Commonwealth of Massachusetts
Executive Office of Environmental Affairs ■ MEPA Office

ENF Environmental Notification Form

For Office Use Only *Executive Office of Environmental Affairs*
EOEA No.: 13868
MEPA Analyst: Briony Angus
Phone: 617-626-1029

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Green River Sediment Removal Project		
Street: **Mead Street**		
Municipality: **Greenfield**	Watershed: **Deerfield**	
Universal Tranverse Mercator Coordinates:	Latitude: **42.584454** Longitude: **-72.60414**	
Estimated commencement date: **4th Quarter 2007 (Depending on approvals)**	Estimated completion date: **Expected to last for a period of approximately three months.**	
Approximate cost: **$500,000 - $700,000**	Status of project design: 90% complete	
Proponent: **Richard Nasman (The Berkshire Gas Company)**		
Street: **115 Cheshire Road**		
Municipality: **Pittsfield**	State: **MA**	Zip Code: **01201**
Name of Contact Person From Whom Copies of this ENF May Be Obtained: **Ishwar Murarka**		
Firm/Agency: **Ish, Inc.**	Street: **804 Salem Woods Drive, Suite 201B**	
Municipality: **Raleigh**	State: **NC**	Zip Code: **27615**
Phone: **(408) 892-3233**	Fax: **(919) 844-0917**	E-mail: **Ishlnc@earthlink.net**

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)? ☐Yes ☒No

Has this project been filed with MEPA before? ☐Yes (EOEA No._____) ☒No

Has any project on this site been filed with MEPA before? ☐Yes (EOEA No._____) ☒No

Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:

a Single EIR? (see 301 CMR 11.06(8))	☐Yes	☒No
a Special Review Procedure? (see 301CMR 11.09)	☐Yes	☒No
a Waiver of mandatory EIR? (see 301 CMR 11.11)	☐Yes	☒No
a Phase I Waiver? (see 301 CMR 11.11)	☐Yes	☒No

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres): **Not Applicable.**

Are you requesting coordinated review with any other federal, state, regional, or local agency? ☒Yes(Specify: **MassDEP, US Army Corps of Engineers, Town of Greenfield**) ☐No

List Local or Federal Permits and Approvals: **Order of Conditions Town of Greenfield, Army Corps of Engineers 404 Permit, 401 Water Quality Certificate**

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- ☐ Land
- ☐ Water
- ☐ Energy
- ☐ ACEC
- ☐ Rare Species
- ☐ Wastewater
- ☐ Air
- ☐ Regulations
- ☒ Wetlands, Waterways, & Tidelands
- ☐ Transportation
- ☐ Solid & Hazardous Waste
- ☐ Historical & Archaeological Resources

Summary of Project Size & Environmental Impacts	Existing	Change	Total	State Permits & Approvals
LAND				☒ Order of Conditions ☐ Superseding Order of Conditions ☐ Chapter 91 License ☒ 401 Water Quality Certification ☐ MHD or MDC Access Permit ☐ Water Management Act Permit ☐ New Source Approval ☐ DEP or MWRA Sewer Connection/ Extension Permit ☐ Other Permits (*including Legislative Approvals*) – Specify:
Total project site acreage	1.8 Acres			
New acres of land altered		*See note below		
Acres of impervious area	0.3 Acres	0	0.3 Acres	
Square feet of new bordering vegetated wetlands alteration		447		
Square feet of new other wetland alteration		28,923		
Acres of new non-water dependent use of tidelands or waterways		0		
STRUCTURES				
Gross square footage				
Number of housing units				
Maximum height (in feet)				
TRANSPORTATION				
Vehicle trips per day				
Parking spaces				
WATER/WASTEWATER				
Gallons/day (GPD) of water use				
GPD water withdrawal				
GPD wastewater generation/ treatment				
Length of water/sewer mains (in miles)				

***Note: Construction staging areas will be within the existing Berkshire Gas facility site. For additional information please see Appendix A.**

CONSERVATION LAND: Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

☐Yes (Specify_____) ☒No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

☐Yes (Specify_____) ☒No

RARE SPECIES: Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

☒Yes (Specify: ***Estimated Habitat of the Wood Turtle, Barren Strawberry & Black Maple**) ☐No

***Note: None of these species were found during the survey of the project area.**

HISTORICAL /ARCHAEOLOGICAL RESOURCES: Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

☐Yes (Specify: _____) ☒No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

☐Yes (Specify_____) ☒No

AREAS OF CRITICAL ENVIRONMENTAL CONCERN: Is the project in or adjacent to an Area of Critical Environmental Concern?

☐Yes (Specify_____) ☒No

PROJECT DESCRIPTION: The project description should include **(a)** a description of the project site, **(b)** a description of both on-site and off-site alternatives and the impacts associated with each alternative, and **(c)** potential on-site and off-site mitigation measures for each alternative (*You may attach one additional page, if necessary.*)

Part A

Project summary:

- Berkshire Gas Company will remove impacted sediments from the Green River and restore the river bottom in an area located along the south shoreline of the Green River, adjacent to its Mill Street Operations Center. **See attached Site Locus map in Appendix A.**
- The sediments were found to contain coal tar (NAPL) related to a former gas manufacturing plant that operated adjacent to the Green River from 1860 until 1958, prior to the existence of Berkshire Gas Company.
  Excavation will be done "in the dry" inside the Porta-Dam structure and the impacted sediments that are removed will be replaced with clean earthen material of similar characteristics. Uncontaminated pebbles/boulders will be recovered and reused for restoration of the river bank. **See attached Sheet-3R in Appendix A.**
- The replaced clean sediments are expected to create a suitable habitat for sustaining aquatic life in the river.
- The following resource areas will be temporarily disturbed as a result of the proposed remediation project.
  - Inland bank (340 linear feet)
  - Bordering vegetated wetland (447 sq. ft)
  - Land under water (20,847 sq. ft.)
  - Riverfront area (36,663 sq. ft)
- Natural Heritage program has been contacted and indicated that there are no risks to rare and endangered species in the project site work area. The United States Fish and Wildlife Service (USFWS) also indicated that there are no federally endangered species in the project work site.

- As a result of comments received by David Foulis, the Ish Inc. project team has requested and received a letter, dated 14 August 2006, from Natural Heritage stating that there are no short-term or long-term adverse impacts on wetlands and rare species in the Project site. **Please see Appendix B**.
- An excavated sediment staging area will be constructed and maintained within the fenced portion of the BG property.
- A long-reach excavator will be used to remove sediments from the target excavation area. The depth of excavation will be a maximum of two (2) feet.
- Clean sediments and un-impacted earthen materials will be removed from above or near the impacted sediments and temporarily staged within the temporary dike system and will be reused for restoration of the river bed.
- Excavated sediments will be loaded into dump trucks for transport to the sediment draining and conditioning area.
- Clean soil and rock with similar characteristics to existing conditions will be used to backfill the excavated area.
- Following completion of sediment management activities, the sediment staging area will be dismantled and removed from the Site.
    - Disturbed upland areas will be re-vegetated or re-covered with stone (to original conditions).
    - The gravity bypass system in the river and the access ramps will be removed.
    - Trailers, temporary fencing, the decontamination pad and other related appurtenances will also be removed from the site.
    - Erosion and sediment control provisions will remain in place until all disturbed areas have been stabilized and restored.
- For a more in-depth discussion on the restoration of the project work site and responses to DEP comments, please see **Appendix C.**

Part B
<u>On-site alternatives and off-site alternatives</u>

There are no off-site alternatives to removing the non-aqueous phase liquid (NAPL) contaminating sediments in the Green River. The action is required under the Massachusetts Contingency Plan (MCP) and must be completed prior to the end of the year. The on-site alternatives are described below.

Remedial Alternative Assessment:
Various remedial options, including wet excavation and capping were considered for performing this work.

- Due to the fast moving nature of the Green River, it is not possible to completely control suspended sediments and contaminants presenting a significant risk of contaminant migration to the downstream areas. The potential for dispersion of sediment fines and NAPL contaminated sediments into the water column present a significant challenge to efficacy of the silt curtains and absorbent booms. In addition, dewatering sediments prior to conditioning will result in greater amounts of water management than conducting the project "in-the-dry."
  The capping approach involves placing clean erosion-resistant materials over portions of the riverbed sediments that are impacted by NAPL. The cap acts to prevent erosion of sediment and also to prevent exposure to human and ecological receptors. Significant armoring would be necessary to resist the tractive forces within the river. The thickness of the armoring would likely be significant reducing the cross-section of the river and exacerbating the likelihood of flooding events. Lastly, capping could not be considered as a permanent remedy because the coal tar (NAPL) impacted sediments area exceeds the 1000 square foot threshold (leading to mandatory removal) contained in the Massachusetts Contingency Plan.

Selected Remedial Option
The selected method for remediation of the sediments is excavation "in-the-dry" with gravity bypass of the river flow. This method affords the greatest possible protection for the Green River aquatic systems and minimizes riverbank and riverbed disturbances.

The approach involves the excavation of the coal tar containing sediments "in-the-dry" using a long-reach excavator or similar equipment. Near-dry conditions would be achieved in the excavation area by the implementation of a temporary bypass technique ("Porta-Dam") to route the river flow around the work area. Sediments would be excavated, drained and conditioned on-Site with a suitable additive if needed, then thermally treated at an off-Site location. Wastewater generated within the excavation area would be collected and disposed at an appropriately permitted off-Site treatment facility as required due to potential coal tar impacts. Backfill of the riverbed would be done using sand and natural stone (with the size range of backfill to be determined based on the results of the pebble count and sieve analysis data) to achieve original contours. The original contours have been determined through a morphological study and a bathymetric survey. Following restoration of the river bottom, the temporary bypass system would be removed and the riverbank restored according to a bank restoration plan that has been developed.

The method to be used to effect gravity bypass entails construction of what will become a bypass channel, to redirect gravity flow around the work area. The channel will consist of the existing northern riverbank for one side and a prefabricated rigid structure ("Porta-Dam") for the other.

This sediment excavation approach is likely to produce the minimum quantity of potentially impacted water requiring collection, treatment and disposal. In addition, this approach will minimize the potential for offsite migration of NAPL and NAPL-impacted sediments.

Part C
On-site and off-site mitigation measures for each alternative

There are no off-site alternatives to removing the NAPL-contaminated sediments in the Green River. As mentioned above, the action is required under the Massachusetts Contingency Plan (MCP) and must be completed prior to the end of this year. The on-site mitigation measures are described below.

The remedial activities will be performed in a manner that will preserve and protect the natural integrity of the Green River and its surroundings. The method selected affords the greatest degree of ecological protection by minimizing encroachment on natural habitats, has the lowest potential to result in suspension or discharge of solids into the water way, has the briefest duration and the lowest potential for failure.

This project has taken into consideration all means to avoid and minimize impacts to resource areas at the site. Residual impacts, should they occur, will be mitigated, or restored following the completion of the project. It should also be noted that the structures and activities being used to access and remove NAPL containing sediments will not significantly restrict river flow so as to cause an increase in flood stage or flow velocity (310 CMR 10.53 (q) 2e).

The means by which each area will be restored, or where mitigation will take place is presented below. Please consult Sheet-3R and Sheet-4 in Appendix A for a more detailed view on the plans for mitigation and restoration at the Site.

The removal of NAPL-contaminated sediments will include activity within several resource areas including the bank, bordering vegetated wetlands (BVW), land under water (LUW), riverfront area, and bordering land subject to flooding (BLSF). In the interest of brevity, the mitigation includes

minimal or no disturbance in areas that are ecologically sensitive such as the Bank and BVW. For example, the south side of the Site was also found to have a number of features such as trees with varying size cavities, a more heterogeneous vegetation community and evidence of meso-mammal activity including raccoon, beaver, mink and coyote. To protect and restore this area there will be no tree removal as part of this project, so no tree cavities will be lost.

Area above the Bank, on the north side of the river where dense cover currently exists, will be restored and enhanced to create habitat suitable for wildlife. In addition, rocks, logs and debris that can be used by wildlife will be saved so that they can be placed back into these locations.

The area of BVW (3,796 sf), will not be "lost" as part of this project. The existing invasive and native species will be removed to complete the project, but restored by planting with native plants upon completion of the project. There will be no net loss of BVW associated with the project, and therefore no replication is required. These areas will be completely restored

A wetland scientist will be on-site during the removal of the plants, rocks and logs from this area. Upon completion of work, the wetland scientist will also be on-site to confirm that existing grades have been maintained, or to oversee the return of existing grades to this area, if needed.

Two areas of BLSF will be altered during the work, but there will be no loss in compensatory flood storage for these areas. Therefore, it will not be necessary to compensate for any storage capacity. Work in these areas will be temporary and following completion will be restored back to existing conditons to maintain current Berkshire Gas Company facility operations. Further enhancement of this previously developed BLSF will not be possible because it needs to be maintaind for facility operations.

The area of BLSF located above Bank, on the north side of the river is also Riverfront Area. A discussion of how this area will be restored and enhanced to provide wildlife habitat, and maintain existing topoghraphy was discussed previously with the discussion on restoration of BLSF.

LUW is associated with the area of work within and outside of the Portadam. The wildlife habitat evaluation conducted as part of the preliminary assessments for this project found that the substrate of the river may provide suitable habitat for several fish and some amphibian species. Areas where pools and riffles were observed will be reconstructed following sediment removal. This reconstruction will be based on the current cross sections that provide elevations across the bottom of the river. A stream and river restoration scientist will be on-site to oversee the reconstruction of river areas excavated. To restore this area, larger cobbles, rock and any logs found at the bottom of this portion of the river will be removed and stored for future replacement. The streambed will also be restored using material similar to that identified, with the average size material returned being 45 mm.

For more information regarding the mitigation alternatives and restoration plans, please see **Appendix C**.

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Letter of Transmittal

Date	22 August 2006
File Number	33107-001
From	Daniel J. Huber

To	Stephen Pritchard Executive Office of Environmental Affairs Attn: MEPA Office 100 Cambridge Street Boston, MA 02114
Attention	Stephen Pritchard
Copy to	Ish Inc. Ishwar Murarka
Subject	ENF filing

Copies	Date	Description
2 hard bound copies plus 3-page summary	8/22/2006	ENF filing for MEPA office review for the Green River Sediment Remediation project

Transmitted via ☐ First class mail ☒ Overnight express ☐ Hand delivery ☐ Other

Remarks