



To: Almariet Roberts, Department of Economic and Community Development  
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Date: 5/23/2025

Subject: Scoping for Enfield Station Remediation Project

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The Department of Energy and Environmental Protection (DEEP) has received the Notice of Scoping for the Enfield Station Remediation Project. The \$4,000,000 grant funds awarded in Round 20 of the Office of Brownfield Remediation and Development Municipal Grant Program will be used by the Town of Enfield for remediation activities on the 3.24-acre site, former home of the Bigelow Carpet Manufacturing Plant, at 33 North River Street in Enfield. The cleanup work will enable the construction of an approximately 160-unit multifamily residential complex and transit-oriented development.

An early municipal assistance meeting was held between DEEP and Town of Enfield on September 18, 2024. During the meeting DEEP provided permitting information for the project as well as follow-up contacts.

The following comments are submitted in response to the scoping requirements of the [Connecticut Environmental Policy Act](#). Scoping is the gathering and analysis of information that a state agency will use to establish the scope of environmental review of a proposed project. Scoping is done in the early planning stages of a project and DEEP is a commenting agency. Contact information is included as well as any necessary links to DEEP's webpages.

### **1. Effect on water quality, including surface water and groundwater.**

Marlene Krajewski, Water Planning and Management Division,  
[Marlene.Krajewski@ct.gov](mailto:Marlene.Krajewski@ct.gov)

The site is located directly adjacent to the Connecticut River (CT4000-00\_03), which is an impaired waterbody and has a Connecticut Statewide Bacteria [Total Maximum Daily Load](#) for *E. coli*. Due to existing contamination at the site and to minimize the water quality impacts to nearby surface waters (Connecticut River) during both remediation and future redevelopment, proper management measures for stormwater and sediment should be taken.

Based on provided schematic plans provided, this redevelopment will add a large amount of impervious surface in both the form of the buildings and parking spaces in close proximity to the Connecticut River. The redevelopment also appears to include removing a large amount of riparian vegetation, which currently protects the streambank and absorbs some pollutants from surface runoff. As such, DEEP recommends incorporating the use of Green Infrastructure and/or Low Impact Development in this project, retaining a riparian buffer, and encourages sustainable snow/ice removal practices in the winter (i.e. [Green SnowPro](#)) to minimize/reduce the impact of polluted stormwater from reaching receiving surface waters, to reduce further impairment to the Connecticut River, and to maintain the streambank.

Melissa Fahnestock, Water Planning and Management Division,  
[Melissa.Fahnestock@ct.gov](mailto:Melissa.Fahnestock@ct.gov)

The site is not located in an [Aquifer Protection Area](#) or a parcel prioritized for source water protection as shown on the [Parcel Prioritization for Source Water Protection Viewer](#). The site is located in an area of glacial meltwater deposits as shown on the [CT Surficial Aquifer Potential Map](#), but these fine-grained deposits have a low potential yield. This area is not a current source and is not a likely future source for groundwater. There are no concerns related to the Aquifer Protection Area Program.

Melissa Mostowy, Water Planning and Management Division,  
[Melissa.Mostowy@ct.gov](mailto:Melissa.Mostowy@ct.gov)

The site is located within the Connecticut Water Company's Northern Region - Western System, so public water supply will be available for the proposed development sites if needed. If the site requires more than 50,000 gallons per day to be withdrawn from ground or surface waters on-site, DEEP's Consumptive Water Diversion Program should be consulted.

Ryan Mowrey, Remediation Division, [Ryan.Mowrey@ct.gov](mailto:Ryan.Mowrey@ct.gov)

The groundwater under the historical mill area has the potential to be contaminated. The Bigelow Mill site that was remediated across the street at 55 Main Street historically had petroleum compounds, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, and metals detected in groundwater. If groundwater is encountered on site during construction activities proper characterization should be done to make sure that the groundwater is not contaminated. In addition to the chemicals listed above, per- and polyfluoroalkyl substances (PFAS) and 1,4 Dioxin should be included in any analysis of the soil and groundwater. Due to Bigelow Mill's association with carpeting, these chemicals have the potential to be present.

## **2. Effect on flooding, in-stream flows, erosion, or sedimentation.**

Darcy Winther, Land and Water Resources Division, [Darcy.winther@ct.gov](mailto:Darcy.winther@ct.gov)

Flood Management Certification: If proposed activities are being funded or conducted by a state agency AND are being conducted within a FEMA designated floodplain, the applicant should consult with the DEEP's Land and Water Resources Division for information on how to comply with the States Flood Management Statutes and Regulations. For information on identifying if the site is in a flood zone, please see FEMA's website: [FEMA Flood Map Service Center](#). For information on Flood Management Certification, please see DEEP's website: [Flood Management Certification Fact Sheet](#).

**3. Effect on natural communities and upon critical plant and animal species and their habitat; interference with the movement of any resident or migratory fish or wildlife species.**

Robin Blum, NDDDB Program, Wildlife Division, [Robin.Blum@ct.gov](mailto:Robin.Blum@ct.gov)

This site appears to be in a Natural Diversity Data base (NDDDB) area. An NDDDB review will need to be performed in order to demonstrate compliance for any permit applications or use of state funding.

Shalyn Zappulla, Fisheries Division, [Shalyn.Zappulla@ct.gov](mailto:Shalyn.Zappulla@ct.gov)

DEEP Fisheries Division staff have concerns about developing riparian habitat and converting a forested buffer into impervious surfaces and lawn.

The portion of the Connecticut River in the site's vicinity is home to a diverse fish species assemblage and one of the largest diadromous runs in the east coast US. These migratory fish include Federally endangered Atlantic and Shortnose sturgeon, state-listed Blueback Herring, Alewife, American Eel, American Shad, and Sea Lamprey. Additional resident species include Banded Killifish, Black Crappie, Bluegill, Bowfin, Channel Catfish, Common Carp, Fallfish, Green Sunfish, Largemouth Bass, Pumpkinseed, Redbreast Sunfish, Rock Bass, Smallmouth Bass, Spottail Shiner, Walleye, White Catfish, White Sucker, and Yellow Perch.

Rivers attract development, industry, and agriculture. Chipping away at remaining riparian buffers harms the aquatic (and terrestrial) ecosystem. Land disturbance has a direct effect on water quality and aquatic resources, and vegetated buffers are crucial to protect both. Vegetated buffers filter out nutrients and pollutants, stabilize banks, provide food, provide and create habitat, cool temperatures through evapotranspiration and shading, mitigate flooding, and control sedimentation. Vegetated buffers provide these services at no cost, where the cost to correct these issues can be extensive. To put in economic terms, the following study shows the

dollar value in what an ecosystem can provide: [“Economic values for ecosystem services: A global synthesis and way forward,” by Brander, L.M. \*et al.\*, 2024.](#)

The recommended size of a buffer varies with its purpose. For example, recommendations can range from 100 feet to control sedimentation, nutrients, and pollutants, to 30-200 feet to stabilize banks and control floods, 50-400 feet to provide fish habitat and sustain aquatic insect populations, and 30-100 feet to cool water temperatures (DeMeo *et al.*, 2005). This is not an exhaustive list, but buffers recommended to maintain healthy fish populations are often at least 50-300 feet in width.

**To mitigate potential impacts of the project, DEEP staff recommend:**

- In the post-scoping notice or Environmental Impact Evaluation, the developer can explain why a seawall is needed or if it can be removed and a robust vegetative buffer can be established in its place for the length of the property.
- A minimum of a 100-foot-wide woody riparian buffer is recommended to be established along the Connecticut River that extends the length of the property.
- Incorporating green infrastructure, rain or rooftop gardens, and a stormwater management plan to mitigate the potential impacts from the increase in impervious surfaces.
- Planting a colorful patchwork of native, low-growing, ground cover plants (as an alternative to the lawn area) that will attract pollinators, bear foot traffic, and require little to no maintenance (i.e. mowing, fertilization) accompanied by an educational kiosk on the benefits of such lawn alternatives.

If these mitigation measures are not feasible to the greatest extent possible, DEEP recommends including alternative designs that were considered as well as the justification to remove all vegetation/trees from this site without replanting, in either the post-scoping notice or potential Environmental Impact Evaluation.

**4. Use of pesticides, toxic or hazardous materials or any other substance in such quantities as to cause unreasonable adverse effects on the environment.**

Ryan Mowrey, Remediation Division, [Ryan.Mowrey@ct.gov](mailto:Ryan.Mowrey@ct.gov)

The Bigelow Mill site across the street at 55 Main Street has documented soil detections of VOCs, SVOCs, metals, and pesticides. If site operations were similar at this mill, these are all potential hazardous compounds at the site that will need to be properly addressed. In addition, PFAS and 1,4 Dioxin will need to be included in any soil analysis conducted on site due to the site’s historical carpeting operation. DEEP is aware of the plan is for a proper remedial investigation to be conducted following

the Brownfield program requirements, so these issues should be addressed through that process.

**5. A substantial increase in the type or rate of energy use as a direct or indirect result of the action.**

No comments received.

**6. Effect on air quality.**

No comments received.

**7. Effect on existing land resources and landscapes, including coastal and inland wetlands.**

No comments received.

**8. Adequacy of existing or proposed utilities and infrastructure.**

No comments received.

**9. Effect on greenhouse gas emissions as a direct or indirect result of the action.**

No comments received.

**10. Effect of a changing climate on the action, including any resiliency measures incorporated into the action.**

No comments received.

**11. Additional Comments/ Concerns:**

Shalyn Zappulla, Fisheries Division, [Shalyn.Zappulla@ct.gov](mailto:Shalyn.Zappulla@ct.gov)

Staff reviewed land use maps around the project area and found that there is large amount of development, agriculture, and turf/grass near the Connecticut River.

According to Connecticut's Changing Landscape study by UConn CLEAR, between 1985 and 2010, CT lost 190 mi<sup>2</sup> of forest, lost 39.5 mi<sup>2</sup> of riparian corridors, and gained 149 mi<sup>2</sup> of developed land.

Staff also reviewed local drainage basin maps and impervious surface level maps of the proposed project area. Staff concluded that existing impervious coverage surrounding the project area ranges from 0-5% in some areas to over 25% in other areas. Effects of impervious area to aquatic ecosystems can include changes to

water chemistry, species assemblages and diversity, increased runoff causing erosion, increased stream width, deeper channels, increased turbidity, and introduction of pollutants, decreased flows, increased flashiness, sedimentation and loss of instream pools, loss of woody debris, loss of riparian vegetation, and loss of natural floodplain and groundwater recharge. Watershed impervious coverage of just 10% and sometimes much less can have significant effects on aquatic ecosystems and their functions.

DEEP staff recommend addressing concerns with the proposed increase in impervious cover, and mitigation considerations, in the post-scoping notice or potential Environmental Impact Evaluation.

**List of permits:**

**Federal Section 404 Clean Water Act, Inland, Water Quality Certification (WQC)**

☐ Required for this project.

☒ Based on the information provided, it cannot be determined if fill is proposed in Waters of the U.S. A state and federal wetland delineation will be required if fill is proposed in Waters of the U.S. Wetlands and Watercourses should be clearly field delineated by a qualified soil scientist. If work is being proposed in a wetland or watercourse (crossings, fill, structures, culverts etc.), contact the [Army Corps of Engineers](#) to determine if it is within their jurisdiction.

☐ Not required.

**State 401 Water Quality Permit**

☐ Required. (if a federal 404 WQC is required, a state 401 is also required because the programs are tied together)

☒ Based on the information provided, it cannot be determined if fill is proposed in Waters of the U.S. A state and federal wetland delineation will be required if fill is proposed in Waters of the U.S. For a pre-application meeting, contact: [Susan.jacobson@ct.gov](mailto:Susan.jacobson@ct.gov) (for projects in towns that are west of the CT River) or [Darcy.winther@ct.gov](mailto:Darcy.winther@ct.gov) (for projects in towns that are on the CT River or east of the river).

☐ Not required.

**General Permit for Stormwater and Dewatering Wastewaters from Construction Activities (Construction Stormwater GP). Note: Without detailed plans, several options might be checked, please review these options to determine which is applicable for the project.**

☒ If between one and five acres of disturbance and approved at the local level, not required to register with DEEP.

☐ If five or more acres of disturbance and approved at the local level, must complete registration form and Stormwater Pollution Control Plan to DEEP at least 60 days prior to the initiation of construction. Registrations shall include a certification by the Qualified Professional who designed the project and a certification by a Qualified

Professional or regional Conservation District who reviewed the SWPCP and deemed it consistent with the requirements of the general permit. In addition to measures such as erosion and sediment controls and post-construction stormwater management, the SWPCP must include a schedule for plan implementation and routine inspections. For further information, contact the division at 860-424-3025 or [DEEP.StormwaterStaff@ct.gov](mailto:DEEP.StormwaterStaff@ct.gov)

☒ Projects exempt from local permitting (conducted by government authorities) disturbing over one acre must submit a registration form and Stormwater Pollution Control Plan to DEEP at least 60-90 days, as identified by the permit, prior to initiating construction.

The Construction Stormwater General Permit registrations must be filed electronically through [DEEP's ezFile Portal](#). Additional information can be found online at: [Construction Stormwater GP](#).

Thank you for the opportunity to review this project. These comments are based on the reviews provided by relevant staff and offices within DEEP during the designated comment period. They may not represent all applicable programs within DEEP. Feel free to contact me if you have any questions concerning these comments.

cc: Eric Hammerling, Office Director, DEEP/ERSI