heavily utilized wildlife management areas for all types of passive recreation including hunting, fishing, trapping, hiking, canoeing, kayaking, bird watching, and wildlife viewing. Thus, in addition to its regulatory interests, the Commonwealth is a major landowner within the PSA with stewardship responsibilities over a wildlife management area that is highly valued by recreational stakeholders.

The Commonwealth's 2011 comments to EPA on the revised CMS outlined a conceptual remediation approach that emphasized the need to carefully consider the potential impacts of the remediation on the Rest of River ecosystem when identifying and evaluating remedy alternatives. Comments by the State of Connecticut also underscored the value and importance of having EPA consult closely with the two affected states in the Rest of River remedy selection process.

Later in 2011, EPA invited both states to actively participate in a series of technical discussions with EPA that focused on educating each other on interests and concerns of the respective parties, and identifying shared remediation goals, priorities and processes, including as they relate to minimizing the impacts of potential remediation approaches on this unique Housatonic River ecosystem. An important milestone in this ongoing consultative process was EPA's issuance of its Status Report to the public in May 2012 entitled "Potential Remediation Approaches to the GE Pittsfield/Housatonic River Site 'Rest of River' PCB Contamination.". The Status Report outlined a conceptual framework for the remediation of Reach 5 river bed and banks, Woods Pond, downstream impoundments in Reaches 7 and 8, the floodplain and vernal pools, backwaters, and called for the off-site disposal of contaminated soil and sediments. At that time, the Commonwealth expressed its support for the Status Report remedy because it was reasonably responsive to our interests and concerns about the need for a more balanced approach to designing and implementing a remedy for the Rest of River ecosystem.

EPA subsequently discussed the Status Report remedy with GE during 2013 while continuing to seek the input of the Commonwealth and the State of Connecticut during EPA's development of its draft Statement of Basis and Draft Reissued RCRA Permit based on the Status Report. The latter consultations with the two states also resulted in refinements and clarifications to the proposed remediation approach to Rest of River consistent with the Status Report.

II. Specific Comments on EPA's Proposed Cleanup Plan

The Commonwealth has the following more specific comments on several key components of EPA's Proposed Cleanup Plan:

Protection of Public Health

A Commonwealth priority for Rest of River has been that the selected remedy must be protective of human health. EPA's Proposed Cleanup Plan meets that core objective by requiring the removal or capping of contaminated sediment consistent with the range of human-health cleanup standards in EPA's earlier Human Health Risk Assessment ("HHRA"). For example, in the floodplain the Proposed Cleanup Plan calls for the removal of one foot of contaminated soil with subsequent backfilling to meet a human-health based cleanup target based on 10-5 cancer risk or non-cancer HI = 1 (whichever is lower) while providing for avoidance, minimization, or mitigation of impacts in priority habitat areas for state-listed species of concern by establishing a secondary remediation target to meet a human-health based cleanup target based on 10-4 cancer risk or non-cancer HI = 1 (whichever is lower) in high priority habitat areas. The Proposed Cleanup Plan also requires additional cleanup to a depth of 3 feet in certain frequently used areas to achieve a human-health based cleanup target based on 10-5 cancer risk or non-cancer HI = 1 (whichever is lower).

For the reasons discussed in more detail in the Statement of Basis, the Commonwealth concurs with EPA's determination that the balanced approach set forth in the Proposed Cleanup Plan meets the threshold requirement of being protective of human health, while seeking to minimize the impacts on this unique river, including on the abundance of state-listed and other wildlife species supported by the river ecosystem.

Woods Pond

Most of the PCB contamination in Rest of River is located in Massachusetts between the confluence of the East and West branches of the river (Reach 5) and Woods Pond Dam (Reach 6). Moreover, some of the highest concentrations of PCBs in the Rest of River system are contained in Woods Pond. Indeed, it is estimated that up to 25% of the PCB mass in the entire Rest of River system is

located in Woods Pond itself.² To address this risk, EPA's Proposed Cleanup Plan specifies the removal of contaminated sediment that will result in a minimum water depth of six feet in the pond (with shallower water depths in the near shore areas), followed by the placement of a cap. In addition, the Proposed Cleanup Plan provides that if, following the above removal, substantial PCBs accumulate in the pond, GE will be required to remove the accumulated PCBs from the pond.

The Commonwealth strongly supports the proposed remediation approach to Woods Pond for the reasons identified by EPA. The removal of this significant mass of PCBs will reduce the potential for release of PCB contaminated sediment in the case of dam failure, as well as increase the PCB trapping efficiency of Woods Pond, thereby reducing the downstream transport of PCBs. The Proposed Cleanup Plan will result in an approximate 90% reduction of PCB mass transport over the Woods Pond dam. This plan will also reduce risk from fish consumption and to people from direct contact with the sediment, and have the secondary benefit of enhancing the public's safe, recreational use of the pond. Of particular importance to the Commonwealth, the proposed mass removal of PCBs from the pond can be accomplished without causing any significant ecological damage, as there are no priority habitats of state-listed species within the pond. Finally, the requirement that GE also periodically remove accumulated PCBs from the pond is a necessary and effective means of ensuring that the above remedial objectives continue to be achieved on an open ended basis.

For the above reasons, EPA's Proposed Cleanup Plan sets forth the right approach for achieving the reductions in risks and downstream transport objectives underlying the Woods Pond component of the Proposed Cleanup Plan.

Reach 5 Riverbanks

In its previous comment letters, the Commonwealth has highlighted the fact that natural areas with a high degree of "ecosystem integrity" retain not only a full complement of native plants and animals, but also the natural *processes* that maintain those species in the long term. One of the most unique aspects of the Housatonic River is its low gradient, meandering character, coupled with intact, undeveloped floodplains. The resulting movement and migration of the river channel generates and maintains the diverse mosaic of wetlands and wildlife habitats that comprise Rest of River. A consistent theme and priority of the Commonwealth has been to emphasize the importance of carefully considering the effect of remedy alternatives on the dynamic character of the river and the surrounding, dependent ecosystem. For that reason, one focus area of EPA's consultations with the Commonwealth has been on determining a protective but balanced approach to remediating the riverbanks in Reach 5.

² *Housatonic River – Rest of River RCRA Facility Investigation Report*, September 2003

In Reach 5A (the 5 miles of the river from the confluence of the East and West Branches to the Pittsfield wastewater treatment plant), the Proposed Cleanup Plan requires the removal of soil in eroding river banks contaminated with more than 5 mg/kg PCBs and the stabilization of contaminated erodible river banks. In Reach 5B (the 2 miles from the Pittsfield wastewater treatment plant to Roaring Brook in Lenox), the Proposed Cleanup Plan requires the removal of soil in eroding river banks contaminated with more than 50 mg/kg PCBs (hot spots only).

As EPA explained in the Statement of Basis, a focus of the riverbank work will be to reduce the mobilization of PCBs into the river from the erosion of contaminated banks while maintaining the dynamic nature of the river. Footnote 9 in Section II.B.1.b.(2) of the Draft Reissued Permit is even more specific about this theme, appropriately highlighting the objectives of the Status Report to address the unacceptable risks posed by PCBs and to minimize the amount of bank excavation to preserve the dynamic character and related biodiversity and habitats of the river. Footnote 9 further explains:

“To that end, the Status Report proposed a remedial approach that, based on data collected prior to the issuance of the [Draft Reissued Permit], would result in an amount of bank excavation in Reach 5A of 3.5 miles, and an amount of bank excavation in Reach 5B of 0.2 miles.” The actual remediation amounts would be determined during remedial design pursuant to the process described herein. If the new data to be collected identifies the need for greater bank excavation, then the foregoing amounts of bank excavation will change based on new data. Consistent with the remedial approach identified in the Status Report, the corrective measures for the riverbanks will be designed and implemented to achieve the [Reach 5A] performance standards while minimizing impacts on river dynamics and other ecological processes, and on the abundance of state-listed and other wildlife species and the diversity of their habitats that are supported by the existing river ecosystem.”

Finally, Section II.B.1.b.(3) of the Draft Reissued Permit sets forth, consistent with the Status Report, a hierarchy of approaches for reconstructing disturbed banks, with the use of bioengineering restoration techniques being the most preferred.

While the Commonwealth acknowledges that in its January, 2011 comment letter it proposed that no river banks be excavated in Reach 5, we support, for the reasons stated above, the more specific approach to remediating the Reach 5 river banks set forth in the Proposed Cleanup Plan, which is consistent with the Status Report and responsive to the Commonwealth’s concern about ensuring that the fundamental, dynamic character of the river remains intact following the necessary remediation of eroding banks. A particular focus of the Commonwealth’s input on GE’s implementation of this permit provision will be to

ensure that the hierarchy for reconstructing disturbed banks is applied consistent with the ecological preservation objectives first identified in the Status Report.

Floodplains

As highlighted above, the dynamic character of the Housatonic River has led to creation of floodplain wetlands and other landforms such as levees, side channels, backwaters, sloughs, and oxbows. The resulting Rest of River floodplain consists of varied and distinct ecological features in different successional stages. These features, have, in turn, resulted in high density concentrations of state-listed species and their habitats, including vernal pools. Thus, an important objective in the Proposed Cleanup Plan for remediating the floodplain is avoiding, minimizing or mitigating impacts to state-listed species and their habitats. To that end, the Commonwealth, through DFW's Natural Heritage and Endangered Species Program (NHESP), developed maps of four different types of "Core Habitat Areas" within the PSA, which represent subsets of state-listed species selected by NHESP based upon their reliance on floodplain habitat, sensitivity to habitat disturbance and the degree of difficulty associated with restoring their habitat after remediation. NHESP's mapped Core Habitat Areas are included in the Draft Reissued RCRA Permit as Attachment B. Core Habitat Area 1 represents the highest quality habitat for state-listed species that are most likely to be adversely impacted by PCB remediation activities.

Under Section II.B.2. a. of the Draft Reissued Permit, the remediation will avoid Core Habitat Area 1 other than in frequently used subareas, and minimize impacts to Core Habitat Areas 2 and 3 through the implementation of a range of best construction practices that includes phasing the work, use of time of year restrictions, tracking and/or exclusion of animals from work areas, and plant transplantation. This section of the permit also states that minimization of impacts in Core Habitat Areas 2 and 3 may also include the avoidance of remediation in certain areas (e.g., the impact to state-listed species or their habitats of constructing an access road or a staging area to remediate such areas outweighs the benefits of remediation).

As evidenced by EPA's incorporation of NHESP's Core Habitat Area mapping approach, the Proposed Cleanup Plan for the floodplain is responsive to the Commonwealth's concerns about the need for an intentional, balanced approach to remediating this important ecological feature of Rest of River. The Commonwealth intends to be actively engaged with EPA and GE during the design and the implementation phases of this remedial work to ensure its consistency with the permit's avoidance and minimization objectives.

Vernal Pools

The Proposed Cleanup Plan sets forth an adaptive management framework for remediating the vernal pools. More specifically, Section II.B.2. b. of the Draft

Reissued Permit requires GE, at the outset, to submit a plan to EPA for conducting site visits to identify potential vernal pools. EPA, in consultation with the Commonwealth, will then make the determination as to what constitutes a vernal pool. GE will also be required to obtain EPA's approval of a work plan, after consultation with the Commonwealth, that requires GE to conduct additional sampling and characterization of vernal pools, to generate baseline data on the concentrations of total PCBs and the health and abundance of animal species, including state-listed species, and conduct additional field reconnaissance as needed to quantify the potential effects of remediating the vernal pools on any state-listed species. The Commonwealth is supportive of EPA requiring these upfront actions by GE to develop thorough baseline documentation of the scope and use by wildlife of vernal pools in Rest of River. The Commonwealth intends to pro-actively provide EPA and GE with its expert input on these upfront assessment questions.

The Draft Reissued Permit further provides that for those vernal pools requiring remediation, EPA, after consultation with the Commonwealth, will make case-by-case decisions on the most appropriate remedial approach, weighing field evidence of species health and abundance, in accordance with the following adaptive management framework developed in consultation with the Commonwealth:

- EPA will select an initial group of vernal pools (8 to 10) for remediation by traditional means (excavation and reconstruction) - except that vernal pools within Core Habitat Area 1 habitat will be excluded from consideration;
- A pilot study will be conducted in a second group of vernal pools to evaluate the effectiveness of a sediment amendment (such as activated carbon to reduce the bioavailability of PCBs to biota) and the impacts of the amendment on these pools; and
- A pilot study using an innovative remediation method will also be conducted in a third group of vernal pools concurrently with the above remediated vernal pools as a "reference" group for comparison purposes.

Based on the outcome of the above described first phase of vernal pool remediation and restoration, EPA will determine, again in consultation with the Commonwealth, the preferred method and approach for remediating subsequent vernal pools. In that regard, the Draft Reissued Permit states that for remediation in Core Habitat Areas, the approach that will be generally used is to avoid excavation in vernal pools within Core Habitat Area 1 and to minimize impacts of remediation, on a case-by-case basis, of vernal pools in Core Habitat Areas 2 and 3. As referenced more specifically in our comments on the floodplain remediation, the Draft Reissued Permit provides specific guidance on the types of minimization practices that will be employed.

In summary, the Commonwealth supports the above described adaptive management framework for the vernal pools, which EPA developed in consultation with us. It appropriately requires an upfront assessment of baseline conditions of the full range of vernal pools in Rest of River. The initial pilot phase of undertaking three different remediation approaches in respective, small subsets of vernal pools will help ensure that the decision on how to remediate the other vernal pools is based on actual outcomes and their effects on the health and abundance of affected wildlife species. Finally, consistent with the Status Report, as a general rule there will be no excavation in vernal pools within Core Habitat Area 1 and a minimization of remedial impacts on vernal pools in Core Habitat Areas 2 and 3.

The Commonwealth intends to pay close scrutiny to the outcomes of this adaptive management framework consistent with our long-standing concerns about the ecological tradeoff of excavating vernal pools on the assumption that it can later be fully restored. The Commonwealth knows from its collective mitigation experience how challenging it can be to successfully restore a vernal pool. Such challenges include recreating the pre-existing soils, vegetation and hydroperiods, as well as protecting against invasive species. The hallmark of a successful restoration of a vernal pool also includes the return in comparable abundance of the same species that used the preexisting vernal pool as their habitat. For these reasons, the future application of the above adaptive management framework for the vernal pools must give proper consideration to the difficulties associated with fully restoring excavated vernal pools.

Reach 7 Impoundments

An important component of EPA's Proposed Cleanup Plan addresses the impoundments in the four dams in Reach 7 (Columbia Mill Dam, Eagle Mill Dam, Willow Mill Dam and Glendale Dam). The Commonwealth appreciates EPA's efforts to identify approaches that better integrate the remediation with potential scenarios to remove one or more dams in the future and/or address the use and maintenance of these impoundments.

More specifically, Section II.B.1. g. of the Draft Reissued Permit requires GE to coordinate with any entity planning to remove, use and maintain any Reach 7 dam or impoundment. EPA further specifies that GE shall make good faith efforts to reach agreement with any such entity on the scope and extent of costs attributable to the presence of PCBs in sediment and promptly pay such costs in advance of the necessary work on the dam or impoundment once necessary approvals, including by EPA, have been received. The Draft Reissued Permit appropriately defines "sediment-related costs attributable to the presence of PCBs" to include, but not be limited to, increased costs of sediment sampling and analysis to assess the presence of PCBs, materials handling, engineering

controls, disposal, or compliance with other regulatory obligations related to PCBs in sediment.

If no dam removal plans have materialized by the time that GE is required to submit its proposed Conceptual Remedial Design/Remedial Action Work Plan for the specific subreach, GE will be required to remove sediment from the river bed prior to placement of a cap to sequester remaining contamination exceeding an average of 1 mg/kg of PCBs. In that event, the institutional controls required by Section II.B.7 of the Draft Reissued Permit still obligate GE to pay for the incremental costs due to PCBs for future legally permissible uses requiring sampling, handling, or off-site disposal of sediment with total PCB concentration exceeding 1 mg/kg of PCBs. Examples of legally permissible uses that trigger this obligation on GE include maintenance or removal of a dam and the installation of canoe and boat launches and docks.

The Commonwealth supports EPA's efforts to structure the remediation of the Reach 7 impoundments in a way that may facilitate the future removal of one or more impoundments, while at the same time being clear in the Draft Reissued Permit about GE's obligations to make a good faith effort to reach a cost agreement with any entity interested in dam removal and to promptly pay sediment-related costs attributable to the presence of PCBs. EPA's implementation of the Final Reissued Permit must guard against creating practical disincentives to third party entities undertaking future actions to further restore of Rest of River through dam removals.

Restoration

The Proposed Cleanup Plan properly requires the development and implementation of a restoration program that results in the restoration of impacts caused by the corrective measures to the full range of wildlife species and habitats. More specifically, GE will be required to:

- perform a baseline assessment of pre-remediation conditions of the range of ecological resources in the areas affected by corrective measures;
- develop restoration performance objectives and evaluation criteria; and
- develop a restoration corrective measures coordination plan to be performed during the implementation of the corrective measures.

This three-step approach will help ensure that GE's restoration program is based on a thorough assessment of the existing ecological resources, the upfront identification of a complete range of restoration objectives and criteria, and the implementation of a comprehensive restoration program that includes construction, monitoring and maintenance activities. The Commonwealth looks

forward to working closely with both EPA and GE during the development and implementation of this critical component of the Proposed Cleanup Plan, with the objective of fully restoring the existing ecological resources of the PSA impacted by the corrective measures.

Finally, the Commonwealth appreciates that EPA has made clear in the Proposed Cleanup Plan that nothing in the restoration provisions “shall be construed or deemed to satisfy the separate net benefit mitigation in the Massachusetts Endangered Species Act (MESA).” As addressed by the Commonwealth in the next section, the Proposed Cleanup Plan also includes the separate and distinct requirement that GE mitigate the impacts of corrective measures on state-listed species and habitats in accordance with MESA, which is identified as an applicable state ARAR.

MESA

As highlighted in the background section to this letter, the Housatonic River Watershed as a whole, and the PSA specifically, comprise one of the most critical areas for state-listed species in the Commonwealth. EPA’s Statement of Basis for the Proposed Cleanup Plan highlights that almost all of the PSA, including Reach 5, is mapped by DFW as priority habitat for state-listed species under MESA, including areas with dense concentrations of overlapping habitat for eight (8) or more state-listed species. As noted earlier, DFW also developed Core Habitat Area maps for the PSA for the purpose of identifying state-listed species and habitats that might be particularly sensitive to impacts resulting from the remediation of Rest of River. These Core Habitat Area maps will be used, in particular, to guide the remediation of the floodplain and vernal pools. Other avoidance and minimization measures will likely include the use of work timing restrictions, barriers and other measures to protect state-listed species during remediation, and transplanting and seed collection.

In short, as reflected in EPA’s Proposed Cleanup Plan, an important theme and objective of the remediation of Rest of River is to avoid, minimize and mitigate the impacts on the existing diverse and dense array of MESA species and habitats in the PSA. It is of paramount importance to the Commonwealth that any unavoidable “take”³ of these rare species resulting from the implementation of the corrective measures must be mitigated in accordance with MESA. For these reasons, the Commonwealth strongly supports EPA’s identification in Appendix C of Draft Reissued Permit of MESA and the MESA regulations as an applicable state ARAR for the remediation of Rest of River.

³ “Take” is broadly defined in the MESA regulations to include the killing or harming of such animals as well as the disruption of nesting, breeding, feeding or migratory activity resulting from the destruction, modification or degradation of their habitat. “Take” also includes the killing, collection and picking of rare plants. See 321 CMR 10.01.

As the Commonwealth has explained in more detail in its previous comment letters to EPA, MESA does not authorize the take of a state-listed species unless the party causing the take provides "Net Benefit"⁴ mitigation to the affected state-listed species. This Net Benefit performance standard takes into account the vulnerable status of state-listed species as compared to other wildlife species, as well as the Commonwealth's responsibility under MESA to require actions that contribute to the conservation of the affected state-listed species as a whole to help these rare species recover from their endangered, threatened or special concern status.

The Commonwealth is committed to working closely with both EPA and GE to provide site-specific guidance on how to best to avoid, minimize and mitigate the impacts of the corrective measures on state-listed species and their habitats consistent with the framework in the Proposed Cleanup Plan and in accordance with substantive requirements of MESA.

Off-Site Disposal

EPA's Proposed Cleanup Plan appropriately requires the off-site disposal of contaminated soil and sediment generated by the remediation at existing off-site licensed facilities, including maximizing the use of rail to transport such contaminated material. The Commonwealth strongly supports this core component of the Proposed Cleanup Plan. As stated in our 2011 comment letter on GE's revised CMS, we vigorously oppose the creation of new landfills, including the several on-site or near-site disposal facilities identified by GE in the revised CMS. There are existing, out-of state, permitted disposal facilities that are equipped to accept this PCB contaminated material.

To recap our position, the siting of a PCB disposal facility is clearly not appropriate for this area. The entire Upper Housatonic River Area has been designated by the Commonwealth as an ACEC, which contains all of the qualifying inland resource features identified in the ACEC regulations - fisheries, wetlands and surface waters, water supply areas, floodplains and steep slopes, agricultural and forested areas, historical and archaeological resources, wildlife and rare species habitats, and public recreational and natural areas. In addition, an on-site or near-site PCB disposal facility would not meet the requirements of several of the Commonwealth's regulations including, without limitation, the Massachusetts Water Quality Certification regulations (314 CMR 9.06), the Massachusetts Wetlands Protection Act regulations (310 CMR 10.59), the Massachusetts Hazardous Waste regulations (310 CMR 30.700), and the Massachusetts Site Assignment regulations (310 CMR 16.40).

⁴ "Net Benefit" is defined in the MESA regulations to mean (1) an action(s) that contribute significantly to the long-term conservation of a state-listed species, and (2) that conservation contribution exceeds the harm caused by the proposed project or activity.

Furthermore, the siting of a PCB disposal facility in Berkshire County would be strongly opposed by communities within Berkshire County and have extremely negative impacts to those communities surrounding the facility, including economic, aesthetic, recreational, and potential health impacts, should the facility fail. For this reason, the Commonwealth concurs with EPA's assessment in the Statement of Basis that the likely significant local and state opposition to the on-site disposal alternatives would render these alternatives more difficult, and potentially not feasible, to implement.

Finally, the Commonwealth supports the Proposed Cleanup Plan requirement that GE maximize the use of rail to transport contaminated material to off-site licensed facilities. The current freight rail system owned by Housatonic Railroad Company, Inc. runs adjacent to the portions of the Housatonic River subject to removal actions, including Woods Pond, and should be used to the extent feasible to transport contaminated media from the site. Maximizing the use of rail would reduce the impacts of the remedy on the surrounding communities, particularly with respect to truck traffic.

Other State ARARs relevant to Treatment/Disposal Alternatives

While the Commonwealth is in general agreement with the statutes and regulations identified as ARARs in Attachment C, the Commonwealth provides the following more specific comments related to references to state ARARs in the Proposed Cleanup Plan:

- Statement of Basis, Page 38, Implementability, 3rd paragraph – The second sentence of this paragraph should be revised to include TD 2, and should read, “As discussed in the Compliance with Federal and State ARARs section above, TD2 and TD3 would have significant issues ...”
- Statement of Basis, Page 38, Implementability, 3rd paragraph – The second sentence of this paragraph should be revised to include the Massachusetts Hazardous Waste regulations, and should read, “As discussed in the Compliance with Federal and State ARARs section above, TD2 and TD3 would have significant issues with the Massachusetts Hazardous Waste regulations, the ACEC regulations ...”
- Attachment C (ARAR Table), Page 8, Massachusetts Facility Location Standards – In the Synopsis of Requirements column, the words “in floodplains” should be deleted since the potential impacts are not limited to floodplains.
- Attachment C (ARAR Table), Page 8, Massachusetts Facility Location Standards – In the Citation column, 310 CMR 30.501 should be added since this section of the Massachusetts Hazardous Waste regulations also restricts the manner in which hazardous waste can be stored, treated or

disposed of based upon its location within an ACEC or in close proximity to an ACEC.

- Attachment C (ARAR Table), Page 9, Massachusetts Site Suitability Criteria – In the Action(s) to be Taken to Achieve ARARs column, the wording should be revised to include the management of solid waste, such as temporary stockpiling, storage or treatment, both within and outside the Area of Contamination.

Adaptive Management

Section II.B.10 of the Draft Reissued Permit contains a provision on adaptive management. As EPA explains in its Statement of Basis:

“Adaptive management is a process that allows a project management team to adapt and optimize project activities as they are implemented to account for new information, changing conditions, and additional opportunities such as innovative technologies. Adaptive management is intended to facilitate a process that endeavors to minimize cost and maximize the environmental benefits achieved by the actions taken.

EPA envisions that the corrective measures identified in the Proposed Remedial Action will be implemented in a phased manner using such an adaptive management approach. This approach will be administered during design and construction activities (including restoration), to adapt and optimize project activities to account for “lessons learned,” new information and data, changing conditions, pilot studies, and additional opportunities that may present themselves over the duration of the project.”

The Commonwealth strongly supports EPA’s incorporation of the above described adaptive management principle in the Draft Reissued Permit. Consistent with our previous comment letters, it is critical that during each phase of this extended remedy, there be an ongoing and rigorous review of new information, changed conditions and the use of available innovative technologies to maximize the environmental benefits to be achieved by the Rest of River remedy.

III. Conclusion

As outlined in the background section to this comment letter, the Commonwealth has actively commented on EPA’s development of the remedy for Rest of River for the last 6 years. From the outset, we have emphasized the ecological uniqueness and significance of the location for this proposed Rest of River remedy – the Housatonic River watershed, an Area of Critical Environmental Concern with a dynamic, meandering river that has generated one of the richest,

most vital concentrations of state-listed species in Massachusetts. The Commonwealth has always recognized and supported the need for a remedy that protects human health. Our discussions with EPA and the State of Connecticut have focused on ways to achieve that important objective within a design and implementation framework that seeks to preserve the fundamental character of river ecosystem and avoids, minimizes and mitigates the impacts of the remedy on the affected species and habitats. The Commonwealth appreciates the time and effort that EPA invested with both states to understand and respond to our respective interests, concerns and priorities.

The constructive results of that collaborative approach is reflected in EPA's May 2012 Status Report to the public, which set forth a conceptual remedy that is reasonably responsive to the interests and concerns of the Commonwealth, including by incorporating the Core Habitat Area mapping approach developed by the Commonwealth's NHESP. EPA continued to actively consult with the Commonwealth when translating the Status Report, with some refinements and clarifications, into the Proposed Cleanup Plan. As highlighted by our specific comments above, the Commonwealth supports EPA's Proposed Cleanup Plan, which is consistent with the Status Report that we earlier supported.

Finally, the Commonwealth intends to remain as engaged as ever during the issuance and implementation of EPA's Final Cleanup Plan for Rest of River, with a particular focus on ensuring that the avoidance, minimization and mitigation of impact components of the permitting framework are applied as required.

Thank you again for the opportunity to present the Commonwealth's views on EPA's Proposed Cleanup Plan for Rest of River.

Sincerely,



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Secretary, Executive Office of Energy
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David W. Cash
Commissioner, Massachusetts
Department of Environmental Protection



Mary Griffin
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