

3.10 Community Services and Facilities

3.10.1 Demography

To assess the demand that Lost Lake Resort will place on community services and facilities, the anticipated population, including the school-age population, must be estimated.

Existing Conditions

Table 3.10-1 summarizes select US Census 2000 population characteristics for the Town of Forestburgh.

Table 3.10-1 2000 Population Statistics	
Population Characteristic	Town of Forestburgh
Total Population	833
Total Households	327
Average Household Size	2.53
Average Family Size	3.03
Source - US Census Bureau, 2000.	

Based on the 2000 Census, the Town of Forestburgh had a total population of 833 persons and 327 total households. The average household size and family size in the town were 2.53 and 3.03 persons, respectively.

As shown in Table 3.10-2, the population of the Town of Forestburgh was estimated to be 871 persons in 2008. The Town of Forestburgh grew in number by 38 persons, or 4.6 percent, between 2000 and 2008.

Table 3.10-2 Town of Forestburgh 2000 to 2008 Population Estimates		
Year	Town of Forestburgh	Population Change
2000	833	-
2001	826	-7
2002	824	2
2003	826	2
2004	836	10
2005	851	15
2006	865	14
2007	882	17
2008	871	-11
Total 2000 to 2008 Population Change		38
Source - US Census Bureau, Population Estimates, 2008.		

Potential Impacts

The Lost Lake Resort development proposes a plan that has the potential to include 2,627 residential dwelling units at full build out. Of this total, the project proposes 2,557 lots for single family detached dwellings, a cluster of 30 single family cottages and 40 multifamily townhouse dwellings. All of the single-family detached dwellings and the 30 cottages are projected to be three-bedroom units. The 40 townhomes will consist of two-bedroom units. The project as designed has an extended build out horizon of more than 20 years. To assess the impact on community services both a Full Build and a Partial Build Scenario, which represents the anticipated development over 10 years, have been evaluated. The Partial Build scenario includes development of the amenities, the sale of all the single family lots and construction of 635 single family units (represented as Phase 1 and 2 in the proposed master plan).

As described in Section 3.9.2, the target market for the single family lots is primarily the investor who may or may not build a home but is interested in purchasing a house lot in the resort to take advantage of the recreational amenities offered at the resort to lot owners. This demographic is consistent with the Applicant's experience in its other resort projects, in particular at the Eagle Rock Resort in nearby Pennsylvania, which is the most comparable model for Lost Lake Resort. At Eagle Rock, there have been 6,924 residence lots purchased over the past thirteen years under the management of this applicant (a total of 7,294 lots are currently sold).¹ Of these lot owners, some eleven percent have chosen to build a house on their property. Approximately 57 percent of the houses built are used part time as second homes; approximately 43 percent of the houses are occupied as full time residences.

In order to determine the number of persons and school-age children that will be generated by Lost Lake Resort development, multipliers published by the Rutgers Center for Urban Policy Research, as published by noted practitioners in the field, Robert Burchell, David Listokin and William R. Dolphin, were utilized.²

Full Build Scenario

Based on the multipliers identified in Table 3.10-3, which are based upon typical single family development in this region, as opposed to resort development, the proposed 2,627 dwelling units could add up to 7,709 persons to the Town of Forestburgh's existing population.

However, it is expected that a significant percentage of the dwelling units in the Lost Lake Resort development will be seasonal. Based upon the current Census estimates of seasonal residences in Forestburgh and the project sponsor's experience at Eagle Rock, it is possible that up to 57 percent of this population could be seasonal. If this is the case, the full-time population after full build out of the development is complete will more likely be 3,315 persons.

The potential seasonality of the community will have a significant difference in school age children generation. Using standard multipliers for typical single family homes up to 1,508 school-age children could be introduced to the Monticello Central School District. However, the total number of school age children from a resort community will be reduced to approximately 648 based on the population trend in Forestburgh and at Eagle Rock. The addition of 3,315 persons to the Town of Forestburgh will result in a total population of 4,186 persons.

¹ Demographic profile of Eagle Rock Resort is documented in DEIS Appendix C.

² Rutgers University, Center for Urban Policy Research, Robert Burchell, David Listokin and William Dolphin, June 2006.

**Table 3.10-3
Lost Lake Resort
Full Build Scenario - Population Projections**

Number of Bedrooms by Type of Unit	Number of Units	Population Multiplier	Population Estimate	School-age Multiplier	School-age Children Estimate
Single Family 3-BR Detached Units	2557	2.95	7,544	0.58	1,484
Townhouse "Cottage" 3-BR Units	30	2.95	89	0.58	18
Condominium 2-BR Units	40	1.88	76	0.15	6
TOTAL per multipliers	2,627		7,709		1,508
Percent full time residents			0.43		0.43
Lost Lake Resort Population Projection			3,315		648

Source: Rutgers University Center for Urban Policy Research, Residential Demographic Multipliers, June 2006.

*Based upon 2000 Census data for Town of Forestburgh and Applicant's experience at Eagle Rock, Hazleton PA.

Partial Build Scenario

The Partial Build Scenario which represents the anticipated development over 10 years includes development of the amenities, the sale of all the single family lots and construction of 635 single family units.

Similar to the Full Build analysis it is expected that up to 57 percent of this population could be seasonal. Based on the information presented in Table 3.10-4, the proposed 635 dwelling units is projected to add up to 806 full time persons to the Town of Forestburgh's existing population of which up to 159 are projected to be school children, after ten years or more.

**Table 3.10-4
Lost Lake Resort
Partial Build Scenario - Population Projections**

Number of Bedrooms by Type of Unit	Number of Units	Population Multiplier	Population Estimate	School-age Multiplier	School-age Children Estimate
Single Family 3-BR Detached Units	635	2.95	1,874	0.58	369
Percent full time residents			0.43		0.43
Lost Lake Resort Population Projection			806		159

Source: Rutgers University Center for Urban Policy Research, Residential Demographic Multipliers, June 2006.

*Based upon 2000 Census data for Town of Forestburgh and Applicant's experience at Eagle Rock, Hazleton PA.

Mitigation Measures

The projected increase in the Town of Forestburgh's population will result in an increased demand for community services and facilities. To the extent that impacts to any of these

services are identified, mitigation measures are described below according to community service provider.

3.10.2 Police Protection

Existing Conditions

The Town of Forestburgh does not maintain its own police force. Police protection for the Town of Forestburgh is provided by the Sullivan County Sheriff's Department and the New York State Police Department. The Sullivan County Sheriff and NYS Police departments were contacted to obtain information on police services provided to Forestburgh and information was provided by the State Police.

The Sullivan County Sheriff Department is located on Bushnell Avenue in Monticello, which is approximately 6 miles from the project site.

The New York State Police, Troop F, provides police services for the Town of Forestburgh including the project location. Headquarters for Troop F is located in Middletown, with Zone 1 substations located in Liberty, Narrowsburg, Roscoe and Wurtsboro. The closest of these stations to the project site is the Wurtsboro substation, located approximately 12 miles from the project site. Emergency response time will be dependent on locations of patrol vehicles, weather and traffic. Special services/training includes, but is not limited to K9, helicopter, and fixed wing aircraft, bomb squad, hostage negotiators, school resource officers, scuba, mobile response team, (swat), special investigative units, etc. There are no plans for staff or facility expansion.

In 2008 the New York State Police responded to 14,815 calls for service in Sullivan County.

Potential Impacts

A letter was sent to the Sullivan County Sheriff requesting comments, to date, no response has been received.

The New York State Police provided a response which is included in Appendix B, Correspondence. According to Lieutenant Erik J. Dauber, Troop F Zone Assistant Commander, average response time to the project site will be 3-5 minutes. There is no perceived impacts from this project. Patrol/manpower requirements will be adjusted to compensate for any increase in calls for service/response times, etc. In Lieutenant Dauber's letter he states " The State Police maintains patrol coverage for the entire Sullivan County area and will continue to do so at no additional cost".

In a full build scenario Sullivan County will receive \$5,370,271 annually in property tax revenues. These revenues could be used to offset any increase in police protection necessitated by the increased demand placed on police protection services by the Lost Lake Resort development.

Mitigation Measures

The proposed Lost Lake development project will be a private gated community with one means of public access, a controlled-access entry, that will be manned 24 hours per day. Emergency

access points will be gated. Additional on site security will be available during higher activity times.

3.10.3 Fire Protection

Existing Conditions

The project site is located in the Forestburgh Fire District. The Department is an all-volunteer company that currently has a staff of 26 active volunteers and provides fire and rescue protection to a population of approximately 900 residents and businesses in an area of about 56 square miles. The District's service ratio is approximately one fire personnel per every 32 persons. The response time to the project site is expected to be approximately 3-6 minutes.³ The fire company receives approximately 120 calls for service per year.

The fire house for the Forestburgh Fire District is located at 2539 NYS Route 42, west of the project site. The Department's equipment is comprised of three (3) pieces of apparatus, which includes a pumper, a 2,500 gallon tanker, one rescue truck, and one off-road utility vehicle. Additionally, the District is equipped with extrication tools, rope rescue equipment, foam capabilities, generators, pumps, saws and a defibrillators.

The Forestburgh Fire District is a part of the Sullivan County Fire Mutual Aid plan, which is included for reference as Appendix R. There are 41 fire companies which are members of the Mutual Aid Plan and the Forestburgh Fire Department is a member of Battalion 5. The Mutual Aid Plan provides for mutual assistance between all County fire departments that are members. The officer-in-charge of a fire response has the capability to request assistance whenever it is deemed necessary. Neighboring departments which will be likely to assist the District include the Monticello Fire Department, Wurtsboro Fire Department, Woodridge Fire Department and Mountindale Fire Department.

Potential Impacts

The Lost Lake Resort project will result in the construction of an 18 hole championship golf course in addition to approximately 107,250 square feet of commercial space to be used for amenities and a total of 2,627 residential dwelling units. The Amenity Village will include a golf course club house/restaurant, a hotel, a convention center, spa facilities, and other accessory buildings. All of the buildings are planned to be less than 35' high.

Full Build Scenario

As shown in Table 3.10-3, the full time resident population of the project under the full build scenario is projected to be 3,315 persons.

Based on planning standards contained in the Urban Land Institute's 1994 Development Impact Handbook, it is estimated that 1.65 fire personnel per 1,000 population is required to serve a new population. The anticipated increase in population of 3,315 persons will generate a demand for 5.5 additional fire personnel. The District's current personnel level of 26 fire personnel exceeds this standard by 19 fire personnel, or more than three times the standard, even after the proposed Lost Lake population increase. This is a conservative value, as the ULI multipliers assume no existing services, thus the actual demand for personnel is expected to be somewhat lower. Based upon the rate of calls the Fire Department currently receives (120 calls per 871

³ Chief Chris Bastone, telephone conversation, September 20, 2009

population), and in consideration of the seasonal nature of the projected population, at Full build it could be expected that the calls for service will increase by about 450 calls per year. At full build out, the Lost Lake Resort will generate property tax revenues to the Forestburgh Fire District of approximately \$659,136 annually. This additional revenue can be used to augment the District's capabilities as necessary.

Partial Build Scenario

As previously discussed, the project is planned to be build out over several decades. The Applicant's estimate of development during the first 10 years includes the Amenity Village, the sale of all of the single family lots, and house construction on up to 635 single family dwelling units. As shown in Table 3.10-4 this results in a population of 806 full time residents.

Based on planning standards contained in the Urban Land Institute's 1994 Development Impact Handbook, it is estimated that 1.65 fire personnel per 1,000 population is required to serve a new population. The anticipated increase in population of 806 persons will generate a demand for 1 additional fire personnel. This is a conservative value, as the ULI multipliers assume no existing services, thus the actual demand for personnel is expected to be somewhat lower. Based upon the rate of calls the Fire Department currently receives, and in consideration of the seasonal nature of the projected population, upon completion of the Partial Build, it could be expected that the calls for service will increase by about 110 calls per year. At the completion of the Partial Build Scenario, the Lost Lake Resort will generate property tax revenues to the Forestburgh Fire District of approximately \$315,921 annually. This additional revenue can be used to augment the District's capabilities as necessary.

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 the taller structures in Forestburgh.

Mitigation Measures

The proposed internal roads are designed to accommodate fire engines and truck traffic. All proposed roads in Lost Lake Resort will meet the required road standards as per the Town of Forestburgh Code. The primary site access is located off Cold Spring Road, this is a boulevard style access that will allow for emergency access, even if one of the lanes becomes blocked. Additionally, there are four points of emergency-only access from the development to Saint Joseph's Road, two on the north side and two in the south side of the road.

The Property Owners Association (POA) will be responsible for keeping the private roads clear of vehicles and snow for purposes of ensuring adequate emergency access during all times of the year.

The buildings will be required to meet applicable standards of the New York State Uniform Fire Prevention and Building Code, and will also adhere to applicable regulations of Chapter, 107, Fire Prevention, of the Code of the Town of Forestburgh. The approved project plans will include installation of fire hydrants for fire protection.

The proposed project will be supplied water from a proposed community water supply system which will supply adequate water pressure to the fire hydrants in the development for fire protection. The minimum system pressure in the distribution system during a fire flow event will be 20 psig. The hydrants will be designed to provide a minimum of 1,000 gpm for a two hour

period. The hydrants will be installed in compliance with Ten States Standards at a distance of no more than 600 feet spacing. The water mains and fire hydrants in Lost Lake Resort will be maintained and serviced regularly in accordance with standards set forth by the Forestburgh Fire Inspector. Hydrants will be required to be kept in good condition, and the POA will keep a record of inspection and repairs to be made available to the Fire Inspector upon request. The proposed locations of hydrants will be determined as the site plan progresses.

The site master plan includes a 2-acre area off of St. Joseph's Road available for dedication to the Town for future emergency service facilities. This location will be accessible from the public road and situated on one of the project's emergency access roads. As the site plan progresses, the applicant will meet with the Fire Department and the Board of Commissioners to address any concerns they have raised to ensure adequate emergency service measures are considered in the design of the project including concerns regarding emergency access locations and fire protection response time.

3.10.4 Emergency Medical Services

Existing Conditions

Ambulance Services

MobileMedic EMS provides Basic and Advanced Life Support Services in Sullivan County and the surrounding areas. MobileMedic is a pay for service emergency ambulance response service and will be able to increase their service based upon an increased need.

MobileMedic serves the project area and will provide on site emergency medical services and ambulance transport for the project site. Mobilemedic has recently opened a new sub-station in Liberty to provide better service to residents in Northern Sullivan County. Currently the closest ambulance station to the project site is in Monticello. Travel time from Monticello affects the timely response of MobileMedic to Forestburgh.

In 2008, the MobliMedic received 65 calls for service from the Town of Forestburgh. Mobil Medic transports patients to the Catskill Regional Medical Center (CRMC) in Harris, and the Bon Secours Hospital in Port Jervis.

Hospitals

Catskill Regional Medical Center (CRMC) has hospital facilities located in Harris and Callicoon, NY, as well as family care centers in Harris, Liberty, Woodridge and Wurtsboro. Additionally, CRMC has a Woman's Health Center in Monticello, NY. The Harris campus is located approximately 11 miles from the proposed Lost Lake Resort. Bon Secours Hospital is located in Port Jervis located approximately 17 miles from the Lost Lake Resort.

Potential Impacts

The standard for emergency medical services, according to the Urban Land Institute's 1994 Development Impact Handbook is 4.1 full-time personnel and 1 vehicle per population of 30,000.

The introduction of 3,315 full time residents in the Town of Forestburgh will result in potential added demand for 0.5 full-time health care personnel and 0.1 vehicles in the full build scenario.

Based on the ULI multipliers, the proposed project will not have a measurable impact on emergency services such as hospital care in either the Full Build scenario or the Partial Build scenario.

In discussions with the Fire Chief, the Fire Department requests that the land designated on the site plan for emergency service facilities be considered for an ambulance sub-station for Mobile-Medic. This location would serve an existing need for an ambulance station closer to the Town of Forestburgh instead of having to travel from Monticello, which impacts emergency response times.

Mitigation Measures

The proposed residences are expected to be constructed and occupied over a 10 year period or longer. This will allow for the additional population to be introduced gradually. Residents will continue to rely on paid medics such as MobileMedic to service the Lost Lake Resort.

The Applicant is willing to designate the emergency use parcel to be utilized by MobileMedic to improve ambulance response times to the Forestburgh area. As no significant adverse impacts have been identified, no other mitigation measures relating to ambulance services are proposed.

3.10.5 Schools

Existing Conditions

The project site is served by the Monticello Central School District. Four elementary schools serving K-5, the Kaiser Middle School (grades 6-8) and the Monticello High School (grades 9-12) make up the district schools. Two elementary schools, the Cooke and Rutherford Elementary Schools, the Monticello Middle School and the Monticello High School are located in Monticello, approximately five (5) miles from the Lost Lake Resort. The Chase Elementary School is located in Wurtsboro, approximately seventeen (17) miles from the project site, while the Duggan Elementary School is located in White Lake, approximately fourteen (14) miles from the project site.

Table 3.10-5 Monticello Central School District Enrollment (2009/ 2010 School Year)				
School	Grades Served	September 2009 Enrollment	Capacity	Surplus/(Deficit)
Chase Elementary School	K-5	233	290	57
Cooke Elementary School	K-2	491	682	191
Rutherford Elementary School	3-5	542	542	0
Duggan Elementary School	K-5	238	296	58
Kaiser Middle School	6-8	731	900	169
Monticello High School	9-12	1,041	902	(139)
TOTAL		3,276	3,612	336
Source: Office of the Superintendent of Schools, Monticello Central School District, 2009.				

Potential Impacts

Based upon location the students from the Lost Lake Resort development will likely attend the Cooke and Rutherford Elementary Schools, and the Monticello Middle and High Schools, all located in Monticello.

The School District provided a response to the Applicant's inquiries including current enrollment statistics and indicating available capacity within the school district, included in Appendix B. Enrollments have been declining by about 1.5 percent annually and the School Superintendent indicated this trend is likely to continue thus increasing the available capacity within the Monticello School District to accommodate the residents of Lost Lake Resort.

As discussed in Section 3.9, based on information published by the New York State Education Department (NYSED)⁴, the School District's budget for the 2009-2010 school year totaled \$76,685,227, with \$38,847,805, or 51% of the budget raised through the property tax levy. It is noted that inherent to the budget costs associated with administrative, capital improvements for facility expansions and student programming costs are specifically identified. The 2009 - 2010 costs specific to student programming are projected to be \$57,943,196 of which \$29,551,029 will be raised by property tax. The School District's enrollment for the 2009-2010 school year was 3,276 students, resulting in a programming cost raised through the tax levy of approximately \$9,020 per student.

Full Build Scenario

As shown in Table 3.10-3, the total number of school-age children to be generated by the project in a full build scenario is projected to be 648 students. Based upon the per student programming cost of \$9,020 detailed in Section 3.9, the costs associated with a population of this size will be \$5,844,960 annually.

As noted in Section 3.9, upon completion of the full build scenario Lost Lake Resort will generate \$11,992,023 in annual property tax revenues to the Monticello School District. Based on this analysis, the School District will see an annual net benefit of up to \$6,147,063 from development of the full build out of the Lost Lake Resort community.

Partial Build Scenario

As shown in Table 3.10-4, the total number of school-age children to be generated by the project under the Partial Build Scenario is projected to be 159 students. Based upon the per student programming cost of \$9,020, the costs associated with a population of this size will be \$1,434,180 annually.

As noted in Section 3.9, upon completion of the partial build scenario Lost Lake Resort will generate \$5,747,723 in annual property tax revenues to the Monticello School District. This analysis shows that the School District will see an annual net benefit of up to \$4,313,543 from development of the partial build out of the Lost Lake Resort community.

⁴ New York State Education Department, Property Tax Report Card for Monticello CSD (591401), 2006-2007 School Year.

Mitigation Measures

The introduction of these students into various grade levels over a period of at least 10 years will allow a gradual assimilation of the increase in School District enrollment associated with this project. The approval and phased construction period of this project provides time to allow the Monticello School District time to implement measures for the introduction of new students from this and other area projects.

The proposed main entrance area roads for Lost Lake Resort have been developed to allow for easy maneuvering of buses. A safe and convenient location for a bus shelter has been provided for the pick up and drop off students in the main entrance area.

Based upon the gradual introduction of school children associated with the Lost Lake Resort development, and the potential seasonal usage of more than half of the residential units, in addition to the net benefit up to \$4,313,543 on the school district's budget within 10 years and a projected net benefit of up to \$6,147,063 at full build out, no adverse impacts are anticipated, thus no mitigation is proposed.

3.10.6 Public Recreational Facilities

Existing Conditions

Recreational facilities and programs provided by the Town of Forestburgh include an outdoor swimming pool located at the Town Hall; the historic Forestburgh log cabin, one of the earliest structures built in Sullivan County; a skiing program for children in cooperation with Holiday Mountain Ski area; a children's summer arts and crafts program; and a senior citizen's program, which includes monthly meetings at the Town Hall and field trips.

The Forestburgh Playhouse has continued to offer its own unique version of summer theater to audiences of Sullivan County. By the summer of 1997, the Playhouse celebrated its 50th birthday with a record breaking season, and at long last air-conditioning was installed in 2004.

Also, the Neversink River Unique Area is open to the public for passive recreational opportunities.

At this time the Town is looking to establish a "recreation committee" to further develop the youth recreation program. In the past when the program was run by a formal committee, there were Holiday Pot Luck parties where the youth provided the music, there was a Forestburgh Youth Symphony Halloween parties complete with a "haunted" Town Hall and "trunk" or Treating, spring "Bunny Brunches" all in addition to the ski and summer program.

Potential Impacts

On-site recreational amenities for residents and guests will include an 18-hole championship golf course and driving range, clubhouse and restaurant, swimming and boating facilities, tennis courts; an "Amenity Village" that will include a hotel ("The Inn at Lost Lake"), health and wellness spa, and conference center; and a system of wilderness trails for walking and passive recreation.

The Applicant believes that this project will provide substantial benefits to the region and the local community through the creation of recreational amenities that are available to the public including the following:

- A state-of-the-art, championship-quality, public golf club facility
- A master plan for long term preservation of a substantial amount of open space while optimizing use of the property with recreational facilities that are harmonious with the natural systems of the site
- Increase property values in the local community because of the premium value associated with properties in proximity to a championship golf course
- Provide recreational and second home residential opportunities that promote tourism in the Town of Forestburgh as a destination for regional visitors

The proposed golf course will be open to the public for daily fee golf play during the spring, summer and fall seasons. In addition, a portion of the Bush Kill river enters the property in the southeastern end providing opportunities for passive recreation such as picnicking and fishing. Bushkill Park West, an area of about 1.6 acres located along the west side of the river (but connected to the much larger open space land), will offer pedestrian access to the Bush Kill from inside the resort where visitors can enjoy a relaxing picnic, fly-fishing or bird watching. Bushkill Park East, an area of 1.5 acres will also offer opportunities for picnics and fishing on the east side of the river, and adjoining land owned by the State of New York. Located close to and accessible from Cold Spring Road, the project master plan designates the proposed Bushkill Park East area that is offered for dedication to the Town for a public park as part of this project application.

Mitigation Measures

Based upon the provision of on-site recreational opportunities, which will serve the residents and the existing community, no adverse impacts are anticipated with regard to public recreational facilities. In addition the applicant will pay to the Town, the appropriate per lot recreation fee, currently \$200 per lot. No further mitigation measures are proposed.

3.10.7 Utilities

Existing Conditions

Due to the rural nature of the project site area there are no existing water utilities or wastewater collection or treatment facilities that service the site. There is existing electric service provided to the area by Orange and Rockland (O&R) Utilities. A map of the O&R service area is included as Appendix S. Existing telephone service is provided by Verizon and Frontier. Time Warner Cable Company provides cable service along NYS Route 42 and along St. Joseph's Road, digital telephone service is also provided by Time Warner Cable.

The US Census indicates that approximately 80 percent of homeowners utilize oil heat, the remaining 20 percent utilize either electricity, liquid propane gas or other sources.

Proposed Utilities

The project will include development of on-site utilities and stormwater infrastructure, a community water supply, and wastewater treatment facilities to service the resort.

Water Supply

The project is designed to be serviced by a privately-owned community water supply that derives water from onsite wells. The water supply system will be developed in accordance with New York State Department of Environmental Conservation, New York State Department of Health, and Delaware River Basin Commission (DRBC) requirements. All applicable permits will be applied for and obtained prior to construction of the public water supply system. Permits will include but are not limited to a Public Water Supply Permit, groundwater withdrawal permit, Department of Health permit and a water conservation form.

The Applicant proposes to install domestic water service and fire supply throughout the proposed development. The design of the water system will conform to requirements defined in the New York State Sanitary Code 10 NYCRR Subpart 5-1, design standards known as the "Ten States Standards for Water", and the National Fire Protection Association (NFPA) standards for fire protection.

The total required water storage volume of 1,017,055 gallons is equal to total daily water demand (897,055 gallons) plus an additional volume for fire flow (120,000 gallons) based on current building program. The fire flow demand is based on 1,000 gpm from a single hydrant for a period of 2 hours. The proposed water storage volume is approximately 1,130,000 gallons.

Up to three water tanks will be constructed with an approximate height of 77' by 28' in diameter. The height of the tanks will be slightly higher than the tree tops in this area. The finished water storage tank location was chosen to provide gravity feed and to avoid any visual impact from off the property. The finished water storage tank site will have perimeter fencing to prevent trespassing and vandalism. Subsurface conditions are adequate to support the tank facility at this location.

The water pressure in the distribution system will have a residual static pressure of 60-80 psi in most areas with no area less than 35 psi during normal use. A minimum pressure of 20 psi during fire flow will be provided. The water demands of each phase of the development will be observed as they come online, as will the impact on the groundwater resource, to ensure that groundwater sources are not overdrawn.

The proposed design is based on three water storage tanks with a total water volume of 376,600 gallons each for a total water storage volume of approximately 1,130,000 gallons for the fully built project. One tank will initially be built in Phase 1 and the facility expanded based on need. The initial tank will be equipped with radio telemetry equipment that will be used to communicate with the well sites. The second and third tank will be constructed when the average daily demand dictates the need for additional storage. Piping and other details are presented in Appendix K. At this time no booster pump stations are proposed. Chlorination is proposed to be done at the well house, and if required, at the water tank site.

Irrigation of the golf course will be accomplished with water taken from Lost Lake. The irrigation lines will be separate from the drinking water lines.

Potential Water System Impacts

Since groundwater is the water source, care will be taken to determine the safe yield of each well and of the entire development. DEIS Section 3.5 includes discussion of pump tests and monitoring performed to determine the safe yield of the wells, including monitoring to assess the potential impacts to other on-site wells. An analysis that examines recharge, evapotranspiration, and watershed accounting during normal and drought conditions is also presented in Section 3.5.2.

Mitigation measures will include water conservation to reduce the amount of water consumed and turf management and integrated pest management plans. Surface water taken from Lost Lake will be used for irrigation purposes.

A NY State transportation corporation will be established to own the water utilities within the proposed development. This entity will be responsible for the operation and maintenance of the proposed water distribution system, treatment and storage facilities, and will be responsible to comply with all applicable water quality standards and regulations.

Wastewater Treatment

The project is designed to be serviced by a privately-owned onsite wastewater collection and treatment system with discharge to surface waters. The wastewater system will be developed in accordance with Sullivan County, New York State, and DRBC requirements. The project will utilize low pressure grinder pump systems for the home sites. A low pressure grinder pump system consists of a grinder pump at each property, along with a common low pressure sewer main to the treatment plant. Each grinder pump is housed in a small well, providing the necessary storage volume required by regulations. The low pressure grinder pump system along with three pump stations will provide conveyance of wastewater to the treatment plant. Pump station locations are indicated on Plan Sheet 1 in Appendix K; one pump station is located in Phase 1 near the intersection of roads C and F; the others in Phase 3 near the intersections of roads AA and BB and roads CC and DD.

The proposed wastewater treatment plant will be built in phases, allowing expandability and adaptability to meet the needs of the project as it grows over time. The plant to be constructed in Phase 1 will look much like what is illustrated in Attachment C of the Proposed Water and Wastewater Systems report (DEIS Appendix K), except with a fewer number of open treatment tanks. Future expansion of the facility will entail adding treatment tanks and redundant system components inside the buildings. Subsurface conditions are adequate to support the facilities at this location. The plant is to be located outside of the 100-year floodplain and at least 250 feet from any lot development on or off the project site.

The sewage system highlighted in Plan Sheet 10 of the Proposed Water and Wastewater Systems report will be installed for Phase 1 to convey sewage to the treatment facility. Sewage will be treated with an activated sludge treatment technology that will discharge to the Bush Kill. This treatment facility will be a package unit, with each portion constructed in modular form to provide additional treatment capacity as the project develops. The Phase 1 plant will be capable of treating a projected average daily flow of 128,545 GPD. The plant design takes inflow and infiltration (I&I) into consideration.

The treatment facility will be located near the confluence of two tributaries of Bush Kill stream in the southeastern portion of the site. A properly run treatment plant will produce minimal noise and odor impacts, if any at all.

Potential Wastewater System Impacts

The direct impacts on the natural resources at the site will be the clearing of land, construction, and discharge of effluent from the wastewater treatment plant. The yearly mass loading of nutrients in the treatment plant effluent will be dependent on the specific treatment process that is selected, which will be driven by the final effluent limits, as set by NYSDEC and/or DRBC.

The NYSDEC has set preliminary effluent limits for thermal impacts and chemical loading into the receiving waters, to protect the water quality within the Bush Kill. These design limits are set forth in the Proposed Water and Wastewater Systems report, Appendix K, and listed below. Limits set by the State are based on the existing characteristics of the receiving waters and their ability to assimilate the new discharge without significant adverse effects on the receiving waters. As the receiving waters in this case, the Bush Kill, is a Class B(T) watercourse, stringent limits on the proposed STP discharge for chemical loading and thermal range are specified to ensure no significant adverse impacts will result from the proposed action.

- BOD5 - daily max limits of 10 mg/L, 15 mg/L, and 30 mg/L for flows of 0.55 MGD, 0.25 MGD, and 0.1 MGD respectively.
- TSS - daily max limits of 10 mg/L, 15 mg/L, and 20 mg/L respectively.
- Ammonia - daily max limits of 2 mg/L, 3 mg/L, and 6 mg/L for the three flows respectively.
- pH - 6.5 to 8.5.
- Settleable Solids - 0.1 ml/L
- Phosphorus - 0.5 mg/L (30 day average).
- Disinfection - recommended seasonally per Class B(T) stream. Typically May 15 - October 15.
- Total Residual Chlorine - 0.01 mg/L if chlorine is used for disinfecting.
- Dissolved Oxygen - ≥ 4 mg/L.
- Temperature - ≤ 70 degrees Fahrenheit.

A NY State transportation corporation will be established to own the sewer utilities within the proposed development. This entity will be responsible for the operation and maintenance of the proposed sewage collection system and treatment plant. As such, the corporation will be responsible to comply with all applicable water quality standards and effluent limits. The individual grinder pump units on each lot will be the responsibility of the property owner.

Electricity, Communications, and Heating Fuel

The common facilities and house lots will be served by underground electric, telephone, and cable connections. There is no natural gas availability in the project area to service this project. Building heating systems will utilize LP gas or oil for fuel.

Phone conversation with Orange and Rockland⁵ utilities indicate they are prepared to provide electrical service to the project. They indicated that early coordination would allow them to provide the best service. Phone conversation with Time Warner Cable⁶ confirmed they are the cable provider to the area and would have no problem extending cable service to accommodate the Lost Lake project. As stated earlier 80 percent of home heating in Forestburgh utilizes oil heat. There are numerous oil delivery companies available who service this area, including Van Etten Oil, Bottini Fuel, Larsons's Oil, Anderman Oil, Global Oil, Wagner Century Oil and Moribito Fuel.

Mitigation Measures

The proposed project is designed with appropriate infrastructure to support the development and use of the site over a long term buildout, at no cost to the Town of Forestburgh. Permitting of the various utility facilities will occur only after sufficient design detail has been submitted and reviewed by the regulatory agencies having jurisdiction over their specific areas of concern, with issuance of each permit thereby demonstrating that appropriate mitigation measures will be in place to protect the environment without significant adverse effects.

3.10.8 Solid Waste Disposal

Existing Conditions

Residents and commercial establishments in the Town of Forestburgh contract privately for solid waste (trash collection) services. Three licensed refuse collectors operate in the Town of Forestburgh:

- Thompson Sanitation (845-796-1032)
- Sullivan County First Recycling (845-436-6772)
- Waste Management of Hudson Valley (800-222-2028)

Most refuse collectors haul solid waste to the Sullivan County landfill in Monticello, New York. The County has recently authorized the design and permitting of a new transfer station and an upgrade of the recycling facilities. The County is also considering building a large composting facility to augment their recycling capabilities. Presently, the project site generates no solid waste.

Potential Impacts

Full Build Scenario

The per household rate for solid waste generation according to the Urban Land Institute's 1994 Development Impact Handbook is .00175 tons per person per day. As detailed in Table 3.10-3 the full time population projected upon full build out is projected to be 3,315 persons at full build out, resulting in an estimated solid waste generation of approximately 5.8 tons per day. Assuming that solid waste generated by future residents at the project site has a typical three to one ratio of non-recyclable to recyclable materials, the project will generate 4.3 tons per day of non-recyclable solid wastes and 1.5 tons per day of recyclable materials upon completion. The

⁵ Phone Conversation with Project Manager Bob Scudato on January 22, 2010.

⁶ Phone Conversation with Director of Field Operation Chris Austin on January 21, 2010.

commercial portion of the project in the Amenity Village will generate approximately 5 pounds per 1,000 square feet of commercial space per day, or a total of 535 pounds per day.

Partial Build Scenario

As detailed in Table 3.10-4, the full time project population for the Partial Build Scenario is projected to be 806 persons. According to the multipliers cited above, this will result in an estimated solid waste generation of approximately 1.4 tons per day. The total non-recyclable solid waste will be 1.1 tons per day and the total recyclable materials will be 0.3 tons per day, in addition to the 535 pounds per day for the commercial development in Amenity Village.⁷

Dumpsters and solid waste storage areas are proposed for the hospitality residence areas (cottages and townhouses) as well as the resort buildings. Solid waste generated by the single family detached homes will be stored at individual houses and all project-generated solid waste will be collected by private contractors.

Mitigation Measures

Management of solid waste disposal by established carters utilizing approved methods of disposal at the Sullivan County landfill and County recycling facility will mitigate the waste disposal needs of the proposed development without significant adverse effects. Construction waste generated during project construction will also be managed by private carters using approved methods of disposal and recycling.

⁷ California Integrated Waste Management Board, 1992.