CONNECTICUT DEPARTMENT OF

ENERGY & ENVIRONMENTAL PROTECTION

OFFICE OF ENVIRONMENTAL REVIEW

79 ELM STREET, HARTFORD, CT 06106-5127

To: Mark W. Alexander – Transportation Assistant Planning Director
DOT - Bureau of Policy & Planning, 2800 Berlin Turnpike, Newington

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

E-Mail: david.fox@ct.gov

Date: December 9, 2015

Subject: Route 8/I-84 Bridge Rehabilitation, Waterbury

The Department of Energy & Environmental Protection (DEEP) is responding to the Notice of Scoping for the project to rehabilitate various bridges which are part of the Route8/I-84 Mixmaster Interchange in Waterbury. The following comments are submitted for your consideration.

The project elements with the most potential to result in impacts to environmental resources are the two new temporary bridges over the Naugatuck River. The project will require a permit from the Inland Water Resources Division (IWRD) pursuant to section 22a-39(h) of the Connecticut General Statutes (CGS). In order to minimize impacts, the bridges should be designed to completely span the river.

Unavoidable and unmitigated impacts to wetlands and watercourses must be compensated. The Inland Fisheries Division has identified potential mitigation measures. These include:

- Installation of features or structures within the Naugatuck River reach from the Route 8/I-84 Interchange and continuing upstream (north) to the Huntington Avenue bridge, a river segment has been previously channelized and is in extreme need of habitat diversity and enhancement.

- Removal of Bray's Buckle Dam spanning the Mad River, southwesterly of South Main Street in Waterbury. The removal would further complement other efforts to provide unimpeded fish passage in the Mad River from the Naugatuck River confluence continuing upstream several miles.

In addition, the project must be certified as being in compliance with flood and stormwater management standards specified in section 25-68d of the CGS and section 25-68h-1 through 25-68h-3 of the Regulations of Connecticut State Agencies (RCSA) and receive approval from the Department.

The health of rivers and streams is greatly affected by the absence or presence of a healthy vegetated riparian corridor. The riparian areas along the Naugatuck River where the project is located has been heavily impacted by development, including the highway, roads and rail line on either side of the river. A healthy vegetated riparian corridor can provide many benefits,

including: stabilization of river bank, filtering and reduction of stormwater sheet flow, stream shading and lowering of water temperatures, providing wildlife habitat and travel corridor, and increased aesthetics. There may be opportunities at the completion of the project to re-establish a healthy, riparian border along sections of the river corridor. Native species should be used, and invasive species should be controlled to the extent possible.

The Naugatuck River Greenway (NRG), a proposed 44-mile multiuse recreational trail along the Naugatuck River, is being guided by communities along the entire length of the river between Torrington and Derby. The Greenway was officially designated by the Connecticut Greenways Council in two separate actions covering the lower and upper sections of the river in 2001 and 2006, respectively. The Governor nominated and the U.S. Department of Interior recognized the NRG as part of its *America's Great Outdoors* initiative in 2011. The Department supports the NRG concept and also participates in the NRG Steering Committee. Over the years, the Department has provided funds for planning and/or construction of NRG trail segments through the Recreational Trails Grant program (funded by Federal Highway Administration) and/or other funding mechanisms.

Within the project area, the proposed path of the greenway is along the east bank of the river through the area of the proposed temporary bypass. Proceeding northerly the greenway would cross the river to the west side at the Freight Street bridge and then recross to the east side at the West Main Street bridge. There may be opportunities during the course of the project to support components of the City of Waterbury's proposed NRG trail sections, particularly when the bypass is no longer needed and presumably deconstructed. ConnDOT should coordinate with the Naugatuck Valley Council of Governments and the City of Waterbury to determine their plans for the greenway and identify potential opportunities to facilitate greenway construction as the bridge rehabilitation project is completed.

As development of the Naugatuck River Greenway attests, communities have been turning back to the river as water quality has improved. However, although major point sources of pollution have been addressed and the river is much cleaner than it used to be, nonpoint source pollution water quality problems continue to impact the river. Water quality in the section of river where the project is located, is listed in the 2014 *State of Connecticut Integrated Water Quality Repor*t as not supporting designated uses for both Aquatic Resources and Recreation. A *Total Maximum Daily Load (TMDL) Analysis for Recreational Uses of the Naugatuck River Regional Basin*, based on indicator bacteria (*E. coli*), was developed in 2008. Potential sources of indicator bacteria include both point and non-point sources, including stormwater. The TMDL can be found on the CT DEEP website at: Naugatuck River TMDL.

The opportunity to introduce treatment measures to the stormwater collection system during reconstruction of the bridges should be explored. Constraints involved in this urban location, including soil suitability, space limitations, conflicts with existing utilities, and maintenance requirements, are recognized. However, emerging technologies may provide workable solutions. There may be opportunities during the course of the project to improve stormwater drainage systems associated with the bridges and highways using new techniques and/or best management practices such that stormwater is not discharged directly to the river but is handled in a manner such that it is infiltrated into the ground and/or otherwise detained and

cleansed prior to entering the river. In addition to reducing nonpoint source pollutants (bacteria, sediment, chemicals, metals, salt, debris, etc.) that wash off the highways and bridges, alternative approaches to handling stormwater would also help to reduce thermal impacts to the river. Detaining and/or metering the flow of stormwater discharge would also help reduce stormwater surges that contribute to the flashiness of the river and associated flooding issues.

The Natural Diversity Data Base (NDDB) had made a preliminary assessment of the project. There are records of the state threatened peregrine falcon (*Falco peregrinus*) in the vicinity of the project area. The Office of Environmental Planning protocols to protect falcons during construction, which were employed for the I-84 bridges over Route 8 and the Naugatuck River (Projects #151-312 and 151-313), should be instituted for this project in order to avoid adverse impacts to this listed species.

The Natural Diversity Data Base response includes all information regarding critical biological resources available at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

In order to mitigate potential air quality impacts from construction activities, the Department typically recommends the following measures.

For large 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.

As construction commences, the discovery of hazardous materials, hazardous waste and/or contaminated soils would be a potential throughout the project corridor. A site-specific hazardous materials management plan should be developed prior to commencement of construction and a health and safety plan for construction workers should also be prepared. The Department's standard comments concerning construction projects in urban areas are submitted for your information:

Development plans in urban areas that entail soil excavation should include a protocol for sampling and analysis of potentially contaminated soil. Soil with contaminant levels that exceed the applicable criteria of the Remediation Standard Regulations, that is not hazardous waste, is considered to be special waste. The disposal of special wastes, as defined in section 22a-209-1 of the Regulations of Connecticut State Agencies (RCSA), requires written authorization from the Waste Engineering and Enforcement Division prior to delivery to any solid waste disposal facility in Connecticut. If clean fill is to be segregated from waste material, there must be strict adherence to the definition of clean fill, as provided in Section 22a-209-1 of the RCSA. In addition, the regulations prohibit the disposal of more than 10 cubic yards of stumps, brush or woodchips on the site, either buried or on the surface. A fact sheet regarding disposal of special wastes and the authorization application form may be obtained at: Special Waste Fact Sheet.

The Waste Engineering & Enforcement Division has issued a *General Permit for Contaminated Soil and/or Sediment Management (Staging & Transfer)* (DEP-SW-GP-001). It establishes a uniform set of environmentally protective management measures for stockpiling soils when they are generated during construction or utility installation projects where contaminated soils are typically managed (held temporarily during characterization procedures to determine a final disposition). Temporary storage of less than 1000 cubic yards of contaminated soils (which are not hazardous waste) at the excavation site does not require registration, provided that activities are conducted in accordance with the applicable conditions of the general permit. Registration is required for on-site storage of more than 1000 cubic yards for more than 45 days or transfer of more than 10 cubic yards off-site. A fact sheet describing the general permit, a copy of the general permit and registration forms are available on-line at: Soil Management GP.

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

cc: Jeff Caiola, DEEP/IWRD
Steve Gephard, DEEP/IFD
Laurie Giannotti, DEEP/SPD
Robert Hannon, DEEP/OPPD
Dawn McKay, DEEP/NDDB
Don Mysling, DEEP/IFD
Susan Peterson, DEEP/WPSD
Ellen Pierce, DEEP/APSD