



State of New Jersey
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WQMP AMENDMENT
AREA-WIDE PROJECT REVIEW CHECKLIST

PROJECT INFORMATION	
WQMP Name: Trump National Golf Club	Date: February 8, 2008
Sewer Service Area/Facility: Trump National Golf Club	
WQMP: Upper Raritan	
WMP: Somerset County/ Upper Raritan Watershed	
Name of Facility: Trump National Golf Club	
Name of Applicant: Trump National Golf Club	
Sewer Service Area/Facility: New <input type="checkbox"/> Existing <input checked="" type="checkbox"/> <i>If existing provide the following:</i>	
Proposed Change in Service Area Wastewater Flow: 10,800 gpd	
NJPDES No: Permit # NJ0142883, (P.I. ID# 191840) (for the existing SSA)	
Permit Discharge (MGD): 18, 831 GPD	
Type of Discharge: GW <input checked="" type="checkbox"/> SW <input type="checkbox"/>	
Total Proposed Service Area (acres): 1.009 additional	
Lot and Block, if applicable: Block 39, Lots 8, 10, 11, 12.02, and 12.03, Block 38, Lots 9, 13, and 14	
Description of Project: expand the sewer service area to build four 3- bedroom guest cottages, reuse of the Lamington Farm RF (aka Trump National Golf Club) effluent for irrigation, and reuse of nearby Environmental Disposal Corporation WWTP effluent for irrigation	

LAND USE CAPABILITY MAP ZONES	
Sewer Service Areas Encroach Within Which LUCM Zone? (Check all that apply.):	
Protection Zone <input checked="" type="checkbox"/>	Conservation Constrained Zone <input checked="" type="checkbox"/>
Conservation Zone <input checked="" type="checkbox"/>	Existing Community Constrained Zone <input type="checkbox"/>
Existing Community Zone <input type="checkbox"/>	

HIGHLANDS ACT AREAS	
Project located in which Highlands Act Area? (Check all that apply.):	
Preservation Area <input type="checkbox"/>	
Planning Area <input checked="" type="checkbox"/>	

TOPOGRAPHY	
Parcel Underlain by Limestone?	No
Steep Slopes >20% in Any Areas?	Yes
Steep Slopes >15% in Forested Areas?	Yes
Steep Slopes >10% in Riparian in Undeveloped Lands?	Yes
Findings: The site contains slope constraints of >20%, >15%, and >10% within the riparian area. However, the proposed development does not encroach upon these areas.	
Policy Statement: To prohibit through local development review and Highlands Project Review land disturbance within areas, which are Severely Constrained Slopes and Moderately Constrained Slopes (1E8). To require through local development review and Highlands Project Review the use of low impact best	

development practices for any land disturbance or human development within areas, which are Constrained or Limited Constrained Slopes (1E9)

Recommendation: Limit sewer service area to the proposed development footprint, as proposed.

HIGHLANDS OPEN WATERS

Parcel includes Highlands Open Waters Protection Area Buffer?

Yes

If No, disregard remainder of Highlands Open Waters checklist.

Open Waters Protection Areas within the Service Area:

- Streams
- Lakes & Ponds
- Wetlands

Highlands Open Waters category:

- Highlands Waters
- Special Waters
- Exceptional Waters
- Intermediate Waters

Watershed Value (Check one):

- High
- Medium
- Low

Findings: A stream identified as a Highlands Exceptional Water 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.

Policy Statement: Highlands Open Waters shall include a protection buffer of 300 feet from the edge of the Highlands Open Water feature. All development shall comply with buffer standards which provide for the protection of Highlands Open Waters reviewed on a site-specific basis during local development review and Highlands Project Review (1D4).

Limit alterations to existing natural vegetation or increases in impervious area within high and moderate integrity riparian areas to the minimum extent feasible in areas beyond the highlands open water buffer requirement; protect the water quality of adjacent highlands open water; and maintain or restore habitat value of the riparian area (1D5b).

Restrict new land uses or the alteration of existing land uses that would alter or be detrimental to the water quality and habitat value of a Highlands Open Water or a Riparian Area (1D6a).

Prohibit modifications to Highlands Open Water buffer requirements or Riparian Areas, except as necessary to protect public health and safety, or to provide for minimum practical use in the absence of any alternative (1D6b).

Require, where land disturbance is otherwise permitted, that low impact development best management practices are followed to minimize any potential for habitat or water quality impairment (1D6c).

Recommendation: The applicant should exclude Highlands Open Water Buffer areas from the sewer service area and development activities should avoid these areas.

RIPARIAN AREA	
Parcel includes Riparian Area? <i>If No, disregard remainder of Riparian Area checklist.</i>	Yes
Specific Riparian Area Features (Check all that apply.):	
Flood Prone Areas <input type="checkbox"/>	Waters <input checked="" type="checkbox"/>
Riparian Soils <input type="checkbox"/>	Wetlands <input type="checkbox"/>
Wildlife Corridor <input checked="" type="checkbox"/>	
Riparian Integrity Value (Check one):	
High <input type="checkbox"/>	
Medium <input checked="" type="checkbox"/>	
Low <input type="checkbox"/>	
<p>Findings: Extensive riparian areas exist on site. The proposed development activity includes riparian areas consisting of open waters and wildlife corridors. Lamington Farms has a 75-foot buffer zone surrounding all wetland habitat and stream corridors. The proposed sewer service area includes encroachment into the riparian corridor area, and the applicant intends to expand riparian corridor compensation areas to offset this impact. The applicant plans on planting non-invasive meadow grass species to enhance areas already disturbed or temporarily encroached upon within the riparian corridor protection area.</p> <p>Policy Statement: Restrict new land uses or the alteration of existing land uses that would alter or be detrimental to the water quality and habitat value of a Highlands Open Water or a Riparian Area (1D6a). Prohibit modifications to Highlands Open Water buffer requirements or Riparian Areas, except as necessary to protect public health and safety, or to provide for minimum practical use in the absence of any alternative (1D6b). Require, where land disturbance is otherwise permitted, that low impact development best management practices are followed to minimize any potential for habitat or water quality impairment (1D6c). Limit alterations to existing natural vegetation or increases in impervious area within high and moderate integrity riparian areas to the minimum extent feasible in areas beyond the highlands open water buffer requirement; protect the water quality of adjacent highlands open water; and maintain or restore habitat value of the riparian area (1D5b).</p> <p>Recommendation: The application should be modified to exclude riparian areas from the sewer service area, and development activities throughout the site shall limit the increase of impervious areas to the minimum extent necessary. Alteration of natural vegetation shall also be minimized beyond the Highlands Open Waters Buffers. Provide mitigation if encroachment into these areas is permitted.</p>	
FOREST	
Parcel within Forest Resource Area?	Yes
If yes to above, is there Encroachment into a Forest within Forest Resource Area?	Yes
Parcel within Total Forest Area?	Yes
Forest Integrity Value (check one):	
High <input type="checkbox"/>	
Medium <input checked="" type="checkbox"/>	
Low <input type="checkbox"/>	
<p>Findings: The proposed sewer service area extends into both the forest resource area and total forest area. Examination of 2007 Microsoft Lives' aerial photographs reveal that the site is not a core forest area since construction of the golf course has already begun.</p> <p>Policy Statement: To limit through local development review and Highlands Project Review human</p>	

development of forests to very low impact residential development in the Protection Zone and the Conservation Zone in the Planning Area (1B2).

To ensure that forest resources are protected on a site specific basis during local development review and Highlands Project Review (1B5).

Implementation through Plan Conformance of regulations which limit permissible uses within forest lands in High and Moderate Integrity Forest Watersheds to maintenance of pre-existing uses and permit minimal removal of woody vegetation from forested lands, subject to an approved Forest Management Plan or development that utilizes low impact development best management practices and an approved forest mitigation plan (1B2a).

To prohibit clear-cutting of forest lands except pursuant to an approved Forest Management Plan to the extent necessary to promote native forest regeneration, early successional wildlife habitat, or to remove invasive species (1B7).

Recommendation: The proposed sewer service area should avoid disturbance of forested areas. If alteration is permitted, the application should provide a Forest Mitigation Plan that provides mitigation. The development of forests should use very low impact development techniques.

CRITICAL HABITAT

Parcel within Critical Habitat?							Yes
Critical Wildlife Habitat?							Yes
Significant Natural Area?							No
Vernal Habitat +1,000 ft?							No
Species of Concern:	VESPER SPARROW	GRASSHOPPER SPARROW	BOBOLINK	EASTERN MEADOWLARK	BARRED OWL	RED-SHOULDERED HAWK	
Landscape Rank:	4	3	3	2	3	4	

Findings: The site contains significant natural areas for T&E species including those listed in the table. 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 woody 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.

Policy Statement: To prohibit, through Plan Conformance, local development review, and Highlands Project Review, the direct impact of new human development or expansion or increased intensity of existing development within Critical Wildlife Habitats, Significant Natural Areas, or within 1,000 feet of Vernal Pools (1F1).

To require that applications for any local development review and Highlands Project Review for lands within Critical Wildlife Habitats, Significant Natural Areas, or within 1,000 feet of Vernal Pools be subject to minimum standards and criteria outlined in the Habitat Conservation and Management Plan (1F5).

Prohibit alteration or disturbance of Critical Wildlife Habitat, Significant Natural Areas, and within 1,000

feet of Vernal Pools, except as necessary to protect public health and safety, or to provide for minimum practical use of in the absence of any alternative (1F5a).

Require that any disturbance to a critical habitat feature include mitigation for all adverse modification and provide for no net loss of habitat value (1F5b).

To prohibit through local development review and Highlands Project review the indirect impact of any human development activity which would result in damage or destruction of habitat for rare, threatened, or endangered species of animal or plant (1F6).

Recommendation: 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

Parcel within Agricultural Resource Area?	Yes
Farm Unit >250 acres?	Yes
Important Farmland Soils?	Yes

Findings: The site is identified as agricultural uses within an Agricultural Resource Area, important farmland soils occur on site. However, no agricultural activities occur on site. As noted above, construction of the golf course has commenced and the agricultural uses no longer exist.

Policy Statement: To prohibit through Plan Conformance, local development review, and Highlands Project Review the development of additional water and wastewater infrastructure in a Agricultural Resource Area within the Conservation Zone, unless they are shown to be necessary for and are approved by the Highlands Council to address documented threat to public health and safety where no alternative is feasible, to served a Highlands Redevelopment Area or cluster development, or to provide for minimum practical use in the absence of any alternative through issuance of a waiver by NJDEP or the Highlands Council, and will maximize the protection of agricultural lands within the Agricultural Resource Area (3C2).

To promote the use of appropriate alternative and innovative wastewater treatment systems to provide enhanced protection of surface and ground water quality in Agricultural Resource Areas of the Conservation Zone (3D1).

Recommendation: No agricultural uses exist on-site. The expansion of wastewater collection systems in the Conservation Zone requires that development be clustered on 20% of the site. The development consists of both the sewerred buildings and the golf course, which comprise more than 20% of the site.

WATER QUALITY

Parcel within Prime Recharge Area?	Yes
Parcel within Wellhead Protection Area?	No

If yes to above, check one box below:

- Tier 1
- Tier 2
- Tier 3

Drainage HUCs Name and Number: 02030105060080; 02030105060090; 02030105050110

Name of nearest waterway: MIDDLE BROOK (NB RARITAN RIVER)

SWQS Classification: FW2- NT (C2)

Description of Impairments, or TMDL: ADOPTED TMDL IN HUC 02030105050110 FOR pH, and phosphorus

Findings: The proposed SSA contains a small, wooded area of prime groundwater recharge area. TMDL for phosphorus and pH exists for one subwatershed.

Policy Statement: To reduce or avoid water quality impacts using requirements for water quality protection measures for new land uses through local development review and Highlands Project Review (2G2).

Prohibit land uses that would increase pollutant loadings to waters for which TMDLs have been adopted by NJDEP unless in compliance with the relevant TMDL (2G3a).

Ensure that new land uses draining to a stream designated as impaired but lacking a TMDL (i.e., Sublist 5) avoid increased pollutant loadings for the parameter or parameters for which a TMDL is required (2G3b).

Wastewater Management Plans or amendments shall demonstrate that the proposed service area will not directly or indirectly support development that would be in violation of an adopted TMDL (2G3c).

To adopt and implement storm water management controls through Plan Conformance, local development review, and Highlands Project Review (2G5).

Require recharge of clean stormwater rather than contaminated stormwater wherever feasible to meet stormwater management requirements, and to pre-treat contaminated stormwater wherever its recharge is required (2G5a).

Require low impact development and other best management practices standards for stormwater management to minimize the discharge of stormwater-entrained pollutants to ground and surface waters (2G5b).

To prohibit uses of land within a Prime Ground Water Recharge Area that may reduce recharge volumes or other uses that may impair water quality within or draining to a Prime Ground Water Recharge Area (2D4).

Implement a requirement through local development review and Highlands Project Review that any development activity in a Prime Ground Water Recharge Area demonstrate that an equivalent of 125% of pre-existing recharge volumes of the site will be provided for within the same subwatershed, or by other means as determined by the Highlands Council (2D4a).

Discourage and restrict the creation of impervious surfaces and other surfaces that significantly impede recharge within a Prime Ground Water Recharge Area, or other uses that may degrade water quality within or draining to a Prime Ground Water Recharge Area (2D6a).

Allow for modifications to Prime Ground Water Recharge Area protection requirements, such as increases in impervious cover or loss of forest or other natural land cover, only upon demonstration that any relief from protection requirements will not impair or reduce ground water recharge quality or volumes and are necessary to protect public health and safety, or to provide for minimum practical use in the absence of any alternative (2D6b).

Recommendation: The project should be required to ensure that site contributions to pH or 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			
Site: TRUMP NATIONAL GOLF COURSE			
Potable Water Supply?: YES			
Domestic?			No
<i>If Domestic, source HUC:</i> 02030105060080; 02030105060090; 02030105050110			
Public Community Water System?			No
If PCWS, Name of Facility:			
PCWS ID No.?			
Total Projected Water Demand (MGD): 30,666 gpd (potable water) 616,000 gpd (irrigation)			
Source HUC:	Net Availability	HUC Constraint	Conditional Availability (MGD):
02030105060080	0.0549	--	--
02030105060090	0.075409	--	--
02030105050110	-0.039192	current deficit area	0.0056
HUC Constraint:			
Current Deficit Area <input checked="" type="checkbox"/>			
Existing Constrained Area <input checked="" type="checkbox"/>			
<p>Findings: Source wells are located within 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 subwatershed is in deficit and all are in constrained areas. The applicant requests to increase their existing water allocation permit from 10.1 MGM 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. The water is supplied via 18 on-site wells to a series of storage and irrigation ponds.</p> <p>In addition, it is proposed that the Environmental Disposal Corporation (EDC) facility in Bedminster will make available 650,000 gpd of treated effluent for irrigating the golf course. Presently EDC discharges into an unnamed tributary to the North Branch of the Raritan River, making that tributary a perennial stream. Prior to the EDC discharge, this tributary was an intermittent 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 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.</p> <p>Policy Statements: The remaining Net Water Availability shall be available to the remaining Protection Zone and the Conservation Zones based on the applicable threshold, relative area and development capacity for each Zone, and for agricultural uses in the Conservation Zone (2B3b).</p> <p>To apply standards in the Conservation Zone which recognize that significant ecological resources exist in</p>			

these areas and protect these resources. Agricultural water uses will also occur in these areas along with limited, low-density development and appropriate redevelopment. There is value to reserving significant amounts of net water availability for agricultural operations that employ water quality protection, conservation, reuse, and recycling best management practices, and to provide specific Ground Water Availability targets to agricultural and non-agricultural water uses, to minimize the potential for conflict between these uses (2B9).

Prevent net increases in consumptive and depletive water uses in Current Water Deficit Areas to prevent exacerbation of and help reduce or eliminate the deficit to ensure sustainable water supply, water resource and ecological values, emphasizing techniques including, but not limited to water reuse, recycling and conservation (2B9b).

Give highest priority for the use of Net Water Availability for agricultural and related water uses to those using best management practices for irrigation and other activities, to designated Receiving Zones (2B9d).

Allow water resource transfers between subwatersheds only when there is no other viable alternative and where such transfers would demonstrably not result in impairment of resources in any subwatershed. Potential effects on upstream and downstream subwatersheds should be included in any such evaluation. (2B10f)

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

WASTEWATER CAPACITY

Name of Facility: Trump National Golf Club

NJPDES Permit Number: NJ 0142883

Projected Flow (GPD): 10,800 (TOTAL OF 29,631 GPD)

HDSF Facility? No

HDSF Available Capacity (MGD):

Subject to Allocation Agreement? NA

Allocating Capacity:

Extent of HDSF Service Area Included in WMP: Full Partial

Wastewater Treatment Facility: Trump National Golf Club

New: **Wastewater Discharge Flow (MGD)**

Individual Septic: Existing Proposed Existing: Future:

NJPDES-DGW: Existing Proposed Existing: 0.018831 Increase: 0.010800

NJPDES-DSW: Existing Proposed Existing: Future:

Findings: 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 NJDES #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.

Policy Statement: To provide new growth and development in the Protection Zone and Conservation Zone with adequate and appropriate wastewater treatment through Plan Conformance, local development review and Highlands Project Review (2K3).

Prohibit new, expanded, or extended wastewater collection or treatment outside of Existing Areas Served unless they are shown to be necessary for and are approved by the Highlands Council to address documented threat to public health and safety where no alternative is feasible, to serve a Highlands Redevelopment Area, or cluster development, or to provide for minimum practical use in the absence of any alternative through issuance of a waiver by NJDEP or the Highlands Council, and will maximize the protection of sensitive environmental resources (2K3b).

Permit cluster development served by existing or expanded wastewater collection and treatment systems in an Agricultural Resource Area only where such development is within or immediately adjacent to an Existing Areas Served and adequate provision is made for the preservation of at least 80 percent of the project area in perpetuity for environmental protection or agricultural purposes and provided that the proposed development is otherwise consistent with the goals and requirements of the Plan. Where agricultural purposes are involved, increased impervious surfaces of greater than 3% but less than 9% of agricultural lands requires the approval of a Farm Conservation Plan from the USDA Natural Resources Conservation Service and impervious surfaces of 9% or greater requires the approval of a Resource Management System Plan from the USDA Natural Resources Conservation Service (2K3d).

Ensure that new growth and development that is not served by public wastewater collection and treatment systems is limited to densities suitable for on-site wastewater treatment (2K3e).

Recommendation: The expansion of wastewater collection systems in the Conservation Zone requires that development be clustered on 20% of the site. The development consists of both the sewer buildings and the golf course, which comprise more than 20% of the site.

HISTORIC, ARCHAEOLOGICAL AND SCENIC

Presence of Absence of Resources:

Highlands Historic District Polygons	Absence
Highlands Historic Properties Polygons	Absence
Highlands Historic Property Points	Absence
Archaeological Grids	Absence
Highlands Scenic Resource Inventory	Absence

Description of Resources:

Findings: Historical, archaeological, and scenic resources are not located on site.

Policy Statement: N/A

Recommendation: No Recommendation

CONCLUSIONS AND 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 as 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. 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 net 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.

Based on these conflicts, the Highland Council staff recommends that NJDEP not approve the WQMP/WMP amendment until the applicant modifies the proposed development to avoid these conflicts.