

Appendix D

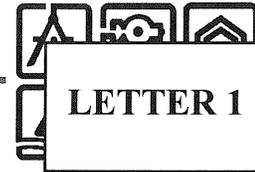
Written Comments
Received on the DEIS

Index of Written Comments Received on the DEIS
Lost Lake Resort

Letter #	Author	Date
1	CT Male Associates (Richard A. Campagnola, R.A.)	June 14, 2010
2	Sullivan County Division of Planning and Environmental Management (Luiz C. Aragon, Commissioner)	June 16, 2010
3	New York State Department of Environmental Conservation (John W. Petronella, Environmental Analyst)	July 1, 2010
4	CT Male Associates (John S. Munsey, P.G.)	July 1, 2010
5	Alan Kulchinsky	July 2, 2010

C.T. MALE ASSOCIATES, P.C.

50 Century Hill Drive, Latham, NY 12110
518.786.7400 FAX 518.786.7299 ctmale@ctmale.com



June 14, 2010

**VIA EMAIL

Mr. James P. Galligan, Supervisor
Town of Forestburgh
P.O. Box 114
Forestburgh, NY 12777

Re: *Lost Lake Resort*
DEIS Technical Review Comments – Fire Protection
C.T. Male Project No. 08.8543

Dear Supervisor Galligan:

C.T. Male Associates, P.C. (C.T. Male) has reviewed Section 3.10.3 Fire Protection of the Applicant's Draft of the Draft Environmental Impact Statement (DEIS) for the Lost Lake Resort, and offers the following comments:

GENERAL COMMENTS

Based upon the information presented in Section 3.10.3 Fire Protection, the DEIS does not adequately address the impacts to the community that will result from a significant increase in the number of calls to the Forestburgh Fire District from the proposed action. No input from the fire district, code enforcement official, or other Authority Having Jurisdiction, regarding the impact to the community was provided. In addition, none of the criteria for fire protection set forth in such recognized standards for fire protection as *NFPA 1720 Standard for the Organization and Deployments of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments*, and the *Fire Code of New York State*, or the community's rating by the Insurance Services Office, have been addressed. 3.10-1

According to the DEIS, it is estimated the Full Build Scenario will result in 450 additional calls per year, or approximately 600 calls per year total, compared to the current 120 calls per year. Even under the Partial Build Scenario, these calls will involve higher hazard occupancies and more complex incidents than that which is currently applicable to the services of the volunteer fire department, impacting the effectiveness and efficiency of the public fire service operations, emergency medical service, and special operations delivery protecting the citizens of this jurisdiction. 3.10-2

1910 - 2010
years

C.T. MALE ASSOCIATES, P.C.

*Lost Lake Resort
DEIS Technical Review Comments - Fire Protection
Page - 2*

3.10-3

The Potential Impacts included in the DEIS indicate that at full build out, the Lost lake Resort will generate property tax revenues to the Forestburgh Fire District of approximately \$659,136 annually and at the completion of the Partial Build Scenario an amount totaling approximately \$315,921 annually. It is indicated that this additional revenue can be used to augment the District's capabilities as necessary, however, such tax payments do not address the potential impact based upon the number of fire fighting personnel, as the number of new occupants will be mainly transient (seasonal) in nature and will not add to the ranks of the all-volunteer force.

NFPA STANDARDS

3.10-4

There is no information provided in the DEIS relative to NFPA (*National Fire Protection Association*) standards. The DEIS uses only the Urban Land Institute's 1994 planning criteria, which does not adequately address the impact on the Fire District as a result of increased calls based upon minimum staffing needed to respond, the response time, or the ability of the fire department to meet the required objectives per applicable NFPA standards.

- NFPA Standard 1720 contains the minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by volunteer and combination fire departments. The purpose of this standard is to specify the minimum criteria addressing the effectiveness and efficiency of the volunteer and combination public fire suppression operations, emergency medical service, and special operations delivery protecting the citizens of a jurisdiction. The standard is a benchmark for a common response and a platform for developing the appropriate plans for deployment of resources for fires in higher hazard occupancies or more complex incidents.

3.10-5

- The specific role of the fire department and other responding agencies, as defined by the community risk management plan, is not addressed in the DEIS. According to *NFPA 1720*, fire suppression operations are mandated to be organized to ensure that the fire department's fire suppression capability includes sufficient personnel, equipment, and other resources to deploy fire suppression resources efficiently, effectively and safely. The authority having jurisdiction shall promulgate the fire department's organizational, operational, and deployment procedures, by issuing written administration regulations, standard operating procedures (SOP's), and departmental orders. The fire department shall then need to participate in a process that develops a community fire and emergency services risk management plan.

C.T. MALE ASSOCIATES, P.C.

Lost Lake Resort
 DEIS Technical Review Comments - Fire Protection
 Page - 3

- According to *NFPA 1720*, the fire department shall need to identify minimum staffing requirements to ensure that a sufficient number of members are available to operate safely and effectively. Table 4.3.2 from *NFPA Standard 1720* shall be used by the Authority Having Jurisdiction to determine staffing and response time objectives for structural fire fighting, based on a low-hazard occupancy such as 2000 sq. ft. two-story single family home without basement and exposures and the percentage accomplishment of those objectives for reporting purposes.

<u>Demand Zone</u>	<u>Demographics</u>	<u>Minimum Staff to Respond</u>	<u>Response Time</u>	<u>Meets Objectives</u>
Suburban	500-1000 people/ Sq. Mile	10	10 Min.	80%
Rural	<500 people/ Sq. Mile	6	14 Min.	80%
Remote	Travel Distance ≥ 8 Miles	4	Dependent on Travel Distance	90%

- No information regarding the impact of increased travel distances or other specific mitigation measures are addressed in the DEIS. The RAND Corporation conducted extensive studies of fire department response times. They concluded that the average speed for a fire apparatus responding with emergency lights and siren is 35 mph. That speed considers average terrain, average traffic, weather, and slowing down for intersections. Taking into account the average speed and the time required for an apparatus to accelerate from a stop to the travel speed, RAND developed the following equation for calculating the travel time: 3.10-6

$$T = 0.65 + 1.7D$$

Where:

T = time in minutes to the nearest 1/10 of a minute

0.65 = a vehicle-acceleration constant for the first 0.5 mile traveled

1.7 = a vehicle-speed constant validated for response distances ranging from 0.5 miles to 8.0 miles.

D = distance

According to *NFPA 1720*, travel distances are varied and can be computed utilizing ISO travel formula.

MUTUAL AID

According to the DEIS, the Forestburgh Fire District is part of the Sullivan County Fire Mutual Aid plan, a copy of which is included as reference in Appendix R. 3.10-7

- In accordance with *NFPA 1720*, the mutual aid agreement should include automatic response on first alarms (automatic aid). This concept contemplates joint response of designated apparatus and personnel on a predetermined running assignment basis. The DEIS does not acknowledge any changes to the current Mutual Aid plan that are required to adequately address the impact of the proposed action.

According to the DEIS, if mutual aid is needed, the Fire District will be assisted by fire fighters from adjoining districts, particularly the Monticello Fire Company, as they have an aerial truck to assist with fires in taller structures in Forestburgh. 3.10-8

- The potential impacts of the proposed action indicates all buildings are planned to be less than 35-feet high, though this would include structures higher than 30 feet above the lowest level of fire department vehicle access, which require access for aerial apparatus. The DEIS does not acknowledge the impact to the Forestburgh Fire District, which currently does not have an aerial truck in its current inventory.

FIRE APPARATUS ACCESS ROADS

The Mitigation Measures included in the DEIS only indicate that the proposed internal roads are designed to accommodate fire engines and truck traffic and that all proposed roads will meet the required road standards as per the Town of Forestburgh Code. 3.10-9

- In accordance with §F503.1 of the *Fire Code of New York State*, for other than one-and two-family dwellings regulated by the *Residential Code of New York State*, and for properties with not more than two Group R-3 occupancies, approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction.
- In accordance with the *Fire Code of New York State*, fire apparatus access road shall extend to within 150 feet of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility. The distance is permitted to be 300 feet where the building is equipped throughout with an approved automatic sprinkler system, when approved by the code enforcement official. Additional fire apparatus access roads shall be required by the code enforcement official based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access. 3.10-10

C.T. MALE ASSOCIATES, P.C.

Lost Lake Resort

DEIS Technical Review Comments - Fire Protection

Page - 5

- In accordance with §F503.2.1 of the *Fire Code of New York State*, fire apparatus access roads shall have an unobstructed width of not less than 20 feet, and an unobstructed vertical clearance of not less than 13-feet 6-inches. Fire apparatus access roads shall also meet the width requirements of §FD103.1 of *Appendix FD*, where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet. 3.10-11
- In accordance with §FD105 of *Appendix FD*, buildings exceeding 30 feet in height above the lowest level of fire department vehicle access shall be provided with approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Aerial fire apparatus access roads shall have a minimum unobstructed width of 26-feet in the immediate vicinity of any building or portion of building more than 30-feet in height. Overhead utility and power lines shall not be located within the aerial fire apparatus access roadway. 3.10-12
- The code enforcement official shall have the authority to require an increase in the minimum access widths where they are inadequate for fire or rescue operations in accordance with §F503.2.2 of the *Fire Code of New York State*. 3.10-13
- In accordance with §F503.2.3 of the *Fire Code of New York State*, fire apparatus access roads shall be designed per §FD102.1 of *Appendix FD* and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds. 3.10-14
- In accordance with §F503.2.4 of the *Fire Code of New York State*, the required turning radius of a fire apparatus access road shall be determined by the code enforcement official. 3.10-15

The plans submitted with the DEIS indicate various cul-de-sacs and dead-ends, however compliance with the *Fire Code of New York State* is not indicated. In accordance with §F503.2.5, dead-end fire apparatus access roads in excess of 150-feet in length shall be provided with an area for turning around fire apparatus as required in §FD103.4 of *Appendix FD*. 3.10-16

- In accordance with §FD103.4 of *Appendix FD*, dead-end fire apparatus access roads in excess of 150 feet shall be provided with width and turnaround provisions, consisting of either a 120-foot Hammerhead, 60-foot "Y" or 96-foot-diameter cul-de-sac shall be provided. For lengths over 750-feet dead-end turnaround provisions shall be as approved by the Authority Having Jurisdiction.

3.10-17

The DEIS also does not indicate, based upon the anticipated terrain within the proposed action, that the requirements for the construction of any elevated roads or grades of roads shall accommodate fire apparatus in accordance with the provisions of the *Fire Code of New York State*:

- In accordance with §F503.2.6 of the *Fire Code of New York State*, where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with *AASHTO Standard Specification for Highway Bridges*. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the code enforcement official. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, approved barriers, approved signs or both shall be installed and maintained when required by the code enforcement official.
- In accordance with §F503.2.7 of the *Fire Code of New York State*, the grade of the fire apparatus access road shall be within the limits established by the code enforcement official based on the fire department's apparatus. In accordance with §FD103.2 of *Appendix FD*, fire apparatus access roads shall not exceed 10 percent in grade, unless otherwise approved by the fire chief.

3.10-18

SECURITY GATES

The DEIS indicates that access points will be gated in conjunction with site security provisions to be included in the proposed development, however, compliance with the provisions of the *Fire Code of New York State* is not indicated in the DEIS as follows:

3.10-19

- In accordance with §F503.4 of the *Fire Code of New York State*, fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in §F503.2.1 shall be maintained at all times.
- In accordance with §F503.6 of the *Fire Code of New York State*, the installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times.
- In accordance with §FD103.5 of *Appendix FD*, gates securing the fire apparatus access roads shall comply with all of the following criteria:

3.10-20

3.10-21

C.T. MALE ASSOCIATES, P.C.

Lost Lake Resort

DEIS Technical Review Comments - Fire Protection

Page - 7

1. The minimum gate width shall be 20 feet.
2. Gates shall be of the swinging or sliding type.
3. Construction of gates shall be of materials that allow manual operation by one person.
4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the code enforcement official.
6. Manual opening gates shall not be locked with a padlock or chain and padlock unless they are capable of being opened by means of forcible entry tools.
7. Locking device specifications shall be submitted for approval by the code enforcement official.

FIRE PROTECTION WATER SUPPLIES

The Mitigation Measures included in the DEIS indicates that the proposed project will be supplied from a proposed community water supply system, which will supply adequate water pressure. The DEIS does not discuss any provisions for automatic water-based fire protection systems within proposed buildings and the impact to the required fire flows. In addition, it is not indicated how these fire flow requirements may impact the ISO (Insurance Services Office) grading of the fire district in the areas of water supply, number of required engine companies and required pump capacity. 3.10-22

The DEIS indicates that hydrants will be installed in compliance with the *Ten States Standards* at a distance of no more than 600-foot spacing. 3.10-23

- In accordance with §F508.5 of the *Fire Code of New York State*, where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided. 3.10-24
- For Group R-3 occupancies and townhouses constructed regulated under the *Residential Code of New York State*, the distance requirement shall be 600 feet. For buildings equipped throughout with an approved automatic sprinkler system, the distance requirement shall be 600 feet.

C.T. MALE ASSOCIATES, P.C.

*Lost Lake Resort
DEIS Technical Review Comments - Fire Protection
Page - 8*

3.10-25

The Mitigation Measures included in the DEIS indicates only that the buildings will be required to meet applicable standards of the *New York State Fire Prevention and Building Code*. The DEIS does not address however if residential fire sprinklers will be provided as part of the proposed safety package, which is currently included in the 2009 *International Residential Code*, though not otherwise required by the *Building Code of New York* at this time.

ISO RATING

3.10-26

The Mitigation Measures included in the DEIS does indicate that the site master plan includes a two-acre area off St. Joseph's Road available for dedication to the Town for future emergency services facilities.

- The need for a municipality to provide fire protection facilities is of critical importance to the safety and well being of its citizens. The requirements in each individual case must be carefully analyzed using the provision of an appropriate level of fire protection for the hazards involved. Solutions, which are easily implemented, may not necessarily be the most cost effective measures to introduce. Likewise, spending significant financial resources to construct a new fire station in a different location will not automatically guarantee that improved fire protection is afforded to the community.

An analysis is recommended which would evaluate the potential fire department locations, apparatus response patterns and their impact on the ISO (Insurance Services Office) rating for the fire district. One nationally accepted criteria for establishing parameters for fire station locations is published by the Insurance Services Office in their Fire Suppression Rating Schedule. The Insurance Services Office is a private, not for profit service organization that provides various rating formulas and inspection services for member insurance companies. The Fire Suppression Rating Schedule is utilized by ISO to rate the ability and performance of fire departments in the areas of apparatus, training, equipment, personnel response, apparatus response and communications.

These parameters as established by ISO are utilized to develop the base fire insurance rates for municipalities with recognized water supply systems with fire hydrants. Municipalities are graded by ISO and awarded a numeric classification between 1 and 8 depending upon the total points of credit given under the evaluation. Fire departments,

C.T. MALE ASSOCIATES, P.C.

Lost Lake Resort

DEIS Technical Review Comments - Fire Protection

Page - 9

which operate in whole or in part in rural areas without hydrant supply, are reviewed by ISO for basic apparatus and response criteria and are given a Class 9 rating. Departments that do not have fire hydrants can apply for a lower classification for rural water supply credit providing that they can establish a minimum fire flow of 250 gpm and sustain this for a two-hour duration.

The ISO schedule addresses fire station locations by establishing the recommended and the maximum distances for apparatus response over public roadways as follows:

<u>Apparatus Type</u>	<u>Distance</u>	<u>Comment</u>
First due engine	1.50 miles	Recommended Distance
First due ladder/ Special service	2.50 miles	Recommended Distance
First due engine	3.00 miles	Maximum Distance Commercial Property
First due engine	5.00 miles	Maximum Distance Residential Property

The ISO criteria represents the recommended distance from the fire station for all properties in the built upon areas of the fire district. The maximum allowable distance from the fire station of three miles for commercial buildings and five miles for private dwelling is established if the property is to be credited for response by the local fire department. Buildings or properties, which are beyond these distances, are rated as Class 10 by the ISO for insurance rating purposes.

The Forestburgh Fire District's last evaluation by ISO and the potential impact of the development on the community's ISO rating is not indicated in the DEIS. By classifying communities' ability to suppress fires, ISO helps the communities evaluate their public fire-protection services. To establish appropriate fire insurance premiums for residential and commercial properties, insurance companies need reliable, up-to-date information about a community's fire-protection services. ISO provides that information through the Public Protection Classification (PPC) program. The program provides an objective, countrywide standard that helps fire departments in planning and budgeting for facilities, equipment, and training. And by securing lower fire insurance premiums for communities with better public protection, the PPC program provides incentives and rewards for communities that choose to improve their firefighting services.

C.T. MALE ASSOCIATES, P.C.

*Lost Lake Resort
DEIS Technical Review Comments - Fire Protection
Page - 10*

Should you have any question or comment regarding C.T. Male's technical review comments on the Fire Protection section of the Applicant's Draft of the DEIS for Lost Lake, as always, please feel free to contact me directly at (518) 786-7400.

Sincerely,

C.T. MALE ASSOCIATES, P.C.

A handwritten signature in black ink, appearing to read 'RAC', written in a cursive style.

Richard A. Campagnola, R.A.
Principal Architect

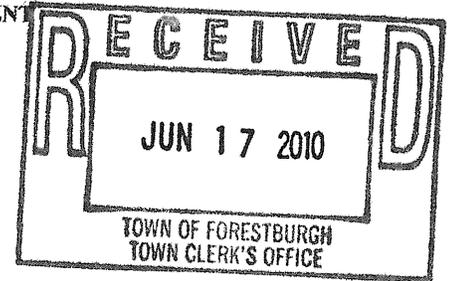
cc: Susan H. Hawvermale, Planning Board
Joanne K. Nagoda, Town Clerk
Bill Bavoso, Town Board Attorney
John S. Munsey, C.T. Male

LUIZ C. ARAGON
COMMISSIONER



INTERNET LETTER 2 0527 0546 ny.us

SULLIVAN COUNTY
DIVISION OF PLANNING AND ENVIRONMENTAL MANAGEMENT
SULLIVAN COUNTY GOVERNMENT CENTER
100 NORTH STREET
PO BOX 5012
MONTICELLO, NEW YORK 12701



June 16, 2010

Ms. Joanne Nagoda, Clerk
Town of Forestburgh
PO Box 114
Forestburgh, NY 12777

**RE: Lost Lake Resort
DEIS**

Dear Ms. Nagoda:

The Sullivan County Department of Planning and Environmental Management has received the Draft Environmental Impact Statement for the proposed Lost Lake Resort Planned Development District at St. Josephs Road (CR 108) and Cold Spring Road (CR 102) in the Town of Forestburgh (SBL# 3.-1-1.1, 3.-1-2.1, 3.-1-3, 4.-1-7, 4.-1-10.2, 7.-1-1, 8.-1-1.2, 8.-1-2, 20.A-1-1, and 20.B-1-1). The project site comprises 2091.06 acres and is a proposed master planned golf course resort and residential community.

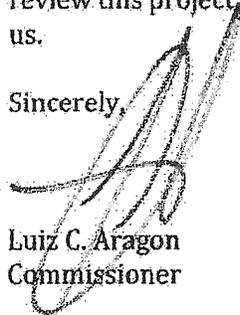
We would like to offer the following comments for your consideration:

- The impact on community character by a dense development of this size has not been fully evaluated and should address the following at a minimum:
 - As proposed the project will yield a suburban style golf course development that is not in character with the existing community. 2-1
 - While the project addresses open space and recreational needs for the development residents, the DEIS does not make clear what will be made available to outside residents, other than the guest housing. 2-2
 - The open space is predominantly wetlands, open water, and golf links, which indicates that the developer is not conserving much open space that isn't mandatory or revenue generating. Constrained lands, such as wetlands and steep slopes should be removed from open space calculations and the additional land should be preserved and left undeveloped especially since the DEIS acknowledges presence of vernal pools, timber rattlesnakes and important birding areas on and around the project site. 2-3

- o The benefits achieved from the environmental aspects such as LEED standards and chemical free golf courses are not enough to earn a density increase that would bring the unit count up from the 748 units calculated by the PDD density to the proposed 2627 units, let alone the 491 units allowable as of right. The number of units proposed would have a negative impact on community character and the natural resources on the site. Further analysis is needed to show how the proposed benefits deserve the density increase. 2-4
- Some of the proposed lots are entirely covered by steep slopes, which will cause erosion and storm water concerns throughout the site. Steep slopes, like wetlands, should be preserved and removed from development areas. 3.1-1
- According to the Community Services section regarding schools states that 57% of the development population will be seasonal. However, a developer cannot assume only second home owners will purchase homes and therefore homes may be purchased by year round families with school age children. Thus, the impact of the development on the schools should be fully evaluated, and anticipated with possible future mitigative measures should the entire development be year round residents. 3.10-27
- According to the Traffic and Transportation section, it states that internal road access will be via a tunnel under St. Joseph's Road (Cty Road 108). Further discussions will be needed with the County Division of Public Works to see if this design option is feasible, as the potential impacts have not been addressed in the DEIS. 3.8-1

Please be advised that this project must be referred to the DPEM for review under Section 239-l, -m and -n of the General Municipal Law. If we can offer any technical assistance as you continue to review this project, or if you have any other questions or concerns, please do not hesitate to contact us.

Sincerely,



Luiz C. Aragon
Commissioner

cc: Kathleen LaBuda, Legislator
Marcia Fink, SC DPW
GML239 Referral File

Y:\PLANNING\PLANNING\GML-239\Forestburgh\lost lake\DEIS comments.doc

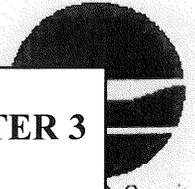
New York State Department of Environmental Conservation

Division of Environmental Permits, Region 3

21 South Putt Corners Road, New Paltz, New York 12561-1620

Phone: (845) 256-3054 FAX: (845) 255-4659

Website: www.dec.ny.gov



LETTER 3

Thomas J. Grannis
Commissioner

July 1, 2010

James P. Galligan, Supervisor
Town of Forestburgh Town Board
332 King Road – PO Box 114
Forestburgh, NY 12777

**Re: Draft Environmental Impact Statement (DEIS) Comments - Lost Lake Resort
DEC Pre-Application ID No. 3-4830-00061/00001
Town of Forestburgh, Sullivan County**

Dear Supervisor Galligan and Town Board members:

The NYS Department of Environmental Conservation (DEC or Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed Lost Lake Resort development. The Department is an involved agency in the State Environmental Quality Review (SEQR) review of this project and appreciates the opportunity to provide these comments. Working together, the Town, DEC, and the project sponsor have the best chance of making sure the SEQR process works efficiently and leads to timely and supportable decision making by all involved agencies.

According to the DEIS, the proposed action (preferred alternative) involves the construction of a residential development plus recreational resort on a site of 2,079.5 acres in the Town of Forestburgh, Sullivan County. The resort component will include a hotel and conference facilities, an 18 hole championship golf course, a club house and restaurant, swimming and boating facilities on Lost Lake, tennis courts, a health and wellness spa, and associated roads, utilities (water and wastewater) and infrastructure. At full build out, the residential component will include 2,557 single family residential lots, 30 single family cottages and 40 multi-family condominiums.

Based upon review of the DEIS the following permits are required from the Department:

1. Article 24, Freshwater Wetlands for the proposed impacts to NYS Freshwater Wetland HA-40 (Class 2) and HA-27 (Class 2);
2. Article 15 Protection of Waters (Stream Disturbance) for the proposed disturbance of the bed/banks of a tributary to the Bush Kill (NYS Water Index D-1-22-1, Class B)
3. Article 15, Water Supply
4. Article 17, State Pollutant Discharge Elimination System – Wastewater for the discharge of treated sanitary wastewater to the Bushkill
5. Article 17, SPDES – Stormwater for the disturbance of over 1 acre of land
6. Individual Section 401 Water Quality Certification (WQC)

In addition to the above referenced permit jurisdictions, the Department has a stewardship responsibility to ensure that natural resources, including wetlands, vernal pools, biodiversity, wildlife and species of special concern, are thoroughly evaluated and afforded appropriate protection.

Re: Preliminary Draft Environmental Impact Statement (DEIS) Comments - Lost Lake Resort
DEC Pre-Application ID No. 3-4830-00061/00001
Town of Forestburgh, Sullivan County

The following comments on the DEIS are offered for consideration by the Town Board:

Note Regarding Actual Full Build-out:

Throughout the DEIS it is stated that a majority of lot owners may never build a home. Rather, a lot is purchased for membership to the resort and use of the various amenities. However, it is the intent of SEQR to evaluate the entire scope of the activity. In this case, the Department is assuming full build-out of the project and the potential impacts associated with this. 2-5

Geology, Soils and Topography (avoiding Steep Slopes)

Based upon review of the preferred alternative Site Master Plan (SMP) Figure 2.5 and the DEIS, approximately 15 acres of steep slopes (greater than 25%) will be graded to allow for residential lots, road infrastructure, golf course and stormwater structures. On a site in excess of 2,000 acres, impacts to steep slopes (greater than 25%) can be avoided while still allowing for a substantial development. While it is indicated that impacts to steep slopes are directly related to the potential for soil erosion, additional potential impacts could result from their alteration that were not discussed. These include impacts to vernal pools and wetland hydraulics, impacts to species that utilize higher ground for perches during hunting (e.g.: Northern Goshawk, Sharp-shinned Hawk and Red-shouldered Hawk, Bald Eagle). The Department recommends avoiding construction on slopes in excess of 25% to a much greater degree than currently proposed. 3-1-2

Mitigation Measures

It is indicated in the DEIS that the project will have a stormwater pollution prevention plan (SWPPP) designed in accordance with the NYSDEC SPDES General Permit (GP-0-10-001). The applicant should be aware that a new stormwater design manual is due out soon. Permittees will have six months to start using this new design manual. It is likely that by the time the project sponsor applies for permits for this project, they will have to use the new design manual to be covered under the General Permit. The new manual is significantly different from the current one in that it uses more green infrastructure and infiltration practices. The Department recommends that when the project sponsor refers to the current design manual in the DEIS, they should add "or subsequent revision". 3-5-1

Additional comments may be generated on stormwater during review of the SWPPP. Authorization for coverage under the SPDES General Permit is not granted until approval of the SWPPP and issuance of any necessary DEC permits. 3-5-2

Wetlands

It is indicated in the DEIS that a permit will be required for the two (2) road crossings of NYS Freshwater Wetland HA-40. The project sponsor should be aware that an Article 24 Freshwater Wetlands permit will be required for the following activities: 3-2-1

1. two proposed crossings road of NYS Freshwater Wetland HA-40 (Class 2)
2. the waterfront activities on Lost Lake Freshwater Wetland HA-27 (Class 2) marina, beach, dock etc.
3. altering water levels within Lost Lake (HA-27) for golf course irrigation
4. wildlife observation station(s) within the 100 foot adjacent area of HA-40

In planning a project for this site, all disturbances within the wetlands and their 100-foot adjacent areas (AA) must be avoided to the maximum extent practicable. The project sponsor will be required to demonstrate that the project meets the permit issuance standards contained in the Freshwater Wetland Permit Requirements Regulations (6 NYCRR Part 663; copy available on-line at www.dec.state.ny.us/website/regs/index.html). The applicable weighing standards for issuance state: 3-2-2

Re: **Preliminary Draft Environmental Impact Statement (DEIS) Comments - Lost Lake Resort
DEC Pre-Application ID No. 3-4830-00061/00001
Town of Forestburgh, Sullivan County**

“Class II wetlands provide important wetland benefits, the loss of which is acceptable only in very limited circumstances. A permit shall be issued only if it is determined that the proposed activity satisfies a pressing economic or social need that clearly outweighs the loss of or detriment to the benefit(s) of the Class II wetland.”

Therefore, the burden is on the applicant to demonstrate that 1) no other practicable alternative are available on a site that is not a freshwater wetland or AA, 2) the impact to the wetland has been minimized to the greatest extent possible, 3) adequate mitigation is offered to offset the impacts. Additional comments may be generated on freshwater wetland impacts during the application process.

Golf Course Irrigation

3.2-3

According to the DEIS, water for golf course irrigation will be withdrawn from Lost Lake. The perimeter of Lost Lake is part of NYS Freshwater Wetland HA-27 (Class 2) and pursuant to Freshwater Wetland Permit Requirements Regulations (6 NYCRR Part 663), the draining and altering of water levels, except as part of an agricultural activity, is considered an activity that is “incompatible with a wetland and its functions and benefits”. According to the DEIS, the withdrawal of irrigation water for the golf course will result in an estimated 3.7 inch drawdown during the month of July (drought year) and 2.1 inches (July) during a normal precipitation year. The project sponsor will have to demonstrate that no other alternatives are available to meet freshwater wetland permit issuance standards. As previously discussed with the project sponsor, one alternative that may be feasible includes supplementing the irrigation water with waste water treatment plant effluent. This alternative has not been thoroughly evaluated in the DEIS. The project sponsor should also be aware that any Freshwater Wetland permit authorizing this activity will have strict conditions that require monitoring the drawdown and potential impacts to the resource. If adverse impacts are observed, alternative irrigation sources must be employed.

Vernal Pools

3.2-4

The DEIS documents multiple vernal pools throughout the site. In addition, it appears that substantial effort was made to evaluate these sites through multiple surveys, egg mass counts, photo documentation, etc. However, it appears that the vernal pools have not been assessed with regard to their ecological value as required by the adopted scoping document (Section B.1.b.vi). Based upon review of the information provided in the DEIS with regard to vernal pools, it appears that the majority of the vernal pools have low species diversity. However, several of these pools have substantial egg mass counts, greater than 100 egg masses per pool relative to other vernal pools onsite; specifically, Wetland EE (250-300 egg mass), Wetland T-C (250-300 egg mass) and to a lesser extent, Wetland U (100-150 egg mass). These vernal pools should be considered as having a higher ecological value when the project sponsor completes the required vernal pool analysis. Alternative designs that avoid impacts to the maximum extent practicable are required (see conclusion).

3.2-5

The protection of vernal pools is an example of where the DEIS presents an acceptable identification of these resources, but fails to follow through with an adequate assessment of impacts to these resources. The DEIS needs to clearly identify each pool using a number identifier, or equivalent, which should be indicated on all applicable plan drawings, text assessments and tables to facilitate interpretation of the information presented.

In addition, a plan clearly indicating the vernal pools, the 100 foot envelope and the 750 foot critical terrestrial habitat relative to the proposed development should be included. If presented as an overlay to the preferred alternative Site Master Plan, there will be a substantial amount of development within these identified valuable resources and there is no attempt to modify the project to avoid these impacts and sustain amphibian populations.

Re: Preliminary Draft Environmental Impact Statement (DEIS) Comments - Lost Lake Resort
DEC Pre-Application ID No. 3-4830-00061/00001
Town of Forestburgh, Sullivan County

The DEIS fails to consider the most obvious method of protection such as avoiding development within areas critical to ensuring the viability of these pools. With a development property encompassing some 2,000+ acres, it is reasonable to design a development that is able to avoid the more "valuable" pools. While the proposed development plan may attempt to protect the pools proper, the sprawling pattern of the site plan will have limited value for any long term conservation of the vernal pool species. While it is clear that avoidance of all identified vernal pools may not be feasible, the impact to vernal pools across the site can be minimized while still allowing for a substantial development.

Wildlife

This section of the DEIS is very vague with many assumptions, opinions and unsubstantiated claims. 3.4-1

According to the DEIS (section 1.2.4 p20 & 3.4 p 26) it is indicated that there will be no impacts to wetland species, yet wetland species are not defined or described. Turtles, upland nesting habitat, salamanders and other vernal pool species are all species and habitats that will be impacted, and are described in other sections as being impacted. This statement is potentially misleading and not substantiated

Forest interior birds

The DEIS claims that the forest interior birds will use the 233 acres of preserved wetlands for habitat. However, the majority of the wetland types identifies in the DEIS are not strictly forested wetlands. It is not clear how it was determined that forest interior birds will shift habitats so easily. This claim needs further clarification. 3.4-2

Placement of Strategic Blocks for Preservation:

According to the DEIS, there will be "some" no build lots (3.4 page 32). It is indicated that these no build lots will be determined after a more detailed review is completed by the developer. This statement is very unclear. What additional analysis will be conducted to make this determination? Why was this analysis not conducted for the DEIS? How likely is it that there will be no build lots? What deed restrictions would be used? Are figures depicting these potential areas available? How many acres will this entail? A plan clearly indicating these no build lots should be included in the DEIS. 3.4-3

Nuisance Wildlife

This section should include a discussion of nuisance bears, nuisance deer and nuisance coyotes; and how those situations will be dealt with within this development in relation to garbage collection, composting, human wildlife interactions and prevention of nuisance situations. 3.4-4

Bears

Substantial information is presented in the DEIS that does not pertain to the specific project. The initial purpose for the Department raising the issue of bears was for nuisance concerns. According to the DEIS several bears currently utilize the area. Accordingly, nuisance issues related to these bears should be addressed.

The following bear data statement should include a reference for verification: 3.4-5

"Black bears are typically solitary animals except during the breeding season and when a female has cubs. Overall, home ranges for bears are extremely variable and are dependent on the season and available food resources.

**Re: Preliminary Draft Environmental Impact Statement (DEIS) Comments - Lost Lake Resort
DEC Pre-Application ID No. 3-4830-00061/00001
Town of Forestburgh, Sullivan County**

Young male bears dispersing from their maternal homerange may travel great distances. For example, one yearling male bear was treed and captured in Rockland county New York. The bear was tagged and moved 49 miles northwest into preferable bear range in the Catskills. One year later the bear was treed and recaptured in Westhaven, Connecticut, approximately 115 miles due east. Several months later the bear moved over 124 miles southwest to Pennsylvania where a hunter harvested it during the hunting season.
3.4 p3 last paragraph"

A discussion of typical home ranges for bears based on peer review literature for NY and the Northeast would be more applicable.

Bald Eagles 3.4-6

According to records maintained by Department staff, one pair of Bald Eagles currently utilize a nest adjacent to St. Joseph Lake (located west of Lost Lake). This pair has two nest trees adjacent to the lake, one active and one alternate. There are not two pairs of eagles at St. Joseph Lake. If two pairs of eagles have been identified, that would be new information and the Department would like the source of the information and verification. The Department utilizes the federal guidelines when evaluating impacts to Bald Eagles. These guidelines are recommendations to avoid "take" of the species. If they are not used, then a review for an Article 11 taking permit may be required. This review should include an analysis of the foraging and the roosting habitats as well as nesting habitats. A more detailed discussion of potential impacts to Bald Eagles should be addressed in the Wildlife Ecology section. This should include potential impacts on foraging at Lost Lake, a summary of blasting activities, and time lines for blasting within the specified distances from the known eagle nests.

Bog Turtles 3.4-7

Although the Department has no record of bog turtles being identified on the site, this is not a result of any habitat assessment conducted by the Department. The Department has no information about suitable bog turtle habitat in this area. In order to claim that there is no habitat on site, as is done in section 3.4 p28, an appropriate phase one habitat survey must be conducted.

Turtle Nesting Habitat: 3.4-8

It is mentioned that some areas of the property (old railroad bed in particular) serve as nesting areas for turtles. The DEIS does not indicate how this area may be protected or the exact location of the nesting area. It is mentioned that the area will remain, but no details are provided. Will there be a road between the wetland and this area? If so, is there any mitigation planned?

Bird Surveys 3.4-9

It is not clear if the bird surveys conducted in 2008 and 2009 were done utilizing the same survey methods. This needs to be clarified.

Wildlife Corridors/Habitat Connectivity/Biodiversity 3.4-10

According to the accepted scoping document, the potential impacts on habitat due to habitat loss and fragmentation will be assessed, as well as impacts to wildlife corridors and biodiversity. Based upon review of the DEIS, it does not appear that this has been done with sufficient detail. It is indicated in the DEIS that the project site does not act as a substantial wildlife corridor between significant habitats. However, it is also concluded that a majority of the wildlife movement from the site will be to the south and east, towards the Neversink River Unique Area rather than other areas around the site.

**Re: Preliminary Draft Environmental Impact Statement (DEIS) Comments - Lost Lake Resort
DEC Pre-Application ID No. 3-4830-00061/00001
Town of Forestburgh, Sullivan County**

It is not clear how either of these determinations were made. What analysis was conducted to reach these conclusions? It is likely that this statement is made because the direction of the large regulated wetland HA-40 runs in a south-east (north-west) direction. However, many species do not use wetlands as travel corridors due to the difficulty of maneuvering through inundated areas. There is also no discussion of the site being located between two large protected areas of land, the Neversink Unique Area and the Mongaup Valley State Wildlife Management Area, or the potential adverse impacts associated with this. The DEIS should further evaluate wildlife corridors and existing habitat connectivity related to this site and the larger surrounding area. This analysis should focus on potential corridors, impacts to corridors after full build-out, as well as measures to avoid and mitigate any adverse impacts. Alternatives that preserve more expansive, robust and effective natural corridors are needed.

3.4-11

Based upon review of the wildlife information provided in the DEIS, it appears that the site contains a diverse mix of wildlife and habitats. Although required by the scope, impacts to biodiversity have not been fully assessed, including means to avoid, minimize and mitigate impacts to biodiversity. A complete biodiversity assessment of the site should be included in the DEIS. The project sponsor should be aware that focusing biodiversity assessments on only proposed areas of development will not provide the comprehensive "big picture" look that is required for accurately assessing bio-diversity. This may result in habitat fragmentation and obstacles to certain species corridors of migration. The bio-diversity assessment should assess the entire site, as well as how the site fits with the surrounding landscape and ecosystem. The ultimate purpose of biodiversity conservation is to conserve the entire complement of species, habitats, and processes so that ecological function can be sustained. The NYSDEC, in conjunction with Cornell University has developed the following documents that could potentially assist the project sponsor when conducting the required biodiversity assessments:

- Wildlife and Habitat Conservation Framework. While this document was prepared for the Hudson River watershed, it provides valuable guidance for conserving and protecting biodiversity, regardless of location in New York. This document can be located at the following web address: <http://www.dec.ny.gov/lands/5096.html>.
- Conserving Natural Areas and Wildlife in your Community. This document can be located at the following web address: <http://www.dec.ny.gov/lands/50083.html>.

Wildlife Mitigation Measures

According to the DEIS, 1,215 acres of upland forested habitat has been strategically placed throughout the project site. However, no basis for these locations is provided. A habitat map clearly indicating the various habitats observed on site and in relation to the proposed development needs to be included for further analysis.

3.4-12

Water Resources –Water Supply

According to the information provided in the DEIS, 16 exploratory groundwater wells have been installed and 4 wells have been tested to date for yield (Well P, DD, O and HH). Based upon the above identified total flow rates for these 4 wells (468 gpm), and with the largest producing well out of service (268 gpm), there is sufficient capacity for only the Phase 1 portion of the project (estimated at 268 gpm).

3.5-3

According to the Final Scope, section E. Water Resources, wastewater flows by facility and unit type must be estimated and potable groundwater demand and expected yield must be quantified. At this time, a water supply sufficient to accommodate the project at full build out has not been demonstrated.

Re: **Preliminary Draft Environmental Impact Statement (DEIS) Comments - Lost Lake Resort
DEC Pre-Application ID No. 3-4830-00061/00001
Town of Forestburgh, Sullivan County**

Without this information, potential impacts from groundwater withdrawal and potable well location cannot be completely assessed. The project sponsor should continue with these assessments and demonstrate an adequate water supply and only then will the items in the Scope have been satisfied. Without this information, the Department will be unable to make positive findings statements and issue necessary permits. 3.5-4

Additional comments on Water Supply may be generated during the Water Supply application process. The project sponsor should also be aware that the Department will not accept an offsite water analysis to justify water use on the subject site.

Water Resources -Wastewater

According to the DEIS, at full build-out using the preferred alternative, the average daily flow (ADF) is 870,335 gallons per day (gpd) and the peak daily flow (PDF) is 2,611,005 gpd. The proposed discharge location is to the Bush Kill NYS Water Index # D-1-22, Class Bt). 3.5-5

The Bush Kill is a head water trout stream that flows through a portion of the Neversink River Unique Area, a highly regarded fishing location and ecologically rich and unique natural area. The average daily flow of the Bush Kill at this location needs to be evaluated to determine what percentage of this flow will be wastewater at each phase and at full build-out, using both the ADF and PDF. Typically, in order to protect trout streams and maintain water quality, a dilution rate of 10-1 stream flow to effluent is needed. This dilution rate at maximum build-out and flow should be demonstrated, or alternative scale proposals may need to be pursued. 3.5-6

Since full project build-out may not occur for many years, the Department will likely require that any SPDES Permit issued for the project will be based upon an approved design flow of the initial phase(s) only, and that permit modifications for subsequent phases will be granted based upon updated project information including documented treatment performance and water conservation practices. An Engineering Report, plans and specifications would have to be submitted for each phase separately. This may require a revised design flow certification. Additional comments may be generated on waste water during the SPDES application process. The project sponsor should be aware that the Preliminary Effluent Requirements (Table 3.5-5) presented in the DEIS are only preliminary and subject to change during the SPDES application process.

Open Space

It is indicated in the DEIS that the preferred alternative "preserves" approximately 1,045 acres of open space. This statement is misleading due to the fact that of these 1,045 acres, 262 acres is already preserved as regulated freshwater wetland and adjacent area, and 207 acres will be maintained as golf course for a total of 469 acres. So in essence, 576 acres is being set aside as unmanaged open space. The concept of open space as presented in the DEIS is difficult to appreciate in the context of traditional resource protection relative to such considerations as biological diversity, habitat fragmentation and water quality protection. For example, a substantial amount of this open space is isolated in "islands" with no habitat connection to other areas of open space. As proposed, the open space configuration does not reflect basic habitat and watershed conservation principles, such as broad areas of connectivity and generous buffers from human disturbance. 2-6

Further, the golf course, although considered open space in the DEIS, provides no real habitat benefit, nor do the vegetated suburban areas. A site plan should be included in the DEIS that clearly indicates preserved open space that does not include the golf course, vegetated suburban areas and landscaping. Note that it is not just the amount of open space that is important to wildlife, but the combination of the location of the open space and the amount of contiguous open space.

Re: **Preliminary Draft Environmental Impact Statement (DEIS) Comments - Lost Lake Resort
DEC Pre-Application ID No. 3-4830-00061/00001
Town of Forestburgh, Sullivan County**

A large amount of open space scattered throughout the site, separated by developed areas, is not conducive to habitat corridors and wildlife movement. As a result, the proposed projects' impact on open space, and by extension vernal pools, wildlife, biodiversity and habitat continuity is significant. The Department suggests that the project sponsor has failed to date to satisfy the SEQR required threshold for avoiding and minimizing impacts to the maximum extent practical. Further, mitigation for unavoidable impacts, as required by SEQR, has not been sufficiently demonstrated.

Greenhouse Gas and Energy Use/Conservation

Green Building Design

The Department recognizes and appreciates that the project sponsor is requiring all amenity buildings and all future single family homes to meet the "certified" category with either the Leadership in Energy and Environmental Design (LEED) or the National Green Building Standard (NGBS). 8-1

Assessment of Energy Use and Greenhouse Gas Emissions

Transportation – The document mentions that a majority of the residences will be seasonal or part-time. The DEIS should provide a qualitative discussion of how far and how often the expected part-time owners will be travelling and what mass transportation is available to reduce the number of personal vehicle trips. In the qualitative discussion include the location of major shopping centers that will generate trips. For daily commutes to work, provide a discussion of the typical distance to the workplace for an owner of one of these residences. 8-2

According to the DEIS, the Department guidance document "Guidance for Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements" is being utilized to supplement the Assessment of Energy Use and Greenhouse Gas Emissions. Within this guidance document, various mitigation measures are offered to increase energy efficiency and reduce greenhouse gas emissions from proposed projects. Several mitigation measures applicable to transportation that were not discussed include the following. 8-3

- o Design project to support alternative transportation (walking and bicycling)
- o Purchase alternative fuel and/or fuel efficient vehicles for fleet, including the range of maintenance and operation vehicles used on-site.
- o Develop or support multi-use paths to and through site
- o Provide bicycle storage and showers/changing rooms

The Department recommends these mitigation measures be further evaluated in the DEIS and incorporated into the project design where applicable. 8-4

Utilities – The document states that the project will include a private wastewater treatment plant. The DEIS should provide a qualitative discussion of the proposed treatment plant. It is stated that the Lost Lake Resort is expected to be developed over a period of decades. The DEIS should also discuss how the wastewater treatment plant will be designed to treat the initial waste generated, and be capable of being expanded to keep up with the continued development of the resort, without being oversized in the initial stages of development and thereby result in treatment inefficiency. 8-5

Emissions from Waste Generation – Please provide a qualitative discussion of the expected waste generation from the project. Identify where the ultimate disposal of the waste will occur, and what measures and requirements for recycling or reuse will be included in the proposed project.

Re: **Preliminary Draft Environmental Impact Statement (DEIS) Comments - Lost Lake Resort
DEC Pre-Application ID No. 3-4830-00061/00001
Town of Forestburgh, Sullivan County**

Energy Use Mitigation Measures and Alternatives 8-6

Site Design – The DEIS should provide a qualitative discussion on the layout of home sites and the assessment that was conducted to determine the potential performance of solar technology employed on residences built on the sites. In addition, the DEIS should discuss what measures were taken for to provide individual home owners with solar and other renewable energy technology easements to protect renewable energy installation investments from future encroachment by trees or other structures.

Alternatives

Based upon review of the DEIS, it appears that several alternatives are included that would allow for a substantial amount of development while still allowing for the preservation of large tracts of contiguous, undeveloped open space and habitat. These alternatives are the Planned Density Development (PDD) Base Density Layout and the PDD Base Density with bonus alternative. Under the PDD Base Density Alternative, the original resort component is proposed in addition to 735 residential lots. This alternative leaves a very large area of undisturbed land south of the central wetland complex as well as the eastern portion of the site, north of the central wetland complex. 4-1

The PDD Base Density with Bonus Alternative also allows for the resort component and 1,235 lots. This alternative also leaves a large contiguous area south of the central wetland complex undisturbed. Under both of these alternatives, a significant amount of true open space is preserved. However, it appears that there is insufficient information to rule out the feasibility of these alternatives as only one business model is proposed. While the Department is in no position to evaluate various business models, perhaps the Town of Forestburgh, as Lead Agency, should require the thorough evaluation of alternative business models that could potentially demonstrate the viability of one of the currently proposed alternatives.

SEQR 2-7

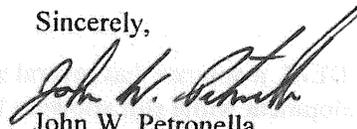
As an involved agency in the SEQR process, the Department is responsible for issuing a findings statement prior to the issuance on any permits. In order for the Department to make a positive findings statement, the Department must determine that the action selected is the one that avoids impacts to the maximum extent practicable and balances social, economic and environmental needs. Based upon review of the information provided in the DEIS, it is the position of the Department that the preferred alternative project design does not avoid impacts to the maximum extent practicable, nor are social, economic and environmental needs balanced. The preferred alternative, at 2,557 single family residential units on 2,000+ acres, makes little to no attempt to balance these matters. It appears that the current project design maximizes density development with elimination of most upland habitat.

Several alternatives are presented in the DEIS (PDD Base density plans at 735 lots and PDD Base density plus bonus at 1,235 lots) that avoid and minimize impacts to natural resources beyond the preferred alternative, while still allowing for a substantial development and large areas of contiguous open space. Both of these alternatives would likely allow for a Positive Findings statement should permits be required from the Department.

**Re: Preliminary Draft Environmental Impact Statement (DEIS) Comments - Lost Lake Resort
DEC Pre-Application ID No. 3-4830-00061/00001
Town of Forestburgh, Sullivan County**

Thank you for providing the Department the opportunity to review the DEIS. If you have any comments or questions, or would like to discuss further, please feel free to contact me at 845-256-3041.

Sincerely,


John W. Petronella
Environmental Analyst
Division of Environmental Permits

Cc T. Forestburgh Planning Board
Dominic Cordico, Esq.
Randy Gracy – Double Diamond Companies
Frederick Wells, Tim Miller Assoc.
John Munsey, C.T. Male Assoc.

Cc via e-mail W. Janeway, Regional Director
A. Ciesluk, Regional Permit Administrator
D. Whitehead, DEC R3
D. Gaugler, DEC R3
L. Masi, DEC R3
N. Browne, DEC R3
J. Gerry, DEC CO
A. Roy, DEC R3

C.T. MALE ASSOCIATES, P.C.

50 Century Hill Drive, Latham, NY 12110
518.786.7400 FAX 518.786.7299 ctmale@ctmale.com



July 1, 2010

**VIA EMAIL

Mr. James P. Galligan, Supervisor
Town of Forestburgh
P.O. Box 114
Forestburgh, NY 12777

Re: *Lost Lake Resort*
Technical Review Comments on "Complete" DEIS
C.T. Male Project No. 08.8543

Dear Supervisor Galligan:

C.T. Male Associates, P.C. (C.T. Male) has reviewed the Draft Environmental Impact Statement (DEIS) for the Lost Lake Resort dated May 20, 2010 and has the following comments, in addition to the fire protection comments previously provided in correspondence dated June 14, 2010.

Water Supply: The DEIS does not demonstrate that there is an adequate supply of groundwater for the whole and complete project as proposed by the Applicant. This demonstration of an adequate water supply, including, but not limited to 72-hour pump tests, needs to be included in the Final Environmental Impact Statement (FEIS). In the absence of making this demonstration, the Applicant should consider reducing the size of the proposed development corresponding to the available water supply. To date, only five (5) of the 16 wells drilled and tested are capable of yielding 268 gpm with the largest well out of service, this being approximately 22 percent of the total demand of 1,246 gpm (two times the average daily design flow with the best well out of service), or 44% of the average daily demand. Until the additional wells have been installed, tested and evaluated, it is premature to suggest that the twice the daily design water usage rate will be met.

3.5-7

More specific comments regarding Appendix M1, Water Supply Report are listed as follows.

3.5-33

1. On Page 1, Section 1.0, the second paragraph, 1,246 gpd should read 1,246 gpm.



C.T. MALE ASSOCIATES, P.C.

Lost Lake Resort
Technical Review Comments on "Complete" DEIS
Page - 2

2. Recharge Analysis: What is the amount of water used by the other private water wells in the watershed and how does this relate to the available water presented in Table 1? 3.5-8
3. The water well work completed to date has not yet documented the theoretical volume of groundwater available from the site. Does the conservative recharge rate of 25 percent account for periods of drought? 3.5-9
4. Table 2: The time at which pumping level stabilization occurred in each pumping well should be specific rather than generalized (i.e., >24 hours). Stabilization should be defined within the write up. It would also be helpful to know how many feet of water below the depth of stabilization better understand how much of the total available drawdown within each well remained. 3.5-10
5. Distance Drawdown graphs would be helpful to understand the impact upon non-pumping monitoring wells during the pumping tests of the selected production wells. The discussion of this on page 7 is confusing. Why are the recorded drawdown in wells CC, P and O during the pump testing of well HH not presented or discussed? Nearly 100 feet of drawdown was experienced at well CC during the pumping of well HH and approximately 20 feet at wells CC and P. The cumulative effects of multiple pumping wells operating at the same time should be evaluated to determine if the pumping rates indicated in the report are in fact long term safe yields for the production wells to be used by the community water system. 3.5-11
6. Well Head Protection: Understanding the cone of influence created by each well during pumping relative to the designation of the wellhead protection area can be practicable for wells that draw from bedrock aquifers. According to the well logs, many of the wells were constructed at locations with bedrock close to ground surface and in close proximity to surface water features. Since water infiltration and movement of groundwater within fractures can be rapid, the protection of the lands surrounding the wells is paramount. As discussed above, the pumping of well HH resulted in influence (i.e., drawdown) upon wells over 1,000 feet away. 3.5-12
7. The purpose of Table 4 is not understood as the report does not address it in any manner. 3.5-13
8. Not all of the wells are suitable for use as a community water supply system, but rather only those wells that have been pump tested above a de minimus level 3.5-14

with acceptable water quality are potentially suitable. All of the wells that have been pump tested should be listed. Wells that yield less than approximately 10 gpm should not be included as production wells as connecting such small producing wells into a system would not likely be economically feasible.

3.5-15

9. The potential impact of groundwater withdrawal to existing off-site private wells needs to be more fully addressed. The conclusions state that future use of the wells will not adversely impact off-site private wells, based on the monitoring well data collected during these tests. This is a stretch in that none of the off-site wells were the subject of monitoring during the pump tests, and as indicated elsewhere in the report, there is no way to know if the water bearing fractures in the test wells are hydraulically connected to the fractures in the private water wells. According to Section 8.0 drawdown levels at monitoring wells a third to over one-half mile exhibited drawdown levels of 2.2 to 5.5 feet. Typically, regardless of whether or not in an unconsolidated or bedrock aquifer system, the level of drawdown increases as the distance between the pumping well and monitoring well decreases. Without knowing the distance between the off-site private wells to the pumping wells, as well as the depth of the private wells and depth of the pump settings, this conclusion relative to off-site wells is unsubstantiated.

Bonus Density: The DEIS describes and quantifies in Table 2-5 how the Applicant derived the density bonuses which cumulatively add to 278% or 2,082 additional lots, in addition to the 748 units presented in the Applicant's calculation of the Initial Residential Development Density (IRDD). The Applicant then states that only 1,879 of the 2,082 calculated bonus density units are being requested. The net result of the Applicant's analysis is a total of 2,627 dwelling units proposed for the 2,079.51-acre site (1.26 dwelling units per acre). In general, the total number of residential units proposed seems to be excessive considering the limiting site characteristics (e.g., shallow bedrock, steep slopes, wetlands) and the rural nature of the surrounding area, including the proximal location to the Neversink River Unique Area. More specific comments follow.

2-8

1. Density Bonus for Green Building Design & Sustainable Development Practices (p. 3.6-11): The Applicant is requesting 100% density bonus (748 lots) for requiring that all hospitality structures and homes "meet" the minimum certification requirements of LEED or the NAHB Green Building Program. This is a large request considering that just the minimum requirements of these two programs are being targeted and that the Applicant is not proposing to apply for

2-9

and receive certifications. A more realistic percentage density bonus is suggested at approximately 50%, assuming that the Applicant will seek and obtain certifications from either the Green Building Certification Institute or the NAHB Research Center. It is important to note that this density bonus can only be realized in the later stages of development following Town certification of compliance with proposed green building designs and sustainable building practices.

2-10
2. Density Bonus for the Preservation of Environmental Features and Habitats (p. 3.6-12): The Applicant is requesting a 5% density bonus (37 units) as a result of preserving wetlands, wetland-buffer areas, streams, steep slopes and rock outcrops. These areas are already protected under the 50% open space requirement imposed on the project by Forestburgh Town Code. As a result, the Applicant would be receiving a density bonus for land the Town Code already mandated to be protected by open space requirements. Moreover, a considerable amount of construction is proposed on steep slopes and no species-specific habit is proposed to be protected.

2-11
3. Density Bonuses for the Sustainable Mix of Uses, Golf Course Sustainability and Passive Recreational Spaces: Each of these three (3) density bonuses is based on a stated investment cost. The Applicant should provide a more detailed cost backup for each of these three (3) items and provide a better rationale or justification for how these costs are linked to each requested bonus density. As the basis of bonus units being requested is linked to investment cost, the Town should have a higher level of certainty related to each of the proposed amenity costs before approving any of these density bonuses.

2-12
4. Cost of Amenities: The Applicant states that a density bonus of one (1) lot for every \$15,000 spent on amenities is being requested. This \$15,000 factor appears to be arbitrary. Each residential lot has the potential of being sold at a future date for much more than this amount, and it does not appear that the requested additional lots have a substantial nexus to the costs spent by the Applicant. In addition, under the public facilities bonus density request, the value of two (2) acres of land is stated to be \$120,000 which suggests the use of higher value than \$15,000 should be used. A more detailed justification of this \$15,000 factor should be provided.

2-13
Open Space: At full buildout, there will be only a small amount of upland open space preserved in a natural state that is not already protected as either a freshwater wetland

adjacent area or site boundary buffer. Additional upland open space preservation should be considered in the area west of NYSDEC Freshwater Wetland HA-40 and in areas of steep slopes and bedrock outcrops.

Visual Resources (Section 3.12): C.T. Male offers the following comments related to the visual impact assessment.

1. Figures 3.12-3 through 3.12-6 are predicated upon full "leaf on" conditions only and do not assess the potential visibility scenarios associated with "leaf off" conditions. In particular, along St. Joseph's Road (County Route 109), the proposed 100-foot buffer may not fully screen certain aspects of the proposed development during "leaf off" conditions. 3.12-1
2. Under Visual Assessment Methodology (in Section 3.12.1) "the distance of a scenic viewpoint from a project" is cited as a variable associated with the actual visual experience of a proposed project. Yet no such distances are offered in the report, or in the figures. 3.12-2
3. A notable omission from the visual impact assessment is an analysis of the water tower height increase from previous proposed master plan schemes. This height increase, above the surrounding treetops, has the potential to impact views from several off-site vantage points. At a minimum, line-of-sight profile drawings through the proposed water tank location should be provided for several representative cross sections that take into consideration the surrounding viewshed. Consideration should be given to providing one or more visual renderings of the proposed water tank from one or more potential off-site prominent viewing locations. 3.12-3

Construction Traffic (Section 3.1): Provide an estimate of the net importation of construction materials required for the project. During the construction period, what is the range of truck trips that will be required on a daily/weekly basis? Will dedicated truck routes be specified? 3.8-2

Physical Damage to Off-Site Roads (Section 3.8): Truck traffic during construction has the potential to damage off-site roads. The Applicant should be responsible for maintaining the integrity of off-site roads damaged by construction traffic, including water well drilling operations. A mitigation plan for impacts to off-site roads, including a discussion of bonding, is recommended to be included in the FEIS. 3.8-3

3.8-4

Transportation Impacts (Section 3.8): As a significant level of traffic is estimated to enter and leave the site from the Port Jervis/I-84 corridor to the south, the transportation analysis should further assess the suitability of intersections at State Route 42/Hartwood Road (CR 48) and Hartwood Road (County Route 48)/ Cold Spring Road (CR 101)/Oakland Valley Road (CR 49). These two (2) intersections are along the preferred travel route from Port Jervis/I-84 to the project site. This preferred route is to take Route 42 north to Hartwood Road, then to Cold Spring Road. Based upon Figures 3.8-11 and 3.8-12 (site traffic distribution maps), 25% of the trips generated by this development will be from the Port Jervis/I-84 corridor.

3.7-1

Historical and Archeological Resources: Phase IB testing for the entire project site, less steep slopes, wetlands and water bodies needs to be included in the FEIS in order to adequately address the potential impact to historic and pre-historic resources. In addition, the review comments of the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) should be included within the FEIS.

3.5-16

Appendix U, Evaluation of Lost Lake for Irrigation Water: This new appendix presents an analysis for the use of Lost Lake as a source of water for golf course irrigation assuming a 10% probability drought year (one in ten year event). It is recommended that this analysis be done for 5% and 2% probability drought years to better assess a reasoned worst case scenario. Mitigation measures are recommended to be considered for "excessive" lowering of Lost Lake. In addition, it is recommended that water level monitoring and stream discharge rates of Lost Lake be done during the summer months of July and August. This requirement is recommended to be added to Appendix L, Revised Preliminary Water Quality Management Plan. 3.5-17

Stormwater: C.T. Male offers the following comments related to stormwater management. 3.5-18

1. There are significant areas of the developed portions of the site that appear to drain to sediment traps and not to permanent stormwater management practices. The plans do not show how the stormwater runoff from all of the proposed impervious surfaces will be treated and detained. Sediment traps are temporary practices which should be used only during construction while disturbance activity is occurring. Incorporating standard permanent stormwater management practices into the design will likely impact the lot layout and possibly the total number of lots.

2. It is not clear how the stormwater runoff from the road surfaces will be treated. The stormwater pollution prevention plan (SWPPP) indicates that roadside swales are not being used as treatment swales, but the swales discharge to detention basins which do not appear to be providing any treatment. More information should be provided on how the road surface runoff will be treated. 3.5-19
3. The intended post construction standard treatment practice should be identified on the plans (i.e., ponds, wetlands, dry swales, etc.) based on a review of the soils and slopes. 3.5-20
4. The SWPPP indicates that the stormwater runoff from the roofs will be directed to drywells. Per the NYS Stormwater Management Design Manual, the use of drywells is limited to the treatment/detention of roof runoff only (up to a maximum of 1.0 acre). The plan should show provisions for treating and detaining the runoff from the proposed driveways. More information should be provided on how the runoff from the driveways on each lot will be treated. 3.5-21
5. The 1, 10 and 100 year water levels for each post-construction treatment/detention practice should be included in the section details of the basins/outlet structures. 3.5-22
6. The proposed stormwater basins have 2H:1V (Sheet P1-12) interior slopes. Slopes this steep on the inside of a stormwater basin will be unstable. Since the proposed interior slopes are steeper than 1H:4V, these slopes will require both safety and aquatic benches per the NYS Stormwater Management Design Manual, neither of which are shown anywhere in the plans. 3.5-23
7. The calculations and plans must clearly indicate that extended detention of the 1-year storm event is provided. There does not appear to be any provisions shown for extended detention. 3.5-24
8. Sizing calculations for forebays, sediment traps and sediment basins should be incorporated into the final SWPPP. 3.5-25
9. Forebays associated with the basins are discussed in the text of the SWPPP but are not shown on the plans. There is a discontinuity between what is discussed in the text of the SWPPP versus what is shown on the plans. 3.5-26

10. Per the details provided, the grates located on the top of the outlet structures are set at the same elevation as the spillway crest and the grates themselves are not modeled in the hydrologic model. 3.5-27

11. Additional soil investigation and testing (groundwater levels, test pit data and percolation data) should be performed at the location of each proposed post construction stormwater management practice. All testing should be done in accordance with the NYS Stormwater Management Design Manual. 3.5-28

12. Regarding the proposed stormwater management practices, there appears to be inconsistencies between what is shown on the plans versus what is described in the SWPPP and the information provided in the Notice of Intent (NOI). These inconsistencies should be eliminated or clarified. 3.5-29

13. All erosion and sediment control details shown on the plans should be in conformance with the New York State Standards and Specifications for Erosion and Sediment Control ("Blue Book"). 3.5-30

Noise Impacts (Section 3.11.2): As a form of mitigation, it is suggested that pre-notification be given to "area residents" a minimum of 24-hours prior to any planned blasting events. 3.11-1

Wetland Mitigation (Section 3.2.3): The Applicant proposed to create approximately 1.01 acres of forested wetlands to mitigate for impacts to existing on-site wetlands. In addition to this wetland creation, it is recommended that created wetlands and any wetlands not impacted be placed under restrictive covenants or a conservation easement to protect the created and existing wetlands in perpetuity. 3.2-6

Bulk and Yard Guidelines for Lost Lake Resort Single Family Homes (Table 3.6-4 on p. 3.6-10): The proposed height of single family homes within the resort will be approximately thirty-five (35) feet tall. Currently in the RR-1 district, building heights are capped at thirty (30) feet tall. Some justification should be presented as to why the Applicant cannot meet the existing height requirements for single family homes. 2-14

Monticello Central School District (Section 3.9): In May 2010, voters in the Monticello Central School District approved an approximately \$76 million budget, that includes a 6% increase in the tax levy. It is recommended that this portion of the DEIS be revised to include the recently approve budget and its figures. This section of the DEIS should also include consideration of potential future tax levy increases as well as potential 3.10-28

C.T. MALE ASSOCIATES, P.C.

Lost Lake Resort
Technical Review Comments on "Complete" DEIS
Page - 9

School District State Aid cuts. As state aid to the Monticello Central School District will potentially be cut next fiscal year, the tax levy on the typical year-round Forestburgh resident will likely continue to increase.

Table 3.10-2 (p. 3.10-1): From 2001 to 2002, the population of the Town of Forestburgh is shown to decrease from 826 people to 824 people. The population change listed by the Applicant in the table, however, is +2. The Applicant should revise this figure to reflect the actual change in population as -2. 3.10-29

Full Build Scenario Seasonal Resident Calculation (p. 3.10-2): According to the 2000 U.S. Census, approximately 152 of the 500 total housing units in the Town of Forestburgh are listed as "seasonal," resulting in approximately 30% of the housing units in the Town being dedicated to "seasonal use." The Applicant also states that at their Eagle Rock Resort in Pennsylvania, approximately 57% of the housing units are seasonal, and further states that it may be likely that 57% of the units proposed for Lost Lake have the potential to also be seasonal. If the 30% of the units are seasonal, consistent with the existing mix in the Town, then what would be the tax revenue implications (i.e., less tax revenue) that would result? 3.9-1

Police Protection (Section 3.10.2):

1. (p.3.10-4): The Applicant states that the New York State Police has responded to 14,815 calls within Sullivan County. How many of these calls were in the Town of Forestburgh? 3.10-30
2. (p.3.10-4): The DEIS states that additional on-site security will be provided to the Lost Lake community during higher activity times. It is recommended that the Applicant provide a specific definition and/or threshold of "higher activity times". Further, it is understood that the Applicant's existing resort, Eagle Rock, is patrolled regularly by a private security force on a regular basis. Will a similar security force be used at Lost Lake? 3.10-31

Schools (Section 3.10.5): The DEIS states that the "programming cost" per pupil within the Monticello Central School District is \$9,020 per student. However, according to the New York State Education Department, the approximate expenditure per student within the school district is \$17,653, through revenue obtained by school tax levy and state aid. Based on information presented in Section 3.9.2 (p.3.9-7), the "programming cost" is the approximate tax levy in the Town of Forestburgh on a per pupil basis. As such, the total cost to the district for the addition of 648 students at full build out and 3.10-32

C.T. MALE ASSOCIATES, P.C.

Lost Lake Resort
Technical Review Comments on "Complete" DEIS
Page - 10

159 students at partial build out will likely be closer to \$11,439,144 and \$2,806,827 respectively, not the \$5,844,960 and \$1,434,180 described in Section 3.10.5. As the cost of additional students will be borne by the residents of the entire school district, and not just the residents of the Town of Forestburgh, it is recommended that correct cost per pupil be used in the assessment or some reasoning given as to why the "tax levy" method per Forestburgh resident was used.

Alternatives (Section 4.0): The DEIS states that reduced density alternatives could not support the complement of quality amenities to be economically viable; however no substantiation is provided for this statement. It is recommended that the Applicant provide additional justification that defines what constitutes an economically viable project.

Cell Coverage: Implementation of the proposed action will likely create a substantial increased demand for mobile phone service. How will this demand be addressed?

Wildlife Migration: The DEIS comes to the conclusion that the proposed action will have minimal impacts to wildlife migration. This conclusion is not supported by regional mapping that considers adjacent and nearby available similar habitat.

Prevention of Clear Cutting: How will the Applicant ensure that construction crews will not inadvertently clear areas slated for protection, and that lot owners will not clear-cut lots?

Appendix L: Section 5.3: Bi-annual post development monitoring of surface water and groundwater is proposed to be conducted by the Applicant. It is recommended that the results of this testing be submitted to the Town and NYSDEC Region 3.

Water and Sewer Transportation Corporations: What if one or both of the transportation corporations proposed to operation the wastewater collection and treatment system and water system fails to properly operate or goes bankrupt? What assurances could be put in place by the Applicant to ensure the Town will not face a financial liability in the event that either of these transportation corporations goes bankrupt?

Cumulative Effects (Section 7.0): The status of projects listed in the Towns of Forestburgh and Thompson, including any additional proposed projects should be updated.

C.T. MALE ASSOCIATES, P.C.

*Lost Lake Resort
Technical Review Comments on "Complete" DEIS
Page - 11*

Should you have any question or comment regarding this technical review correspondence on the "complete" DEIS, as always, please feel free to contact me or Jim Houston, P.E. at (518) 786-7400.

Sincerely,

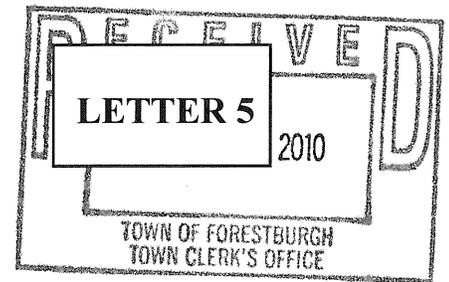
C.T. MALE ASSOCIATES, P.C.

A handwritten signature in black ink, appearing to read "John S. Munsey". The signature is fluid and cursive, with a large loop at the end.

John S. Munsey, P.G.
Managing Scientist & Principal

cc: Susan H. Hawvermale, Planning Board
Joanne K. Nagoda, Town Clerk
Bill Bavoso, Town Board Attorney
C.T. Male Review Team

July 2, 2010



To the Town of Forestburgh:

I wish to comment on the Lost Lake Resort proposal. I strongly object to the current proposal. When I was initially contacted by the Middletown Record to comment on the proposal because my property borders the project I said that if it fits with the rural nature of Forestburgh then maybe it would be a good thing. This proposal is not consistent with the reasons why I moved to Forestburgh nor would I guess anyone else in the town. If I wanted to live in Thompson or Fallsburg where this proposal might be appropriate then I would have bought property there.

Specifically, as others have commented the size and density of the project under no circumstances belongs in Forestburgh. The negative impact of the environment, our way of life, our roads, noise, traffic, wildlife, water will be tremendous. The developer can produce slick reports with all the charts in the world but the bottom line is that they can only "mitigate" the impact of the project not fit it into our community. The comment that when fully built that it would be the size of Liberty sends shivers down my spine. How anyone in good conscious could think that this is good for Forestburgh is beyond my comprehension.

2-21

This is a fight for the future of Forestburgh for us and for our children. All of the promises of the benefit to the community are only empty suppositions. Comparing this project to the one in PA. is not a guarantee that it will follow the same path but just a corporate way of easing our real fears. If we approve the project as its proposed there is no way to go back and say we made a mistake. The developer is proposing this project to make the maximum profit and once they get approval then the town and it's citizens be damned.

The Master Plan very clearly states the wishes of the citizens of Forestburgh and to give bonuses to this project would be a sham. Why not approve a project that is consistent with the Master Plan not one that has no regard for the true wishes of the citizens of Forestburgh. All of the projections of how this project will benefit the community might work somewhere that is not familiar with a resort community but we have all seen the devastating effect that the resort industry has had on Monticello and is more of that what we want. I for one say NO.

3.8-6

I have great concerns for the traffic that will be on our roads during construction and especially when it's in operation. I believe that most people accessing the project from Route 17 will get off the highway at exit 106 and then take the shortest route which is Rose Valley Road. Rose Valley Road is a hilly, curvy one lane road with multiple blind spots and the volume of traffic on that road would be a nightmare. The property truly

does not have a good access point for a development, neither Cold Spring Road nor Route 42 are appropriate for the volumes that will occur.

2-22

The plans to build a sewerage treatment plant to empty into our streams and rivers is beyond frightening. The impact on wildlife, the wetlands on the property, our water table, town resources for highway, fire and garbage disposal would be tremendous and never will it be fully compensated for. The developers state the positive impact on property taxes, property values and contributions that they will make but these are all truly unknowns. And speaking of the truly unknown unknowns once they get their foot in the door they will push the envelope to make money which after all is their goal, to enrich the owners of the project not the people of the town.

2-23

I have a huge problem with the site plan itself. The greenway from our roads should be much greater for a development of this or any size. There is no consideration of a greenway from the back of my property line (the old railroad bed) and Phase 1 of this project sits directly adjacent to my back border and a few hundred feet from my home. Why have such a huge project if as the developer says it won't be built out for decades and only 40% actually ever is ever built. Of course there is no guarantee that this will be true here and it's an easy way to allay our fears but I believe that the town could approve a scale of the project that includes no bonuses and fits into the existing Master Plan. Then the project can be moved further into the property and away from existing roads and the homes on Cold Spring Road with a proper greenway to protect our privacy and to truly utilize the property so that its negative footprint on our community is minimized and acceptable.

Thank You for the opportunity to express my opinion and I hope that the Town will make the right decisions.

Sincerely,

Alan Kulchinsky and Family
1068 Cold Spring Road
Forestburgh, New York