CONNECTICUT DEPARTMENT OF

ENERGY & ENVIRONMENTAL PROTECTION

OFFICE OF ENVIRONMENTAL REVIEW

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Date: December 23, 2011

Subject: Old Saybrook Railroad Parking Lot Expansion

The Department of Energy & Environmental Protection has received the Notice of Scoping for the proposed construction of an 800-space parking lot at the Old Saybrook Shore Line East Railroad Station. In general, the Department supports efforts to expand the capacity of public transportation services such as Shore Line East, especially given its potential to reduce vehicle miles traveled and congestion in the I-95 corridor. The use of public transit will decrease vehicular emissions that contribute to ozone formation, particulate matter levels and climate change. The following comments are submitted for your consideration.

Traditional stormwater systems collect stormwater as rapidly as possible and quickly shunt it from upland areas to receiving waterbodies. This has resulted in widespread and significant pollution problems from both the materials picked up by the stormwater as it flows over developed land surfaces (non-point source pollution) and, in coastal locations, from the freshwater itself which, even if potable, is a pollutant (by virtue of volume) when introduced into a saline ecosystem. The latest emphasis in stormwater management is to try to minimize changes between pre- and post-development runoff rates and volumes by utilizing on-site retention and to pretreat discharges to remove total suspended solids, oils, greases, nutrients, pathogens and floatable debris.

Appropriate controls, designed to remove sediment and oil or grease typically found in runoff from parking and driving areas, should be included in any stormwater collection system to be installed or upgraded at the site. Non-structural measures to dissipate and treat runoff are strongly encouraged, including infiltration using pervious paving or sheetflow from uncurbed pavement to vegetated swales, water gardens or depression storage areas. The Department recommends a stormwater management treatment train approach. Such a system includes a series of stormwater best management practices (BMPs) that target the anticipated pollutants of concern. For example, parking lot runoff would be expected to contain petroleum hydrocarbons, heavy metals, sediment, organic material (leaves/grass clippings) and seasonally elevated temperatures. For larger sites, a combination of structural and non-structural BMPs are typically most effective and practical.

If a structured collection system is installed and more than 1 acre of pavement drains to a common discharge point, a hydrodynamic separator, incorporating swirl technology, circular screening technology or engineered cylindrical sedimentation technology, is recommended to

remove medium to coarse grained sediments and oil or grease. The treatment system should be sized such that it can treat stormwater runoff adequately. The Department recommends that the treatment system be designed to treat the first inch of stormwater runoff. Upon installation, a maintenance plan should also be implemented to insure continued effectiveness of these control measures.

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. Consequently, we typically recommend the utilization of one, or a combination of, the following measures:

- the use of pervious pavement or grid pavers (which are very compatible for parking lot and fire lane applications), or impervious pavement without curbs or with notched curbs to direct runoff to properly designed and installed infiltration areas,
- the use of vegetated swales, tree box filters, and/or infiltration islands to infiltrate and treat stormwater runoff (from building roofs and parking lots), and
- the minimization of access road widths and parking lot areas to the maximum extent possible to reduce the area of impervious surface.

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 (available on-line at: Web Soil Survey), the soils at the western half of the property consist of Agawam fine sandy loam, 0-3% slopes; Agawam fine sandy loam, 3-8% slopes are found at the eastern half. The former soils are rated as most suitable for infiltration and pervious pavement, while the latter are rated somewhat suitable for these stormwater management measures. Both soil types are rated as least suitable for wet and dry basins. 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.

The site plan provided in the scoping notice depicts three small wetland areas that would be eliminated by the proposed parking lot. Other larger wetland areas are labeled as 'avoid if possible' or 'protect as much as possible.' The Department agrees that the parking lot should be designed to avoid regulated areas to the maximum extent practicable. Unavoidable impacts should be mitigated and buffer areas established to further protect wetlands and watercourses. 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).

The proposed project is 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, sections 22a-90 through 22a-112. The primary coastal management concern which should be addressed in future phases of the planning process is the provision of adequate controls to mitigate potential stormwater impacts, particularly the incorporation of LID measures, as discussed above.

The project description notes that the parking lot will include bike racks. Adding bicycle parking to the station would be a low-cost, space-saving method of increasing train ridership. Long-term bicycle parking should provide commuters a secure and weather-protected place to store their bicycles.

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

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