



JON S. CORZINE
Governor

State of New Jersey
Highlands Water Protection and Planning Council
100 North Road (Route 513)
Chester, New Jersey 07930-2322
(908) 879-6737
(908) 879-4205 (fax)
www.highlands.state.nj.us



JOHN R. WEINGART
Chairman

EILEEN SWAN
Executive Director

MEMORANDUM

To: Natural Resources Committee of the Highlands Water Protection and Planning Council

From: Eileen Swan, Executive Director
Dan Van Abs, Senior Director of Planning and Science
Erin Lynam, Resource Management Specialist
Jim Hutzelmann, Water Resource Engineer
Christine Ross, Senior Resource Management Specialist

Date: February 11, 2008

Re: Application Type: *Proposed Amendment to Upper Raritan/ Somerset County WQMP*
Name: *Trump National Golf Club*
Municipality: *Bedminster*
County: *Somerset*
Highlands Act Area: *Planning Area*
LUCM Location: *2007 LANDS- Conservation/ Preservation Zone*
Property: *Block 39, Lots 8, 10, 11, 12.02&12.03; Block 38, Lots 9, 13, &14*
Proposed Use: *Build four 3- bedroom cottages, reuse effluent for irrigation*
Nearest Waterway (Name): *Middle Brook*
Wastewater: *Proposed expansion of sewer service area served by Lamington Farms/ Trump National STP*
Water: *On-site wells, and Environmental Discharge Corporation diversion*

1.0 PROJECT DESCRIPTION

This is a proposed amendment to the Upper Raritan Water Quality Management Plan (WQMP) and the Somerset County Wastewater Management Plan to allow for the expansion of the sewer service area of the Lamington Farms LLC, aka Trump National Golf Club (Trump National) by 1.009 acres and to increase the water allocation for irrigation. The Trump National Golf Club (aka Lamington Farm) is located in Bedminster Township, Somerset County on a 506-acre parcel of land on Block 38, Lots 9, 13, 14, and Block 39, Lots 8, 10, 11, 12.02, and 12.03. The property is bounded to the north by County Road 523, to the east by Cowperthwaite Road and to the south by River Road. The proposed development includes the expansion of the sewer service area by 1.009 acres to include 4-three bedroom guest cottages. Trump National is also proposing to reclaim water for beneficial reuse of up to 650,000 gallons per day (gpd) of wastewater diverted from the nearby

Environmental Discharge Corporation (EDC) Sewage Treatment Plant and 29,631 gpd from the on-site Discharge to Groundwater STP to be utilized for golf course irrigation. Further, Trump National has applied to NJDEP to increase its existing water allocation permit from 10.1 million gallons per month (MGM) to 19.4 MGM for a total of 646,666 gpd in support of the golf course, of which about 616,000 gpd is needed for irrigation.

Wastewater will be treated by their own individual subsurface sewage disposal system. The applicant proposes to convey the wastewater to the permitted on-site treatment facility with a discharge to groundwater. Wastewater flow to the on-site STP will increase by 10,800 gpd for 29,631 gpd total.

The Trump National Golf Club wastewater management plan review is the result of an analysis of infrastructure capacity and the extent of environmentally sensitive resources. This review is based upon the standards, regulations, and policies set forth in the Final Draft Highlands Regional Master Plan (Final Draft RMP). Note that this review was based on remote information, including use of more recent aerial imagery than NJDEP's Land Use/Land Cover data, which identified recent modifications to the site for construction of the golf course itself but not the proposed buildings. A more definitive analysis would require site access or additional information submittals.

2.0 FINDINGS AND RECOMMENDATIONS

Findings

The Highlands Council staff has identified instances where the Trump National proposed development and sewer service area are inconsistent with the Goals, Policies, and Objectives of the Final Draft RMP. These inconsistencies are discussed below:

Environmentally Sensitive Lands within the Proposed Sewer Service Area

During the review of the proposed sewer service area, the Highlands Council staff identified the presence of environmentally sensitive lands whose development or alteration is inconsistent with the Final Draft RMP.

Highlands Open Waters and Riparian Areas

A stream identified as Highlands Exceptional Waters exists on site. Middle Brook, a C-2, FW2-NT tributary to the North Branch of the Raritan River exists on the site. The proposed sewer service area extends into the protection buffers for Middle Brook. The project includes the proposed disturbance of Highlands Open Water Protection Areas within 300 ft of Middle Brook and associated on-site wetlands. The Highlands Council staff also identified the proposed disturbance of riparian areas, specifically, the wildlife corridor adjacent to the stream. The Highland Council staff recommends that the application be modified to exclude Highlands Open Water Protection Buffers from the sewer service area. The staff further recommends that riparian areas be excluded from the sewer service area and development activities throughout the site should limit the increase of impervious areas to the minimum extent necessary. The alteration of natural vegetation should also be minimized beyond the Highlands Open Water Protection Buffers.

Forests

The site contains forested lands that are within the Forest Resource Area. The Highlands Council staff examined the Microsoft Lives' 2007 Aerial Photographs which reveal that the site is not a core

forest area since construction of the second golf course was initiated. The Highlands Council staff recommends the sewer service area avoid disturbance of forested areas. If permitted, the applicant should provide an approved Forest Management Plan that provides a mitigation plan, and the development of forests use low impact development techniques.

Critical Habitat

The site contains significant natural areas for T&E species. The applicant conducted a barred owl survey and habitat evaluation for the state T&E species. The study determined that much of the on site wood habitat is fragmented and successional in nature and, as such, is not critical to the survival of the local population or recovery potential of this species. NJDEP has concurred with the study's findings. NJDEP has requested that patches of wooded habitat around wetland/open water and within the golf course be maintained to allow some seasonal use by barred owls as the trees mature in the future. Also, in 2004, Trump National submitted a grassland bird conservation easement, consisting of 13.2 acres to promote the management of the existing grassland bird populations, specifically the bobolink, eastern meadowlark, and grasshopper sparrow. The easement provides mating habitat for these species of birds.

NJDEP is the source of Landscape Project data used by the Highlands Council and has determined that the actual habitat either does not support or is not critical to the species, or that the applicant is properly managing habitat for these species. Absent these findings, the Highlands Council would normally recommend that the applicant be required to exclude the critical wildlife habitat from the proposed sewer service area unless they can prove to NJDEP that the habitat is inappropriately mapped. The investigation has already occurred and NJDEP has accepted the results, and therefore no further recommendation is needed.

Agriculture

The site is identified as agricultural uses within an Agricultural Resource Area and important farmland soils occur on site. As noted above, construction of the golf course has commenced and the agricultural uses no longer exist. The Final Draft RMP requires that expansion of wastewater collection systems in the Conservation Zone requires that development be clustered on 20% of the site. The development consists of the sewer buildings and the golf course, which constitute more than 20% of the site. The sewer area itself is significantly less than 20% of the site, but the remaining area is not deed restricted for natural resources protection.

Water Quality

The Highlands staff identified a small, wooded area of prime ground water recharge within the proposed sewer service area but it is not within the development footprint. Further, a Total Maximum Daily Load (TMDL) for pH and phosphorus exists for one the subwatersheds located on the property. The Highlands Council staff recommends that the project should be required to ensure that site contributions to pH and phosphorus conditions will be in support of the TMDL, including monitoring of streams leaving the site. The proposed sewer service area should avoid alteration of the prime ground water recharge areas. Development activities shall not reduce ground water recharge volumes and the development footprint, including the proposed buildings and parking lot, should not encroach upon this area. If the applicant does encroach upon this area, a recharge mitigation of 125% of pre-development recharge is required.

Water Capacity for the Proposed Development

The proposed project includes an increase of water allocation supplied from on-site wells, which span three subwatersheds. Because the wells and proposed uses span the same three subwatersheds and are in close proximity, all water use on-site is considered consumptive and not depletive. One of the subwatersheds is in deficit and they are all in constrained areas. The applicant requests to increase their existing water allocation from 10.1 million gallons per month (MGM) (approximately 337,000 gpd) to 19.4 MGM for a total of 646,666 gpd in support of the golf course, of which 616,000 gpd is proposed for irrigation.

Trump National is also seeking to use reclaimed water for beneficial reuse of up to 650,000 gallons per day (gpd) of treated effluent diverted from the Environmental Discharge Corporation (EDC) Sewage Treatment Plant (approximately three miles away) and 29,631 gpd from the on-site Discharge to Ground Water STP to be utilized for golf course irrigation. Presently, EDC discharges into an unnamed tributary to the North Branch of the Raritan River, which changed an intermittent stream to a perennial stream. Based on the Highlands ground water capacity analysis, the subwatershed where EDC is located has a median September flow of 2.5 MGD and a 7Q10 of 0.7 MGD. Therefore, the proposed reuse volume is essentially equal to the 7Q10 and could reduce base flows during a drought period. In addition, the transfer would divert about 25% of base flow during a typical September month. However, EDC flows are derived from a service area that receives its public water supply from outside the Highlands Region, and therefore represent a net increase in water to the subwatershed and watershed; reduction of the EDC discharges essentially represents a move back toward more natural flows. If EDC is not used as a source for Trump National, then the amount of additional potable water (~5,000 gpd) would be within the net available water, but the additional amount of irrigation water (310,000 gpd) would greatly exceed the net and conditional water availability for the three subwatersheds. Golf courses do not qualify as agricultural water uses, and therefore cannot access the 10% LFM of water availability for the Conservation Zone portion of the property. It is also noted that the current Net Water Availability Analysis is based on 2003 data does not take into account the existing irrigation associated with golf course (approved in 2004). If that use were considered (up to 0.3 MGD of consumptive use), then it is likely that all three subwatersheds would be in deficit.

The golf course does not reflect the priority that available water be reserved for agricultural uses. The applicant should reduce the amount of consumptive water use for irrigation such that it does not exceed the net water availability in the subwatersheds. This may require that the applicant develop water supplies for necessary water uses that do not rely on EDC, as the amount of water the applicant requests from EDC would leave the tributary dry in low flow periods and greatly reduce flows in the North Branch Raritan River. Such measures could include a combination of artificial recharge, high-flow skimming or additional storage of overland runoff in on-site ponds to provide for irrigation needs.

Because one of the HUC14s has a water deficit, the RMP requires that water conservation, reuse, and recycling be used on site to reduce the amount of water required. A 125% recharge mitigation for any additional consumptive water uses from that subwatershed is required within that subwatershed.

Given that the project does not address public health and safety concerns, the proposed extension and water deficit are inconsistent with the policies of the Final Draft RMP. Staff recommends that the increased water allocation from both the on-site wells and from EDC not be permitted by

NJDEP. Use of water from another watershed should be considered only upon proof that no other viable alternative exists.

Wastewater Capacity for the Proposed Development

The proposed project plan includes an expansion to the existing on site Lamington Farm Reclamation Facility and disposal area. The wastewater will be treated by the permitted on site treatment facility with a discharge to groundwater (Lamington Farms/ Trump National STP NJPDES #NJ0142883) and reused for irrigation. Wastewater will be treated onsite via Membrane Bio Reactor processes and treated to the NJDEP Ground Water Class II-A standards.

The expansion of wastewater collection systems in the Conservation Zone requires that development be clustered on 20% of the site. The development consists of the seweried buildings and the golf course, which constitute more than 20% of the site. The seweried area itself is significantly less than 20% of the site, but the remaining area is not deed restricted for natural resources protection.

Recommendations

The review of the proposed WQMP/WMP amendment reveals several inconsistencies with the Final Draft RMP, including the disturbance of Highlands Open Water Protection Areas, Riparian Areas, Forest Resource Areas, Prime Ground Water Recharge Areas, and Critical Habitat. These areas should be avoided by the project, except where NJDEP determines using more site-specific information that the resource constraint does not exist. The applicant apparently has provided NJDEP with sufficient information regarding critical habitat to make such a proof.

The project site also both has and would create water availability deficits. The applicant wants to reuse wastewater from EDC and Lamington Farm LLC for irrigation. However, the amount of water requested from EDC could leave the unnamed tributary that EDC currently discharges subject to inadequate flows during low flow periods. The Final Draft RMP (Objective 2B10f) requires that transfer of water between subwatersheds may only occur in the absence of viable alternatives, which has not been proved at this point. The amount of additional potable water for the project would be within the available water, but the additional amount of irrigation water (310,000 gpd) would exceed the available water for the three subwatersheds. The Highlands Council recommends that the applicant reduce the amount of consumptive use proposed or seek other measures to provide irrigation that do not cause or exacerbate deficits in net water availability.

It is clear that in order to be consistent with the Final Draft RMP the applicant would need to modify the proposed development. However, before finalizing these recommendations, the Highlands Council staff feels that a site visit is warranted, consistent with the approach taken on other WQMP projects where significant disturbance/development had already occurred.