



**CONNECTICUT DEPARTMENT OF  
ENERGY & ENVIRONMENTAL PROTECTION**

**OFFICE OF ENVIRONMENTAL REVIEW**

**79 ELM STREET, HARTFORD, CT 06106-5127**

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**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

**Date:** December 22, 2015      **E-Mail:** [david.fox@ct.gov](mailto:david.fox@ct.gov)

**Subject:** Route 74 and Route 195 Intersection Improvements, Tolland

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The Department of Energy & Environmental Protection (DEEP) is responding to the Notice of Scoping for the project to improve intersections along Routes 74 and 195 near the Tolland Green. The following comments are submitted for your consideration.

The divide between the Paulk Hill Brook drainage area and the Clough Brook drainage area lies directly west of the Tolland Green. Both are sub-watersheds of the Skungamaug River basin. Paulk Hill Brook discharges to Crandall Pond, which features a recreational swimming area within a municipal park. DEEP has regularly assessed the water quality of Crandall Pond. The pond and the Skungamaug River, upstream of Summer Lake, are listed in the 2014 *State of Connecticut Integrated Water Quality Report* as not supporting designated use for Recreation, caused by excess bacteria (*E. coli*). The sources are partially attributed to roadway and associated stormwater runoff. The report is available on-line at: [Water Quality Report](#).

DEEP has developed a statewide bacteria TMDL (Total Maximum Daily Load) analysis for Recreation-impaired freshwater waterbodies in Connecticut, and a specific appendix for the Crandall Pond/Skungamaug River watershed was developed in 2012. The TMDL is available on-line at: [Skunkamaug TMDL](#).

DEEP's Watershed and Nonpoint Source Management Program then prioritized limited resources to address some of these listed impaired waters. DEEP entered into a grant agreement with the Town of Tolland to develop a focused water quality monitoring component and analysis of the Crandall Pond watershed, which led to development of an abbreviated watershed-based plan. The plan is available on-line at: [Crandall Pond Plan](#). DOT is referenced as a responsible party on some of the plan recommendations (see pages 24 and 26). Some of these recommendations refer to DOT roadway drainage outside of the project area (e.g. Route 74 west of the Tolland Green, discharging to Paulk Brook, where some deep sump catch basins were recently installed).

DEEP is about to formally notify the town of Tolland of a relatively small grant award to follow up on this watershed based plan. We have notified Tolland town staff in the Recreation, Planning & Development and in Engineering Departments of the pending award and recommended raising discussion with DOT on the Tolland Green road intersections improvement project. If the drainage modifications noted in the project description will direct

runoff to the Paulk Hill Brook basin, this would be a good opportunity for cross-program discussions about stormwater drainage discharges in this local watershed. This could potentially lead to leveraging the DOT and the local town project to collaboratively address water quality issues affecting the town swimming beach at Crandall Pond. Drainage plans and stormwater management alternatives should be developed in consultation with Town of Tolland staff responsible for managing implementation of the Crandall Pond watershed based plan.

In any case, the entire project is within the Skungamaug River basin. Water quality treatment and volume reduction measures designed to encourage stormwater to infiltrate into the ground should be employed. Several studies examining the bacteria removal performance of stormwater best management practices suggest that flow reduction is the most effective approach to pathogen attenuation in stormwater.

There does not appear to be any wetlands or watercourses crossed by roadways to be improved. The Natural Resources Conservation Service's Soil Survey does depict a lobe of Ridgebury fine sandy loam west of the intersection of Route 74 and Old Stafford Road and a lobe of Ridgebury, Leicester, and Whitman soils just east of Route 195 and directly south of the project limits. It is recommended that a certified soil scientist perform a reconnaissance of the project site in order to confirm that there are not any areas which would be regulated as wetlands or watercourses as defined by section 22a-38 (15) and (16) of the Connecticut General Statutes (CGS), respectively. Any work or construction activity within the inland wetland areas or watercourses on-site will require a permit from the Inland Water Resources Division (IWRD) pursuant to section 22a-39(h) of the Connecticut General Statutes (CGS).

Following a request by Christopher Samorajczyk in November 2014, the Natural Diversity Data Base (NDDDB) had made a preliminary assessment of the project. There are several records of extant species listed by the State, pursuant to section 26-306 of the CGS, as species of special concern that occur within the project corridor. These are the box turtle (*Terrapene carolina carolina*) and red bat (*Lasiurus borealis*). The request included protection strategies and protocols that DOT proposed to put in place to protect these two species from project impacts. If these protection strategies are followed, then the proposed activities will not have an adverse impact on the box turtle and red bat. This determination is good for one year. An NDDDB Request for Review should be resubmitted if the scope of work changes or if work has not begun on this project by February 26, 2016.

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. Also be advised that this is a preliminary review and not a final

determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEEP for the proposed site.

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

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  
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