I EXECUTIVE SUMMARY

I.A Brief Description of the Proposed Action

The applicant, Watchtower Bible and Tract Society of New York, Inc., proposes the Watchtower Farms Improvements project to construct a three-story, 300-dwelling-unit residential building and ancillary uses, including a two-story parking garage with 400 spaces; a three-story accessory office building with basement, recreation building, and technical equipment building; and proposed additions to the existing dining room, dry cleaning, and laundry.

The proposed project is located in the Town of Shawangunk, Ulster County, and would occur on a portion of its property located on parcel 99.004, block 1, lot 11 (99.4-1-11). The property consists of approximately 1,141 acres, is commonly known in the community as Watchtower Farms, and has primary frontage on Red Mills Road. The property is wholly owned by the applicant, and all activities conducted thereon support the applicant's religious and charitable purposes. The project site refers to the southwest portion of the property bounded by Steen Road to the north.

This proposed project is based on a review conducted by the applicant in an effort to modernize the facility and identify long-term needs. It is intended to care for the applicant's organizational needs by improving the quality of life for residents, upgrading existing facilities, and providing for modest growth consistent with the zoning regulations and comprehensive plan of the Town of Shawangunk. It reflects the same stable pattern initiated in the early 1970s of integrating agricultural, office, residential, and printery activities, consistent with the property uses that have been in evidence for many decades.

Existing residential housing on the project site has been improved gradually over the years. However, small accommodations and centralized, dormitory-style bathrooms remain common. At the same time, demographics reveal that the average age of residents at Watchtower Farms Facility has increased over the years and people have become accustomed to dwelling units with individual, private bathrooms and more living space. The proposed project incorporates the removal of some modular housing, consolidation of some existing dwelling units, and the construction of a new residence building. The proposed project also includes a new recreation building with exercise/fitness facilities to maintain residents' physical health. These enhancements would improve the quality of life for residents, particularly caring for the needs of older residents while they continue active and productive lives on-site.

Utilization of modern technology requires upgrades to existing facilities. Computer servers and telecommunications equipment function best in a climate-controlled environment. Also, garment care must keep pace with industry and textile advances. The proposed technical equipment building and upgrading of the existing central laundry and dry cleaning facilities would improve infrastructure based upon proven technology.

Modest growth provides for flexibility to meet the applicant's organizational needs. The proposed adjustments in existing buildings and elimination of some modular structures would otherwise result in an estimated 25-percent loss in available dwelling units. The proposed new residential building would support a projected net increase of approximately 200 residents on the project site, an increase of approximately 15 percent. Accessory upgrades would include an addition to the central dining room, a new parking garage, utilities, and modernization of office workspace to include a new office building.

The proposed buildings would be clustered on lands already developed within the Watchtower Farms Facility, along with some disturbance of lands currently in agricultural or other use at the periphery of the proposed development area. It would be sited to avoid any disturbance of natural plant communities such as woodlands or wetlands. The proposed building locations and installation of a visual screening berm would be designed to preserve and enhance scenic views of the Shawangunk Mountains.

The area of disturbance for the proposed project would affect a total of 46 previously disturbed acres. This would include the disturbance of 27.1 acres of lawns, ornamentals, and other landscaping; 5.9 acres of roads, buildings, and other paved surfaces; and 13.0 acres of fenced pasture that has been in agricultural use as seeded pasture. By the conclusion of the proposed project, the disturbed area would contain 0.7 acres of water surface area; 9.4 acres of roads, building, and other paved surfaces; and 35.9 acres of lawns, planting, and landscaping. The applicant's landscaping includes protective vegetative cover of mowed lawn (which provides emergency access for emergency services equipment), ornamental trees, shrubs, and maintained flower gardens, all of which prevent any active soil erosion on these areas.

The proposed project would incorporate exterior architectural features and native vegetation that match existing design themes and blend in with the existing facility. Construction would be in accordance with the requirements of the Stormwater Pollution Prevention Plan (SWPPP) in Appendix 13, located in Volume 2 of this DEIS. The entire project, including all utility services, would be undertaken and maintained at the applicant's expense.

This Draft Environmental Impact Statement is intended to identify all potentially adverse impacts that are pertinent to the proposed action and to identify appropriate mitigation measures. It is also intended to eliminate consideration of any impacts that are irrelevant or nonsignificant. It has been prepared in accordance with the *New York State Environmental Conservation Law*, Section 8-0101, *et seq.,* and the regulations promulgated by the New York State Department of Environmental Conservation under Part 617, Title 6 of the *Official Compilation of Codes, Rules and Regulations of the State of New York* (6 NYCRR 617).

I.B Listing of All Potential Environmental Impacts and Proposed Mitigation Measures

I.B.1 Geology, Soils and Topography

The proposed project would require the disturbance of 46 previously disturbed acres on the southwest portion of the property. There are no prominent or unique features such as rock outcroppings in the area of disturbance. No solid rock material is expected to be encountered during any excavation. A geotechnical engineering investigation was performed by Clough Harbour & Associates, LLP (See Appendix 5), indicating that solid rock lies at least 15 feet below the existing grade levels. No blasting or ripping of solid rock would be needed for the placements of the foundations for any proposed structure. The site has rolling topography with slopes generally 3 to 4 percent.

The project site contains wetlands, which are located in soils not listed as hydric, but meet established criteria for hydric (wetland) soils. However, these wetland soils are not present within the area of disturbance. The "Wetland Delineation and Assessment" report is included in Appendix 4 of this report.

I.B.1.a Potential Impacts

Erosion and Loss of Slope Stability for Steep Slopes

Disturbance of steep slopes has the potential to increase erosion and decrease slope stability if proper erosion control and construction techniques are not implemented.

Soil Erosion Due to Land Disturbance

Land disturbance due to construction activity has the potential to result in soil erosion and deposition of sediment to streams, rivers, and public roads. The removal of plant cover, changes in drainage patterns caused by grading, altering steep slopes, and prolonged exposure of soils during construction can lead to excessive soil erosion if unmitigated.

I.B.1.b Mitigation Measures

Avoiding Disturbance of Steep Slopes

The majority of the proposed site improvements are located in areas of 0 to 15 percent slopes. Areas where the existing slopes exceed 25 percent would be avoided.

Implementation of Erosion and Sediment Control Plan

Exposure of soils to erosive influences would be limited by complying with guidelines in the *New York State Standards and Specifications for Erosion and Sediment Control* (August 2005) and the *State Pollutant Discharge Elimination System* (SPDES) General Permit for Stormwater Discharges from Construction Activities (GP-0-08-001, effective May 1, 2008).

The following construction erosion and sediment control measures would be implemented during construction: (1) preservation of existing landscaping vegetation by surrounding it with a temporary orange-colored plastic mesh fence and marking trees on the perimeter of the protected area with a brightly colored ribbon, (2) stockpiling topsoil, (3) installing silt fence around the perimeter of the entire disturbed area as well as the perimeter of each construction phase, (4) installing silt fence, (5) constructing temporary sediment basins, (6) installing a temporary earth dike to route storm water to the sediment basins, (7) establishing temporary vegetative cover by hydroseeding where construction will cease for more than 14 days, (8, 9) protecting exposed soil during short periods of construction by hydromulching or mulching with hay/straw, (10) applying water to disturbed areas that are susceptible to creating dust, (11) installing storm drain inlet protection, (12) building stabilized construction exits with stone anti-tracking pads to prevent the offsite transport of sediment by construction vehicles, (13) properly disposing of all waste materials, (14) combining equipment staging and materials storage, (15) installing a concrete washout areas, (16) providing a temporary sump pit to trap and filter water from any necessary dewatering operations, and (17) properly handling sanitary waste in portable toilets.

The following permanent erosion and sediment control measures would be implemented: (18) permanent seeding in accordance with the "Permanent Critical Area Planting Mixture Recommendations" in Guidelines for Urban Sediment and Erosion Control manual for appropriate seed mixtures, (19) installing riprap outfall protection at the outlet of pipe conduit to stormwater treatment ponds, (20) utilizing a flow-thru storm water planter, and (21) capturing stormwater runoff in micropool extended detention basins that will incorporate sediment forebays and provide water quality treatment, channel protection, and overbank and extreme flood protection

I.B.2 Surface Water Resources (Drainage)

The portion of the existing watershed area that encompasses the project site consists of approximately 352 acres of wetlands, woods, developed agricultural lands, landscaped areas, buildings, roads, and parking lots. The northwest portion of the site drains into an unclassified intermittent stream and an existing wetland pond and eventually into the Dwaar Kill. The northeasterly portion of the site drains into an existing retention basin and into the Dwaar Kill. The southeastern portion of the site drains into two 48-inch culverts, which cross under Red Mills Road, and eventually drains into the Shawangunk Kill.

Stormwater entering the Watchtower Farms Improvements project site would discharge to the Class B(t) Dwaar Kill (DEC Water Index Number H-139-13-19-7) and the Class B Shawangunk Kill (DEC Water Index Number H-139-13-19). While the project site contains wetlands and protected streams, the New York State Department of Environmental Conservation stated in a letter dated January 25, 2008 (see Appendix 2): "the Department believes that new wetland impacts would be minimal . . . [and] the plans do not appear to propose any disturbances to these protected streams."

I.B.2.a Potential Impacts

Increased Stormwater Runoff from Impervious Surfaces

An increase in impervious surfaces has the potential to increase stormwater runoff and pollutants by impeding water from soaking into the ground and allowing collected pollutants to be washed downstream into receiving waters.

Land disturbance due to construction activity also has the potential to cause increased soil movement and sediment accumulation; thus, polluting streams and public roads if runoff is uncontrolled.

I.B.2.b Mitigation Measures

Location of Improvements within Previously Developed Areas

The proposed project would disturb approximately 46 acres of land. However, the proposed improvements are located in areas where existing impervious surfaces would be removed. Thus, the increase in impervious area is minimized. The proposed project also incorporates a multi-level parking garage, which reduces the impervious cover and stormwater runoff associated with surface parking lots. The total area of impervious surfaces within the existing 352 acre drainage area would increase from 51.0 acres to 54.5 acres. The total imperviousness would increase from 14.5 to 15.5 percent—a 1-percent increase. This drainage area is a portion of an 1,890-acre sub-watershed that drains onto the applicant's property and into the Shawangunk Kill. Therefore, the proposed improvements represent less than a 0.1-percent increase in the total area of impervious surface in this sub-watershed.

Implementation of a Stormwater Pollution Prevention Plan to Control Runoff

The proposed Erosion and Sediment Control Measures (ESCM) plan would implement standards for the use of vegetative, bio-technical, and structural measures to mitigate the impact on receiving waters during construction. This plan is presented in the Stormwater Pollution Prevention Plan (SWPPP) in Appendix 13, located in Volume 2 of this DEIS. The project would be divided into sixteen phases, which would limit the amount of disturbed land to a maximum of five acres at any given time, in compliance with DEC requirements. The phasing plan is described in Section III.B.4 of this report.

The goal of post-construction stormwater management is to reduce impacts on receiving waters due to increased runoff and pollutants from the new improvements. The SWPPP for the proposed project complies with the design criteria established in the *New York State Stormwater Management Design Manual* (August 2003) and the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities (GP-0-08-001, May 2008).

I.B.3 Ground Water Resources/Water Supply System

The applicant owns and operates an existing public water supply system that provides potable water to the site. It is fed from surface water reservoirs that are replenished by a 180-acre watershed entirely on the applicant's property. The existing design capacity for the water treatment plant is 360,000 gallons per day (gpd). In 2007, this system produced 40.5 million gallons of potable water, which corresponds to an average flow of 111,000 gallons per day (gpd). The peak daily usage for 2007 was 163,000 gpd. A conservative estimate would be that the proposed project would increase average daily demand to 153,000 gpd and the peak daily demand to 225,000 gpd. The existing capacities of the watershed, as well as the treatment facilities and distribution system, are sufficient to meet these increased demands.

The applicant does not presently operate any groundwater wells on the project site for domestic consumption, irrigation, or otherwise.

I.B.3.a Potential Impacts

Water Flow for Fire Protection

The distribution system features a number of 6-inch piping loops with fire hydrants throughout the site. Hydrant flow tests and calculations show that a fire flow of at least 725 gpm can be supplied to any point on the loops with either the water tower or the hydropneumatic tank online. The maximum fire flow needed for the proposed new buildings would not exceed 650 gpm at 20 psi at the highest floor elevation. Some of the proposed buildings would, however, extend beyond the existing 6-inch water main loops.

Groundwater Recharge of Wetlands and Streams

Increased water demand would cause no significant impacts to groundwater recharge of wetlands. Project site wetlands are not within the drainage area that contributes to the existing on-site reservoirs that supply water to the site. In addition, these areas are upstream of these reservoirs. It is expected that impacts downstream at the Dwaarkill and Shawangunk Kill would be minimal. Most of the potable and non-potable water used at the site is ultimately returned to the watershed and streams by means of surface runoff from irrigated crops and landscaping, as well as the treated discharge from the on-site wastewater treatment plant. In addition, by locating the proposed improvements in previously developed areas, the increase in overall imperviousness would be minimized. Thus, the amount of surface runoff available for groundwater recharge would not be significantly reduced. Also, water stored in the unlined stormwater treatment ponds would also be available for groundwater recharge.

I.B.3.b Mitigation Measures

Extension of Water Distribution System to Provide Fire Protection

To provide sufficient fire flow to the proposed new buildings, one of the existing 6-inch water main loops would be extended. New hydrants would be installed on the new portion of the 6-inch water main. These distribution piping upgrades would meet domestic and fire flow requirements and would be performed at the expense of the applicant.

Water Conservation

Water conservation measures would be implemented to minimize water usage and further reduce impacts to groundwater recharge. The applicant is already implementing water conservation measures by retrofitting existing bathroom facilities with low flush toilets. In addition, the proposed new buildings and renovations would include low flush toilets. Water saving devices and water reuse would also be incorporated in the proposed renovation of the central laundry.

I.B.4 Wastewater/Sewage Disposal

The applicant owns and operates an existing wastewater treatment plant (WWTP). It is a tertiary extended aeration plant using the activated sludge process. Effluent polishing is accomplished using sand filtration followed by chlorination. It is authorized to discharge treated wastewater to the Shawangunk Kill under the conditions of a State Pollution Discharge Elimination System (SPDES) permit no. NY-002-5295 (DEC ID NO.: 3-5152-00026/00004).

The proposed project would extend the wastewater collection system along existing driveways and Red Mills Road, including a new lift station and force main serving the new residence and some new gravity sewers.

I.B.4.a Potential Impacts

Optimization for Wastewater Treatment Plant

In 1994, the estimated plant biochemical oxygen demand (BOD) loading was 508 pounds per day. Over the years, adjustments in food processing have reduced the BOD loading on the WWTP. The estimated post-project BOD loading is calculated to be 362 pounds per day. While the WWTP has sufficient capacity to properly handle wastewater loading from the proposed project, some adjustments would be needed to optimize its operation.

Noise and Odor Impacts from Wastewater Treatment Plant

The WWTP is a stationary process operation involving open biological processes and comprising various motors, pumps, valves, and electrical equipment. It is in operation 24 hours per day / 365 days per year. There are also transport movements which

include personnel movement to and from the plant primarily during daylight hours, the receiving of raw materials, and the infrequent operation of a small bucket loader for biosolids handling. Sound readings[1] were taken 2,500 feet from the plant and 100 feet from Red Mills Road to establish a baseline ambient noise level for a typical residential land owner, as well as at various intervals and direction from the plant. The minimum recorded sound level of 54.5 dB(A) represents the existing plant generated noise with sound level increases recorded as vehicle traffic passed. Since sound levels are not expected to increase with the proposed improvements, the future "build" and "no-build" scenarios would be the same. This existing noise is commensurate with ambient sound levels found in typical community settings.[2] Also, given the location of the Wastewater Treatment Plant, noise generated by the plant itself would effectively dissipate over distance in dB(A).

Wastewater influent produces light odors directly at the headworks of the plant where it enters the pre-treatment area. Once aeration and aerobic digestion begins, odors are effectively reduced. Putrefaction or septic conditions effectively do not occur due to constant air agitation and digestion. Odors from the headworks of the plant readily dissipate beyond a distance of 200 feet. Light odors are also generated when digested sludge from the treatment process is allowed to flow into the drying beds. Digested sludge is allowed to flow into the beds only once or perhaps twice per month. This produces odors for a period of about three days until it becomes a biosolids that no longer has any active odor-producing bacteria. These temporary odors from the sludge drying beds readily dissipate beyond a distance of 200 feet. It is projected that the odor impact would not reach any sensitive outside property lines that are adjacent to the WWTP.

I.B.4.b Mitigation Measures

Improvements to Optimize Wastewater Treatment Plant

The applicant proposes minor adjustments to optimize operation of the WWTP, including converting the present "pretreatment" tank into a supplemental flow equalization tank and installing new headworks, variable speed tank pumps, controls, and aeration blowers.

The proposed project would also include water conservation features. For example, toilets in some existing structures that use 4.5 gallons per flush would be replaced with

[1] Sound readings were taken by applicant's staff on Monday, April 7, 2008, from 10:30 a.m. to 11:30 a.m. Sound meter: Class 2 acoustic analyzer consisting of NTI Acoustilyzer AL1 noise meter and NTI MiniSPL microphone. Weather conditions measured at Pine Bush , NY (3 miles from location), at 10:42 a.m. per *Weather Underground, Inc.*: Temperature: 41.4 °F; Dew Point: 34.1 °F; Humidity: 75%; Pressure: 30.33 in.; Wind: ENE 4.0 mph. The measured readings ranged from 54.5 db to 85.3 db (passing truck) with an average reading of 69.2 db.

[2] Cowan, James, *Handbook of Environmental Acoustics*, 1994. Egan, David, *Architectural Acoustics*, 1998.

water saving devices that use an average of 1.5 gallons of water per flush. The proposed renovations to the central laundry would also incorporate water saving equipment.

Building Siting to Avoid Potential Noise and Odor Impacts from the Wastewater Treatment Plant

The new residential building is not proposed to be located near the WWTP, and no significant expansion of the WWTP towards neighboring properties is proposed. The WWTP is located in a rural setting 900 feet south of Red Mills Road, and 300 feet from the Shawangunk Kill. The nearest adjacent property corner is located 700 feet from the WWTP, and there are no proximal receptors (inhabitants) beyond property lines that are visible from the plant. Sound pressure level readings taken near the WWTP were consistent with ambient sound levels found in the rural community setting. Odors would dissipate prior to any impact on sensitive receptors.

I.B.5 Terrestrial and Aquatic Ecology

The applicant contacted the New York State Department of Environmental Conservation Division of Fish, Wildlife and Marine Resources, New York Natural Heritage Program (DEC) and the United States Department of the Interior Fish and Wildlife Service (FWS) to request information regarding the possible presence of unique, rare and/or endangered, threatened or proposed for listing as either protected species, or species of special concern. A Wetland Delineation and Assessment was conducted by a wetland delineator on December 24-30, 2006, and June 4-16, 2007. This was reviewed and confirmed by the Planning Board's consultant on July 23, 2007. During these studies, no threatened or endangered species, such as the small whorled pogonia, northern monkshood, or any other species identified by the DEC, were encountered. The need for additional field studies is not anticipated because the applicant assumes that such species could exist in these protected natural areas and has incorporated design and operational measures to protect potential habitats as its commitment to the protection of these areas.

I.B.5.a Potential Impacts

Indiana Bat

The Indiana Bat (*Myotis sodalis)* is federally listed as endangered. The DEC provides a general description of the Indiana Bat[3], summarized as follows. Females congregate in nursery colonies, typically located along the banks of streams or lakes in forested habitat, under the loose bark of dead trees, and contain from 50-100 females. In August or early September, Indiana bats swarm and mate at the entrance of selected caves or

[3] New York State Department of Environmental Conservation Indiana Bat Fact Sheet, referenced at http://www.dec.ny.gov/animals/6972.html.

mines. Indiana bats spend the winter months in secluded caves or mines which average 37 to 43 degrees F.

Commenting on the Indiana Bat, the Wetland Delineation and Assessment Report, stated: "Forested wetlands and uplands within the study area do provide appropriate habitat. Any proposed impact to these potential habitats would need presence/absence surveys to determine any adverse impact." [4] The Hickory Creek Consulting LLC letter dated July 24, 2007, also noted, "Habitat for the Indiana bat is present, mainly within existing wooded wetland areas that are not scheduled for site disturbance." [5]

Bog Turtle

The bog turtle (*Clemmys muhlenbergii)* is federally listed as threatened. The DEC provides a general description of the bog turtle[6], summarized as follows. In New York, the bog turtle emerges from hibernation by mid-April. In early to mid-June, a clutch of two to four eggs is laid in a nest, which is generally located inside the upper part of an unshaded tussock. The eggs hatch around mid-September. Some young turtles spend the winter in the nest, emerging the following spring. The adults enter hibernation in late October. This is a semi-aquatic species, preferring habitat with cool, shallow, slow-moving water, deep soft muck soils, and tussock-forming herbaceous vegetation. In New York, the bog turtle is generally found in open, early successional types of habitats such as wet meadows or open calcareous boggy areas generally dominated by sedges (*Carex spp.*) or sphagnum moss. Like other cold-blooded or ectothermic species, it requires habitats with a good deal of solar penetration for basking and nesting.

The NYSDEC response dated January 30, 2007, also states that the turtle is "documented within 1 mile" of the general study area and "animals can move 1 mile or more from documented locations."

On July 23, 2007, Karen Schneller-McDonald of Hickory Creek Consulting LLC and John Chitty conducted a site visit to inspect the area covered in the Wetland Delineation and Assessment Report. As noted in correspondence from Hickory Creek Consulting LLC dated July 24, 2007, "Bog turtle habitat is present in and near wetland area #3 as noted in the Wetland Delineation and Assessment Report. . . . [o]n the assumption that bog turtles are present, mitigation measures can be developed and evaluated to fully protect the habitat without requiring an actual field survey."[7] This is in harmony with the Guidelines for Bog Turtle Surveys (revised April 2006).

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[4] See Appendix 4, Wetland Delineation and Assessment Report (June 2007), and refer within to Appendix V, Endangered Species Records Inquiry and Evaluation.

[5] See Appendix 2.

[6] New York State Department of Environmental Conservation Bog Turtle Fact Sheet, referenced at http://www.dec.ny.gov/animals/7164.html.

[7] See Appendix 2.

Commenting on the bog turtle, the Wetland Delineation and Assessment Report, stated: "Emergent and forested wetlands in the study area do provide appropriate habitat. The attached NYSDEC response mentions that the turtle is 'documented within 1 mile' of the general study area and 'animals can move 1 mile or more from documented locations.' Although there are no documented sightings or crossings of the existing perimeter road by turtles, any development area would need to have a perimeter silt fence reinforced with wire mesh to prevent turtles from entering the active construction area. The periodic inspection program would maintain and confirm the integrity of the fencing." [8]

Avian Species

Commenting on avian species, the Wetland Delineation and Assessment Report, stated: "The following avian species may utilize the open pasture, emergent wetland areas and forest lands for feeding and nesting. No individuals were encountered during the field investigations[:] Henslow's sparrow, *Ammodramus henslowii* – natural grasslands; Short eared owl, *Asio flammeus* – open grasslands; Upland Sandpiper, *Bartramia longicauda* – open grasslands; Northern Harrier *(Circus cyaneus*) – open marsh and upland areas."[9]

Wetlands

Three wetland areas and one intermittent creek, likely waters of the United States, were delineated within the study area, totaling 26.44 acres (on-site). Area 1 is a 1.85-acre jurisdictional wetland located within the loop access driveway. It likely qualifies as an adjacent wetland under the jurisdiction of the United States Army Corps of Engineers (ACOE) and would be a moderate quality aquatic resource. Area 2 is a 2.56-acre (on-site) jurisdictional wetland located upstream of Area 1 and on the northwestern portion of the study area. It likely qualifies as an adjacent wetland under the jurisdiction of the ACOE and would be a low to moderate quality aquatic resource. Area 3 is a 22.03-acre (on-site) jurisdictional forested wetland upstream and west of Area 2. It likely qualifies as an adjacent wetland under the jurisdiction of the ACOE and would be a moderate to high quality aquatic resource. Passing through and connecting the wetland areas is an intermittent drainage tributary to the Dwaarkill; thus, it is likely that none of the delineated wetlands would be considered isolated.

In correspondence from the DEC dated January 25, 2008, the following comments were provided: "An examination of aerial photos and the National Wetlands Inventory suggest that wetlands on this parcel, as well as adjoining parcels, may be of size and quality to be eligible for inclusion on the state regulatory maps for Freshwater Wetlands. The Department anticipates re-mapping wetlands in the Wallkill River watershed in the near

[8] See Appendix 4, Wetland Delineation and Assessment Report (June 2007), and refer within to Appendix V, Endangered Species Records Inquiry and Evaluation.

[9] See Appendix 4, Wetland Delineation and Assessment Report (June 2007), and refer within to Appendix V, Endangered Species Records Inquiry and Evaluation.

future. The DEC wetland biologist for Ulster County has reviewed the plans and believes they accurately depict the extent of state-eligible wetlands on the property. The current proposal shows the majority of the new disturbances to be more than 100 feet from the wetlands and to be within areas of previous disturbance. In addition, the existing modular units, many of which are within 100 feet of the wetlands, will be removed. Therefore the Department believes new wetland impacts will be minimal. Please submit full plan sets as requested above which include the location of the on-site wetlands. Once these are received and reviewed, the Department will likely be requesting some revegetation of the area of the modular removal and planting of buffering vegetation along the proposed access road."[10]

Waterbodies

As shown in Figure II.A-3 Area Map, the eastern property boundary borders the Shawangunk Kill (Waters Index No. H-139-13-19), a New York State Recreational River according to Title 6 of the *New York Code of Rules and Regulations,* Part 666 (6 NYCRR 666). This Act designates that certain portions of rivers of the state shall be preserved in a free-flowing condition and shall be protected. The river is also protected and rated as Class B. Within the property and running parallel to Steen Road is the Dwaarkill (Waters Index No. H-139-13-19-7), a protected Class B(t) stream that flows into the Shawangunk Kill. The Shawangunk Kill Recreational River Corridor boundary is discussed in more detail in Section II.A.3.

Potential impacts could include damage to bed and banks, siltation, loss of function; and in the case of Recreational Rivers, degradation of potential for recreational use.

I.B.5.b Mitigation Measures

Site Design to Avoid Natural Plant Communities, Sensitive Habitat, and Wetlands

The Town of Shawangunk Comprehensive Plan (July 2003) includes several recommendations under "Section B. Natural Features." The first recommendation is to "Establish Conservation Subdivision procedures in the Zoning Ordinance." It explains: "Under conservation subdivision techniques, the density of development is not affected. Rather the approach is to configure the development so that it has minimal impact on the important resources associated with the land to be developed. Thus the first step in the subdivision process is not to lay out house lots, but rather to identify the physical location of environmental and cultural resources on the property that are worthy of protection. Once the resources to be protected have been defined and mapped, the next step is to map the areas where development can take place." The second, closely related recommendation is to "Encourage Documentation of the Important Resources to be Protected by the Conservation Subdivision Process." It explains: "Clearly, one of the most important elements in the conservation subdivision process i[s] to have a thorough grasp of the resources that should be conserved during the subdivision process. Some

[10] See reference documents in Appendix 2.

of these resources include areas with steep slopes, stream and river corridors along with important historic and cultural resources worthy of preservation. All of these should be addressed in a conservation subdivision process."

While the applicant does not propose a residential subdivision, which is specifically recommended for the conservation mapping described by the Town of Shawangunk Comprehensive Plan, the applicant has incorporated the concept presented of identifying important natural resources early in the planning process. This is in harmony with steps taken by the Town of Shawangunk Planning Board to incorporate the above recommendations by endorsing "Habitat Assessment Guidelines – Town of Shawangunk (November 28, 2006). As noted in the cover message from the Planning Board Chair, "Shawangunk's approach uses Habitat Assessment early in the process to establish the environmental constraints and guide the plan before the applicant invests significant time and money in design and engineering."

The proposed project has been sited specifically to avoid sensitive ecological habitat in the interests of low-impact development. As noted in this DEIS in Section V, Alternatives, the Far North Residence was considered, but it would have had an increased potential impact on existing wetlands. Instead, as observed by the DEC in correspondence dated January 25, 2008, page 2, "the project is generally restricted to redevelopment of areas previously disturbed[.]"

The proposed project has been sited to avoid disturbance of any natural plant communities, wetland areas, or wooded areas that contain or provide habitat for unique, rare and/or endangered, threatened or proposed for listing as either protected species, or species of special concern. The majority of the disturbed area is a previously developed portion of the site. There is also an existing perimeter driveway separating the developed areas from any adjacent natural areas.

The area of disturbance for the proposed project would be a total of 46 previously disturbed acres. This would include the disturbance of 27.1 acres of lawns, ornamentals, and other landscaping, 5.9 acres of roads, buildings and other paved surfaces, and 13.0 acres of fenced pasture that has been in agricultural use as pasture or cropland for decades. By the conclusion of the proposed project, the previously disturbed area would contain 0.7 acres of water surface area, 9.4 acres of roads, building and other paved surfaces, and 35.9 acres of lawns, planting, and landscaping. The applicant's proposed landscaping includes protective vegetative cover of mowed lawn (which provides emergency access for emergency services equipment), ornamental trees, shrubs, and maintained flower gardens, all of which prevent any active soil erosion on these areas.

Avoidance of Indiana Bat Habitat

The area of disturbance for the proposed project does not include any natural woodland areas, such as those containing Shagbark hickory *(C. ovata)*, which can provide seasonal habitat for the Indiana Bat.

Avoidance of Bog Turtle Habitat and Short-Term Protective Measures

The proposed project does not disturb any wetlands, particularly those wetlands and surrounding areas that provide habitat for the bog turtle. Since the on-site emergent and forested wetlands in the study provide appropriate habitat for the bog turtle, a perimeter silt fence reinforced with wire mesh would be installed to separate the area of disturbance from the wetlands during construction. This would prevent a bog turtle from entering the active construction area. A periodic inspection program would be set in place to maintain and confirm the integrity of the fencing.

Avoidance of Avian Species Habitat

A letter from the New York State Department of Environmental Conservation commenting on this subject stated that the "DEC has reviewed the Department's Master Habitat Database and found this site is near known populations of the following: Short-eared Owl (Asio flammeus)—endangered, Northern Harrier (Circus cyaneus)—threatened, Upland Sandpiper (Bartramia longicauda)—threatened, Henslow's Sparrow (Ammodramus henslowii)—threatened. Since these species are all open meadows and the project is generally restricted to redevelopment of areas previously disturbed, the Department does not believe this proposal is likely to impact these species."[11]

Construction of New Buildings Outside of the Recreational River Corridor

All proposed construction of new buildings would be outside of the Shawangunk Kill Recreational River Corridor Boundary.

Protection of Waters

In correspondence from the DEC dated January 25, 2008, the following comments were provided: "In addition to the Shawangunk Kill, the site also contains the Dwaar Kill, NYS Waters Index H-139-13-19-7, Class B(t). A permit pursuant to Article 15 of the Environmental Conservation Law, Use and Protection of Waters, is required for any disturbance to the bed or banks of either stream. However, the plans do not appear to propose any disturbances to these protected streams."[12]

No stream disturbances are proposed, and all surface water discharges would be conveyed to the Dwaarkill and Shawangunk Kill in accordance with the Stormwater Pollution Prevention Plan (SWPPP) complying with NYS DEC permit requirements in Section III.B.2 and Appendix 13, located in Volume 2 of this DEIS.

[11] New York State Department of Environmental Conservation to Town of Shawangunk Planning Board, January 25, 2008.

[12] See reference documents in Appendix 2.

Stormwater Pollution Prevention Plan

Erosion and Sedimentation Control Measures (ESCM) are described as part of the Stormwater Pollution Prevention Plan (SWPPP), complying with NYS DEC permit requirements in Section III.A.2 and Appendix 13, located in Volume 2 of this DEIS. Mitigation measures include preservation measures around existing vegetation, removal and stockpiling of topsoil, silt fence installations, construction of temporary sediment basins, construction of earth dikes, temporary stabilization techniques, dust control, and storm drain inlet protection.

Site Design

The design of the proposed project incorporates a two-story parking garage, which reduces the impervious coverage and resultant stormwater runoff associated with surface parking lots. The proposed residence building and accessory office building are each three-story, thus covering less surface area and reducing impervious coverage.

Revegetation

As recommended by the DEC in its letter of January 25, 2008, and Hickory Creek Consulting LLC in its letter of July 24, 2007, the proposed project would include revegetation of the area of the modular housing removal and planting of buffering vegetation along the relocated access driveway. Approximately 13 acres of wetland buffer would be revegetated.

I.B.6 Land Use and Zoning

The proposed project has resulted from an effort to modernize the facility and identify long-term needs: (1) improve the quality of life for residents, which this project addresses by providing residential dwelling units with private bathrooms, increasing the size of individual dwelling units, and providing exercise/fitness facilities; (2) upgrade infrastructure based on proven technology, which this project addresses by adding a technical equipment room and upgrading central laundry and dry cleaning facilities based on industry and textile changes; (3) allow for modest population growth, which this project addresses by adding dwelling units, parking, office space, and central dining space.

The facility has clustered the more intensive uses and buildings in a campus-type environment that has helped to preserve the rural character of the community. A variety of activities support the religious use of the property, and these have been consistent with permits issued by the Town of Shawangunk. The applicant is requesting a special use permit with site plan approval for 300 multiple dwellings in a 3-story residential building with basement and ancillary uses included but not limited to 2-story parking garage with 400 spaces, 3-story accessory building with basement, recreation building, technical equipment building, additions to existing dining room and laundry/dry cleaning buildings. All of the activities associated with the proposed project currently exist on the property. These include the multiple dwelling use and ancillary uses, including office, essential services, dining, laundry, dry cleaning, recreation, and parking.

I.B.6.a Potential Impacts

Applicant's Long-Term Plans

The proposed project continues the applicant's long history of agriculture, printing, residential, and related activities in the Shawangunk Valley. These activities directly support the applicant's religious and charitable purposes as a domestic not-for-profit corporation in support of the body of Christians known as Jehovah's Witnesses.

The applicant does not propose relocating its ecclesiastical governing body and worldwide administrative functions to the project site. The applicant also has no long-term plans for expansion on lands in the Town of Shawangunk, whether they are held in ownership by the applicant or the Valley Farms Corporation, beyond those that are proposed with this project.

This project is based on an organizational assessment of long-term needs and reflects the same stable pattern initiated in the early 1970s of integrating agricultural, office, residential, and printery activities. The applicant is committed to the continued consistent use of the property that has been demonstrated for decades.

Compatibility with Community Character

The project site is located in southern Ulster County, approximately six miles west of the hamlet of Wallkill, near the geographic center of the Town of Shawangunk. The hamlet of Dwaarkill is approximately one mile to the north at the intersection of New Prospect Road and Awosting Road. Establishments within the hamlet of Dwaarkill include Sangiovese at the 1776 Colonial Inn (a restaurant that was severely damaged by fire in March 2008), the Dwaarkill Country Store, and The Hoot Owl bar and restaurant. The hamlet of Bruynswick is approximately two miles to the northeast along Red Mills Road. Establishments in the hamlet of Bruynswick include Audrey's Farmhouse Bed and Breakfast, the Bruynswick Inn restaurant, the Kingdom Hall of Jehovah's Witnesses, New Horizons Resources Inc., Anna Mercurio Gardens, and the Shawangunk Valley Fire Company station house.

The property directly borders approximately 72 properties in the Town of Shawangunk and 3 properties in the Town of Crawford, Orange County (refer to Figure II.A-4 Deed Parcel Map). According to a review of the Ulster County Information Services Web site, land uses adjoining the project site include field crops, one family year-round residence, two family year-round residence, rural residence with acreage, residential—multi-purpose/multi-structure, residential vacant land, and private wild and forest lands.

The *Open Space Inventory and Analysis—Shawangunk, New York* (March 2004), page 14, summarizes that "Shawangunk has a long history of agriculture and industry, especially along its two main rivers [Shawangunk Kill and Wallkill River]." Historical uses in the hamlets of Dwaarkill and Bruynswick have included a pallet factory, restaurants, and resorts.

Large, institutional-type use of property is not unique in the wider context of the Town of Shawangunk. A similar large parcel of land in the same zoning district, R-Ag 4 Residential Agricultural, is used for two correctional facilities located north of the hamlet of Wallkill, in the eastern section of the Town of Shawangunk. In 2000, there were over 1,100 inmates incarcerated in the Shawangunk and Wallkill Correctional facilities. There are also over 600 employees staffing the facilities, including civilians and correctional officers. Activities conducted at the correctional facilities have been diverse. In 2002, this included a farm with approximately 300 cows to provide milk and meat products for the facility and neighboring correctional facilities, a horse program with approximately 40 retired thoroughbred horses, an optics program that manufactures eyeglasses, and a recycling facility.

The proposed project is expected to support, rather than change, the activities conducted on the property. This project removes approximately 13 acres of pasture from agricultural use but does not affect other ongoing agricultural activities. While printing, office, and agricultural activities have been refined over the years depending upon specific needs, the general activities in the proposed project are the same, and the modest population growth from this project is expected to be compatible in the context of adjoining neighbors and the overall Town of Shawangunk.

Compatibility with Town of Shawangunk Comprehensive Plan

In "Section I. Introduction" of the Town of Shawangunk Comprehensive Plan, eight visions are provided. The proposed project is reviewed in the light of several of those visions below.

- Vision: Protect and preserve important natural resources and views in the Town, particularly those associated with the Shawangunk Ridge and the Shawangunk Kill and Wallkill River corridors.

  The proposed project would be clustered around previously developed portions of the project site. It would be visually screened in a manner that protects the view of the Shawangunk Ridge for northbound vehicles on Red Mills Road north of the intersection with Bruyn Turnpike. The project site is also outside of the Shawangunk Kill Recreational River Boundary and would not affect views to or from the Shawangunk Kill. The project site is not proximate to the Wallkill River.

- Vision: Promote an agriculture and forestry sector in the Town that is economically viable and that also protects the natural environment.

  The proposed project would not remove significant areas of agriculture or forestry from production. The Watchtower Farms Facility has had an operating sawmill for many years, and the forested lands are subject to a woodland management program.

- Vision: Protect important areas of open space.

Because the proposed project is clustered on previously developed areas, it would not have an impact on potentially important areas of open space on the property.

- Vision: Ensure that all development blends in with the natural environment through high-quality, environmentally sensitive design and landscaping.

  The project would blend with the natural environment in several different ways. The size, appearance, and lighting for new construction would match the existing structures. This would include shielded exterior lighting.

  In addition, effort would be made to design the new residence building, office building, and recreation building to accepted sustainability standards. The goal is to achieve a *3 Green Globes* award level (this corresponds to a "LEED® Green Building Rating System™ (Leadership in Energy and Environmental Design) *Gold* award level) in sustainable design through the Green Globes™ System. Green Globes emphasizes state-of-the-art strategies for sustainable site development, energy efficiency, water savings, resources and materials selection and waste management, emissions control and indoor environmental quality.

- Vision: Protect historic resources of the Town.

  The nearest historic resource, which is located on the subject property north of the project site, is the Dill Farm, also listed as the Meredith House in "Open Space Inventory and Analysis – Shawangunk, New York," page 43 (see Figure III.F-4). The Dill Farm was added to the National Historic Register in 1983 (Building #83001816) based on the significance of its Greek Revival architecture. The Dill Farm is separated from the project site by the Dwaarkill. It is located approximately 2,000 feet northwest of the proposed new residence building on the same property and would not be disturbed by the proposed project. The applicant purchased and restored the Dill Farm in 1999. The proposed project is also not anticipated to have a potential impact on the Johannes Decker Home or William Decker House, nearby historic structures that are visually screened from the project site.

In addition to the eight visions discussed above, the Town of Shawangunk Comprehensive Plan also makes several statements in "Section II. Key Issues Emerging from the Inventory." One of these is that Shawangunk's population is growing and that traditional sources of open space are in transition. It states that "[a]griculture, vacant lands and community services, particularly the Watchtower Farms complex in the center of the Town, are dominant uses." It also notes "the data show that 41.4 percent of Shawangunk-area farmers spend at least 200 days working off the farm each year, compared to approximately 30 percent of farm operators countywide or at the State level. This suggests that farming in the area is indeed undergoing immense change." In response to changing needs, the Watchtower Farms Facility has focused its agricultural activities in the past decade, increasing its planting of blueberries and sweet corn while eliminating its dairy herd. Although more efficient methods mean that less

time is spent by individual residents on direct agricultural activities, the applicant's cumulative agricultural activity is significant.

The Town of Shawangunk Comprehensive Plan also comments on preserving water resources. No groundwater sources directly supply the project site. The applicant operates private, state-regulated water and wastewater treatment systems. Potable water is supplied from two surface water reservoirs that, including their watersheds, are totally contained on the property. Non-potable water for irrigation is supplied primarily from a pump station located on the Shawangunk Kill. Treated wastewater is discharged under a New York State Pollutant Discharge Elimination System (SPDES) permit (NY #002 5925) to the Shawangunk Kill. Most of the potable and non-potable water used at the site is ultimately returned to the watershed and streams by means of surface runoff from irrigated crops and landscaping, as well as the treated discharge from the on-site wastewater treatment plant. Thus, in harmony with the Town of Shawangunk Comprehensive Plan, water resources would not be significantly impacted by the proposed project.

The Town of Shawangunk Comprehensive Plan notes that certain areas of the town may be subject to increasing traffic. The transportation study considered eleven intersections of interest. The applicant retained John Collins Engineers, P.C., from Hawthorne, NY, to study these intersections, including traffic counts.[13] The intersections studied include: (1) Bruyn Turnpike and Hoagerburgh Road, (2) Bruyn Turnpike and Red Mills Road, (3) Bruyn Turnpike and Hardenburgh Road, (4) Hardenburgh Road and North Street/Maple Road, (5) Bruyn Turnpike and New Prospect Road/Indian Springs Road, (6) Red Mills Road and Steen Road, (7) Red Mills Road/Hoagerburgh Road and Bruynswick Road, (8) Red Mills Road and Watchtower Farms Driveways, (9) Wallkill Avenue and Drexel Drive, (10) NYS Route 52 and County Route 7 (New Prospect Road), and (11) NYS Route 52 and Maple Avenue (Route 302).

The transportation study includes the following summary comments on page 20: "Based on the results of the field inspections of the roadways in the vicinity of the site together with the results of the capacity analysis for the individual intersections, the traffic generated by the expansion of the Watchtower Farms Facilities should not result in a significant negative impact on traffic operations in the area."

The Town of Shawangunk Comprehensive Plan states that "there is increasing demand for local/neighborhood parks." The applicant has supported various volunteer initiatives at Verkeerderkill Park, Garrison Park, Wallkill Rail Trail and the Galeville Recreation Area. The Town of Shawangunk Comprehensive Plan particularly focuses on local, neighborhood parks. In harmony with those comments, the applicant proposes providing private recreation facilities to mitigate possible demands on other town services, such as athletic fields, that may be at a premium.

[13] See Appendix 6.

Another area of concern in the Town of Shawangunk Comprehensive Plan is that "in many areas, the town needs to improve and maintain the appearance and condition of the built environment." The applicant has a reputation for maintaining its property and assisting, where possible, with community beautification efforts.

Concerning the mixture of various uses that Watchtower Farms Facility represents, the Town of Shawangunk Comprehensive Plan includes the recommendation, under "Section IV.E: Economic Development", to "encourage farmers to maximize Return on Lands not in production in an environmentally responsible manner through improved tax planning, woodlot management, agri-tourism and allowing other income producing activities as accessory uses to farming. . . Part of this effort should consider ways of encouraging existing farms to create nonfarm uses on a portion of their land in order to generate additional sources of income so that the farm itself can stay in operation." As a religious not-for-profit organization, the applicant does not intend to generate income; however, the applicant endeavors to make the best use of its human and physical resources. Having compatible non-farm uses improves the applicant's flexibility and stability in the community.

Zoning

According to "Zoning, Chapter 177 from the Code of the Town of Shawangunk," the zoning map updated in 2004 shows the project site in zoning district R-Ag 4. In accordance with Sections 177-7.D(4), 177-22, and 177-23, the applicant is seeking a special use permit and site plan review approval for 300 multiple-family dwellings to be constructed in a three-story residential building attached to an existing residential building. The applicant also proposes to construct and expand various ancillary uses, including but not limited to a two-story parking garage with cellar accommodating 400 spaces; three-story accessory office building with basement, recreation building, technical equipment building, with proposed additions to the existing dining room and laundry and dry cleaning buildings.

The applicant proposes seeking two variances. First, the applicant intends to seek a variance from the NYS Department of State Division of Code Enforcement and Administration, requesting that the requirement of sprinklers in the existing central dining room be waived on the basis that the applicant maintains a private fire brigade, a continuous security watch, and a non-smoking policy on the premises, and that there would be a disproportionate, adverse potential impact from adding the sprinklers to the existing dining room. Second, the applicant intends to seek a variance from the Town of Shawangunk Zoning Board of Appeals (ZBA) to allow the basement windows at parts of one side and the rear of the proposed three-story accessory office building to be exposed. These sections of the building would reach a maximum height of 44 feet 6 inches, which would exceed the maximum allowed by regulation of 35 feet.

The following zoning requirements would be met by the proposed project:

Building Height and Bulk Table: For the proposed project, the minimum distance to the property line is approximately 300 feet from the relocated outdoor recreation fields to an

undeveloped parcel west of the project site. The impervious coverage on the property would increase by 0.3 percent of the entire parcel to reach a total of approximately 7.1 percent. The property is 1,141 acres and after deducting floodplains, wetlands, and waterbodies, the net acreage available for density calculations is 948± acres.

Landscaping: Any use in a residential district and which is not conducted within a completely enclosed building, such as junkyards, storage yards, lumber and building material yards, and parking lots and like uses, shall be entirely enclosed by a fence or landscaping to effectively shield such use (Town of Shawangunk Zoning Code, Section 177-12). The proposed parking garage is very similar to the two existing parking garages on the property. It would be screened by landscaping and an earthen berm. The building façade would be similar to those of the other parking garages.

Density for Residential Uses—Multiple Dwelling: The applicant proposes construction of 300 dwelling units in a multiple dwelling. These dwelling units would primarily rely on central services, including dining and laundry, which are provided by the applicant. Since none of the dwelling units would be larger than one bedroom, construction of the proposed multiple dwelling with 300 dwelling units would require 5,000 square feet of property per dwelling unit, or 34.4 acres on the project site. This is less than the 46-acre area that would be disturbed with this project, and the proposed project meets the density requirements.

Outdoor Recreation: The proposed recreation building and outdoor recreation fields would be for use by Watchtower Farms residents. The relocated outdoor recreation fields would be at least 300 feet from the nearest property line and would not include a public address system. The nearest adjacent dwelling within sight distance across agricultural fields is located at parcel 99.4-1-28 on Whitaker Lane, south of Red Mills Road. It is approximately 1,800 feet away. Another adjacent dwelling on parcel 99.4-1-48.1 on Bruyn Turnpike, to the southwest of the project site across fields and through forested land, is approximately 800 feet away. Lighting would be shielded from adjoining properties.

Off-Street Parking: The proposed parking garage and surface parking would provide approximately 400 parking spaces. The net number of parking spaces added after removal of existing parking spaces lost due to the proposed construction would care for the new demand.

Environmental Considerations: The *Town of Shawangunk Zoning Code,* Section 177-21 includes environmental considerations. There is no construction of buildings proposed in areas of special flood hazard. There are no freshwater wetlands mapped by the New York State Department of Conservation (DEC) on the project site. The Planning Board is performing the environmental quality review process in advance of any decision regarding issuance of building permits, site plan approval, or a special use permit.

Site Plan Review: The proposed project requires site plan approval in accordance with the *Town of Shawangunk Zoning Code,* Section 177-22.

Ulster County Planning Board Review: The proposed project must be referred to the Ulster County Planning Board.

Special permit use review: The proposed project requires special permit use review in accordance with the *Town of Shawangunk Zoning Code,* Section 177-23.

I.B.6.b Mitigation Measures

A number of mitigation measures would be implemented to mitigate impacts on neighboring properties in the vicinity.

- The proposed site plan has been designed to minimize visual impacts by clustering the proposed development within or adjacent to previously developed areas. The visual impact is further reduced by a proposed visual screening berm that would maintain the view of the Shawangunk Ridge for northbound drivers. The proposed accessory office building would be located between two existing buildings in the developed area. The proposed dining room and laundry additions would also be located in previously developed areas that have very limited visibility from Red Mills Road.

- The size, appearance, and lighting for new construction would match the existing structures.

- To mitigate nighttime visual impact, whether for residences near the project site or for more elevated residences approximately one or more miles to the east off of Hoagerburgh Road, exterior lighting would be directed downward and shielded. Clustering the proposed buildings in the previously developed portion of the property would similarly mitigate the nighttime "glow" effect.

- During the construction period, various sediment control measures would be implemented that are discussed in detail in the Stormwater Pollution Prevention Plan (SWPPP) in Appendix 13, located in Volume 2 of this DEIS.

- The new residence, office and recreation buildings would be designed to accepted sustainability standards. The goal is to achieve a *3 Green Globes* award level (this corresponds to a "LEED® Green Building Rating System™ (Leadership in Energy and Environmental Design) *Gold* award level) in sustainable design through the Green Globes™ System.

- In order to reduce off-site impacts, the applicant proposes providing on-site recreation facilities for residents. The applicant also has a history of partnering with the town and surrounding communities on recreation-related volunteer projects and anticipates that payment of a recreation fee established by the town board would be commensurate with the proposed project's impact.

- Private surface water reservoirs, rather than groundwater-supplied wells, would continue to supply the facility.

- Appropriate distance buffers of 300 feet to the nearest property line and more than 1,300 feet to dwellings would mitigate impacts on adjacent properties.

- A parking garage with covered parking on three levels would reduce the amount of impervious coverage, visual impact of surface parking lots, and stormwater/drainage impacts.

- Appropriate plantings would be provided in portions of the area north of the modular residences that are to be removed. These would support the wetlands to the north of the existing modular units.

- The proposed development would be situated outside of the Shawangunk Kill Recreational River Corridor, thereby avoiding any impact to this corridor. Also, stormwater/drainage from the project site to the Shawangunk Kill would be via an existing outlet, not adding new outlets. The Stormwater Pollution Prevention Plan (SWPPP) in Appendix 13, located in Volume 2 of this DEIS, would meet the general permit issuance requirements.

- Concerning potential impacts on agricultural uses, the proposed population increase of approximately 200 residents, or 15 percent, would involve residents who are accustomed to the agricultural activities conducted on the property and offsite. As shown in the traffic study[14], the corresponding increase in traffic would not negatively impact the level of service at the intersections that were studied. It is not anticipated that this would negatively impact farm-related traffic, such as tractors, from other area farmers.

I.B.7 Transportation

A Traffic Impact Study was conducted in 2007 and updated in 2008 by John Collins Engineers, P.C., to evaluate both existing and future traffic conditions in the vicinity of the site and assesses the potential traffic impacts of the proposed action on the surrounding roadway network. The Traffic Impact Study specifically evaluates traffic conditions at eleven intersections identified by the SEQR Scoping Document.

I.B.7.a Potential Impacts

The 2007 Existing Traffic Volumes were projected to the design year of 2012 to evaluate the potential traffic impacts after the opening and operating of the completed buildings, including the new residence building. The Traffic Impact Study summary and conclusion were as follows: “Based on the results of the field inspections of the roadways in the vicinity of the site together with the results of the capacity analysis for the individual intersections, the traffic generated by the expansion of the Watchtower Farms facilities should not result in a significant negative impact on traffic operations in the area. Several recommendations have been identified which should be completed

[14] See Appendix 6.

regardless of the proposed expansion. They will have to be coordinated with the Town of Shawangunk and Highway Superintendent as part of the approval process."

The proposed project does not include production-type facilities for increased industry. Therefore, the applicant does not anticipate that implementing the proposed project will generate a significant increase in truck traffic.

I.B.7.b Mitigation Measures

Based on the results of the traffic analyses, a number of improvements to several intersections have been identified.

- Bruyn Turnpike and Hardenburgh Road

In addition to the "stop" sign on the Hardenburgh northbound approach to this intersection, it is recommended that additional pavement markings, including a painted "stop" bar be added on this approach.

- New Prospect Road and Bruyn Turnpike / Indian Springs Road

The sight distance looking north of the Bruyn Turnpike approach to this intersection is somewhat restricted due to excess vegetation and grading problems. Some clearing and grading should be completed to improve sightlines regardless of the proposed action. In addition, supplemental warning signs at the intersections should be considered.

- Red Mills Road and Steen Road

The installation of a painted "stop" bar should be added to this intersection and speed reduction warning signs should be added to Red Mills Road east of Steen Road.

- Bruynswick Road and Hoagerburgh Road / Red Mills Road

A painted "stop" bar should be added to the intersection along with the existing posted "stop" sign, regardless of the proposed action.

- Wallkill Avenue and Drexel Drive

A painted "stop" bar should be added to the intersection along with the existing posted "stop" sign, regardless of the proposed action.

- NYS Route 52 and County Route 7 / New Prospect Road / Pirog Road

The capacity analysis conducted at this four-way signalized intersection (Signal No. U-89) indicates that during peak periods modifications to the traffic signal timings would be required to provide improved operation, especially during the AM Peak Hour, to accommodate future traffic volumes, regardless of the proposed action.

- NYS Route 52 (Main Street) and NYS Route 302 / Maple Avenue

The capacity analysis conducted at this signalized four-way intersection (Signal No. O-23) indicates that during peak periods modifications to the traffic signal timings

would be required to provide improved operation, especially during the AM and PM Peak Hours, to accommodate future traffic volumes, regardless of the proposed action.

Since the proposed mitigation measures are maintenance-related or suggested regardless of the proposed action, the Town, County and State Transportation Departments would implement the measures that they determine to be feasible.

I.B.8 Aesthetic Resources

A visual analysis was conducted based on DEC Program Policy DEP-00-2, "Assessing and Mitigating Visual Impacts," issued July 31, 2000. The general procedure involves preparing an inventory of aesthetic resources, performing a visual assessment, considering the potential significance of the impact, and determining what mitigation measures may be necessary.

An inventory of aesthetic resources identified the following visual resources within five miles of the proposed area of disturbance:

Historic. The Dill Farm on Steen Road is located on the property, approximately 2,000 feet northwest of the nearest proposed soil disturbance; the Johannes Decker House at 337 Red Mills Road is one mile northeast of the project site and completely screened by existing topography; the William Decker House in the hamlet of Dwaarkill is located approximately 2,000 feet from the nearest soil disturbance and is completely screened by existing vegetation; the Miller's House at Red Mills is located approximately 2,000 feet south of the project site and is completely screened by existing topography; and two structures possibly eligible for listing on Old Fort Road are completely screened by vegetation and topography.

State Parks. The Minnewaska State Park Preserve is approximately four miles northwest of the project site, and various carriageways, such as the Hamilton Point Carriageway, and overlooks, such as Hamilton Point and Gertrude's Nose have views of the Hudson Valley, including the project site.

National Wildlife Refuges. The Shawangunk Grasslands National Wildlife Refuge is located approximately two miles east of the project site and is completely screened by topography.

Rivers Designated as Scenic. The Shawangunk Kill is a Recreational River adjacent to the project site. The proposed project involves some adjustments at the existing wastewater treatment plant, 400 feet north of the Shawangunk Kill. This work location is completely screened by vegetation, topography, and existing buildings. The nearest proposed new buildings would be approximately 1,500 feet northwest of a bend in the Shawangunk Kill; however, this area is completely screened by existing topography. Approximately 1,000 feet south of the aforementioned bend, there is a possible seasonal view of disturbed area from a distance of approximately 2,000 feet. This view is through existing stream bank vegetation and trees, across a field used for cropland, over Red Mills Road, across existing pasture, and to existing buildings.

A Scenic Highway. *The Open Space Inventory and Analysis—Shawangunk, New York* (March 2004) on page 38, depicts Red Mills Road adjacent to the project site as a scenic road. The ridgeline of the Shawangunk Mountains is visible to north-bound drivers on Red Mills Road, north of its intersection with Bruyn Turnpike. This view includes fenced pasture in the foreground, existing buildings in the midground, and the Shawangunk Mountains in the background.

I.B.8.a Potential Impacts

Change in Visual Character

In the context of the region, the project site contains a clustered developed area surrounded by areas of open space generally in agricultural use. The proposed project adds to the clustered developed area but does not involve new development in more visible areas on the property.

Concerning the viewshed from historic buildings, the Dill Farm is located on the property and separated from the project site by the Dwaarkill. The applicant obtained and restored the Dill Farm approximately ten years ago. The visual character from the Dill Farm would not significantly change with the proposed project. Existing buildings on the project site of comparable size and appearance are already located closer to the Dill Farm than the structures proposed for construction. Existing topography and vegetation provides more screening between the Dill Farm and the proposed residence building than the existing buildings.

The applicant does not anticipate a change in the visual character of the view from the at the Shawangunk Kill Recreational River, 2,000 feet south of the clustered area of soil disturbance for the new residence building, parking garage, recreational building, and athletic fields. Both the screening vegetation at the river bank and the fact that there is no proposed change to the existing agricultural cropland, roadway, and immediate fenced pasture in the foreground of the view are expected to retain the integrity of the visual character at this location on the Shawangunk Kill.

The proposed construction, particularly the proposed parking garage and recreation building, would be clearly in view from Red Mills Road without mitigation measures.

For southbound drivers on Red Mills Road, south of its intersection with Steen Road, there would be brief views between existing buildings of the proposed laundry addition and accessory office building. The proposed dining room addition would be completely screened from views on all roads by existing buildings.

The *Town of Shawangunk Open Space Inventory and Analysis* dated March 2004 also includes County Route 7 (New Prospect Road / Bruynswick Road) and Steen Road as scenic roads. Views to the south from Steen Road and to the east from County Route 7 show obscured views of various existing larger buildings on the project site when there is no foliage. Because the proposed new construction would be clustered, a significant change in visual character is not anticipated.

Direct Visual Impacts

Three proposed buildings would be located in the northwest vicinity of the project site in the location of an existing outdoor recreation area containing athletic fields, courts and picnic area. Pasture and wooded area are also within the area of disturbance. This area would have the most visual impact for drivers traveling north on Red Mills Road from the Bruyn Turnpike/Red Mills Road intersection if there were no mitigation measures taken. The applicant proposes additions to existing buildings by extending into existing surface parking lots and some landscaped areas that lie within the developed section. Some of these proposed ancillary spaces would be completely hidden by other existing buildings of equal or greater height while others would be partially visible from Red Mills Road.

Site lighting for public safety, security, and use of outdoor recreational areas would be provided.

I.B.8.b Mitigation Measures

Appropriate Site Lighting

The lighting plan would be designed to provide nighttime illumination at intensity levels adequate for public safety and security. The pole-mounted driveway lights would be Illuminating Engineering Society (IES) designated “full cutoff” fixtures that do not provide any uplight above horizontal, thus avoiding night trespass and night sky glow.

Lighting bollards would be located around the building entrances and sidewalks. These fixtures would match the lighting around the existing buildings in the vicinity and are designed as low-wattage, low-intensity fixtures providing minimal uniform illumination housed in an ornamental package.

The existing outdoor athletic fields would be relocated as a result of the new construction and the associated lighting would be relocated as well. These lights would be timer-controlled with a manual override “On” or “Off.”

Siting and Design of Office Building, Dining Room Addition, and Laundry Addition

The proposed action includes a new office building, serving an ancillary function, in the location of an existing one-story structure fronted on Red Mills Road. The new three-story office building would be located between, but set back from, two existing buildings that are three and five stories, respectively. Special care would be taken to design the façade to follow the aesthetic precedent set by the adjacent existing buildings, thereby mitigating the visual impact of the new building. It would also be located behind an existing surface parking area accessed from Red Mills Road. The existing mature trees and shrubbery would help to reduce the scale of the building and significantly lessen the visual and aesthetic impact.

An addition to the existing dining room is included in the proposed action. This would be accomplished by extending the existing building into an enclosed courtyard, which would not be visible from Red Mills Road, thus mitigating the visual impact.

An addition onto the existing laundry building, set back from Red Mills Road, would house the proposed laundry addition. This would be located between existing buildings and landscaped to mitigate the visual impact from Red Mills Road.

Visual Screening Berm

To preserve the scenic views along the southerly part of Red Mills Road, an existing earth berm would be extended to the west and south. The berm would be landscaped with a mix of deciduous and evergreen trees of both fast and slow growth varieties. The heights at purchase would be on the average of 15 feet, with a maturity height of 50 to 85 feet. The varieties would have canopies that would provide a dense year round visual barrier. The proposed berm and vegetation would be designed to screen the view of the proposed new residence building, parking garage, and recreation building from northbound drivers on Red Mills Road. At the same time, the proposed berm and vegetation would be designed to avoid screening the view of the Shawangunk Mountains ridgeline approximately four miles behind the project site. Also, an existing, mature grove of trees located adjacent to Red Mills Road and in heights exceeding 40 feet would remain. These would adequately reduce the visibility of the proposed residence, garage and recreation buildings from any aesthetic resource to an insignificant level.

Low Profile Design

The proposed new residence building, parking garage, and recreation building incorporate the concept of low profile design to minimize their visibility.

I.B.9 Historic and Archaeological Resources

At the request of New York State Office of Parks, Recreation and Historic Preservation (OPRHP) and according to *Title 36 Code of Federal Regulations Part 61*, a Phase IA and 1B cultural resource investigation has been completed for the proposed project and is included in Appendix 9 of this DEIS.

I.B.9.a Potential Impacts

In June 2008, the Phase 1A cultural resources assessment was completed by Dr. Eugene J. Boesch, Ph.D., R.P.A, archaeologist and historic preservationist. The Phase 1A report recommended, on page 27, that a Phase 1B-level archeological investigation be undertaken in the portions of Zone B and Zone C, which are the zones within the Area of Potential Effect (APE) that are considered potentially archaeologically sensitive. The Phase IB investigation was completed in August 2008. The study was accomplished by conducting sub-surface investigation consisting of the excavation of three hundred and eighty-four (384) archaeological shovel tests following current NYS OPRHP standards.

I.B.9.b Mitigation Measures

Based upon the results of the Phase 1B fieldwork completed by Dr. Eugene J. Boesch, Ph.D., R.P.A, the report concluded, on page 10, with the comments that no additional archaeological investigations are recommended for the proposed Watchtower Farms Improvement project Area of Potential Effect. Thus, no mitigation measures or alternatives are being pursued. A copy of the Phase 1B report has been forwarded to the NYS OPRHP in its entirety.

I.B.10 Community Facilities and Services

The nature of the existing facility and the design of the proposed project is intended to minimize the potential impact on community facilities and services.

I.B.10.a Potential Impacts

Police

The Town of Shawangunk Police Department has responded to calls for assistance with petty mischief by outside parties, minor property damage, vehicle collisions, incomplete or abandoned 911 calls, and other miscellaneous matters. On average, they respond to calls relating to Watchtower Farms four times per year. The proposed project would generate a 15-percent increase in population with an anticipated corresponding increase in calls to approximately five per year.

Fire Protection

The proposed project would add several new buildings to the site. The additional construction would have the potential impact of increasing the demand on the community fire protection services. Additionally, since the site has an on-site fire protection and emergency response program, the new buildings could also increase demand on these existing services. Further details regarding the potential impacts can be found in the Mitigation Measures section, which addresses in detail the potential impacts identified by the Shawangunk Valley Fire District (SVFD).

Ambulance

The applicant estimates that the Shawangunk Valley Ambulance Corps averages approximately one ambulance transport per year related to Watchtower Farms. The applicant estimates that Mobile Life Support Services (MLSS) averages approximately four ambulance transports per year related to Watchtower Farms. The applicant anticipates that the proposed project would result in 15 percent more ambulance transports based on its projected 15 percent population growth. This would annually result in a total of two ambulance transports by the Shawangunk Valley Ambulance Corps and five ambulance transports by MLSS. Neither increase is anticipated to be significant.

Concerning the management of a mass casualty incident (MCI) the applicant contacted the Ulster County Office of Emergency Services. The director anticipated that the proposed action would have negligible impact on the ambulance and 911 services for the County since they have coordinated these services to ensure that no area is left without adequate coverage. The applicant also contacted Mr. Andrew La Marca, the Director of Business Development of Mobile Life Support Services, to review the proposed project. As he expressed in correspondence to the applicant dated April 22, 2008, a mass casualty incident could "necessitate assistance through the Ulster County Mutual Aid Plan. I think this is a reasonable expectation for any community or facility today that faces a large multiple patient incident, to plan on both using and participating in County-Administrated Mutual Aid Plans. While I would defer to the primary providers that serve your community, Mobile Life Support Services would not be in any way negatively affected by this expansion."[15]

Education

In correspondence received from the Pine Bush Central School District dated March 13, 2008, the Interim Director of Schools, Dr. William Bassett, expressed the following: "I have surveyed our administrative staff district-wide, and my report to you is that the Pine Bush Central School District has experienced no impact on the normal operation of our school district as a result of the existence of the Watchtower Farm. I would anticipate that the planned expansion will not impact the school district."[16] Although modest residential growth is planned on the project site, the character of the residents would reflect that of current residents. The Watchtower Farms Facility is staffed by adult Jehovah's Witnesses who are members of a special religious order. The residents perform their duties full-time, have taken a simple vow of obedience and poverty, and have chosen to live either unmarried or married without children. Therefore no significant impact is anticipated on the public educational system.

Recreation and Open Space

In a telephone conversation on March 12, 2008, a representative of the applicant discussed the proposed project with Mr. Adrian M. DeWitt, a Town of Shawangunk Councilperson with (a) Primary Committee Oversights of Liaison To Highway Superintendent, Buildings/Parks & Grounds, Recreation and (b) Secondary Committee Oversights of Liaison to Recreation, Solid Waste & Recycling, Verkeerderkill - Greer Parks. Mr. DeWitt noted that the proposed project includes a recreation building and athletic fields to provide such services on-site, rather than increasing demands on local community services. He anticipated no significant impact on community recreation services and commented favorably on the applicant's contributions to Garrison Park, Verkeerderkill Park, and the Wallkill Rail Trail.

[15] See Appendix 2.

[16] See Appendix 2.

Solid Waste Disposal

The applicant anticipates a corresponding 15-percent increase in waste generation based upon the proposed increase in population, with recyclables continuing to be diverted from the waste stream for recycling. The primary waste hauler for the facility, Waste Management, stated that their Kingston District can properly handle the construction-related and long-term waste generated by the proposed project. [17]

I.B.10.b Mitigation Measures

Police

No additional mitigation measures are anticipated at this time. The applicant would continue to maintain its on-site private security arrangement that includes 24-hour physical and camera surveillance. All residents continue to go through a strict screening process in order to verify, to the extent possible, that they are law-abiding and honest. The applicant continues to maintain emergency response procedures for its residents, including the provision of back-up power generation in the event of an outage.

Fire Protection

As recommended by the SVFD, in April 2008, the applicant's fire brigade purchased and practiced with a 35-foot ground ladder that will be maintained on-site in case of a fire emergency. The applicant's fire brigade is equipped for high angle rope rescue if needed.

The proposed buildings and additions would be built with fire fighting systems and equipment as noted in the following descriptions, in addition to being connected to the existing fire alarm network:

- The residence building would be equipped with a wet automatic sprinkler system and Class II standpipe and hose system and a Siamese connection would be added to an accessible face of the building.

- The accessory office building would be equipped with a wet automatic sprinkler system and a Siamese connection would be added to an accessible face of the building.

- The parking garage cellar would have a dry-pipe sprinkler system and the entire garage would include a dry-pipe Class III standpipe and hose system, and a Siamese connection would be added to an accessible face of the building.

[17] See Appendix 2 for correspondence from Jeff Budik, Waste Management Account Manager, dated February 15, 2008.

- Though not required by the *Fire Code of New York State*, the recreation building would have a Class II standpipe and hose station installed so that all portions of the building can be reached.

- Although not required by the *Building Code of New York State*, the technical equipment building would have a pre-action sprinkler system along with smoke and heat detectors. All of the fire protection components would be monitored remotely at a 24-hour manned reception desk.

- Adjustments to the dwelling units in the existing E residence, which is the tallest building in the site, would include the addition of a wet automatic sprinkler and a Class II standpipe and hose system.

The maximum height of the proposed buildings would be three stories, and the building height would be below the permitted height of 35 feet and a 4-foot or less roof parapet with the exception of the proposed accessory office building, for which a variance would be sought. The building would comply with the height requirements of The Town of Shawangunk Zoning Code at the street frontage and west side. The grade at the east side and rear of the building would be retained, allowing the basement windows to be exposed to light with a total height of 44 feet, 6 inches in these locations. The proposal includes the installation of a sprinkler system in the entire building, which is proposed to mitigate additional fire exposure caused by reduced accessibility.

The proposed project incorporates the recommendation from the SVFD to install and maintain landscaping that would avoid interfering with firefighting or rescue operations, such as trees adjacent to buildings and dense or uneven landscape features that would make firefighting and rescue operations difficult.

As recommended by the SVFD, the applicant has apprised Ulster County Emergency Services and Mobile Life Support Services of the proposed project. The applicant would continue to maintain appropriate on-site personnel for emergency response, which currently include two full-time licensed doctors, one part-time licensed doctor, 15 full-time registered nurses, eight emergency medical technicians, one paramedic, and a 16-member fire brigade.

The applicant has also reviewed its pre-plans for emergencies, including a mass-casualty incident (MCI). As an example of the typical response process, the applicant's on-site medical dispatch desk immediately informs the on-site responders, who include Emergency Medical Technicians, doctors, and registered nurses. If necessary, 911 is called for additional help. If needed in the event of a large scale MCI, the on-site medical responders are trained to set up an incident command center and start triage so that the most critically injured receive immediate attention. The most critically injured would receive transport on Advanced Life Support ambulance services as they become available from the community responders, or from Mobile Life Support Services. Those with lesser injuries would be transported on the applicant's Basic Life Support (BLS) ambulance and those BLS ambulances that respond from the community. Also the applicant's local shuttle vans could be used for hospital transport in the case of

emergency. The applicant is in the process of identifying a suitable location for MedEvac helicopter landing to serve the property if necessary.

The applicant's fire suppression systems are adequately supplied by (a) a potable water system with a typical on-hand capacity of approximately 300,000 gallons, designed to provide water to three fire hydrants and the sprinkler system for one building or (b) a non-potable system fed from two ponds with a typical capacity of 5,150,000 gallons. If necessary, mobile fire protection apparatus can also draft water from ponds that have been located near appropriate buildings around the property. A non-potable hydrant is presently used to fill community fire company tankers if they request water for local fire emergencies. All of the fire suppression system pumps are also on emergency backup power sources.

The applicant has a regular schedule of testing. All inspections and testing are done in accordance with NFPA 25 and NFPA 72.

The applicant maintains a facility operating permit with the Town of Shawangunk Building Department that identifies locations containing hazardous materials. The applicant has set aside specific locations with fire-resistant enclosures for the storage of hazardous materials and has equipped these locations with the required ventilation, fire suppression systems, and spill containment equipment. The applicant also maintains an inventory of the chemicals on site and their associated Material Safety Data Sheets (MSDS). The applicant is in the process of working with the SVFD to provide additional graphical information concerning the location, type, and quantities of any hazardous materials stored on the property. This would allow the applicant's fire brigade and all emergency responders to quickly identify the locations and respond safely and quickly.

The chemical storage rooms also contain personal protective equipment (PPE) that is suitable for the chemicals that are located in that room. The applicant's fire brigade has received Hazardous Waste Operations and Emergency Response (HAZWOPER) technician level training and has Hazmat gear for responding to Hazmat incidents.

The applicant has implemented standard operating procedures for responding to various types of emergencies. These include natural events, such as severe weather, and those that are malicious in nature, such as bomb threats. The applicant has evacuation plans that care for evacuating individual residence buildings and a mass evacuation plan for the entire facility. As discussed at a meeting involving the applicant and the SVFD on March 26, 2008, the SVFD will review this plan with the applicant. The applicant can make this plan available to other emergency services providers, including the Town of Shawangunk, on a basis that protects the safety of residents and the security of the facility.

The proposed buildings would be constructed according to the latest New York State fire codes. Additionally, in harmony with New York State fire codes, when improving existing buildings, such as the E Residence and Services Building, fire protective measures would be installed to meet or surpass the applicable requirements of the *Building Code of New York State*. The potential impact of the additional buildings would

be mitigated by the applicant's existing voluntary fire protection and emergency response measures, with a proportional increase in additional staff trained and added to emergency response teams. The applicant anticipates that the mitigation measures described above would be appropriate for the proposed project.

Ambulance

The proposed project designates major access to all the residence buildings as "no parking" – fire zones in order to allow access to these areas by emergency vehicles at all times. The applicant would continue to maintain its basic life support ambulance and supplement its operation as needed with additional personnel and equipment. Working with the SVFD, the applicant is searching for a suitable MedEvac landing site to serve the property.

Education

No impact is anticipated on educational facilities and no mitigation measures are anticipated.

Recreation and Open Space

The proposed project includes a recreation building and relocated athletic fields that would mitigate anticipated demand on community recreation and open space facilities.

Solid Waste Disposal

The proposed project incorporates waste reduction measures, including recycling and use of bulk containers during both the construction and post-construction phases. All wastes would be transported and disposed of by appropriately licensed vendors.

I.B.11 Noise and Air Resources

A Noise Measurement and Analysis was conducted in 2008 by B. Laing Associates Environmental Consultants to examine the existing and future noise levels at and in the vicinity of the Watchtower Farms Facility. An Air Quality Analysis was also conducted in 2008 by B. Laing Associates Environmental Consultants to examine the existing and future air quality at and in the vicinity of the Watchtower Farms Facility.

I.B.11.a Potential Impacts

Noise

The proposed new residence building, parking garage, and recreation buildings would be located approximately 1,400 feet from the nearest neighbor's dwelling southwest across Red Mills Road, and no other receptors are in a direct line of sight. Since noise generated by the construction process would decrease as a function of distance from the work site, the noise generated by grading and heavy construction would decrease at Red Mills Road to an approximate level of 55.6 to 79.4 dB(A).

Any levels of sound that could potentially be created by increased traffic generated by the proposed action on local roadways would not be expected to have any significant impact on the area neighborhoods. The added traffic noise would generate a difference of less than 3 to 5 dB(A) and would be consistent with existing noise sources. Using the sensitivity of the human ear as a reference, any increase between 3 dB(A) and 5 dB(A) is audible only to those with average hearing.[18] Thus, given the distances to public receptors, any noise increases during the operational phase would be dissipated to a sufficient degree as not to create any noticeable increase in local noise levels. Also, it is expected that there would not be a significant increase to the percentage of time sound level increases would be experienced due to the limited number of passing vehicles or traffic delays anticipated in the future..

The majority of "noise" created in and around the facility is located at the Guest/Main entrance off Red Mills Road, a public roadway. The higher average noise levels were attributable primarily to the visitor vehicular traffic, which included buses entering the Main Lobby Entrance. Since visitor traffic was observed to be the most significant contributing factor to noise generation it was determined that mid-morning, when a realistic sampling of visitor traffic could be measured, would be the most appropriate time period for readings to ascertain the noise level in a "worst-case" scenario. The measurements of 40 dB(A) minimum and 75 dB(A) at this location averaged 42.5 dB(A). It is not anticipated that visitor vehicular traffic will increase as a result of the proposed action. Although Red Mills Road is a public road and any increase in traffic would potentially disturb adjacent areas, the applicant owns and operates all the land within a 2,500 feet radius of the main facility entrance.

Air Resources

The Federal Clean Air Act (1990) establishes National Ambient Air Quality Standards (NAAQS) that are monitored by the United States Environmental Protection Agency (EPA). The NAAQS monitor air contaminants using six pollutants as criteria contaminants: Sulfur Dioxide (SO_2), Particulates (PM_{10}), Particulates ($PM_{2.5}$), Carbon Monoxide (CO), Ozone (O_3), and Nitrogen Oxide (NO_2). In addition to the general protection of human health, these standards are intended to protect the health and well-being of particularly sensitive sectors of the general population. These especially sensitive population sectors include children, the elderly and individuals suffering from respiratory disease. There are no especially sensitive receptors within close proximity of the project site such as health care facilities, nursing homes or schools.

The EPA designates those regions where the air exceeds the NAAQS for at least one of the six criteria contaminants as a nonattainment area. Each State is required to adopt a State Implementation Plan (SIP) with the goal of identifying the specific measures and control strategies to reduce air pollution in nonattainment areas. At the present, New York State is under mandate to develop SIPs to address ozone and fine particulates

[18] Bruel & Kjaer, Acoustic Noise Measurements, June 1998, Table 2.1.

less than 2.5 microns in size. The Town of Shawangunk, located in Air Quality Control Region (AQCR) 3, is within attainment for all the major pollutants except for ozone (O_3). The O_3 standard requires that no more than three 8-hour periods shall exceed 0.08 ppm within a three year length of time. In year 2005, all three Region 3 stations (Millbrook, Mount Ninham and Belleayre Mountain) exceeded this standard for one day with a high of 0.096 ppm. In year 2006, all three stations met the ozone standard. In year 2007, the Mount Ninham station exceeded this standard for one day with a high of 0.086 ppm.

The short term use of heavy equipment during construction at the site would result in a temporary minor increase in pollutant emissions. However, the major concern would be the control of fugitive dust during site clearing, excavation, demolition, grading, and general construction vehicle movement. All construction related air quality impacts would be of relatively short duration and generally not in proximity to public receptors.

The long term use is divided into two categories of emissions, direct source and indirect source. The only potential direct source emissions would relate to the anticipated use of boilers for the residential heating system. These boilers would burn No. 2 or No. 4, low-sulfur fuel oil and would not exceed heat output of 250 million BTU per hour, the level at which NYS air quality regulations and permitting procedures are applied. The facility maintains an air facility registration certificate in accordance with 6 NYCRR Part 201-4[19] and any proposed modernization would be reflected in an application for an amended certificate to the New York State Department of Environmental Conservation. Thus, significant direct source atmospheric contaminant emissions related to the operation of residential heating would not occur. The additional traffic generated by the site would potentially create indirect source emissions, causing the local carbon monoxide concentrations to rise. Such increase is usually anticipated at very high traffic volumes and when Levels of Service (LOS) are classified at the poorest three ratings of D, E, and F[20]. Since only minor increases in the traffic volume on local roadways in the vicinity of the project site are anticipated, the best two ratings of LOS of A and B should be maintained at the relevant intersections, and no significant atmospheric contaminant emissions are anticipated. One intersection was rated as LOS C, the same as the No-Build 2012 scenario.

I.B.11.b Mitigation Measures

Noise

Given the particular circumstances of the Watchtower Farms Facility, its existing condition as a quiet rural neighborhood, the ownership of the surrounding parcels and structures, and the private driveway network within the facility minimizing public road use, it is not likely that any possible increases in sound levels would be detected by

[19] See Appendix 3 for the applicant's current air facility registration certificate effective October 30, 2006.

[20] *New York State Department of Transportation Environmental Procedures Manual*, Chapter 1.1, Section 9.

others. No other private landowners or outside receptors are considered close enough to be directly or significantly affected by any short term increase in construction noise or any long term increase in vehicle noise. Thus, no mitigation measures are proposed to be incorporated into the project.

Air Resources

The existing site location is rural and subject to the air quality threats usually caused by space heating equipment emissions and automobile traffic emissions, specifically ambient concentrations of Carbon Monoxide and Total Suspended Particulates. Neither of these pollutants is anticipated to have a significantly increased emission level due to long term use following the proposed project.

During construction, control of the fugitive dust (particulate matter) would be established as part of the Erosion and Sediment Control Measures (ESCM) described in the Stormwater Pollution Prevention Plan (SWPPP) in Appendix 13, located in Volume 2 of this DEIS. Dust from the site would be controlled by means of spraying water from a mobile water truck (stationed on-site) to disturbed areas that are dry and susceptible to creating dust. Dust control would be implemented as needed once site grading has been initiated and during windy conditions while site grading is occurring. As maintenance, spraying would be performed at least once per day during dry months or as needed to control dust.

I.B.12 Agricultural Resources

While the Watchtower Farms Facility is not a typical farm, based either on its size or purpose, its agricultural activity in the Town of Shawangunk is shown in Table I.B-1.

Table I.B-1 2007 Applicant's Agricultural Production in the Town of Shawangunk

Agricultural Product	Quantity
Apples	1,600 bushels
Apple Cider	1,000 gallons
Apple Juice	5,600 gallons
Blueberries	7,000 quarts
Grapes	62,000 pounds
Grape Juice	2,400 gallons
Sweet Corn	87,000 pounds
Beef Cattle	320,000 pounds
Corn Silage	267 tons
Round Grass Bales	400 bales

Watchtower Farms' history in the Shawangunk Valley began in 1963 when the Watchtower Bible and Tract Society of New York, Inc., took over operation of the small Goebel farm on Red Mills Road. Having greatly expanded its agricultural operations

since then, the Watchtower Farms Facility supplies food to the approximately 4,000 Watchtower staff at the Jehovah's Witnesses' United States Branch Office facilities in Brooklyn, Patterson, and at Watchtower Farms itself.

I.B.12.a Potential Impacts

Approximately 13 acres of pasture would be removed from agricultural use, and the remaining balance of disturbed acreage is already developed or landscaped. No land currently in crop production would be lost. The project site would remain in the Ulster County Agricultural District No. 2—Wallkill Valley.

The pasture to be lost primarily consists of approximately 5 acres of Volusia gravelly silt loam (VoA), a deep, nearly level, somewhat poorly drained soil located on foot slopes, broad hilltops and drainage ways, and approximately 8 acres of Castile gravelly silt loam (CgA), a deep, nearly level, moderately well-drained soil formed in glacial outwash. VoA is designated as farmland of statewide importance, and CgA is designated as prime farmland.

In the context of the overall agricultural activities on the project site, the development of approximately 13 acres of pasture is not expected to have a significant impact on the operation.

I.B.12.b Mitigation Measures

No land in crop production would be lost as a result of this project. However, the project design incorporates a number of mitigation measures that are sensitive to agricultural activities:

- The project design is clustered with the development area generally inside already developed areas and centralized to reduce the impact on surrounding agricultural lands.

- The residence building would not be located adjacent to areas in intensive agricultural use. It would also be buffered from agricultural pasture lands by activities that are less sensitive to typical agricultural activities, including early morning work, animal noise, and odors.

I.C Summary of Approvals and Permits Required

The following approvals and permits are required to implement the proposed action:

Town of Shawangunk Planning Board

- Special Use Permit Approval.

- Site Plan Approval.

Town of Shawangunk Building Department

- Separate Building Permits will be required for each building following Site Plan Approval.

Town of Shawangunk Highway Department

- Driveway Connection Permit to Red Mills Road, if required. Traffic Study will be reviewed.

Town of Shawangunk Zoning Board of Appeals

- Possible building height variance for accessory office building.

Ulster County Health Department

- Approval of Plans to connect proposed buildings to the on-site sewage collection system and water distribution system.

New York State Department of Environmental Conservation

- New York State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater (GP-0-08-001).

- Review of the boundary of a Wild, Scenic, and Recreational River (WSRR) per DEC request of February 21, 2008.

- Modification to applicant's existing Petroleum Bulk Storage (PBS) Certificate for additional fuel oil tank.

New York State Department of State

- Possible variance to not install sprinklers in the existing portion of the dining room.

A complete list of interested and involved agencies is located in Section II.D.1 and II.D.2.

I.D Summary of Alternatives

Three alternatives to the proposed action are evaluated in this DEIS.

No Action Alternative

The No Action alternative is the scenario that would occur if no development were to take place at the site. Under this alternative, the proposed areas of disturbance would remain in their current state used for athletic fields, parking, pasture, landscaped area, and an outdoor recreation area. The desired quality of life improvements would be unattainable since there would not be the means to accomplish the desired improvements. The necessary office centralization and upgrades would also be

unattainable without the renovation of existing offices and construction of a new, energy efficient and environmentally sensitive office building. Similarly, the modernization of existing laundry and dry cleaning equipment to more environmentally sensitive equipment would not be achievable due to the larger spatial requirement for the newer equipment.

South Residence Alternative

The South Residence alternative presents a layout that would locate the proposed residence building on the south side of Red Mills Road. Other aspects of the layout, including the proposed office building, TER building, dining room and laundry expansion would be the same as the proposed plan. This alternative was considered for several reasons, including land availability, more convenient access to utilities without conflicting with the location of the existing site infrastructure, and centrally locating the proposed residence in close proximity to the services provided on site, particularly the dining room. Its main potential impacts would involve land use and zoning, aesthetic resources, and agricultural resources.

Far North Residence Alternative

This alternative presents a layout that would locate the proposed residence building on the northwest side of Red Mills Road, adjacent to the existing residence buildings. Other aspects of the layout, including the proposed office building, TER building, dining room and laundry expansion would be the same as the proposed plan. This alternative was considered for several reasons. It would provide access to utilities without conflicting with the location of the existing site infrastructure. It would more centrally locate the proposed residence to the services provided on site, particularly locating it in closer proximity to the dining room, and the proposed residence building and parking garage would be completely screened from Red Mills Road. Its potential impacts would involve terrestrial and aquatic ecology, aesthetic resources, and historic and archaeological resources.

Summary Table for Alternatives

The following table compares the proposed action to the no action alternative, south residence alternative, and far north residence alternative.

Table I.D-1 Summary of Alternatives

Area	No Action Alternative	South Residence Alternative	North Residence Alternative
Geology, Soils and Topography	No change	Less soil movement than proposed action	Area of disturbance is closer to existing wetlands than proposed action
Surface Water Resources	No change	Same as proposed action	Area of disturbance is closer to existing surface water resources than proposed action
Ground Water Resources / Water Supply System	No change	Same as proposed action with rerouting of distribution lines	Same as proposed action
Wastewater / Sewage Disposal	No change	Same as proposed action with rerouting of distribution lines	Same as proposed action
Terrestrial and Aquatic Ecology	No change	Same as proposed action	Constructs walkways across existing wetlands
Land Use and Zoning	No change	Possible Recreational River Corridor Permit	Same as proposed action
Transportation	No change	Same as proposed action	Same as proposed action
Aesthetic Resources	No improvement due to visual screening berm	Less temporary construction-related impact on ridge view from Red Mills Road than proposed action but develops agricultural field adjacent to Red Mills Rd.	Less visibility from Red Mills Road than the proposed action but increased visibility from County Route 7 and Steen Rd.
Historic and Archaeological Resources	No change	Located further from Dill Farm	Located closer to Dill Farm
Community Facilities and Services	No change	Same as proposed action	Same as proposed action
Noise and Air Resources	No change	Same as proposed action	Same as proposed action
Agricultural Resources	No change	Develops approximately 20 acres of land currently in agricultural production for sweet corn instead of 13 acres of pasture in proposed action	Similar to proposed action, this would also involve the development of approximately 15 acres of pasture.