

June 30, 2009

Dover Town Board  
c/o Supervisor Ryan Courtien  
126 East Duncan Hill Road  
Dover Plains, NY 12522

### **Comments on the Dover Knolls Draft DEIS**

The following are some of our concerns about the potential impacts of the proposed Dover Knolls Project as they are addressed in the DEIS. Our focus here is on the Great Swamp and the other natural resources found on or near the site.

#### **Cumulative Impacts**

The integrity of the Great Swamp and its habitat corridor is compromised every time development along its perimeter occurs, but the impacts of dense housing along its margin are especially detrimental because this focuses long term human activity in the most vulnerable zone. The degradation that results includes reducing the effective buffer of the wetland system upon which we depend.

A pervasive problem is that small impacts raise no alarm. But small impacts occurring at several locations, often including different types of impacts, none of which may be significant when considered separately, add up and interact in ways that cumulatively cause serious degradation of the system.

Consider the Great Swamp, the landscape integrator for Dover, Pawling, Patterson, and Southeast. This 20 mile long wetland runs through the center of Dover Knolls. Small intrusions into wetland buffer zones at several points, withdrawal of groundwater by four wells into the aquifer, discharging of treated sewage effluent into the Swamp River, increasing stormwater runoff into the system as impervious surface is increased, adding more road salt to streams from deicing more roads on steep slopes, and increasing the human activity along its edge, none of these will 'do in' the Great Swamp the DEIS asserts, at least over the short term. But taken cumulatively, these proposed actions may result in serious degradation of this Critical Environmental Resource.

And that's just the on-site impacts. Once it is acknowledged that Dover Knolls is not proposed in a development vacuum, but is taking place at a time Dover has at least two other major projects in the Great Swamp Watershed on the "drawing boards," the potential arises for a plethora of unanticipated environmental impacts due to the cumulative effects. Consider water withdrawal from the aquifer -- each project proposes withdrawing nearly a million gallons of water per day. What will be the impact? Especially in light of all the other types of accompanying actions.

If the DEIS assesses such cumulative impacts, either on site or watershed-wide, I missed it. But such an evaluation is essential and a requirement of SEQRA I believe.

Each type of potential impact needs to be minimized since cumulative and synergistic interactions are not always easy to predict. In the case of Dover Knolls, examples include:

- requiring tertiary treatment of sewage effluent to significantly reduce nutrient input to the Great Swamp and
- eliminating the row of housing units on the wetland buffer line north of Wheeler Road.

### **Biological Resources: Rare Wildlife and Plants of Special Concern**

The identification of rare species and communities by Dover Knolls consultants attests to the special value of the site. The most important biological resources on the site include the Great Swamp corridor, marble knolls, fen wetlands, and vernal pools. Each of these support important biological diversity that includes rare species, each is sensitive to both direct and indirect disturbance, and each is dependent on its landscape context to maintain biodiversity and its ecosystem functions/services.

These valuable resources are acknowledged in the DEIS and in most cases, protective buffers are provided, however, the protection needs to be more complete. As the consultants indicate, additional exploration of the habitats is likely to turn up additional rare and interesting species and we urge the owners to support such as effort by qualified professionals. The marble knolls, fens, stream gorge, and other key habitats warrant both further exploration and effective protection with management where appropriate.

The documentation of Indiana Bat on the property is especially significant so comments from Al Hicks, the bat specialist at New York State DEC's Endangered Species Unit, should be sought and incorporated into the record.

Maintaining the intact forested habitat block on the East Side will ensure maximum wildlife value there.

### **Marble Knolls and Conservation Management Authority**

Marble knolls are an important natural and symbolic feature of the Town of Dover and they support truly distinctive ecosystems with many rare species. Dover Knolls, in fact, touts these special systems as their name and the marble knoll locations are indicated on their habitat maps.

The largest marble knoll, situated in the northeast portion of the West Side, is a very high quality habitat and should receive special protection. It also warrants professional management to retain its distinctive biota.

- The impact of assigning the management of this and other important natural resources to a Homeowners Association is not addressed. These areas need to be under a conservation easement and their management awarded to a capable conservation organization.

Two concerns with the current proposal are:

- the road that goes across the south end of the large highest quality knoll and
- the apparent development over the several knolls west of the large one.

Eliminating the road would be the most protective strategy, but mitigation could be achieved by moving it south of the knoll.

Creative efforts to protect the other knolls and their rare plants need to be exhausted before current plans proceed.

The plan should specifically protect the linkages of the significant marble knolls on site with those to the north on Slocum-Mostachetti Preserve, Cedar Lake, Nellie Hill, and areas to the south. This should preclude the road and other alterations to the sites identified on the Habitat maps.

### **Rare Wildlife and Plants of Special Concern**

The identification of rare species and communities by Dover Knolls consultants attests to the special value of the site. As some of their writing indicates, additional exploration of the habitats is likely to turn up additional rare and interesting species and we urge the owners to support such an effort by qualified professionals. The marble knolls, fens, stream gorge, and other key habitats warrant both further exploration and effective protection with management where appropriate.

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### **Impact of Water Withdrawal**

The aquifer withdrawals anticipated for the project are likely to impact groundwater and wetland hydrology, especially during drought periods, despite the studies provided by the developer. This concern is given substance by independent analysis as presented at the public hearing. The wetlands most vulnerable to aquifer withdrawals are the groundwater-fed calcareous fens which support rare biota. The serious questions concerning statements about the lack of impacts from water withdrawals need to be convincingly addressed.

### **Sewage Treatment**

The upgraded sewage treatment system needs to be tertiary treatment to protect the health of the Swamp River and the Great Swamp. The DEIS presentation of flow rates and assimilation potential of the Swamp River seem at odds with previous understanding of the system and should be validated, especially for droughty conditions.

**Stormwater Management**

Stormwater detention basins must not be constructed in the wetland buffer zones because that (a) reduces the amount of habitat dedicated to protecting the wetland and (b) places the stormwater holding pool next to the wetland, increasing the risk that incompletely treated stormwater will be dumped directly into the wetland if capacity is exceeded or the berm fails. It also alters the critical wildlife habitat corridor that intact natural vegetation provides.

**Steep Slopes**

Disturbance and building on slopes greater than 15% need to be prohibited, as is standard practice. These are unnecessary in a parcel this large and the increase in runoff, erosion, and salt demand will adversely impact the streams, Great Swamp, and Swamp River. Eliminating Reservoir Village leaves the forested slope intact and significantly reduces proposed steep slope impacts.

Respectfully submitted,

James M. Utter, PhD  
Chairman