



**CONNECTICUT DEPARTMENT OF
ENERGY & ENVIRONMENTAL PROTECTION**
OFFICE OF ENVIRONMENTAL REVIEW
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To: Maya Loewenberg -Permit Ombudsman
DECD - Office of Financial & Technical Review, 505 Hudson Street, Hartford, CT

From: David J. Fox - Senior Environmental Analyst **Telephone:** 860-424-4111

Date: August 19, 2016 **E-Mail:** david.fox@ct.gov

Subject: Preston Riverwalk Remediation

The Department of Energy and Environmental Protection (DEEP) has received the Notice of Scoping for proposed funding of abatement, demolition and remediation activities to facilitate redevelopment of the former Norwich State Hospital site in Preston. The following comments are submitted for your consideration.

Both our agencies support redevelopment of brownfield sites due to resulting environment enhancement and as well as social and economic benefits. These include reducing or eliminating public exposure to pollutants, cleaning up sites that otherwise would not be cleaned up for decades, and reducing environmental impacts associated with sprawl by returning abandoned and underutilized sites to productive use. This project to initiate redevelopment of a former State-owned brownfield affirms the State's responsibility to convert its surplus property to beneficial reuse.

As you know, the State Hospital property was the subject of a *Property Transfer Program - Form III* as a result of the transfer to the Town of Preston. Responsibility for the oversight of the investigation and remediation of the property lies with a Licensed Environmental Professional (LEP). The property is also in DECD's Brownfield Remediation and Revitalization Program authorized by section 32-769 of the Connecticut General Statutes (CGS). Coordination between your office and the Remediation Division has been ongoing; we anticipate continued cooperation between our agencies. The appropriate contact in the division is Michael Senyk who may be reached at 860-424-3782 or michael.senyk@ct.gov.

Portions of the property are within the 100-year and 500-year flood zones on the community's Flood Insurance Rate Map. Remediation activities would be covered by Statewide Flood Management Certification for Minor Activities (FM-200900981) issued to DECD on July 10, 2009. Pursuant to section 25-68h-2(d)(1) of the Regulations of Connecticut State Agencies, "the storage of materials that are buoyant, hazardous, flammable, explosive, soluble, expansive radioactive or which could be injurious to human, animal or plant life is prohibited below the elevation of the base flood for a critical activity" or the 500-year flood zone. This restriction should be observed during remediation activities.

The proposed State funding will not be utilized for site development, which is to be subsequently undertaken by the Town of Preston and the Mohegan Tribal Gaming Authority. Since conceptual designs are not yet available, our comments on the indirect impacts of

development of Preston Riverwalk are limited to a general overview of environmental resources and design considerations. These comments should be presented to the town for their use during planning and design of the project.

The *Connecticut Nonpoint Source Management Program Plan* (2014) identifies brownfields and contaminated sites with a nonpoint source-specific strategy of promoting brownfield site restoration and identifies an action to work with stakeholders to identify available funding sources for land restoration and water protection. Public funds used for this project should be consistent with the environmental goals relevant to remediation of surface water and ground water pollution and to promote economic development of the contaminated sites in a manner consistent with the *Conservation and Development Policies Plan, 2013-2018*.

The surface water resources of the Thames River and Poquetanuck Cove have statewide importance as an extensive estuary with associated habitat resources and high public resource values. These waterbodies are chronically water quality impaired and assessed in the Department's biennial integrated water quality report as Not Supporting for Aquatic Life, Recreation and Shellfish Commercial Harvesting uses. Numerous causes for these various use impairments are listed, and all include remediation sites. All steps associated with abatement, demolition and remediation activities should be carefully planned, executed and monitored with the ecological and economic integrity of the receiving waterbodies clearly in mind.

The extensive project area includes a wide array of environmental resources that must be considered in developing a development plan. An *Environmental Review Team Report* was prepared by the Eastern Connecticut Resource Conservation & Development Area, Inc. for the Preston Conservation Commission in 2010. This report, available on-line at: [ERT Report](#), identifies the existing resource base, evaluates its significance, and suggests considerations that should be of concern to the town in order to prioritize areas in need of protection during the master planning process. The report should be utilized as resource in developing conceptual plans for development. While the report provides detailed descriptions of resources and design concerns, our comments will list a few of the more important resources and issues.

The more prominent resources of the site include:

- Poquetanuck Cove - few tidal coves of this size and habitat value exist in Connecticut, with regionally significant concentrations of wintering and migrating waterfowl and significant brackish tidal marsh areas
- Thames River - due to the wide range of salinities a variety of fish and invertebrate species occur in this reach of the river
- Large block of core forest - quite rare relatively close to the shore, provides critical habitat to species that either require large tracts of forestland
- Hospital Pond and wetland system - due to the minimal amount of impervious surface and the great extent of forest cover within this watershed, the wetlands and watercourses are in excellent health

Some important design considerations include:

- Preservation of cove shoreline

- Stormwater impacts to the cove and river
- Preservation of core forest
- Water dependent uses for riverfront property, including public fishing access
- Remediation to the standard appropriate for the proposed use
- Erodibility of the steep riverbank

The Department strongly supports the use of low impact development (LID) practices such as water quality swales and rain gardens for infiltration of stormwater on site. Key strategies for effective LID include: managing stormwater close to where precipitation falls; infiltrating, filtering, and storing as much stormwater as feasible; managing stormwater at multiple locations throughout the landscape; conserving and restoring natural vegetation and soils; preserving open space and minimizing land disturbance; designing the site to minimize impervious surfaces; and providing for maintenance and education. Water quality and quantity benefits are maximized when multiple techniques are grouped together.

The effectiveness of various LID techniques that rely on infiltration depends on the soil types present at the site. According to the Natural Resources Conservation Service's Soil Web Survey, there are a variety of soil types that vary in their suitability for various stormwater management practices. Soil mapping consists of a minimum 3 acres map unit and soils may vary substantially within each mapping unit. Test pits should be dug in areas planned for infiltration practices to verify soil suitability and/or limitations. Planning should insure that areas to be used for infiltration are not compacted during the construction process by vehicles or machinery. The siting of areas for infiltration must also consider any existing soil or groundwater contamination. Even if infiltration is limited at a site, it is still possible to implement LID practices such as green roofs on buildings or the use of cisterns to capture and reuse rainwater.

The Department has compiled a listing of web resources with information about watershed management, green infrastructure and LID best management practices. It may be found on-line at: [LID Resources](#).

Stormwater discharges from construction sites where one or more acres are to be disturbed, regardless of project phasing, require an NPDES permit from the Permitting & Enforcement Division. The *General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities* (DEEP-WPED-GP-015) will cover these discharges. The construction stormwater general permit dictates separate compliance procedures for Locally Approvable projects and Locally Exempt projects (as defined in the permit). Locally Exempt construction projects disturbing over 1 acre must submit a registration form and Stormwater Pollution Control Plan (SWPCP) to the Department. Locally Approvable construction projects with a total disturbed area of one to five acres are not required to register with the Department provided the development plan has been approved by a municipal land use agency and adheres to local erosion and sediment control land use regulations and the *CT Guidelines for Soil Erosion and Sediment Control*. Locally Approvable construction projects with a total disturbed area of five or more acres must submit a registration form to the Department prior to the initiation of construction. This registration shall include a certification by a 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. The SWPCP for Locally Approvable projects is not required to be submitted to the

Department unless requested. The SWPCP must include measures such as erosion and sediment controls and post construction stormwater management. A goal of 80 percent removal of total suspended solids from the stormwater discharge shall be used in designing and installing post-construction stormwater management measures. Stormwater treatment systems must be designed to comply with the post-construction stormwater performance management requirements of the permit. These include post-construction performance standards requiring retention of the water quality volume and incorporating control measures for runoff reduction and low impact development practices. For further information, contact the division at 860-424-3018. The construction stormwater general permit registrations can now be filed electronically through DEEP's e-Filing system known as ezFile. Additional information can be found on-line at: [Construction Stormwater GP](#).

The transfer of the property to Preston was the subject of a Flood Management Certification (FM-200802761) as required by section 25-68d of the CGS. The certification requires that the town review all activities within floodplain areas to insure that they are in compliance with all local, state and federal floodplain standards and criteria. Critical activities as defined in section 25-68b are prohibited in the 500-year flood zone.

Any work or construction activity within tidal, coastal or navigable waters requires authorization from the Office of Long Island Sound Programs (OLISP) pursuant to the Structures, Dredging and Fill Act, section 22a-359 through 22a-363f of the CGS. The regulatory jurisdiction limit is the area up to and including the elevation of the coastal jurisdiction line (CJL) as determined for the State's major tidal waterbodies. The CJL for the Thames River in Preston, including Poquetanuck Cove, is 2.3' NAVD88. Any work or construction activity within tidal wetlands at the site (whether or not such wetlands have been mapped) will require a permit from OLISP pursuant to section 22a-32 of the CGS. Fact sheets regarding OLISP permit programs and permit application forms can be downloaded at: [OLISP Permits](#).

Portions of the site are within Connecticut's coastal boundary as defined by section 22a-94 of the CGS and is subject to the provisions of the Connecticut Coastal Management Act (CCMA), sections 22a-90 through 22a-112. Before building permits can be granted for redevelopment projects within the coastal zone, the local building inspector must certify that the Coastal Site Plan Review requirements of sections 22a-105 through 22a-109 of the CGS have been met. Coastal management concerns which should be addressed in future phases of the project planning process are the provision of water-dependent uses, including public access, at waterfront sites and appropriate use of stormwater best management practices.

In keeping with the Department's interest in furthering the use of alternate fuels for transportation purposes, we recommend that Level 2 electric vehicle charging stations be included at 3% of the parking spaces in the project design. Increasing the availability of public charging stations will facilitate the introduction of the electric vehicle technology into the state and serve to alleviate the present energy dependence on petroleum and improve air quality.

For construction projects, the Department typically encourages the use of newer off-road construction equipment that meets the latest EPA or California Air Resources Board (CARB) standards. If that newer equipment cannot be used, equipment with the best available controls on diesel emissions including retrofitting with diesel oxidation catalysts or particulate filters in addition to the use of ultra-low sulfur fuel would be the second choice that can be effective in

reducing exhaust emissions. The use of newer equipment that meets EPA standards would obviate the need for retrofits.

The Department also encourages the use of newer on-road vehicles that meet either the latest EPA or California Air Resources Board (CARB) standards for construction projects. These on-road vehicles include dump trucks, fuel delivery trucks and other vehicles typically found at construction sites. On-road vehicles older than the 2007-model year typically should be retrofitted with diesel oxidation catalysts or diesel particulate filters for projects. Again, the use of newer vehicles that meet EPA standards would eliminate the need for retrofits.

Additionally, Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies (RCSA) limits the idling of mobile sources to 3 minutes. This regulation applies to most vehicles such as trucks and other diesel engine-powered vehicles commonly used on construction sites. Adhering to the regulation will reduce unnecessary idling at truck staging zones, delivery or truck dumping areas and further reduce on-road and construction equipment emissions. Use of posted signs indicating the three-minute idling limit is recommended. It should be noted that only DEEP can enforce Section 22a-174-18(b)(3)(C) of the RCSA. Therefore, it is recommended that the project sponsor include language similar to the anti-idling regulations in the contract specifications for construction in order to allow them to enforce idling restrictions at the project site without the involvement of the Department.

The following standard comments regarding building demolition projects should be observed, as applicable, during future planning and implementation of the project. Fact sheets providing additional information concerning environmental, health and safety requirements applicable to building renovation and demolition projects have been developed by the Waste Engineering & Enforcement Division. To obtain copies, call the division at 860-424-3023. This information is also available on-line at: [Health & Safety Requirements](#).

Prior to the demolition of any commercial, industrial or public buildings or buildings containing five or more residential units, they must be inspected for asbestos-containing materials (ACM) and any such materials must be removed by asbestos abatement contractors that are licensed by the Department of Public Health (DPH). Additional information on asbestos contractors may be found at: [Asbestos Contractors](#). ACM must be properly containerized and labeled, and must be shipped off-site using an asbestos manifest. [Written notice](#) must be submitted to the DPH ten working days prior to the demolition of any structure in accordance with Section 19a-332a-3 of the Regulations of Connecticut State Agencies. For further information, contact DPH at 860-509-7367. Additional information concerning regulation of asbestos may be found on the DPH website at: [Asbestos Program](#).

Asbestos-containing material is regulated as a “special waste” in Connecticut, and may not be disposed of with regular construction and demolition waste. Instead, it may only be disposed at a facilities that are specifically authorized to accept ACM. Currently, there are only two facilities that are authorized to accept asbestos-containing material in Connecticut: Red Technologies in Portland and Manchester Landfill in Manchester (which can only accept non-friable types of asbestos-containing materials). Although the disposal of asbestos-containing material is typically arranged for by the licensed asbestos abatement contractor, project

proponents should ensure that the contractor disposes of all such materials at properly-licensed facilities. For further information, contact the Waste Engineering & Enforcement Division at 860-424-3023. A fact sheet regarding disposal of special wastes and the authorization application form may be obtained at: [Special Waste Fact Sheet](#).

Demolition debris may also include materials that contain polychlorinated biphenyls (PCBs). Such materials can include transformers, capacitors, fluorescent light ballast and other oil-containing equipment, and in certain building materials (i.e., paint, roofing, flooring, insulation, etc.). In recent years, EPA has also learned that caulk containing potentially harmful polychlorinated biphenyls (PCBs) was used around windows, door frames, masonry columns and other masonry building materials in many buildings starting in 1929 with increased popularity in the 1950s through the 1970s, including schools, large scale apartment complexes and public buildings. In general, these types of buildings built after 1978 do not contain PCBs in caulk. In 2009, EPA announced new guidance about managing PCBs in caulk and tools to help minimize possible exposure. The guidance can be found at: [PCBs in Caulk](#). Where schools or other buildings were constructed or renovated prior to 1978, EPA and DEEP recommend that PCB-containing caulk removal be scheduled during planned renovations, repairs (when replacing windows, doors, roofs, ventilation, etc.) and demolition projects, whenever possible. However, the continued use of such PCB materials is prohibited and, where it is identified, it must be addressed. EPA recommends testing caulk that is going to be removed as the first step in order to determine what protections are needed during removal. Where testing confirms the presence of PCBs, it is critically important to ensure that they are not released to air during replacement or repair of caulk in affected buildings. Many such PCB removal projects will need to include sampling of the substrate and soil, as well as require plans to be approved by EPA in coordination with DEEP. Further information concerning the DEEP PCB Program can be found on-line at: [DEEP PCB Program](#).

In addition to asbestos and PCBs, demolition debris may also be contaminated with lead-based paint, chemical residues, or other materials that require special disposal. For more information on these materials, see the [DEEP's Renovation and Demolition Web Page](#). Additional information concerning disposal of demolition debris is available in the DEEP's [Demolition Debris Web Page](#).

Demolition waste that is not contaminated with asbestos, PCBs, or other materials that require special handling is subject to Connecticut's [solid waste statutes and regulations](#), and must be reused, recycled, or disposed of accordingly. Construction and demolition debris should be segregated on-site and reused or recycled to the greatest extent possible. Waste management plans for construction, renovation or demolition projects are encouraged to help meet the State's reuse and recycling goals. Connecticut's [Comprehensive Materials Management Strategy](#) outlines a goal of 60% recovery rate for municipal solid waste by the year 2024. Part of this effort includes increasing the amount of construction and demolition materials recovered for reuse and recycling in Connecticut. It is recommended that contracts be awarded only to those companies who present a sufficiently detailed construction/demolition

waste management plan for reuse/recycling. Additional information concerning construction and demolition material management and waste management plans can be found on the DEEP's [C&D Material Management](#) and [C&D Waste Management Plan](#) web pages.

One way that certain types of construction and demolition waste can be reused is as clean fill. Clean fill is defined in section 22a-209-1 of the Regulations of Connecticut State Agencies (RCSA) and includes only natural soil, rock, brick, ceramics, concrete and asphalt paving fragments. Clean fill can be used on site or at appropriate off-site locations. Clean fill does not include uncured asphalt, demolition waste containing other than brick or rubble, contaminated demolition wastes (e.g. contaminated with oil or lead paint), tree stumps, or any kind of contaminated soils. Land-clearing debris and waste other than clean fill resulting from demolition activities is considered bulky waste, also defined in section 22a-209-1 of the RCSA. Bulky waste is classified as special waste and must be disposed of at a permitted landfill or other solid waste processing facility pursuant to section 22a-208c of the Connecticut General Statutes and section 22a-209-2 of the RCSA. A fact sheet regarding disposal of special wastes and the authorization application form may be obtained at: [Special Waste Fact Sheet](#).

Thank you for the opportunity to review this proposal. If you have any questions concerning these comments, please contact me.

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