By Gordon C. Duus

The ecological health of Barnegat Bay is in decline, mostly resulting from human activities. Since Barnegat Bay is a key feature of the shore experience in central New Jersey, the impact to its aesthetic, economic and recreational values threatens the economic health of the region. In December 2010, the New Jersey Legislature enacted three statutes designed to comprehensively address the situation.

Barnegat Bay lies between mainland New Jersey to the west and Barnegat Peninsula and Long Beach Island to the east, and runs from Monmouth County to the north to southern Ocean County to the south. Development along the bay has increased nutrients (e.g. nitrogen and phosphorus) in storm-water runoff that have negatively impacted the water quality of the bay. This has affected the bay ecosystem and resulted in habitat destruction for both animal and plant species. It is hoped that once the statutes are implemented, the water quality of this important state resource will improve and be protected.

Storm-water Basins Owned by the State or Authorities

The first statute (S-2275; A-3606) amends the New Jersey Transportation Trust Fund Authority Act of 1984 (N.J.S.A. 27:1B-1 et seq.), and the act creating the New Jersey Turnpike Authority (N.J.S.A. 27:23-1 et seq.). It requires the Department of Transportation (DOT) to conduct a study of all storm-water basins owned by the state, the New Jersey Transit Authority or the Turnpike Authority in the Barnegat Bay watershed, to identify which are malfunctioning and to prioritize them into the order in which they should be repaired with an estimated repair cost. The bill’s sponsors indicate that hundreds of the storm-water basins in Ocean County are in disrepair, causing unfiltered storm-water to leak into Barnegat Bay. A functioning storm-water basin is used to manage storm-water runoff to prevent flooding and downstream erosion, and to improve water quality in the adjacent bay, lake, river or stream. The bill also requires the DOT and the Turnpike Authority to include the repair of the malfunctioning basins identified in the report in their annual plans for capital projects based upon the priority order.

Soil Restoration

The second statute (S-1410; A-2501) amends the Soil Erosion and Sediment Control Act (N.J.S.A. 4:24-39 et seq.), which requires that any application for development for any project within the state be conditioned on a plan for soil erosion and sediment control approved by the local district. An “application for development” is any proposed subdivision of land, site plan, conditional use zoning variance, planned unit development or construction permit. A “project” is defined as a disturbance of more than 5,000 square feet of surface area.

The goal of the amendment is to address problems created at construction sites where soils become so compacted that rainwater carrying pollutants and nutrients runs off into waterways instead of being absorbed. The amendment requires the State Soil Conservation Committee to adopt standards modifying current soil erosion and sediment control standards to include soil restoration issues. In particular, measures are to be taken to ensure, to the maximum extent possible, restoration of the optimal physical, chemical and biological functions for specific soil types and the intended land use. Once restored, the soils at project sites will be better able to absorb rainwater and prevent it from running into bodies of water, including Barnegat Bay.

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Fertilizers

The third statute (S-2554; A-2290) concerns the application, sale and use of fertilizer in order to limit the amount of fertilizer that runs into bodies of water within the state, such as Barnegat Bay. It provides that no person shall: (1) apply fertilizer to turf when a heavy rainfall is occurring or predicted, or when soils are saturated and a potential for fertilizer movement off-site exists; (2) apply any fertilizer intended for use on turf to an impervious surface; (3) apply fertilizer containing phosphorus or nitrogen to turf before March 1 or after Nov. 15, or at any time when the ground is frozen. No professional fertilizer applicator can apply fertilizer containing phosphorus or nitrogen to turf before March 1 or after Dec. 1. A limited exception exists if the person is establishing vegetation for the first time, such as after land disturbance. The aforementioned provisions are effective immediately.

The law provides that no person, other than a professional fertilizer applicator, shall: (1) apply fertilizer to turf in an amount that is more than an annual total of 3.2 pounds of total nitrogen per 1,000 square feet; or (2) apply fertilizer containing (a) nitrogen that is less than 20 percent slow release, (b) nitrogen to turf at a rate of more than 0.7 pounds of water-soluble nitrogen per 1,000 square feet per application, or (c) nitrogen to turf at a rate of more than 0.9 pounds of total nitrogen per 1,000 square feet per application. Again, a limited exception exists if the person is establishing vegetation for the first time, such as after land disturbance. Further, the law prescribes the amount of nitrogen-containing fertilizer that a professional fertilizer applicator can apply. It also requires professional fertilizer applicators to obtain a certification or training before applying fertilizer to turf. The provisions of this paragraph are not effective for one year.

The statute also provides that no person may apply fertilizer containing phosphorus unless that person: (1) determines it is necessary for the specific soils and vegetation pursuant to a soil test performed no more than three years before the application and pursuant to an annual fertilizer recommendation issued by the New Jersey Agricultural Experiment Station at Rutgers; (2) is establishing vegetation for the first time; (3) is re-establishing or repairing a turf area; or (4) is delivering liquid or granular fertilizer under the soil surface directly to the feeder roots. The law also provides that no person shall apply fertilizer containing phosphorus or nitrogen to turf within 25 feet of any body of water, except that when a drop spreader, rotary spreader or targeted spray liquid is used, the buffer may be reduced to 10 feet. The provisions of this paragraph are not effective for one year.

Any person, other than a professional fertilizer applicator or person who sells fertilizer at retail, who violates the act, may be subject to a penalty as established by municipal ordinance. The act may be enforced by any municipality, county, local soil conservation district or local health agency. The provisions of the act pre-empt any ordinance or resolution of a municipality, county or local health agency concerning the application of fertilizer to turf, except for the aforementioned penalties.

The law goes on to specify the amount of nitrogen and phosphorus that can be contained in any specialty fertilizer labeled for use on turf and intended for use by nonbusiness consumers. However, this provision is not effective for two years. It prohibits any person to sell at retail specialty fertilizers that contain specified amounts of nitrogen or phosphorus. It then specifies the information that must be included on a label for a specialty fertilizer. Both the prohibition and the labeling requirements are not effective for one year.

Maximum Daily Loads

A fourth bill (S-2341; A-3415), supplementing the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.), was passed by the Senate and Assembly in Dec. 2010, but was conditionally vetoed by Gov. Chris Christie on Feb. 3. The bill would have required the New Jersey Department of Environmental Protection (DEP) to conduct a study and prepare a report evaluating the water quality of the Barnegat Bay ecosystem to determine whether the bay is “impaired” as described by the federal Clean Water Act (33 U.S.C. Sec. 1313).

The study would have examined whether the waters of the bay ecosystem meet state water quality standards, focusing on the impairments caused by phosphorus, nitrates and excessive sediment. If the study had found that the bay is an impaired water body, the bill would have required the DEP, within two years, to develop total maximum daily loads (i.e., the maximum amount of a pollutant that a body of water can receive and still comply with water quality standards) for the Barnegat Bay ecosystem. The bill required the DEP to adopt, within 180 days, nutrient standards for the marine waters of New Jersey.

Under the veto, the governor proposed certain changes to the bill, principally giving the DEP five years instead of two to develop the maximum daily loads. The changes will be sent back to the Legislature for its review. The Legislature can allow the veto to stand, adopt the bill as revised by the governor or override the veto with a two-thirds vote in both the Assembly and Senate. ■