

I. DEIS Summary

A. Introduction

On August 14, 2008 the Village Board of the Village of Bloomingburg assumed lead agency status and issued a Positive Declaration under the State Environmental Quality Review Act (SEQRA) for the Villages of Chestnut Ridge. Sullivan Farms II, Inc. (Applicant) is proposing to develop a Planned Unit Development consisting of 396 townhomes and a community club house and recreational amenities as well as off site infrastructure improvements including wastewater treatment plant upgrades and other utility and roadway improvements.

The proposed plan is a tightly clustered conservation design that arranges clusters of townhomes in primarily level former agricultural fields and leaves large areas of woods, wetlands and wetland buffers untouched. The site is designed internally for walkability with extensive sidewalks and trails connecting units with each other and amenities such as the clubhouse and pool. Its location within a half mile of the Village Center extends and enhances the existing walkable, livable community where residents can easily walk or bike to Village stores and offices. The improvement of the Village Wastewater Treatment Plant through this project will both relieve the Village residents of significant cost and provide higher quality effluent entering the Shawangunk Kill.

The basic purpose of SEQR is to incorporate the consideration of environmental factors into the existing planning, review and decision-making processes of state, regional and local government agencies at the earliest possible time. To accomplish this goal, SEQR requires that all agencies determine whether the actions they directly approve may have a significant impact on the environment, and, if it is determined that the action may have a significant adverse impact request an environmental impact statement. Accordingly, it is the intention of SEQR that a suitable balance of social, economic and environmental factors be incorporated into the planning and decision-making processes of state, regional and local agencies. It is not the intention of SEQR that environmental factors be the sole consideration in decision-making.

The area of development involves 198.3 acres of property owned by the applicant along with a utility corridor and the public wastewater treatment site totaling approximately 207.9 acres. The entire area is situated in the Village of Bloomingburg in the Town of Mamakating, in Sullivan County.

A PUDR application including EAF was submitted to the Village Board by Sullivan Farms, II, Inc. on February 19, 2008. The Village Planning Board recommended acceptance of the PUDR rezoning on April 19, 2008. The Village Board passed a resolution declaring its intent to be Lead Agency for SEQRA review on June 12, 2008. The Village Board determined that the project had the potential for significant adverse impacts on the environment and issued a Positive Declaration on January 5, 2009 and circulated a Draft Scope for the Draft Environmental Impact Statement (DEIS) among the

various Involved Agencies for review and comment. The Village Board passed a resolution on February 5, 2009 adopting the Draft Scope for the DEIS.

This DEIS will investigate the existing conditions of the site and will evaluate the potential for the project to impact environmental resources in accordance with SEQR and Part 617 of the regulations. The DEIS considered four alternatives: “No Action”, “Alternate Layout”, “Preferred Layout” and “Revised Preferred Layout”. The Revised Preferred Plan is being selected for the project. This plan minimizes the impervious area developed on the site, minimizes environmental impacts, does not impact wetlands and provides two contiguous open spaces of 71 acres and 49.5 acres.

B. Project Location

The Villages of Chestnut Ridge Project is being proposed on a 198.3 acre site within the Village of Bloomingburg in the Town of Mamakating, Sullivan County. The site is accessed by Winterton Road (CR 62) which bisects the site approximately ½ mile south of the intersection of Winterton Road and Main St. in Bloomingburg (NY 17K). The site is bounded on the east by the center of the Shawangunk Kill which is coincident with the boundary between the Village of Bloomingburg, Sullivan County and the Town of Wallkill, Orange County, on the north by existing residential development along Ivy Lane and on the south by the Village of Bloomingburg and Town of Mamakating boundary and existing residential development along Winterton Road. The property is bounded on the west by the Town of Mamakating including the Town Park and an undeveloped wooded slope rising up to High View and Mountain Road. A location map is shown on Figure II.A.1.

The project area was annexed by the Village of Bloomingburg through the passage of the Local Law No. 3 of the year 2006 on December 11, 2006 which was recorded with the Department of State on December 18, 2006. The lands annexed which comprise this project site were placed in the R-1 Residential Zoning District with a Planned Unit Development Residential (P.U.D.R.) overlay.

The project site is bordered by the existing Village residential neighborhood to the north along Winterton Road. The closest project neighbors are the three single family homes immediately to the north along Winterton Road and six homes along Ivy Lane north of the site and east of Winterton Road. The Shawangunk Kill borders the east side of the site. There is a wide floodplain along the Kill and closest homes across the Kill in the Town of WallKill, Orange County are 500 ft. east of the Kill and about 1,200 ft. from the closest proposed townhome cluster. South of the site along Winterton Road are a series of single family homes on large lots. West of the site is a steep wooded and undeveloped slope that leads up to High View area off Mountain Road. The closest single family homes to the west are approximately 2,000 ft. from the project boundary. North and west of the site is the Town of Mamakating. Generally the existing land use around the site is a combination of undeveloped woodland and former farms and single family homes on sites ranging from one-quarter acre to several acres. There are existing commercial retail and office space around

the center of the village beginning about 1,200 ft. north of the site and extending to the village center which is approximately 2,000 ft. to the north.

C. Project Description

“Clustered Townhome Community - Revised Preferred Plan”

The Revised Clustered single family plan is a refinement of the Preferred Concept Plan that resulted from Village Board and Village Engineer input. The result is the same number of units of the same type with 2 acres less impervious area, better emergency vehicle access, more contiguous open space on the west side of the site and an added 1.5 acre Village Commons park type green area in the center of the east side of the site.

The selected project plan, “Clustered Townhome Community - Revised Preferred Plan” involves 396 townhouses with a clubhouse in a clustered layout. 308 of the townhouse are clustered on the east side of Winterton Road with the remaining 88 townhomes on west side of Winterton Road.

The tight clustering of the layout allow the preservation of large areas of green space up gradient of the large wetland areas on both the east and west sides of Winterton Road. This layout also uses primarily meadow and field portions of the site and preserves wooded areas on the high ground on the west side of the site. The project infrastructure requires a new central water supply system with two water supply wells, water distribution system and water storage tank. The 250,000 gallon water tank is located along the northwest side of the site at the highest elevation allowing adequate water pressures for domestic and fire use with only 33 ft. total height and no booster pumps. The project also includes expansion of the Village Wastewater Treatment Plant to handle the project wastewater needs. Due to the condition of the existing plant the plant will be replaced with a new plant on the existing site with the latest treatment technology and sized for the project usage, as well as existing and projected future village usage. A gravity sewer main will extend along Winterton Road from the project to the treatment plant.

There are three large contiguous open spaces proposed on the site. The western border of the site upslope of Winterton Road is 71 acres of contiguous open space. The eastern border of the site along the Shawnanunk Kill is 49.5 acres of contiguous open space. The central commons area on the eastern side in the middle of the residential clusters is 1.5 acres of contiguous open space. The very large open spaces on the eastern and western borders will be kept in their natural states and accessed by hiking trails. The central commons will be a park with lawn, trees, park furniture and playground equipment.

In addition to the open space and central commons park, a community center clubhouse with meeting rooms and outdoor pool are planned on the southerly

property border. The community center includes parking and pedestrian walkways to all of the residential areas. The community center is expected to accommodate regular social events and special gathering for residents of the PUDR and their guests. The community center is expected to include a restaurant to serve lunch at the pool and for food preparation for community events in the center.

Land Use, Zoning and Community Character

Existing Zoning

The project area was annexed by the Village of Bloomingburg through the passage of the Local Law No. 3 of the year 2006 on December 11, 2006 which was recorded with the Department of State on December 18, 2006. The lands annexed which comprise this project site were placed in the R-1 Residential Zoning District with a Planned Unit Development Residential (P.U.D.R.) overlay.

Sullivan Farms, II, Inc. has submitted the site for PUDR designation. The following is a summary of the zoning requirements:

Zoning Summary		
Category	Required by Zoning Law	Proposed – Preferred Plan
Permitted Uses:	Residential: Any type including related accessory uses. Non-Residential: Where such uses are designed to serve primarily the residents of the PUDR District.	Townhomes as principal residential use with clubhouse as accessory use designed to serve the residents of the PUDR as a community center with outdoor in-ground pool, restaurant and playground.
Density	0.5 acre per dwelling unit	198.3 acres/396 units = 0.5 acres per dwelling unit
Building Setbacks	Front = 30 ft. Side = 15 ft. Rear = 15 ft.	Front = 30 ft. Side = 15 ft. Rear = 15 ft.
Building Height	35 ft. maximum	35 ft. maximum
Minimum Site Area	5 acres	198.3 acres
Building Coverage	20% Maximum	12 Acres/ 198.3 Acres = 6%
Common Open Space	Not Less Than 30% of Gross Area	86.7 Acres/198.3 Acres = 44% of Gross Area
Utilities	Central Water and Sewer and all water, sewer, gas, power and communication installed underground.	New Central Water System with three new wells and new water storage tank. Connection to Village Wastewater Collection and Treatment System with an upgrade of the plant to provide adequate capacity.
Organization	Homeowner’s Association or other arrangement approved by the Village Board.	Homeowner’s Association to be filed for Village Board and State Approval

The proposed residential use is compatible with the existing residential uses

Community Character

The site is currently a farm with cultivated fields bordered by smaller single family home sites but it is in the close proximity of about ½ mile to the Village Center. The Village Center includes many stores, restaurants, banks and offices which makes this an advantageous location for multi-family residential. It is convenient to walk to town stores from the site. The site is also located within 1 ½ mile from Route 17 facilitating regional travel from the site to jobs and schools. The character of Winterton Road will be preserved by careful landscaping along the road which includes planted berms along the roads and a boulevard type main entrance. There are also planned provisions for safe bus stop locations and planned trails and walkways. The design which promotes walking and multimodal transportation connection will facilitate a connection between the project residents and the Village as a whole.

Visual Impacts

The careful design of the landscape along Winterton Road will create a parkway effect along the existing road which is now bordered by fields. Site and landscape plans include provisions for tree planting every 40 ft. along the main roads. When mature the tree planting will provide a canopy effect along the roads.

Zoning Law requires a 15 ft. planted buffer along the side and rear PUDR boundaries. This requirement will be exceeded along the existing single family homes to the north and east of the site as well as along the southerly boundary.

Lighting will be designed to provide adequate vision, comfort and safety and provide for uniform lighting with a minimum value of lighting necessary for the safety and security during darkness. Pole height will be limited to a maximum of 20 ft.

The 33 foot Water Tank is located in a wooded area along the westerly boundary of the site. The tank will be lower than many of the surrounding trees and over 2,000 ft from the closest residence or roadway. To make the tank even more visually compatible, an earth-tone paint color will be chosen to blend in with the wooded area.

Recreation and Open Space

There are three large contiguous open spaces on the site totally approximately 139 acres. The very large open spaces on the eastern and western borders will be kept in their natural states and accessed by hiking trails.

Historical and Archaeology Resources

Birchwood Archaeological Services performed a Phase 1A/1B Archaeology Study of the project property. The project involves the development of approximately 200 acres for residential purposes, with the Area of Potential Effects (APE) encompassing 180.75 acres of potentially proposed ground disturbance.

A Phase IA review indicated that there are no prehistoric sites known within one mile of the project area. However, prehistoric peoples likely traversed the area harvesting natural resources while utilizing temporary camps in a seasonal manner. As a result, the project vicinity is considered moderately sensitive for prehistoric remains. The Phase 1B investigated two sites of prehistoric activity. Locus 1 and Locus 2 were identified with tools and evidence of fire cracked rock suggesting the potential exists for cultural features in these areas.

A Phase II Study was conducted for both Locus 1 and Locus 2. No temporally diagnostic artifacts were recovered, and no cultural features were identified that would allow for dating of the Locus 1 prehistoric site. For these reasons, it does not appear that the Locus 1 prehistoric site would be determined eligible for inclusion in the National Register of Historic Places. Therefore, no further archaeological work is recommended for this site.

On the basis of the excavations conducted as part of the Phase II study, it would appear that the Locus 2 site holds good stratigraphic integrity, with little evidence of disturbance in the soils excavated or on the ground surface. As a result, Locus 2 site may be eligible for inclusion in the National Register of Historic Places. As definitive avoidance of Locus 2 by the proposed project is not possible, a Data Recovery Plan (DRP) will be developed in consultation with the NYSOPRHP in order to mitigate potential impacts to the site. The DRP will be undertaken prior to disturbance of Locus 2.

Topography and Soils

The hydrologic soil characteristics of the site drainage areas were derived from the USDA Table 7.1, New York State Guidelines for Urban Erosion and Sediment Control, and from the Sullivan County Soil and Water Conservation District publications and maps. In general, the major soil types in the watershed study area are as follows:

Symbol	Description	Hydrologic Soil Group	Approximate Percent of Study Area
<i>SaB</i>	<i>Scio</i>	B	43
<i>Po</i>	<i>Pope</i>	B	2
<i>Wd</i>	<i>Wayland</i>	C/D	13
<i>Re</i>	<i>Red Hook</i>	C	14
<i>Mdc</i>	<i>Mardin</i>	C	5
<i>ChB; C</i>	<i>Chenango</i>	A	10
<i>PmB</i>	<i>Pompton</i>	B	0.3
<i>SeB</i>	<i>Scriba/Morris</i>	C	0.7
<i>Nf</i>	<i>Neversink/Alden</i>	D	8
<i>ScB</i>	<i>Scriba</i>	C	2
<i>Wic</i>	<i>Wellsboro/Wurtsboro</i>	C	2

Overall, the site topography is gentle sloping and well drained, except in wetland and floodplain areas. For the approximately 200 acre project site, 69± acres will be disturbed for development, the rest will remain undisturbed open space. Erosion potential is low but would be greatest during the initial site work and grading, when soils are exposed. These potential impacts are temporary in nature and can be mitigated by adherence to the Storm Water Pollution Prevention Plan (SWPPP).

Regarding proposed mitigation measures for soils, the SWPPP is essentially the same for all alternatives considered. Erosion and sedimentation will be controlled and maintained during the construction period by temporary devices as demonstrated within the SWPPP set forth for this project. Specific goals include:

- Divert clean surface water before it reaches construction areas
- Stabilize potentially erosive areas at the source through use of temporary and permanent measures.
- Capture sediment-laden runoff and filter it prior to discharging.

- Decelerate and distribute stormwater runoff through natural vegetative buffers or structural means prior to discharging off-site.
- Carefully phase construction so that no more than five acres is disturbed at any one time.

Vegetation and Wildlife

Onsite vegetation consists largely of a mix of three major cover types; open field, forested, and wetlands. More the half of the site comprises of open field, which most likely was used for agricultural purposes in the past. The remaining is virtually equally divided among wetland and forested areas. No endangered, threatened, or rare plant species were noted during field surveys.

The proposed development generates the greatest amount of disturbance to vegetation in the open field areas. Approximately 26 acres of the site will be converted to impervious surfaces. The remainder of the disturbed area would be replanted as lawn and landscaped areas. Large open areas, both forested and wetlands will be preserved, thereby providing wildlife areas for roosting, nesting and foraging.

Wildlife or wildlife sign (tracks, nests, scat) were noted by vegetation cover type during each field visit. Birds were identified by sight, call, and song. Amphibians were also identified by sight and sound, and were searched for under cover objects, especially rocks in and near the drainage ways on the site. Mammals were identified by sight, sound, and sign – especially tracks in wet substrates. All vegetation cover types on the site were investigated.

Two state and federally listed animal species were initially recognized as potentially occurring in the vicinity of the Chestnut Ridge site. These two species are bog turtle and Indiana bat. Specific surveys were performed for these two species and are presented in appendices to the report. No federally-listed or state-listed endangered or threatened amphibians and reptile species were found on site. Listed bird species were observed on site (bald eagle and northern harrier, both listed as threatened,) as well as NYS-special concern species (American bittern, spotted turtle, and wood turtle).

Surface Drainage and Water Resources

The site consists of fields previously used for farming and wooded areas that include wetlands and streams. The wetlands include both New York State wetlands and federally regulated waters of the United States, including streams and wetlands. One of the streams is designated as a tributary to the Shawangunk Kill and is protected by the NYSDEC

The property on the eastern side of Winterton Road is bordered to the south by vacant wooded land, to the east by the Shawangunk Kill, to the north by residential dwellings and to the west by Winterton Road. The wetland along the Shawangunk Kill is a New York State Wetland.

The stormwater management design for this site has been developed through the use of sound engineering practice, the stormwater requirements of the Village of Bloomingburg and the requirements of the NYSDEC Stormwater Management Design Manual. Analysis of the pre- and post-development stormwater runoff from the site was modeled utilizing the Soil Conservation Service TR-55 Urban Hydrology for Small Watersheds and the Hydrocad computer program. The stormwater basins have been designed in accordance with the NYSDEC Stormwater Regulations for the 1, 10 and 100 year storm events. The roadway drainage channels, and culverts have been designed for the ten (10) year storm event.

The existing conditions or pre-development conditions have been analyzed as six (6) drainage areas. A total of 62.71 acres were included in the study area for the project. The existing conditions stormwater map can be found in the appendix

Seven (7) drainage areas were modeled for the post-development watershed conditions. These drainage areas will continue to discharge to their pre-development locations. A total of 62.71 acres were included in the study area for the post development model. The post development drainage area map is attached in the Appendix .

Stormwater will be managed in accordance with the NYSDEC Stormwater Management Requirements. Stormwater will be managed in the Post Construction condition by the seven proposed Stormwater Management Basins.

Seven (7) stormwater basins are included in the proposed project. Where required, the channel protection volume will be provided above the normal water elevation in the basin.

The stormwater basins and watersheds were analyzed and modeled using the Hydrocad computer software, which utilizes a level pool pond routing method, for the 10 yr and

100 yr, 24 hour design storms. The comparison of pre-development to post-development flows for all drainage areas, are shown in the tables below. The results of the modeling indicate that basins can effectively control post construction peak discharge rates for the site areas to less than pre-development peak discharge rates. Therefore, the NYSDEC quantity control requirements have been met. The SWPPP will fully comply with the requirements of the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity, Permit GP-0-08-001.

Traffic and Site Access

The intersections located in close proximity to the proposed development were chosen to be included in the study. These intersections were included due to the potential impact of increased traffic and delay resulting from the proposed development. The study intersections were:

1. Winterton Road (CR 62)/North Road and Main Street (Signalized)
2. Bloomingburg Road (CR 76) and Main Street/Route 17K (Unsignalized)
3. Route 17K and Goshen Turnpike/Route 17 Exit 116 WB Ramps (Unsignalized)
4. Route 17K and Route 17 Exit 116 EB Ramps (Unsignalized)
5. Winterton Road and Upper Road (CR 65) (Unsignalized)

The original traffic study was prepared early in the process when 294 units were anticipated. The effects of updating to the actual figure of 296 units are negligible and do not alter the conclusions presented.

In addition, though not accounted for at this time, a roadway will be constructed by the Developer on Winterton Road (aka South Road), approximately 760 feet south of the Winterton Road/Main Street intersection. The proposed road connects to Main Street approximately 750 feet east of the Winterton Road/Main Street intersection. Because of its configuration and proximity to the proposed site, it is anticipated that once completed, this road will act as a bypass to the Winterton Road/Main Street intersection. It would then be expected that there would be a reduction in the number of anticipated northbound right-turn movements and westbound left-turn movements experienced at that intersection, resulting in an improvement to the overall LOS.

The land uses in the vicinity of the proposed development include rural residential development, bank, retail shops, post office, a diner, a park.

The roadway system located within the study area is comprised of state, county, local and private roads. The site fronts on and is bisected by Winterton Road, County Route 62. This serves as the main access route to the site. Winterton Road provides access to Main Street

Based on the traffic patterns in the study area and the proposed development land uses, residential and recreational components, the critical design periods were chosen to be as follows:

Planning Period	Time Period
1. AM Peak Hour	6:00 am to 9:00 am
2. PM Peak Hour	3:00 pm to 6:00 pm
3. Saturday Peak Hour	10:00 am to 2:00 pm

The intersections located in the study area were analyzed for opening day without development conditions. Construction of the project is expected to begin mid to late 2009 for a period estimated at approximately one year. Therefore, the opening day without development conditions were analyzed for the year 2009. Existing traffic volumes were increased at an annual growth rate of 1.7% based on NYSDOT growth projections for the study area. No other significant development has been identified. No physical improvements at any of the study intersections were considered. However, the signal timing at the existing signalized intersection was optimized for improved Levels of Service (LOS).

The intersections located in the study area were also analyzed for opening day conditions with development.

The proposed site is planned for the development of townhome housing. The total parcel area is 198.5± acres. The residential development will include construction of 394* townhomes. The volume of traffic to be generated from the proposed land development was estimated using the Institute of Transportation Engineers (ITE), “Trip Generation Manual,” 7th Edition, 2003 for *Land Use 230- Condo/Townhouse*.

THE VILLAGE AT CHESTNUT RIDGE DEVELOPMENT

TRIP GENERATION

LAND USE CATEGORY		Entering AM	Exiting AM	Entering PM	Exiting PM	Entering SAT	Exiting SAT
Residential	Units						
Townhouse*	394	28	146	138	67	99	87

* The original traffic study was prepared early in the process when 394 units were anticipated. The effects of updating to the actual figure of 396 units are negligible and do not alter the conclusions presented.

With Development conditions were achieved by adding the site generated traffic to the Build Year without development volumes.

The intersections located in the study area were analyzed for future conditions without development, considering a 10-year projection. Construction of the project is anticipated to begin in mid to late 2009 and the build out period for the project is estimated at 1 year. Therefore the future conditions were analyzed for the year 2019. Existing traffic volumes were increased at an annual growth rate of 1.7% based on NYSDOT growth projections for the study area. No other significant development has been identified. No physical improvements at any of the study intersections were considered.

The intersections located in the study area were analyzed for future conditions with development. Anticipated site generated traffic was added to the future without development conditions. Signal timings were optimized at existing signalized study intersections; however, no physical improvements are proposed since no intersection experienced notable LOS drops.

The proposed development does not substantially increase the overall delay experienced at any of the intersections in the study area. There are minor increases in overall delay, of less than 4.5 seconds, at intersections within the study area for both the build year of 2009 and 2019 after taking into account the additional trips generated by the proposed development.

Since the degradation occurs in the 10 year projection and the delay increase is minor, and there are no apparent safety concerns, **no** mitigation is proposed at this time.

The project will not adversely affect the public health, safety and welfare from a traffic perspective if the proposed improvements are implemented in conjunction with the development.

Each townhouse unit will have driveway access to the internal road network. Each driveway will provide space for at least two off-street parking spaces. No on-street parking is proposed.

Within the site, sidewalks (5' wide) are proposed on one side of the street to facilitate pedestrian movements. These walkways extend to the public road (Winterton Road) right-of-way in anticipation of future public improvements, however, at this time, no public sidewalks are available off-site.

Infrastructure and Utilities

Water

Water flow requirements were calculated for the project in accordance with the applicable Regulations. Average water demand for proposed development, including the clubhouse was determined to be 106,230 gpd. Pump test were conducted in accordance with New York State Department of Health (NYSDOH) requirements.

Two separate 72-hour pumping tests were completed for the project between March 14 and April 14, 2008. These tests confirmed that the combination of Well X and Well 9 as the primary wells could provide a long term cumulative yield of 165 gpm with Well 2 as a back-up available to replace Well X.

Fire protection will be provided throughout the residential developments with fire hydrants spaced at intervals as required by land development and building codes. In accordance with the Ten States Standards, fire hydrant spacing will be from 350 feet to 600 feet. The club house building in addition to being serviced by fire hydrants will be provided with a fire code compliant sprinkler system.

A water storage tank (250,000 gal nominal) is proposed at the site that will store water for potable use and provide the volume of water required for fire flows. The tank will also store greater than the calculated maximum day demand. The water storage tank will provide all required flows and pressures for the site. The water storage tank is estimated to be approximately 36 feet in diameter with an approximate nominal height of 33 feet. The expected tank will be a glass lined, bolted steel tank or approved equal. The water tank was designed to provide the water volume required for a two (2) hour fire with a fire flow rate of 1,500 gpm. This equates to a minimum required volume of 180,000 gallons. Between the "pump on" elevation and the tank bottom elevation approximately 210,000 gallons of water will be stored, which

exceeds the minimum for fire protection volume and exceeds the maximum day demand requirements.

Existing water supply systems in this part of the village rely on groundwater for water supply, and the proposed development will be served by a community water system. Future development is not expected to result in significant adverse impacts on groundwater resources.

Sewer

Wastewater treatment will be provided via a sewage collection system and an upgraded central sewage treatment facility. The facility is located approximately 2,300 from the closest proposed well.

The wastewater from the entire Village of Bloomingburg is currently treated at the public wastewater treatment plant located adjacent to the Shawangunk Kill. The location of the plant is east of Amerlite Road. Currently, the plant is permitted for flows of 70,000 gpd and is receiving flows of approximately 45,000 gpd. The existing plant is adequate for the current flows from the Village although, the technology at the plant is not of the type that can be expanded to handle the expected flows from the project

The existing facility currently operates under State Pollution Discharge Elimination System (SPDES) permit NY 0208426.

The project is expected to require on average 110,000 gpd of wastewater disposal capacity. (Note this is rounded slightly higher than the water supply requirement of 106,230 gpd).

The sanitary sewerage from the Villages of Chestnut Ridge project will be collected via PVC SDR 35 gravity sewer piping with concrete manholes. Sanitary sewer laterals will be connected to each building and to the main line sewer system. Clean outs will be provided along the laterals and at the buildings as required by code and as needed for access and maintenance.

The introduction of storm water or groundwater into the sanitary sewer system shall be prohibited. No roof leaders, foundation drains, yard drains or similar facilities shall be connected to the sanitary sewer system.

The gravity sanitary sewer piping shall collect sewerage and transport it to the main sewage pump station on the project site. The force main shall convey sewage to a new 10 inch diameter gravity sewer main which will be extended along Winterton Road to the Village of Bloomingburg's WWTP site.

The existing WWTP existing technology is not easily expandable to accommodate the projected wastewater flows from the project along with other projected flows from the Village of Bloomingburg. A new wastewater treatment facility is proposed to provide a higher level of treatment than exists currently, capacity for future growth and an efficient and easy to operate public system.

Solid Waste Disposal

The Village of Bloomingburg contracts with a private sanitation hauler to provide municipal refuse collection and disposal services within the village. Because the roads in the development are private the Home Owners Association (HOA) will be providing a similar service. The collection system will require that recyclable materials be prepared and segregated for collection. Recycled materials are delivered to the County's recycling center.

The per capita rate for solid waste generation according to the U.S. EPA's "Municipal Solid Waste in The United States: 2007 Facts And Figures" is 2.50 pounds per person per day. This development with an estimated population of 812 persons would result in an estimated solid waste generation of 1.02 tons per day required to be landfilled. No dumpster, compactors or solid waste storage areas are proposed for the proposed project for either the Preferred or Alternate Layout Plans. All solid waste will be stored at individual houses and collected according to the HOA's schedule. The additional generation of 1.02 tons per day resulting from the proposed development is still well within the handling capacity of the existing solid waste system.

Accordingly, no significant impacts to solid waste disposal services are anticipated. Thus, no mitigation measures are proposed.

Impact on Climate Change

All human activity results in greenhouse gases (GHG) today. In a microscopic sense one residential development has no discernable effect on global warming. In a macroscopic view, all of the small actions across the country may accumulate to produce a measurable effect. The direct attribution of GHG to the Residential economic sector is 5% when

electric production is excluded. Nevertheless, the extent of greenhouse gas production and the size of an activity’s carbon footprint can be lessened.

Energy consumption is associated with all residential construction projects. It is clear that there are distinct advantages of providing highly energy efficient construction, equipment and appliances.

The Villages of Chestnut Ridge will utilize highly efficient energy devices for heating and air conditioning. Insulation with high R-values will be provided to obtain more efficient levels of thermal protection. Other equipment and appliances such as, hot water systems, and electrical systems will be highly rated for energy efficiency.

Based on the selection of materials and equipment the energy efficiency of the townhomes will be improved. An energy savings from these types of measures could be 10% of the annual usage.

Community Services and Economic Impacts

The proposed project will entail the construction of 395 townhouses averaging 2,000 square feet each in floor area. There will also be a new clubhouse with restaurant and community center, community park and swimming pool. Other improvements associated with the project will include the construction of a new central water system and a central sewer collection and conveyance system that will convey sewage from the project to the Village of Bloomingburg wastewater treatment facility.

The development can be expected to have a permanent population of 810 persons, some 110 of whom can be expected to be ages 5 to 17 with an estimated 346 active-adults. No significant effect on school enrollment is anticipated

COMBINED FISCAL IMPACTS AT BUILDOUT					
Annualized Tax Revenues					
Tax Revenues	Village	Town	County	School	Total
Real Property Tax	\$418,815	\$174,348	\$569,436	\$1,708,459	\$2,871,057
Sales Tax	\$0	\$0	\$154,050	\$0	\$154,050
Mortgage Recording Tax	\$0	\$0	\$57,769	\$0	\$57,769
Total Tax Revenue	\$418,815	\$174,348	\$781,255	\$1,708,459	\$3,082,876
Annualized Cost of Services					
Services	Village	Town	County	School	Total
Village/Town Services	\$243,000	\$127,575	\$0	\$0	\$370,575
County Road Maintenance	\$0	\$0	\$90,000	\$0	\$90,000
County Services	\$0	\$0	\$612,250	\$0	\$612,250
Education	\$0	\$0	\$0	\$1,210,000	\$1,210,000
Total Cost of Services	\$243,000	\$127,575	\$702,250	\$1,210,000	\$2,282,825
Net Revenues	\$175,815	\$46,773	\$79,005	\$498,459	\$800,051
Revenues to Services Ratio	1.72	1.37	1.11	1.41	1.35

Assumptions:
 (1) Village and Town expenses estimated at \$300 and \$157.50 per year per capita, respectively, with buildout population of 810.
 (2) County expenses estimated at \$1,550 per household (assume all permanent) plus \$55,000/mile for road maintenance.
 (3) School expenses estimated at 11,000 per pupil net of State and Federal aid for 110 students.
 (4) Sales and mortgage tax revenues from startup annualized using 6.5% annual return from cash generated by these taxes.

Chestnut Ridge project produces a positive 1.35 ratio of revenues to costs of community services when all factors are considered. The combination of reasonably high valued homes and high probability of small household sizes, make this a very good project from a community fiscal perspective. It will contribute an estimated \$800,000 in tax revenues annually above and beyond the costs of community services, subsidizing services at every level of government. One can, of course, argue the project, by introducing an element of gentrification, will raise property values and, therefore, property taxes on lower income households. However, any such effects are offset by the degree of subsidization involved, which has a countervailing impact on the need to raise revenues from such lower income households

Noise and Air Quality

Existing noise conditions on the project site are influenced by surrounding land uses. The primary noise on-site can be attributed to vehicular traffic on Winterton Road, which bifurcates the property.

Construction activities and operation of construction equipment are an expected and required consequence of residential development, and cannot be avoided. As such, some noise impacts are to be expected. These are considered temporary impacts and are expected to cease upon project completion. It should be expected that adjacent residential properties and surrounding local roads, would experience temporarily elevated noise levels at occasional periods during construction of the proposed subdivision. The heaviest volumes would likely occur at the onset of construction as clearing and fine grading occurs. Town/Village regulations specifically restricts construction activity between the hours of 9:00 pm and 7:00am which aides in lessening the impact to neighboring properties.

After proposed residences are occupied, noise levels can be expected to be similar to those of the surrounding area. As such, upon completion of construction, the project is not expected to produce significant, permanent noise impacts on the surrounding area.

Temporary construction-related air quality issues will be controlled by proper maintenance of construction equipment. Vehicular-related emissions are regulated by the Clean Air Act and enforced statewide through inspection agencies. Emission concentrations are generally higher in areas of significant congestion where consistent idling occurs. The traffic assessment, which considered maximum build-out potentials for the project site, demonstrated no extensive delays on the adjacent roadway network and, therefore, no significant congestion is expected. There will be no significant, unmitigated delays or LOS drops as a result of the increased volume

generated by the development. The calculated levels of vehicle CO, NO_x and VOC emissions evaluated were significantly less than regulatory thresholds. Additionally, it is anticipated that other site emissions, such as those from HVAC units, will be minimized by utilizing “green” building principles and energy efficient facilities to the greatest extent economically practicable.

Unavoidable Project Impacts

Throughout this DEIS the mitigation of impacts has been discussed and analyzed. However the implementation of the proposed preferred plan will result in some unavoidable impacts. Mitigation measures are proposed for these impacts. Some of the impacts will be of a limited duration and extent. For example, there will be some noise from construction as the facilities are built. Other impacts are permanent. For example, the establishment of the townhomes will result in a new permanent community in the town. It is noted that impacts are more than offset by the benefits of the project. Especially, by the construction of a new wastewater treatment system for the Village of Bloomingburg.

Unavoidable Limited, Short Term Impacts

- Noise and traffic from construction activities
- Dust and soil disturbance
- Temporary erosion and disturbance to steep sloped areas
- Disturbance of wildlife habitats
- Disturbance to wetlands buffer

Unavoidable Permanent Long Term Impacts

- Increased demand for water resources
- Increased demand for wastewater treatment
- Increased demand for electric power
- Increase in demand for solid waste disposal
- Increased traffic and related noise
- Permanent use of resources for building, roadway and infrastructure improvements
- Increase in impervious surfaces
- Increased demand for services from County, School District, Town and Village offset by new tax revenues for the taxing bodies

The following is a summary of potential project impacts and mitigation measures:

Summary of Potential Impacts and Mitigation Measures

Resource	Potential Impacts	Mitigation Measures
Soils and Geology	<ul style="list-style-type: none"> ▪ The proposed project will disturb approximate 69 acres of the site, where approximately 139 acres of forests, wetlands, wetland buffers, and flood plains on the site will be left undisturbed to continue to recharge the aquifer. 	<ul style="list-style-type: none"> ▪ Impacts to soil and geology will be minimized through erosion control measures and the establishment of <i>Best Management Practices</i> (BMPs), as outlined in the <i>New York State Stormwater Management Design Manual</i> (2008) and New York Standards and Specifications for Erosion and Sediment Control (2005). Refer to the preliminary SWPPP located in Appendix H and Plans in Volume 4.

Resource	Potential Impacts	Mitigation Measures
<p>Water Resources</p>	<ul style="list-style-type: none"> ▪ The proposed action will not disturb any wetlands but will have very limited impact to a NYS DEC wetland buffer for a road crossings area and to accommodate the grassed slope of a storm water basin. ▪ The project will alter the rate and path of stormwater runoff. 	<ul style="list-style-type: none"> ▪ Stormwater runoff from the proposed development will be collected and conveyed to the quantity and quality control systems through a network of catch basins, drainage manholes, high density polyethylene (HDPE) piping, roadside ditches, and culverts which have been designed to convey the 10 and 100-year storm events. ▪ All stormwater BMPs have been designed in accordance with the requirements outlined in the <i>2003 New York State Stormwater Management Design Manual</i>. Post-development peak stormwater runoff rates are less than or equal to the pre-development conditions ▪ All necessary authorizations will be obtained from the U.S. ACOE and the NYSDEC. Direct and indirect impacts to State and Federally regulated resources are minor due to the design of the project. The 2 crossings are designed to completely span the water course and associated wetlands. ▪ NYSDEC Stream Disturbance permits will be required for water lines crossing a tributary of the Shawangunk Kill on the water tank access road and Winterton Road and for a sewer line crossing on Winterton Road. These crossings will be directionally drilled under the stream to avoid construction impact below the ordinary high water line.

Resource	Potential Impacts	Mitigation Measures
Vegetation	<ul style="list-style-type: none"> ▪ Implementation of the proposed project will disturb a total of 69± acres of the site. Approximately 45 of the 69 acres are located in the eastern portion of the project site. ▪ No endangered, rare, or threatened plant communities have been identified on the project site. ▪ Approximately 139 acres or 67 % of the site will remain undeveloped or as open space. 	<ul style="list-style-type: none"> ▪ Vegetation impact was minimized by project design featuring clustering of development in areas which were already cleared for agriculture use. ▪ Vegetation removal will be mitigated to some extent with landscaping including around proposed homes, roadways, parking areas and community recreation center. Native plant species will be used as much as possible. ▪ A minimum 100-foot buffer will be provided around state wetlands in accordance with NYSDEC regulations.
Wildlife	<ul style="list-style-type: none"> ▪ Disturbance associated with the construction of roads, driveways, utilities, residences, and recreation facilities will result in the removal of some habitat, which could result in the loss or movement of individual animals during the land clearing and construction phases. 	<ul style="list-style-type: none"> ▪ The proposed project will preserve 71±-acres in the western portion of the site as contiguous open space, which will provide for wildlife habitat and movement. The undeveloped portion of the site will continue to provide habitat for those wildlife species that currently utilize this property. ▪ Vegetation removal in the proposed development area will be partially mitigated by replacement plantings using native species where possible. ▪ Maintenance of buffers around wetlands and streams will mitigate habitat impacts.

Resource	Potential Impacts	Mitigation Measures
Cultural Resources	<ul style="list-style-type: none"> ▪ A Phase IA review indicated that there are no prehistoric sites known within one mile of the project area. However, prehistoric peoples likely traversed the area harvesting natural resources while utilizing temporary camps in a seasonal manner. As a result, the project vicinity is considered moderately sensitive for prehistoric remains. Results of studies to date indicate that Locus 2 prehistoric site has the potential to provide important information about past activities that occurred in Sullivan County and, consequently, may be considered eligible for inclusion on the National Register of Historic Places under Criterion D. 	<ul style="list-style-type: none"> ▪ As Locus 2 cannot be avoided a SHPO approved data recovery plan will be implemented.
Visual	<ul style="list-style-type: none"> ▪ The proposed project will add new residential uses to the site, which will be visible, to vary degrees, from the surrounding area. ▪ The project includes the installation of a water storage tank to satisfy water demand for the project. 	<ul style="list-style-type: none"> ▪ All development will be built in accordance with applicable PUDR zoning and land development ordinances for the Village. Architectural selections and supplemental landscape will allow the development to blend with surroundings. ▪ The water tank height was limited to 33 ft. to minimize visual impact. Selected wooded location and topography, coupled with supplemental landscaping will provide adequate screening of water tower from adjacent properties. Water tank will be painted in earthtone color.
Transportation	<ul style="list-style-type: none"> ▪ The proposed project will not adversely impact the Level of Service (LOS) on roadways and at intersections in the vicinity of the project site. All roadways and intersections analyzed will maintain at least a LOS B upon full build out of the project. 	<ul style="list-style-type: none"> ▪ Market St. will be constructed between Main St. and Winterton Rd. to relieve traffic at the main intersection in Bloomingburg which serves traffic from the site. ▪ As proposed, the project is not anticipated to create any safety issues; therefore, no mitigation measures are necessary.

Resource	Potential Impacts	Mitigation Measures
Land Use and Zoning	<ul style="list-style-type: none"> ▪ The site layout has been designed to make use of the site’s natural topography and vegetation. The residential uses have been clustered and brought close up to public road to reduce impacts to natural resources such as wetlands and streams. 	<ul style="list-style-type: none"> ▪ The proposed project will not have a significant impact on the land use; therefore, no mitigation is necessary. ▪ The site has obtained a PUDR designation to allow conservation of open space through clustering of buildings
Local and Regional Plan Consistency	<ul style="list-style-type: none"> ▪ The proposed plan is consistent with the majority of the goals and objectives of the applicable and regional plans. 	<ul style="list-style-type: none"> ▪ No Mitigation is necessary.
Police, Fire, and Emergency Medical Services	<ul style="list-style-type: none"> ▪ The demand for police, fire, and emergency medical services will likely increase due to the increased population. 	<ul style="list-style-type: none"> ▪ The proposed project will provide approximately \$175,815 in net revenue above costs to the Village of Bloomingburg and other taxing entities. This is including existing costs for police and fire services. Net revenues could be used to cover the costs, if any, of increasing staff and/or purchasing new equipment to adequately service the project. ▪ After consultation with Village officials the Revised Preferred Layout will provide better roadway access to accommodate fire trucks.
School District Services	<ul style="list-style-type: none"> ▪ The proposed project is expected to introduce a maximum of approximately 110 students to the PBSD, which will require an additional \$1,210,000± in revenues to meet the cost of these additional students. ▪ The evaluation of potential impacts to school district resources is based on a worst-case scenario involving year-round residence for all proposed residential units at the Villages of Chestnut Ridge Community, however, type of development will most likely attract young, childless professional or empty-nesters and therefore may generate less than represented herein. 	<ul style="list-style-type: none"> ▪ The proposed project will be significantly fiscally positive to the school district, providing a conservative estimate of approximately \$498,459 in surplus revenue to the PBSD. This will more than offset the operational cost of the project-generated students. No mitigation is required.

Resource	Potential Impacts	Mitigation Measures
Recreation, Open Space, and Tourism	<ul style="list-style-type: none"> ▪ Existing open space in the form of forest lands and agricultural fields will be developed into homes. The land is currently privately owned and not open to the public. 	<ul style="list-style-type: none"> ▪ As there will be no impacts to available public recreation and open space resources in the Village of Bloomingburg as a result of the Proposed Action, no mitigation measures are necessary. The project will also create recreational resources for its residents.
Utilities-Water	<ul style="list-style-type: none"> ▪ The estimated water demand for the proposed project is approximately 106,230± gallons per day (gpd), or 74 gallons per minute (gpm). 	<ul style="list-style-type: none"> ▪ The Developer is planning a water main extension from the new water supply on site along the route of the sewer connection to the Village which can be considered for future water supply to Village properties. ▪ The source of water will be via three recently installed onsite water wells developed for this project. A water storage tank, 250,000 gal. will serve the site by providing domestic and fire protection flow requirements to the proposed development through distribution piping.
Utilities-Wastewater	<ul style="list-style-type: none"> ▪ The proposed project will generate approximately 110,000± gpd of wastewater. The proposed on-site sewage will be collected and conveyed to the existing Village WWTP. Existing plant will need to be upgraded to accommodate site generated flows. ▪ The new WWTP facility permitted discharge capacity with increase from 72,000 gpd to 325,000 gpd to the Shawangunk Kill Class B(T) stream. 	<ul style="list-style-type: none"> ▪ Developer is building new WWTP for \$5 million and replacing 70,000 gpd of antiquated public capacity (\$1,200,000) ▪ The proposed WWTP will include a comprehensive odor control strategy, including full enclosure in a dedicated building, appropriate ventilation, and aeration of various process tanks to prevent septic conditions. ▪ The wastewater treatment technology for this project will be selected to meet all effluent quality requirements as required by NYSDEC.

Resource	Potential Impacts	Mitigation Measures
Noise	<ul style="list-style-type: none"> ▪ The proposed development is not expected to cause significant increases in sound levels from present levels and will have no appreciable effect on noise receptors. 	<ul style="list-style-type: none"> ▪ No mitigation is necessary.
Fiscal Impact Analysis	<ul style="list-style-type: none"> ▪ A conservative estimate of the proposed project’s potential fiscal impacts results in an annual surplus of approximately \$498,459 in revenue to the PBSB, \$46,773 to the Town of Mamakating and \$175,815 to the Village of Bloomingburg. Therefore, the project will more than offset the increase in public service costs it will generate. 	<ul style="list-style-type: none"> ▪ The proposed project will be fiscally positive to all local taxing jurisdictions and have no adverse impacts.
Demographics	<ul style="list-style-type: none"> ▪ Up to a maximum of 810 people could be generated by the proposed for year round occupancy of all onsite homes. However, since the proposed project housing type would likely appeal to young, childless professionals and empty-nesters, actual permanent increase in population of the Village will likely be smaller than that provided above. ▪ The future residents and users of the proposed project are not expected to significantly change the demographics of the Village/Town. 	<ul style="list-style-type: none"> ▪ No mitigation is necessary.
Community Character	<ul style="list-style-type: none"> ▪ It is anticipated that the proposed project will not have a negative impact on the community character of the area. 	<ul style="list-style-type: none"> ▪ Development has been clustered to preserve extensive open space areas on the project site to enhance consistency with surrounding community character.