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The Honorable Ryan Courtien
Town of Dover Town Board
126 East Duncan Hill Road
Dover Plains, New York 12522

Dear Mr. Courtien,

I am writing to offer comments concerning the proposed “Knolls of Dover” (henceforth “KOD”) project, which I have drafted at the request of Oblong Land Conservancy, the land trust that owns the Slocum-Mostachetti Preserve located immediately north of the subject site, and thus a clear stakeholder in the matter of this project. I have been working with Oblong since 2007 as a consultant in the development of a land management and conservation plan for the preserve. My comments on KOD are based on a review of the DEIS and attendant reports, along with a knowledge of local natural history derived from intensive fieldwork and extensive background research conducted in support of this plan. I would hasten to point out that because my request of the landowner’s representative, Ms. Kathy Shibanoff, to gain access to the site was not granted, I am forced to rely on descriptions and maps contained in the DEIS--aided to a limited extent by a brief inspection of the site from public roads and parking areas--rather than first-hand observations. Although I expect that the scale and scope of the proposed KOD project alone ensures public comment on a variety of engineering, economic and land-use issues, my primary interest, and thus the focus of my comments, pertains to natural resources, particularly those of direct relevance to Oblong and its preserve.

From a biological perspective, there are a number of issues raised in the DEIS and included reports that warrant comment. To start with, the DEIS contains numerous misspellings and transpositions of species names (*e.g.*, Table III.D-5, entitled “Rare Plant Species Documented on Site” lists “*Draba verna*” a non-native species; instead it should read “*Draba reptans*”). These errors are not only confusing but cast doubt on the preparer’s familiarity with scientific nomenclature and general attention to detail. Beyond such technical points, my overriding concern with the DEIS is the adequacy of the applicant’s efforts in inventorying the site’s natural features, and consequently, in fully assessing the potential impacts of the proposed actions upon these features. I also find there is a tendency in the reports to touch upon certain findings or aspects of the site that then receive no further attention. I include the five examples to illustrate these points:

1) While it appears that a reasonably complete avian survey was done, no significant species are reported, and the results presented by Evans Associates downplays any aspect of state or regional status--in contrast to comments on regional status included for plants—thus ignoring the rankings of New York Natural Heritage Program, NYS DEC Species of Greatest Conservation Need, Partners In Flight, and other organizations, which tend to be more frequently updated, and indicating only whether or not species appear on the State Endangered/Protected species list. This dichotomous approach neglects to acknowledge that once or even recently secure species may be declining, or that lack of data on some species may preclude

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more definitive ranking. Red-shouldered hawk would be an example of a bird species that, while not officially “Endangered”, merits conservation interest.

2) There is no mention of two rare animal species whose present strongholds in New York partially include Dutchess County: New England cottontail (*Sylvilagus transitionalis*), a candidate for listing under the Federal Endangered Species Act, and the Northern metalmark (*Calephelis borealis*), a globally rare butterfly recently documented within the Great Swamp vicinity. Based on the biogeography and known habitat requirements of these species, both are potentially present at KOD, and therefore should have been addressed.

3) Although referenced in passing in Hudsonia’s report, not a single group of invertebrate organisms was actively surveyed. No explanation is offered as to whether this was due to a time/cost constraint, lack of in-house expertise, or other factors. Given that invertebrates comprise the vast majority of faunal species in any given area, along with the fact that numerous species are of state or regional conservation concern, this seems to be a serious omission.

4) Some of the “Conservation Considerations” and other remarks in the Hudsonia report are noteworthy, for their specificity. For example, in the section on "Shrubby oldfield":

"Rare butterflies such as Aphrodite fritillary (*Speyeria aphrodite*), dusted skipper (*Atrytonopsis hianna*), Leonard’s skipper (*Hesperia leonardus*), and, at higher elevations, cobweb skipper (*H. metea*) may occur where their host plants are present."

Presented with this information, why then was no effort made to look for any of these species? In Oblong’s experience at the Slocum-Mostachetti Preserve, when an effort was made to look, we often found—in the case of butterflies, not only the Dusted skipper, but at least two other state/regional rarities. It is only reasonable to believe that these species also occur across the road at KOD. The fact that experts were brought in and called specific attention to certain things, yet no one then bothered to look for them makes this a peculiar and corrupt process; in the business world such practice would be regarded as a lack of due diligence. While the confirmed presence of one or even several lower-ranked state rare species such as Dusted skipper might not, in the Town’s view, be sufficient by itself to alter the course of the review process, it represents another piece of a multi-part ecological picture that, when viewed on whole, undeniably raises the site’s biological richness, its ecological complexity, and therefore its environmental significance. Whether through indifference or deliberate suppression, such information is not being brought to bear in consideration of this application.

5) In contrast, a serious effort was made to inventory bats, and in so doing, the Indiana bat (a Federal Endangered List species) was identified onsite. However, the report largely fails to discuss the implications of this discovery, or how the proposed project would address the presence of these animals. The following excerpt from a paper by Bat Conservation International, Inc. (www.batcon.org) illustrates some of the associated habitat issues:

“Recent studies indicate that Indiana Bat maternity colonies are formed mostly in riparian and floodplain forest near small to medium-sized streams, although bats also have been found along tree-lined drainage ditches and in upland sites. It may be that this apparent pattern is more a function of habitat availability

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than of the species' actual preference. Clearing for agriculture has restricted forest habitats largely to riparian zones in their summer range. To date, few maternity roosts have been studied. Of these, three have been in riparian habitat and one was in an open, pastured woodlot. Roosts also have been found in the hollow of a tree and behind loose, exfoliating bark of both dead and living trees...Optimum summer habitat must include mature trees, both to provide roost sites and because Indiana Bats forage around the crowns of large trees. Preferred stream habitat appears to consist of streams lined on both banks with mature trees that overhang the water by at least ten feet. Streams without riparian vegetation do not appear to be suitable. Upland forest with a well-developed canopy but poorly developed sub-canopy layer also appears to provide summer habitat.”

Based on this description, potentially suitable habitat conditions for a maternity colony would appear to be present at DOK. Clearly then, further investigation of the site with specific regard to Indiana bats is necessary.

Last, but certainly not least, I would point out that little or no attempt was made in the DEIS to look beyond the parcel boundaries. This myopic approach raises a number of concerns. First, in the case of highly vagile organisms such as birds or reptiles, it is essential to recognize that ranges or habitat patches of species found at one site may extend far offsite; thus it is necessary to view them not as isolated occurrences, but as populations within a landscape or watershed context (*e.g.*, Great Swamp). For this reason, Oblong's site management plan must consider the possible effects of KOD project on the Kentucky warbler (*Oporonis formosus*), a State-listed bird species found last year at Slocum-Mostachetti Preserve, which likely moves between the sites. Another is the potential for off-site impacts to significant natural communities. Again, survey work at the preserve has identified (with assistance from NY Natural Heritage Program ecologists) two such communities: Rich sloping fen (a rare wetland type), and Calcareous cedar barrens (a woodland type associated with marble knolls). In addition to the likelihood that these communities extend onto DOK—this would need to be confirmed through fieldwork on the site—it is very possible that these communities could be adversely affected by actions at DOK. This is particularly true for the fen wetland, which is located at the south end of the preserve with clear hydraulic connection (via a culvert under Pleasant Ridge Road) to a wetland area along the north side of DOK (which is not identified in the DEIS as part of any larger wetland). Rich fens, which typically support distinctive assemblages of uncommon plant and animal species, are fed by base-rich seepage emanating from adjacent slopes underlain by calcareous bedrock. Changes in the quantity or chemistry of inflowing water may result in irreparable alteration of their character. Although not sensitive in the same way to upstream physiochemical effects, the marble knolls also support unique flora and fauna assemblages rich in rare species. The availability of nearby patches of outcrop habitat has probably allowed survival of constituent species during natural disturbances such as fire. For this reason, although both the marble knolls and wetlands may appear as discrete features on the landscape, they should be viewed collectively as part of a unique complex of communities restricted in its distribution to the Harlem Valley region.

In conclusion, it has been said about scientific inquiry that good research often raises as many questions as it answers. In the realm of theoretical research, such questions spur future projects or are pursued by other researchers; in the realm of environmental review, however, not only is it necessary to have answers to inform the decision-making process, but if the process continues without addressing important questions, opportunities for further investigation are likely to be forever lost. Therefore, I strongly recommend that

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the Town not accept the KOD DEIS in its present form, but require the applicant to further examine or re-examine important issues cited herein, before this project can proceed any further toward approval or implementation.

I would be willing and available to assist the Town if it requires any further information or guidance in reviewing the application.

Respectfully submitted,