

June 30, 2009

Town of Dover  
Town Board  
c/o Supervisor Ryan Courtien  
126 East Duncan Hill Road  
Dover Plains, NY 12522

TRANSMITTED VIA E-MAIL TO

Town Clerk Caroline Reichenberg at: [TownClerk@TownofDover.us](mailto:TownClerk@TownofDover.us)

RE: Comments on Dover Knolls - Draft Environmental Impact Statement

Dear Dover Town Board:

The Connecticut Department of Environmental Protection (CT DEP) appreciates this opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the proposed Dover Knolls project at the former Harlem Valley Psychiatric Center in Wingdale, NY. The project site is located in the Housatonic Basin and drains to Connecticut via Swamp River, and then the Ten Mile River which empties into the Housatonic River in Kent, CT, just south of the covered bridge at Bulls Bridge. The Housatonic River empties into Long Island Sound between Milford, CT and Stratford, CT. Because Connecticut is experiencing water quality issues in Housatonic impoundments due to phosphorus, and in Long Island Sound due to nitrogen, the State of Connecticut takes keen interest in the wastewater management and stormwater controls that are proposed for this project.

CT DEP understands and appreciates the Town of Dover's interest in redeveloping the former Harlem Valley Psychiatric Center property. A number of Connecticut towns are also pursuing plans to redevelop former State hospital facilities located in their communities. The challenge in each case is to design and create a new use for the site that is an economically viable and environmentally sound asset to the community. As the Town of Dover moves forward with plans to redevelop this site, CT DEP would appreciate your consideration of potential environmental impacts we have identified that, if not properly addressed, may negatively impact downstream water resources in Connecticut.

According to our understanding, the proposed Dover Knolls project will be located on a 937 acre site and include: 1,376 dwellings of mixed type; approximately 245,500 sq. ft. of commercial space; an approximately 77,000sq. ft. community facility or recreation center; and an existing nine hole golf course. Of specific interest to Connecticut are the proposed upgrade of the existing wastewater treatment facility (WWTF), and stormwater management controls throughout the site. The existing WWTF has an operating capacity of and a SPDES permit for 1.2 million gallons per day (mgd). The facility is currently discharges an average of approximately 0.030 mgd. The proposed project calls for upgrading the existing WWTP with "state of the art equipment" and having an anticipated average daily wastewater flow of 0.467 mgd. According to the DEIS, "... because the proposed modernization of the facility would improve the discharge quality, the discharged effluent is expected to exceed the requirements of the current SPDES permit and no significant adverse impacts to Swamp River are anticipated." (DEIS III.0-5) According to the "Wastewater Facility Treatment Report":

The SPDES permit is based on the waste assimilative capacity of the receiving stream. The facility's permit requires a Biological Oxygen Demand (BOD) of 30 mg/l and a Total Suspended Solids (TSS) limit of 30 mg/l. There is no limit on nutrient loading; there is no data for ammonia or phosphorus in the historical records. (DEIS Appendix XIIb, p. 14)

The DEIS also states that the existing sanitary sewer collection system is inadequate to serve the proposed project due to high water infiltration into pipes and manholes. (DEIS Appendix III-4) Improvements to the sanitary sewer infrastructure are proposed to correct these problems.

In addition to point source discharges controls, the DEIS describes measures for controlling nonpoint source discharges from the project site through stormwater controls. Stormwater will be managed according to the NYSDEC SPDES General Permit for Stormwater Discharges for Construction Activities. Post-development treatment measures will be designed in compliance with the NYDSDEC Stormwater Management Design Manual. Treatment measures are expected to reduce the amounts of Total Suspended Solids, Total Phosphorus, Total Nitrogen, Metals and Bacteria leaving the site, as compared to existing conditions as well as the proposed development without treatment.

Like the State of New York, the State of Connecticut is required under Section 305(b) of the Federal Clean Water Act (CWA) to monitor, assess and report on the quality of its waters relative to designated uses established in accordance with the State's water quality standards. In addition, CWA Sec. 303(d) requires each State to list waters not meeting water quality standards and prioritize those waters for Total Maximum Daily Load (TMDL)<sup>1</sup> development or another appropriate management strategy to address the issue. Connecticut is required to submit a water quality report to the U.S. Environmental Protection Agency (U.S. EPA) every two years on the status of the State's waters.<sup>2</sup> Connecticut waters with impairments attributed to phosphorus and/or nitrogen loading, and which also have the potential to be impacted by wastewater and stormwater discharges from the proposed Dover Knolls project if appropriate control measures are not incorporated into the plans, are described below.

### Phosphorus

Lake Lillinonah is an approximately 10 mile long impoundment of the Housatonic River, stretching from New Milford, CT in the north, to Southbury, CT and Newtown, CT in the south. The top of the lake commences just 12 miles south of the mouth of the Ten Mile River. While Lake Lillinonah's primary function is to provide storage for the 37.2 MW Shepaug Dam development, a FERC-licensed hydropower facility owned by FirstLight Power Resources, the lake also provides recreational opportunities for Connecticut residents and visitors. However, due to the excessive amount of phosphorus entering the lake from upstream sources within the watershed, Lake Lillinonah has been experiencing severe eutrophication problems during the summer. As a result, Lake Lillinonah is considered impaired for recreation and is included on Connecticut's 303(d) "Impaired Waters List". Potential sources contributing to this impairment include: municipal point source discharges, unspecified urban stormwater, non-point sources and agriculture.<sup>3</sup> To address this issue, CT DEP has been working to identify and address point and nonpoint sources of phosphorus both within Connecticut, as well as in the

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<sup>1</sup> A TMDL is tool that water quality managers use to address water quality problems. TMDLS provide the framework for restoring impaired waters by establishing the maximum amount of pollutant that a waterbody can receive without adverse impact to fish, wildlife, recreation, or other uses.

<sup>2</sup> The most recent report is the "2008 State of Connecticut Integrated Water Quality Report" which can be viewed on the CT DEP website at: [www.ct.gov/dep/iwqr](http://www.ct.gov/dep/iwqr).

<sup>3</sup> The Lake Lillinonah impaired waters listing can be found in the "2008 State of Connecticut Integrated Water Quality Report" which can be viewed on the CT DEP website at: [www.ct.gov/dep/iwqr](http://www.ct.gov/dep/iwqr); See "CT 2008 Impaired Waters List" (Table 3-3; p. 187)

neighboring states of New York and Massachusetts to eliminate or reduce the phosphorus loads contributing to this eutrophication problem.

Meanwhile, as a result of the high percentage of waterbodies that are 303(d) listed for nutrient-related impairments in the United States, the U.S. EPA has targeted nutrient pollution reduction as a priority and has encouraged states to adopt numeric nutrient criteria into their Water Quality Standards. So, coincident with CT DEP's efforts to address the amount of phosphorus entering Lake Lillinonah, CT DEP has also been developing a statewide "Nutrient Reduction Strategy" for inland fresh waters for phosphorus.<sup>4</sup>

As noted earlier in these comments, the current SPDES permit for the existing WWTF at the proposed Dover Knolls project site does not include any limits on nutrient loading, and there is no historical data for phosphorus. Although the proponents of the Dover Knolls project are proposing to upgrade the WWTF with "state of the art equipment", the facility will continue to operate under the existing SPDES permit. In addition, CT DEP did not find any information in the DEIS describing measures or goals aimed specifically at reducing phosphorus levels in the facility effluent.

Consistency with Connecticut's "Nutrient Reduction Strategy" for phosphorus would require capping the phosphorus load at current levels, meaning no increase in what is presently being released from the WWTF or approximately 0.30 mgd. Any new discharge, at a minimum should achieve average performance below 0.2 mg/l. In addition, we would strongly encourage the use of low impact development best management practices to limit non-point contributions to below pre-development levels.

### Nitrogen

Long Island Sound is a resource shared by both New York and Connecticut, and our two states have been working together for more than 20 years to address problems associated with hypoxia which are particularly severe at the western end of the Sound. As a result, Long Island Sound is listed as impaired for habitat for marine fish, other aquatic life and wildlife on Connecticut's 303(d) "Impaired Waters List".<sup>5</sup> The causes of the problem are attributed problems associated with: dissolved oxygen saturation, total nitrogen, nutrient/eutrophication biological indicators, dissolved oxygen. Meanwhile, the potential sources of this problem have been identified as: non-point source, atmospheric deposition of nitrogen, industrial point source discharge, municipal point source discharges, illicit connections/hook-ups to storm sewers, wet weather discharges, unspecified urban stormwater, residential districts, sources outside state jurisdiction or borders, etc.

In response to this issue, New York State Department of Environmental Conservation (NYSDEC) and CT DEP jointly released "A Total Maximum Daily Load Analysis to achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound" (LIS N TMDL) in December 2000 which was approved by

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<sup>4</sup> CT DEP's "Nutrient Reduction Strategy for Inland Fresh Waters: Phosphorus" can be viewed by going to the CT DEP website at: [www.ct.gov/dep](http://www.ct.gov/dep) and typing "Triennial Review Water Quality Standards" into the "search" box on the home page; or click on the following link:  
[http://www.ct.gov/dep/cwp/view.asp?a=2719&q=438600&depNav\\_GID=1654](http://www.ct.gov/dep/cwp/view.asp?a=2719&q=438600&depNav_GID=1654)

<sup>5</sup> The Long Island Sound impaired waters listing can be found in the "2008 State of Connecticut Integrated Water Quality Report" which can be viewed on the CT DEP website at: [www.ct.gov/dep/iwqr](http://www.ct.gov/dep/iwqr); See "CT 2008 Impaired Waters List" (Table 3-3; pp. 214 - 284)

U.S. EPA in 2001.<sup>6</sup> Reductions in nitrogen needed to achieve water quality goals in Long Island Sound are described in detail in the LIS N TMDL.

As previously stated, the current SPDES permit for the existing WWTF at the proposed Dover Knolls project site does not include any limits on nutrient loading, and there is no historical data for ammonia. In the LIS N TMDL, the existing WWTF under its current discharge of approximately 0.03mgd was excluded from nitrogen discharge limits as it was below the threshold for flow and nitrogen discharge levels. However, the proposed Dover Knolls project is proposing to increase the discharge to approximately 0.467 mgd. As a result of the anticipated increase in discharge, the WWTF will be subject to the nitrogen controls consistent with the LIS N TMDL as implemented by NYSDEC.<sup>7</sup>

The LIS N TMDL also calls for reduction in stormwater nitrogen load throughout the Long Island Sound watershed. Therefore, the stormwater management strategy for the proposed Dover Knolls project should address the reduction and outline how the stormwater nitrogen load will be controlled in terms of the LIS N TMDL, consistent with implementation requirements of NYSDEC. We encourage you to consult with the appropriate authorities at NYSDEC for both WWTF and stormwater management requirements and include them in future evaluations.

Thank you again for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the proposed Dover Knolls project. Working in partnership with neighboring states and towns that share water resources is an important step towards resolving important water quality issues which we are all required to address under the federal Clean Water Act. Because the State of Connecticut has specific water quality concerns associate with the proposed project, we would appreciate it if CT DEP could placed on the “Interested and Involved Agencies” list, described in the DEIS.<sup>8</sup>

If you have any questions regarding our comments, please contact: Susan Peterson, Environmental Analyst, Watershed Management Program by phone at: (860)424-3854; or by e-mail at [susan.peterson@ct.gov](mailto:susan.peterson@ct.gov) .

Sincerely yours,

Paul E. Stacey  
Director, Planning & Standards Division  
Bureau of Water Protection and Land Reuse

cc: William Janeway (NY DEC)  
Scott Ballard (NY DEC)

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<sup>6</sup> The LIS N TMDL can be viewed on CT DEP’s website at: [www.ct.gov/dep/tmdl](http://www.ct.gov/dep/tmdl)

<sup>7</sup> More information on the “Nitrogen Control Program for Long Island Sound” can be found on CT DEP’s website at: [www.ct.gov/dep/nitrogencontrol](http://www.ct.gov/dep/nitrogencontrol) .

<sup>8</sup> CT DEP should be listed as: Connecticut Department of Environmental Protection, Bureau of Water Protection and Land Reuse, Planning & Standards Division, 79 Elm Street, Hartford, CT 06106