

To: Jeffrey Pfaffinger, PE, Project Manager, Department of Transportation
2800 Berlin Turnpike, Newington CT

From: Linda Brunza- Environmental Analyst

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Subject: Intersection Improvements on Route 10 and 322, Removal of Bridge 00518 and Replacement of Bridges 00646 and 05753, Southington and Cheshire.

Staff at the Department of Energy and Environmental Protection (DEEP) reviewed the scoping notice for the reconstruction of Route 10 over Route 322. This involves removal of the bridge carrying Route 10 over Route 322 and lowering the profile of Route 10 to meet Route 322, eliminating the need for the bridge. The bridge on Route 10 over the Ten Mile River (Bridge No. 00646) will be replaced and lowered to follow the new Route 10 profile. Portions of Route 322 and Old Turnpike Road are also proposed for realignment to improve the intersection.

Natural Diversity Database

There is a review on file from 2015 for the same general location and project number but referencing a different bridge. There is no application submitted at this time for this project.

The Natural Diversity Database is a record of state or federal listed species maintained by the Wildlife Division that may be found in the project area. Please submit a formal application to the Wildlife Division prior to submitting permit applications for a detailed review of the species that may occur in this area. The applicant must submit a *Request for Natural Diversity Data Base (NDDB) State Listed Species Review Form* (DEEP-APP-007) and all required attachments, including maps, to the NDDB for further review. Additional information concerning NDDB reviews, and the request form may be found on-line at [NDDB Requests](#).

DEEP Fisheries

The Fisheries Division reviewed this project in July 2021. Sampling in the Ten Mile River indicates that it supports a diverse fish community including brook trout, wild brown trout, longnose dace, and American eel. In recent years there has been marked improvements in fish passage in the mainstem Quinnipiac River providing sea lamprey and other diadromous fish species access to the Ten Mile River.

DEEP Fisheries recommends the following:

1. Instream habitat under Bridge 05753 currently exists as a shallow homogenous riffle with evidence of riprap scour protection within the channel. The proposed replacement structure will widen the channel by approximately 10 feet and plans indicate that the proposed channel will be wider and flatter than the existing channel. A 13-foot wide by a minimum 1-foot-deep low flow channel should be established in line with the stream's thalweg through the footprint of the replacement structure to ensure that the channel will not become a shallow water barrier to fish passage.

2. As design proceeds, DEEP will work with DOT to review the details regarding any future instream work associated with any installation of riprap that may be required for scour protection at either structure.
3. As a best management practice, any unconfined instream work within the Ten Mile River should be restricted to the period from July 1 to September 30, inclusive.
4. Approximately 30-40 feet downstream of Bridge 05753 the remnants of a partially breached dam constitute the first barrier to fish passage in the Ten Mile River. The structure is primarily comprised of moderate sized boulders that could easily be moved by an excavator. If feasible to incorporate it into the overall scope of the project, DOT should consider removing or further breaching the structure to improve upstream passage conditions for resident fish species as well as diadromous species moving up from the Quinnipiac River. Any boulders moved during the process could quickly and easily be reconfigured into random boulder clusters to enhance habitat in the project area.

Dam Safety

The Ten Mile River Dam (CT Dam ID No. 13107) is in the State Dam Inventory as being located near the project area. This dam was scheduled to be removed by the U.S. Fish and Wildlife Service in 2017 but the DEEP Dam Safety program did not receive confirmation that it was removed. It is listed in DEEP records as a Hazard Class AA Negligible Hazard Dam. If the dam still exists, care should be taken to avoid impacts. A permit from Dam Safety is not required due to the negligible Hazard Classification. Please contact Ivonne Hall from the Dam Safety Division at Ivonne.Hall@ct.gov with any questions.

Land and Water Resources Division

If the reconnaissance of the site by a certified soil scientist identifies regulated areas, they should be clearly delineated. Any activity within federally regulated wetland areas or watercourses at the site may require a permit from the U.S. Army Corps of Engineers pursuant to section 404 of the Clean Water Act. Staff from the Land and Water Resources Division will be able to clarify the level of permitting needed at the DOT's Project Management Meetings.

Further information is available on-line at [Army Corps of Engineers, New England District](#) or by calling the Corps Regulatory Branch in Concord, Massachusetts at 978-318-8338. If a permit is required from the U.S. Army Corps of Engineers, a Water Quality Certificate will also be required from DEEP pursuant to section 401 of the Clean Water Act. For further information, contact the Land and Water Resources Division at 860-424-3019. A fact sheet regarding 401 Water Quality Certification is available online at [401 Certification](#).

Stormwater General Permit

The General Permit for [Stormwater and Dewatering Wastewaters from Construction Activities](#) may be applicable depending on the size of the disturbance regardless of phasing. This general permit applies to discharges of stormwater and dewatering wastewater from construction activities where the activity disturbs more than an acre. The requirements of the current general permit include registration to obtain permit coverage and development and implementation of a Stormwater Pollution Control Plan (SWPCP). The SWPCP contains requirements for the permittee to describe and manage their construction activity, including implementing erosion and sediment control measures as well as other control measures to reduce or eliminate the potential for the discharge of stormwater runoff pollutants (suspended solids and floatables such as oil and grease, trash, etc.) both during and after construction. A goal of 80 percent removal of the annual sediment load 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 management performance requirements of the permit. These include post-construction performance standards requiring retention and/or infiltration of the runoff from

the first inch of rain (the water quality volume or WQV) and incorporating control measures for runoff reduction and low impact development practices.

The construction stormwater general permit dictates separate compliance procedures for Locally Exempt projects (projects primarily conducted by government authorities) and Locally Approvable projects (projects primarily by private developers).

Projects that are exempt from local permitting that disturb over one acre must submit a registration form and Stormwater Pollution Control Plan (SWPCP) to the Department at least 60 or 90 days, as identified in the permit, prior to the initiation of construction. 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 and SWPCP to the Department 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. The construction stormwater general permit registrations must be filed electronically through DEEP's e-Filing system known as ezFile. Additional information can be found online at: [Construction Stormwater GP](#).

Solid Waste Disposal

DEEP performed a high-level review and found that there are no hazardous waste concerns for this project. 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](#).

Air Management

DEEP Bureau of Air Management typically recommends the use of newer off-road construction equipment that meets the latest EPA or California Air Resources Board (CARB) standards. If 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.

DEEP also recommends 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 DEEP.

Thank you for the opportunity to review this project. Please note there were no concerns with the potential of hazardous or solid waste with this project, and the project is not in an Aquifer Protection area.

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: Camille Fontanella