

# MEMORANDUM

**TO:** Christopher Ketchen, Town Manager, Lenox, MA

**FROM:** Weston & Sampson

**DATE:** January 29, 2023

**SUBJECT:** Weston & Sampson Review of Rest of River On-Site and Off-Site Transportation and Disposal Plan

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As requested by the Town of Lenox (“the Town”) Weston and Sampson Engineers, Inc. (“Weston & Sampson”) has reviewed documents relevant to the Housatonic Rest of River Project provided by the Town (“the review documents”). The documents which were included in our review and comment efforts are:

- *On-Site and Off-Site Transportation and Disposal Plan*, Arcadis, October 2023.
- *Conceptual Remedial Design/Remedial Action Work Plan for Reach 5A*, Anchor QEA, September 28, 2023.

To support this technical review, we also referred to the following document for additional information:

- *Comments on GE Pittsfield/Housatonic Rive Site – On-Site and Off-Site Transportation and Disposal Plan, October 2023*, Technical Assistance Services for Communities, January 10, 2024.

In this memorandum, we provide our comments on the planned transportation and disposal of dredged sediments and sediments and soil removed from floodplains during the remediation of the Housatonic River to be performed by GE and their subcontractors after approval from EPA. It is also anticipated that there will be debris located within the removal areas (i.e., river and surrounding floodplains). The sediments, soil, and debris will be referred to as “the materials” in this memorandum.

The information provided in the On-Site and Off-Site Transportation and Disposal Plan (T&D Report) is mostly general in nature and it is indicated that specifics will be provided in Work Plans to be developed for each of the Reach Units (RUs). The Remedial Action Work Plan for Reach 5A indicates that materials will be dredged, transported to a staging area, dewatered and treated, and then trucked to the Upland Disposal Facility (UDF). No use of rail or hydraulic dredging is considered in this report.

The T&D Report does provide estimates of the total volume to be removed from each area and general details on material handling and storage. The Table below (Table 2-1 from the T&D Report) provides estimated volumes for removal as wells as volumes projected for on-site (i.e., at the UDF) and off-site (i.e., appropriately permitted landfill outside Massachusetts) disposal from each of the RUs. Figure 2 from the T&D Report has been modified and is attached. The modifications to Figure 2 include showing the location of the UDF and the approximate location of the Housatonic Railroad. Also attached to this

memorandum are annotated photographs of railroad sidings identified within the area of the dredging project.

Disposal on-site is planned for dredged materials with total polychlorinated biphenyl (PCB) concentrations less than twenty-five milligrams per kilogram (<25 mg/kg) and for materials <50 mg/kg from floodplains or riverbanks. As indicated in Table 2-1, 933,000 CY of material will be dewatered and treated for disposal at the UDF. Off-Site disposal is planned for dredged materials with total PCB concentrations  $\geq 25$  mg/kg and floodplain or riverbank materials  $\geq 50$  mg/kg. These materials will be transported to a disposal facility permitted to accept these wastes and a total of 100,000 CY is projected for disposal in this manner.

**Table 2-1: Summary of Conceptual Estimated Removal Volumes**

Reach	Estimated Removal Volume (CY) <sup>a</sup>	Estimated On-Site Disposal Volume (CY) <sup>b</sup>	Estimated Off-Site Disposal Volume (CY)
5A	138,700	130,200	8,500
5B	16,000	14,000	2,000
5C	387,000	348,000	39,000
6	285,600	256,600	29,000
7	118,000	106,000	12,000
8	87,000	78,000	9,000
<b>Total</b>	<b>1,030,000</b>	<b>933,000</b>	<b>100,000</b>

Notes:

<sup>a</sup> All quantities are preliminary estimates, are rounded, and are subject to change during final design. All volumes are in-situ "neat-line" estimates in cy except that the estimated removal volume for Reach 5A includes an assumed 10% increase over the estimated "neat" volume for the main channel sediment removal to account for uncertainties.

<sup>b</sup> In addition to the material removed from remediation areas, other materials generated during implementation of the ROR Remedial action, such as materials used to build temporary access roads and staging areas, may be disposed of in the UDF. Such materials are not included in the on-site disposal volumes given in this table.

Outside of the scope of the T&D Report but still important to the local communities will be transport plans for materials used to construct the UDF and other materials used to restore removal areas. The transport of these materials represents a potential for more trucks on the local roads for the duration of the project and should be accounted for in the preparation of truck estimates.

### Comments on Storage and Handling

The T&D Report indicates that access agreements will be negotiated prior to construction of staging areas that will be placed along the river as needed. Haul roads will be constructed so that materials can be transported in water-tight containers to the staging areas where the materials will be dewatered and treated prior to transport to the on-site or off-site disposal facilities. It is assumed that additional access agreements will be required for construction of the haul roads.

The construction of multiple staging areas and haul roads will require removal of trees and vegetation and grading to create a working space. As such, this damage to the environment should be managed appropriately (e.g., installation of sediment and erosion controls, maintenance to prevent creating or tracking mud). If areas are cleared and graded for use in the remediation, it is requested that GE work with the municipalities where this construction is completed so that these cleared staging areas and haul roads could be converted into parks and hike and bike trails after they have been decontaminated, if desired.

Use of trucks to transport dewatered and treated sediments is a concern to the community because of the risk of accidents with the greater traffic load with slow moving vehicles. There are also the nuisance issues with noise, traffic congestion, and potential releases from the trucks. Dependence upon haul roads to move dredged materials to staging areas is also complicated by the fact that, in some locations along the Housatonic, there is development close to the river on both sides or grades that could prevent the construction of roadways sufficient for the project. Reliance on haul roads may not always be feasible.

As seen on Table 2-1, nearly 65% of the total volume of planned removal materials will be from RUs 5C and 6. These RUs are located immediately to the north of the UDF (see the attached modified Figure 2 from the T&D Report) and there is mention in the report that hydraulic dredging will be considered for use and employed, if feasible, in these RUs. Table 3-1 in the T&D Report indicates that an estimated total of 590,000 CY will be conveyed by hydraulic conveyance, if feasible. This represents approximately 88% of the total volume to be removed from these two RUs and the use of hydraulic dredging and conveyance creates a potential for a large reduction in trucks used to move dredged sediments.

Use of hydraulic dredging and conveyance measures could greatly reduce truck traffic as sediments dredged in this manner could be moved to centralized staging areas. The use of centralized staging areas could reduce the number of staging areas and haul roads to be constructed and would limit the damage to the environment and the number of access agreements required. In addition, it would reduce the number of off-road trucks required to move sediments from the dredging locations to staging areas.

It is assumed that the materials hydraulically conveyed from RUs 5C and 6 would be pumped to the UDF where the materials would be dewatered and treated prior to final internment in the UDF. Conveyance of the dredged materials to the UDF will greatly reduce truck traffic in the area as dredged materials will be conveyed directly to the UDF for processing. Looking at modified Figure 2, most of the RUs along the northern section of the Housatonic River dredging project are within five miles of the UDF and hydraulic dredging and conveyance can be used over this distance and longer. It is requested that GE do further evaluations of the feasibility of hydraulic dredging and conveyance of dredged materials to the UDF from these northern reaches as this would further reduce required truck traffic and greatly limit the need to construct haul roads and staging areas.

At the southern end of the planned dredging operations is the Rising Pond Dam. A railroad spur ran from the Housatonic Railroad to the dam but has been removed. However, the path of this spur is still cleared, and this clearing could be widened and improved so that it could be used as a haul road with limited damage to the environment. In addition, there is sufficient unused land at this location to construct a large staging area for use in dewatering and treating sediments. Once the dredged materials are treated, they could be transported along the haul road up to the rail line. There is a railroad siding at this location nearly a mile long that could be sufficient for the handling of multiple railcars to transport the treated sediments to the UDF (see attached photographs).

Looking at the modified Figure 2, most of the RUs along the southern section of the Housatonic River dredging project are within five miles of this rail siding. It is requested that GE do further evaluations of hydraulic dredging and conveyance of dredged materials to this location for staging, processing, and eventual rail transport to the UDF. Again, this would greatly decrease the need for off-road and on-road trucking of dredged materials and decrease the need for construction of staging areas and haul roads. There are other sidings along the Housatonic Railroad that could be used for the temporary storage of rail cars holding dewatered and treated sediments (see attached photographs).

Dredged materials from the southern RUs could be transported via rail to the Lenox station located across the Housatonic from the planned location of the UDF. To access the UDF from this location, GE could negotiate access with the owners of river crossings or use public roads, but this would create a

large amount of truck traffic on public roads in this area. It is requested that GE evaluate the construction of a bridge from the Lenox Station over to the location of the UDF to facilitate the movement of materials to the UDF with the least amount of impact to the surrounding communities.

Construction of the UDF will also require the transport of materials and equipment to the site that will create a large amount of truck traffic in the area. However, if access from the Lenox Station to the UDF was constructed, GE could transport materials and equipment to the location via rail and use the same constructed access which would also limit the impact to the local community.

Not all of the dredged materials can be hydraulically conveyed and the continued use of trucks to move some materials is anticipated. It is expected that natural debris (e.g., large tree limbs or rock too large for pumps in the hydraulic conveyance lines) and garbage (e.g., used tires) will be encountered in the dredged materials and that the debris will need to be segregated and transported separately in trucks. In addition, materials dry enough to directly load into trucks may be found in floodplain areas. Thus, it is not anticipated that the use of trucks can be fully eliminated. Further evaluation beyond that currently provided, could be performed to greatly reduce the number of trucks needed to transport materials to the UDF and for off-site disposal. It is recommended that GE fully evaluate any trucking routes to be used for safety concerns and to minimize the impact to the local community.

## Summary

The use of hydraulic dredging and conveyance could greatly reduce the use of trucks both off-road and on-road. GE has indicated that they plan to evaluate the feasibility of these methods for use in RUs 5C and 6. However, it may be feasible to use the same hydraulic methods in other RUs and this would benefit the local communities by reducing the impacts due to truck traffic which could pose safety hazards and pose an excess nuisance to community members due to noise, congestion, and potential releases.

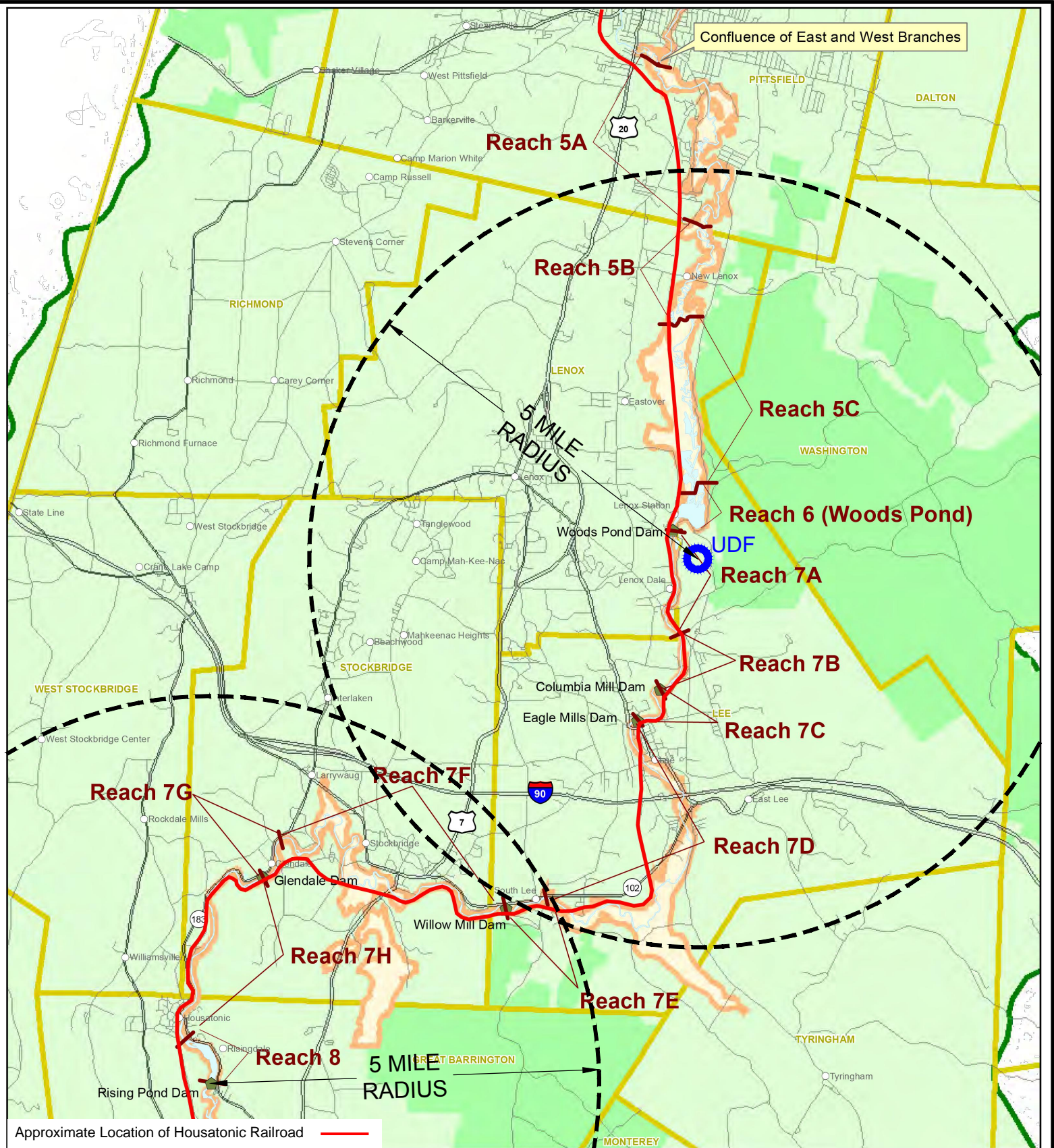
If hydraulic dredging and conveyance is found to be feasible for multiple reaches, this could also reduce the need to construct haul roads and staging areas for dredged materials. The construction of haul roads and staging areas will require the clearing of trees and vegetation and grading to make the areas workable. Reducing the number of staging areas and haul roads will lessen the damage to the environment in this manner.

Materials removed from northern RUs could be pumped directly to the UDF which could greatly reduce the need for both off-road and on-road trucking. Materials removed from the southern RUs could be pumped directly to a staging area created near the Rising Pond Dam. A railroad siding exists at this location which could be used to facilitate the movement of treated sediments to the UDF via rail.

The Lenox Station is located across the Housatonic River from the proposed location of the UDF. If a crossing was constructed at this location, treated sediments could be moved from the station directly to the UDF which would lessen the impacts to the community at this location. This crossing could also be used to transport equipment and materials required to construct the UDF directly to that location which would also lessen the impacts to the community.

Not all trucking of materials can be eliminated. However, for any trucking required, it is requested that GE do further evaluation of trucking routes to evaluate the safety concerns and to limit the impact to the local communities.

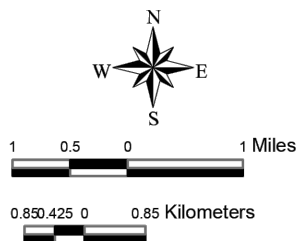
For any areas that are cleared and graded for use (i.e., staging area and haul roads), it is requested that GE work with the municipalities as these locations have potential for future use as parks or hike and bike trails. It is assumed that GE would remove materials and equipment installed at these locations and complete any decontamination of these work areas prior to their conversion to public use.



Approximate Location of Housatonic Railroad ———

**LEGEND:**

- Town/City
- Housatonic River
- Roads
- State Park
- Reach Division Line
- Municipal Boundary
- 10-Year Floodplain



GE- Pittsfield/Housatonic River Site  
Rest of River

**FIGURE 2**  
**HOUSATONIC RIVER,**  
**PRIMARY STUDY AREA**  
**(REACHES 5 AND 6) AND**  
**REACHES 7 AND 8**



Approximately 0.85 miles of railroad siding along Van Deusenville Road, Great Barrington, near Reach 8.



Gravel area (approximately 0.55 acres) adjacent to Reach 8 railroad siding provides access to Housatonic River.



Pathway of historic railroad siding from Van Deusenville Road, Great Barrington, to Housatonic River (approximately 1,500 feet).





Rising Pond Dam – Access point to Housatonic River from Van Deusenville Road, Great Barrington, railroad siding in Reach 8.



Approximate 800 foot spur of railroad siding to the Onyx Specialty Paper facility located at 1075 Pleasant Street, Lee, along Reach 7D.



Area surrounding railroad siding to the Onyx Specialty Paper facility located at 1075 Pleasant Street, Lee, along Reach 7D.



Approximately 0.50 miles of railroad siding adjacent to the Berkshire Scenic Railway Museum in Lenox near Reach 6.



Pedestrian bridge crossing Housatonic River in Reach 6, approximately 3,000 feet north of the Upland Disposal Facility.



View looking to the southwest of the Upland Disposal Facility along Reach 7A.



Approximately 0.47 miles of railroad siding adjacent to Industrial Drive in Pittsfield, north of Reach 6.