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MEMORANDUM

To: Natural Resources Committee
Highlands Water Protection and Planning Council

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

Date: January 12, 2008

Re: Application Type: *Proposed Amendment to Upper Raritan WQMP*
Name: *Canfield Builders, or Kushner-Mine Hill*
Municipality: *Mine Hill*
County: *Morris*
Highlands Act Area: *Planning Area*
LUCM Location: *Protection Zone*
Property: *Block 606, Lot 1.01; Block 1101, Lot 1*
Proposed Use: *Age-restricted Residential housing*
Nearest Waterway (Name): *Unnamed Headwater Tributary to Lamington River*
Wastewater: *Proposed new discharge to ground water*
Water: *Distribution - Mine Hill Township Water Department*
Supply - Morris County Municipal Utility Authority (MCMUA)

1.0 Project Description

This is a proposed amendment to the Upper Raritan Water Quality Management Plan (WQMP) through the Mine Hill Township Wastewater Management Plan (WMP) to allow for construction of the proposed Kushner-Mine Hill development (Canfield Builders Associates), a residential development on Block 606, Lot 1.01 and Block 1101, Lot 1 within Mine Hill Township, Morris County. The proposed project includes the area located on the southern portion of the project site between the intersection of Canfield Avenue and Berkley Court and Green Lane.

The amendment, as initially reviewed by the NJDEP, consisted of 736 multi-story townhouse and apartment units comprised of 118 one-bedroom stacked apartments, 354 two-bedroom stacked apartments, 238 two-bedroom townhouses and 26 three-bedroom townhouses, two recreation

centers and two swimming pools. The Highlands Council staff reviewed and prepared recommendations for consistency with the 2006 Draft RMP. Those recommendations were prepared in an August 14, 2007 memorandum, which recommended denial of the application. The findings were presented to the Natural Resource Committee at their September 20, 2007 meeting.

As a result of the Natural Resource Committee review, the applicant provided updated information regarding the scale and impact of the development proposal. Specifically, a 2007 settlement agreement between Canfield Builders Associates and the Township of Mine Hill dedicates approximately 178-acres portion of the site to open space preservation, thereby reducing the scale of the project significantly. The revised concept plan, although not final, includes 275 age-restricted residential units on approximately 46.7 acres of the site. The projected wastewater flow from the proposed homes, consisting of 100 two-bedroom units and 175 three-bedroom units, and recreation center, would be 59,747 gpd. The wastewater would be treated by the proposed on-site discharge to ground water (DGW) wastewater treatment system.

Based on this and other information that the applicant has since submitted, Highlands Council staff has reviewed the application again in accordance with the Final Draft RMP. The Council staff used the additional applicant information if it was deemed relevant and reliable (e.g., two-foot contour topography for steep slopes and Letter of Interpretation delineation of wetlands). Highlands Council staff also met with Kushner representatives on December 18, 2007 to discuss their concerns.

This review of the proposed Kushner-Mine Hill development amendment is the result of an analysis of infrastructure capacity and the extent of environmentally resources. This review is based upon the Goals, Policies, and Objectives set forth in the Final Draft Highland Regional Master Plan - November 2007 (Final Draft RMP).

2.0 FINDINGS AND RECOMMENDATIONS

Findings

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

Environmentally Sensitive Lands within the Proposed Sewer Service Area

During the review of the proposed service area and conceptual development footprint, the Highlands Council staff identified steep slopes, Highlands open water protection areas and riparian areas, forest resources, critical habitats, vernal pools, wellhead protection areas, and prime ground water recharge areas.

The steep slope areas include 15% forested slopes and 20% slopes in the conceptual development footprint that are considered moderately constrained or severely constrained slopes. The RMP prohibits land disturbance within areas that are severely constrained slopes and moderately constrained slopes. The Open Water Protection Areas are associated with the 300-foot buffer surrounding a Category One stream and associated wetlands. Riparian Areas are associated with a stream-side wildlife corridor, which in this case is equivalent to the C1 buffer. The RMP policies

and objectives 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 (Objective 1D6b). Neither public health and safety or the minimum practical use standard would apply. However, the applicant has indicated a willingness to avoid the steep slopes, open water protection areas and riparian areas in final site design. This action would eliminate the conflict with these areas.

The disturbance of forest resources (which are not within a Forest Resource Area) will occur throughout the site to implement the current design. RMP policies do not prohibit this activity, but do require that very low impact development design be incorporated into the site plan, including minimization of disturbance of woody vegetation (Policy 1B2).

The critical habitat on the site is documented (Landscape Project Version 3) as wood turtle habitat. The 1,000 foot buffers of confirmed vernal pools are also present. The conceptual development footprint encroaches on both the critical habitat and the 1,000-ft. buffer surrounding the vernal pools. Any disturbance of these areas is inconsistent with the RMP (Objective 1F5A). To address the critical habitat issue, the wood turtle habitat, the applicant has provided a June 14, 2004 Threatened and Endangered Species Survey report submitted by Herpetological Associates (Zappalorti Report). The Zappalorti Report concludes that wood turtle is absent from the site, but is suitable habitat for the species. The Highlands Council staff notes that the report stated that all observations were made from available public access points including existing paved roads that surround the study site, such as US Highway Route 46, Canfield Avenue, Green Road, and Wharton Avenue. The persons performing the survey walked portions of Jersey Central Power & Light Company's right-of-way, but did not enter directly upon Canfield Builders property. The accuracy of a survey of onsite critical habitat conducted without accessing the Canfield property is thus open to question.

Although the development footprint occurs within a NJDEP delineated wellhead protection area (WHPA), none of the proposed activities would be in conflict with the RMP. Further, more detailed hydrogeological analyses by the USGS indicate that the proposed site is not within a more accurately defined WHPA. In addition, the conceptual development footprint is almost entirely identified as a prime ground water recharge area. In the Protection Zone, the RMP prohibits increases in impervious cover within such areas, except upon demonstration that relief from protection requirements will not impair or reduce 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 (Objective 2D5b). Neither public health and safety or the minimum practical use standard would apply. It is unlikely the footprint can be reduced to meet these policies in a manner that makes the project economically viable.

Capacity Limitations for the Proposed Development

The proposed water main extension is from the adjacent Mine Hill Twp. MUA, which is supplied by MCMUA. The MCMUA source wells are located in two deficit HUC14s. Therefore, the use is depletive unless demonstration can be made the subwatersheds are sufficiently hydrologically connected, at which point the use would be considered consumptive. Additional consumptive and depletive uses require the assignment of conditional water availability for the project. This standard and other standards require water conservation, reuse, and recycling at the site (Objectives 2J8c & 2B4b). It also requires 125% mitigation of the additional consumptive and depletive uses through

water conservation or recharge. Because the source HUC14s are in separate subwatersheds, the applicant must arrange for the recharge in those source subwatersheds.

The extension of public water and the community wastewater treatment system require the clustering development to a maximum of 20% of the site with dedication of the remaining 80% land to environmental protection. The development density for the developed portion of the project must be at a minimum density of 1/2-acre. Water conservation, reuse, and recycling are required.

Recommendations

As with all WQMP amendments, the Highlands Council at this time is asked to provide recommendations to NJDEP for consideration in its decision. The Highlands Council reviews the proposed amendments based on the Final Draft RMP. Given that the NJDEP may ultimately approve the amendment despite the Council's findings, it would be prudent to include suggestions that could mitigate the project's impact if NJDEP would include them as conditions in their approval. A conservation easement should be required for the remaining environmentally sensitive lands.

The review of the proposed WQMP amendment reveals inconsistencies with the Final Draft RMP, including steep slopes, open water protection areas, riparian areas, forest resources vernal pools, critical habitats, prime ground water recharge areas, and water availability deficits. Many of the conflicts (steep slopes, open water protection areas, vernal pools, riparian areas, forest resources) can be resolved by reducing the development footprint from the current conceptual plan, and the applicant has indicated a willingness to do so. Staff recommends that the final site plan avoid these areas entirely. Additional requirements should also be imposed on the site design such as clustering, low impact design, water conservation measures, which should be incorporated in the final site plan as well.

However, several conflicts cannot be avoided simply by site design changes and should be subject to additional conditions. These conflicts are detailed below:

1. Critical habitats – The extensive wood turtle habitat identified through Landscape Project Version 3 cannot likely be avoided by minimal reductions in the development footprint. In response to this finding, the applicant has submitted a report that while there is suitable habitat for wood turtle, they are not present on the site. Highlands Council staff cannot accept this conclusion without concurrence from the NJDEP. The NJDEP should evaluate the report and determine whether this conclusion is warranted.
2. Prime ground water recharge areas - This conflict cannot be resolved due to its extensive area in the development footprint. Highlands Council staff recommends a finding that the development be considered inconsistent with the Final Draft RMP. As an alternative, the staff recommends that very low impact development design techniques be required to minimize impervious surfaces and disturbance to native vegetation. In addition, a requirement should be implemented that the applicant design their stormwater facilities to recharge 125% of pre-development site recharge volumes within the same HUC14 subwatershed, so that at least the mitigation requirements of the Final Draft RMP are met.

3. Net Water Availability deficits – The deficits in the MCMUA source subwatersheds would only permit additional consumptive and depletive uses with 125% mitigation in the source HUC14. Because the site location is in another HUC14 than the source wells, the applicant would have to arrange for the mitigation in the source subwatershed. In that instance, the additional use would be considered depletive and require a 102,228 gpd ($81,782 * 125\%$) mitigation requirement. The recharge mitigation cited above may not be used to meet this requirement, as the site of mitigation would be in two different subwatersheds.

However, based on the current USGS aquifer model that the applicant references in their comments, if the underlying crystalline bedrock is sufficiently impervious, then it would be reasonable to assume that any sanitary discharge and engineered stormwater recharge onsite may travel as shallow subsurface flow above the bedrock and to the adjoining valley-fill aquifer and carbonate aquifer. This finding would provide justification that the Canfield site and the Alamatong Wellfield are hydrologically connected. Under that conclusion, the additional water use required would be consumptive and require a 29,646 gpd ($81,782 * 29\% * 125\%$) recharge mitigation. Such additional documentation should be submitted as a condition of approval to justify this approach. In this case, the mitigation requirement could be met in part or in whole through the recharge requirement cited above.

4. Clustering – The wastewater and water policies regarding extension of utility service into the Protection Zone require a clustering provision of 80% of the site for environmental protection. It is not clear based on the applicant's material whether this requirement has been satisfied by the accompanying settlement agreement. Based on staff's analysis, the 228-acre parcel would require a minimum of 182.4-acres dedicated to open space. The applicant has referenced that 190-acres will be dedicated from the Canfield site and an adjacent parcel (apparently related to a school site and potentially to be used for recreation), but conservation restrictions placed on those areas are not clear. A 178-acre dedication on the site is also referenced but that does not satisfy the 80% dedication. Due to the need to avoid other resources on the site, it should not prove difficult for the applicant to fulfill the 80% requirement. Highlands Council staff recommends that, as a condition of approval, additional documentation be submitted detailing the parcel location, size, and nature of the easement being dedicated.