

State Environmental Quality Review (SEQR)
FINDINGS STATEMENT
July 9, 2013

Pursuant to Article 8 - State Environmental Quality Review Act (SEQR) of the Environmental Conservation Law and 6 NYCRR Part 617, the NYS Department of Environmental Conservation (DEC), as Lead Agency, makes the following findings.

Name of Action:

Hudson River Valley Resort, Binnewater Road, Town of Rosendale, Ulster County, New York
Also Known As 'The Williams Lake Project'

Project Sponsor:

Hudson River Valley Resorts, LLC

Acceptance date of final environmental impact statement:

May 15, 2013

Summary Description of Action:

Hudson River Valley Resorts, LLC proposes to develop a resort community to be located on land totaling approximately 779 acres in the Town of Rosendale, Ulster County, New York. The Development Area consists of 368 acres, which is that portion of the 779 acres not already under a conservation easement, and therefore potentially developable. The Area of Disturbance proposed in the Final EIS plan is approximately 66.13 acres.

The property is located on County Route 7 (Binnewater Road), generally west of the New York State Thruway and north of County Route 26 (Breezy Hill Road). Portions of the property were mined as part of the former Rosendale Cement industry in the 19th and early 20th century. From the early 20th century until its closure in 2007, the site was the location of the former Williams Lake Hotel resort which provided hotel guests and day users with outdoor recreation, including swimming, boating, fishing, cross-country skiing, etc. The parcels have frontage on County Route 7 (Binnewater Road), County Route 26 (Breezy Hill Road), and Hickory Bush Road.

The development as revised in the Final EIS consists of:

- Construction of up to 154 for-sale residential units, including 83 townhouses, 59 detached single-family homes, and 12 duplex workforce housing units.
- Construction of lodging facility consisting of 130-room hotel – a 94-room lodge, 22 lakefront suites, and 14 stand-alone cabins; conference center; 2 restaurants
- Construction of a 17,000-square foot spa
- Construction of amenity structures including a Fitness center; a Wellness center; a Pizza café; and a Historic Interpretive Center.
- Extension of the Wallkill Valley Rail Trail; improvement and expansion on existing internal trail network.
- Construction of a new Wastewater Treatment Plant discharging to an unnamed tributary of the Rondout Creek (NYS Waters Index # H-139-14-5) and associated sewer collection system
- Expansion of the existing water supply system with water withdrawal from Williams Lake (NYS Waters Index # H-139-14-5-P 769)
- Construction of docks and platform on Williams Lake and a dock on Fourth Lake (AKA Fourth Binnewater Lake) (NYS Waters Index # H-139-14-5-P 770)
- Amendment of the Town of Rosendale Zoning Code

The development will disturb approximately 66.13 acres contained within the approximately 368 acres area in the southern portion of the site; the approximately 411-acre northern portion of the property is already under an existing conservation easement and will remain undeveloped. See Final EIS Drawing C-5 for development site plan (Appendix C of Findings).

Agency Jurisdiction:

NYS Department of Environmental Conservation:

DEC Permit No.	Description of DEC Permits	Statutory and Regulatory Authority
3-5146-00063/00007	State Pollutant Discharge Elimination System (SPDES) – Sanitary surface discharge with admixture of industrial waste	ECL ¹ , Article 17, Titles 7, 8 6 NYCRR Sub Part 750-1
3-5146-00063/00008	Water Withdrawal – greater than 100,000 gallons per day for a public water supply system	ECL, Article 15, Title 15 6 NYCRR Part 601
3-5146-00063/00009	Freshwater Wetland – disturbance to 7,293 square feet of wetland RD-2, Class 2 and adjacent area for utility line installation	ECL, Article 24 6 NYCRR Part 663
3-5146-00063/00010	Endangered & Threatened Species Taking - Permanent modification of habitat of the NYS Endangered species Indiana Bat (<i>Myotis sodalis</i>)	ECL, Article 11, Title 5 6 NYCRR Part 182
3-5146-00063/00011	Excavation & Fill in Navigable Waters – Excavation of 0.12 acre of Williams Lake in connection with creation of a lagoon adjacent to the Lake. Placement of fill in Williams Lake in the form of a closed-loop lake heat exchange system.	ECL, Article 15, Title 5 6 NYCRR Section 608.5
3-5146-00063/00012	Docks & Moorings - Installation of an 885 square-foot seasonal, floating platform on Williams Lake.	ECL, Article 15, Title 5 6 NYCRR Section 608.4
3-5146-00063/00013	Water Quality Certification – Platform installation and excavation and fill (lagoon construction, heat-exchangers, and sewer outfall).	Section 401 of U.S. Public Law 95-217, and 33 USC 1341 of 1977, 1984
General Permit GP-0-10-001	State Pollutant Discharge Elimination System (SPDES) – stormwater discharge from construction activities	ECL, Article 17, Titles 7, 8 6 NYCRR Sub Part 750-1

¹ Environmental Conservation Law

Other New York State Departments & Commissions:

NYS Department of Health	Approval of Water facility design, distribution system and storage tanks
NYS Department of Transportation	Highway Work Permit Application For Non-Utility Work (PERM 33) Permit Agreement For Highway Work Permits Design Review (PERM 51)
NYS Public Service Commission	Compliance with New York State Public Service Law (PSL) which requires that all new privately owned water systems file a tariff for water service and initial water rates

Ulster County:

Ulster County Public Health Department	Approval of water and wastewater treatment facilities design, distribution system and storage tanks
Ulster County Department of Highways & Bridges	County highway work permit for entry roads off Binnewater Road (CR 7)

Town of Rosendale:

Town Board	Zoning Text Amendment
Town Planning Board	Approval of Site Plan Subdivision
Town Stormwater Officer	Municipal Separate Storm Sewer Systems (MS4) approval of the Stormwater Pollution Prevention Plan (SWPPP)

State Environmental Quality Review (SEQR) Process²

DEC is required to consider the relevant environmental impacts, facts and conclusions disclosed in the final EIS in its SEQR Findings statement. Under Environmental Conservation Law section 8-109, DEC is required to choose the alternative which, consistent with social, economic, and other essential considerations, minimizes or avoids adverse environmental effects to the maximum extent practicable, including effects revealed in the environmental impact statement process.

While the lead agency findings are based on the full SEQR record and include a comprehensive analysis of issues, pursuant to 6 NYCRR Section 617.3(b), nothing herein changes the jurisdiction between or among State and local agencies, nor affects the jurisdiction of other involved agencies or precludes the inclusion in their findings of substantive conditions which are practicable and reasonably related to the impacts identified in the Final EIS. The involved agencies consistent with 6 NYCRR Section 617.11(c) are required to make their own findings as they relate to their relevant state, county, and local approvals and jurisdiction.

See Appendix A of Findings for a complete list of reviewed documents
See Appendix B of Findings for a complete timeline of the SEQR process

² Principal documents related to this SEQR review have been made available on the DEC website at: <http://www.dec.ny.gov/permits/54656.html> and The Williams Lake Project website at <http://www.williamslakeproject.com/>.

Facts and Conclusions in the EIS Relied Upon to Support the Decision

Introduction

This project site contains numerous resources of local, state, and regional importance. As indicated in the NYSDEC Commissioner's decision on Lead Agency for this project, the Williams Lake hibernacula complex (which includes structures in both the existing Conservation Easement and the Development Area) is used by 50% of the east coast Indiana bat population and is crucial to the continued survival of the species in this region. In addition, the project area and its surroundings have been identified by Town of Rosendale and the NYS Natural Heritage Program as having unique biodiversity and supporting significant biological communities including red maple-hardwood swamp and calcareous talus slope woodland. The 368 acres of the Development Area represent almost 3% of the land area of the Town. The Development Area also contains karst geology³ and areas of historic subsurface mining which poses significant risks and challenges to development. The former Williams Lake Hotel complex has been a significant cultural and economic component of the community for over 80 years until its closure in 2007.

The initial development proposal consisted of construction of up to 160 for sale residential units, including a mix of single family residences and townhouses, the 130-room lodging facility, a spa facility with related amenities, and new wastewater treatment plant and water supply system. In addition to HRVR's proposed development, the EIS considered the following alternatives:

- Conservation Resort and/or Subdivision Development Alternative: development of a new resort and/or residential development largely within the existing footprint of the Williams Lake Hotel
- Resort Rehabilitation Alternative: evaluation of the restoration or improvement of the existing lodging facilities, amenities, and trails, within the existing development footprint
- Conceptual Subdivision Alternative: single-family home development designed in accordance with existing zoning requirements, and to the maximum allowable density(ies)
- No-action Alternative: this consideration included an evaluation of the potential designation and use of the site as permanent and publicly-accessible open space or parkland

Summary of Potential Impacts of HRVR' Preferred Alternative as Defined in the Final Scoping Document

- Soils and Topography: impacts related to karst geology; historic areas of surface and subsurface mining; production of excess excavated materials; disturbance to hydric soils, erosion and loss of topsoil; development on steep slopes
- Surface Water Resources: direct impacts to water resources from excavation, fill, water withdrawal, sanitary discharge, and placement of structures (docks, etc.) on Williams and Fourth Lake; indirect impacts from diversion of water through the withdrawal and sanitary discharge; impacts to the quantity and quality of surface waters through stormwater management

³ Formations characterized by dissolution of underlying soluble rocks by surface water or ground water. Karstic features include sinkholes, disappearing streams, etc.

- Ground Water Resources: impact to groundwater quantity and quality through rapid infiltration in karstic areas; impact on quantity through increased groundwater recharge of Williams Lake in response to water withdrawal; potential impacts of water withdrawal, diversion of water, and stormwater management on the regional hydrology
- Water Supply: potential impacts of an insufficient supply to meet project demands
- Wastewater / Sewage Disposal: direct impacts of sewer discharge on the unnamed tributary of the Rondout Creek receiving the waste; potential visual, odor, and noise impacts of the sewage treatment plant on neighboring properties
- Solid Waste Disposal: impact of solid and hazardous waste disposal from the demolition of former Williams Lake Hotel buildings and petroleum-contaminated soils from historic spills; impacts from the disposal of solid waste generated by commercial and residential development; closure of the historic landfill on site in compliance with the 6 NYCRR Part 360 regulations
- Terrestrial and Aquatic Ecology: impacts to Endangered, Threatened, or Special Concern Species including potential disturbance of hibernacula used by Indiana bat (NYS-endangered) and small-footed bat (NYS-special concern) which is of regional and statewide importance to the preservation of Indiana bat; impacts to terrestrial vegetation, to other fish and wildlife, and to vernal pools
- Community Character, Land Use, and Zoning: Impacts to existing and future community character and land use including compliance with the Town of Rosendale Comprehensive Plan; impact of a proposed zoning amendment to allow development of multi-family homes
- Transportation: impacts of increased traffic from development; Traffic Impacts from construction
- Aesthetic Resources: visual impacts of structures on viewshed
- Historic and Archaeological Resources: impacts on archeological resources; impacts on historic structures
- Community Facilities and Services: impact on community services
- Social, Economic and Other Essential Considerations: fiscal impacts associated with the potential increased service demand
- Noise and Air Resources: construction-related impacts to surrounding neighborhoods; operational noise associated with the wastewater treatment plant
- Green House Gas Emissions (GHG): increase in GHG emissions from direct and indirect emissions from both stationary and non-stationary sources including waste generation

Summary of Additional Studies and Project Changes from Draft EIS to Final EIS

In response to comments from the public and SEQRA involved and interested agencies, HRVR performed additional studies and made the following changes to HRVR's preferred alternative as detailed in Final EIS development plan:

- Reduced total number of residential units from 160 (Draft) to 154 (Final); 9 detached single-family homes were removed; 12 on-site workforce housing units were added
- Removed or relocated 13 residences previously proposed in an area of potential karst, within the area of historic mining
- Relocation of the parking area for hotel guests away from the hibernacula
- Reduced the total Area of Disturbance from 70.2 acres (Draft) to 66.13 acres (Final)
- Reduced excess cut/ fill material by 22%

- Eliminated proposed amenities in sensitive ecological areas - yoga/ meditation studio, amphitheater, and teahouse near the hibernacula, and a boathouse in the NYS-wetland adjacent area
- Steep slope (slopes >25%) disturbance reduced by 60% from the Draft EIS to Final
- Redesigned stormwater management systems to address potential for contamination of groundwater in karst areas
- Eliminated the previously proposed disturbances to two pre-historic archeological sites
- Inclusion in the Indiana Bat Mitigation Plan of a 104-acre Conservation Easement and a Hibernacula Protection Plan to provide long-term protection
- Eliminated impacts to six vernal pools and the 'Bait-Fish' ponds
- Modified projected water taking and sewage flow to comply with State and County requirements
- Conducted further analysis to demonstrate sustainable water supply including an updated bathymetry of Williams Lake
- Conducted additional analysis of potential downstream impacts from sanitary discharge
- Provided additional details on the proposed geo-thermal lake heat exchangers
- Increased the distance between the wastewater treatment plant and neighboring properties from ~120 feet (Draft) to ~380 feet (Final)
- Prepared a preliminary landfill closure plan for Dump Site 4
- Expanded hazardous waste management plan
- Additional traffic analysis done on three major state-highway intersections
- Addition of 92 parking spaces to ensure sufficient parking for guests and employees
- Conducted Visual Study in compliance with the NYSDEC Program Policy DEP-00-2
- Conducted Noise Study in compliance with the NYSDEC Program Policy DEP-00-1
- Updated the Fiscal Analysis
- Revised proposed zoning amendment

Summary of the Department's Findings - Potential Impacts and Discussion and Findings

A. Soils and Topography

1. Surficial geology and bedrock

Potential impacts

The project includes development in the vicinity of both areas of historic mining and areas overlying karstic geology. The Final EIS Appendix U, Figure 4 drawings show the area of historic mining. The karstic geology consists of the Manlius-Coeymans and Becraft bedrock units and is depicted on Final EIS Appendix K.2, 'Bedrock Geology'. Development of these areas should be avoided because, as indicated in the Final EIS, both features are potentially subject to subsurface collapse, surface subsidence, and rapid infiltration of insufficiently-treated stormwater.

There are no available accurate maps of the extent of mining in the area nor is complete field mapping of all mineworks feasible. The area of historic mining was established through literature review, archaeological fieldwork, field mapping of underground mine openings and vertical mine cuts, and estimates of the area of underground mines.

The Manlius-Coeymans and Becraft map units were identified by US Geological Survey staff as formations with the potential for exhibiting karstic features. Portions of the existing hotel facilities are located over the Manlius-Coeymans unit while the only development currently overlying the Becraft unit is part of the trail network.

According to the revised Final EIS plan, the development includes approximately 160,511 cubic yards of excavation and 96,094 cubic yards of fill; this includes directional boring for the installation of the heat exchange system inlet and outlet pipes. An excess 64,418 cubic yards of materials will be produced which must be used on-site or removed from the site.

Discussion and Findings

To avoid potential disturbance to subsurface mine features, the Final EIS plan removes all development from the area of historic mining with the exception of a 0.07-acre area.

Non-development disturbance in the area of historic mining will include closure of the approximately 0.75 acre historic landfill. Although a final closure plan has not yet been approved, the closure will involve capping of waste materials and grading, not excavation. This disturbance is necessary for compliance with 6 NYCRR Part 360 regulations on Solid Waste Management and for the health and safety of the public.

The area of historic mining will still be utilized for passive recreation, including use of the existing trails. Some trails will be improved, but all trail work within the Area of Historic Mining, including the Wallkill Valley Rail Trail, will be performed with hand tools, except for those areas where construction equipment is already required for development (i.e. the construction of the Rail Trail within the existing footprint of the Williams Lake Hotel) or for landfill closure. No significant impacts to subsurface structures are expected from this use.

The Final EIS plan removes most new development in areas of karstic geology that were proposed in the Draft EIS; areas located over the Manlius-Coeymans unit which are within the existing facility footprint will be re-developed. The only remaining new development over karstic formations is for Units 74 & 82-85 along Road 6. In the karstic areas where development is proposed, stormwater controls will include mitigation such as tight pipes and liners to prevent transfer of potential contaminants to groundwater.

Rock removal within the karstic area will be associated with construction of Units 82-85. The amount of rock to be removed within the karstic area has been reduced compared to what was proposed in the Draft EIS and a site-specific blasting plan will be developed in accordance with the recommendations of US Geological Survey staff. The plan will include drill-hole inspections to identify potential voids or other weakness in the rock. Stemming material or plugs will be used to direct the energy of the blast to fracture rock. A licensed blaster will be responsible for employing the proper techniques to avoid over-blasting. Rock removal, performed in compliance with the recommendations of the US Geological Survey staff, is not expected to have a significant impact on karst formations.

The closure of the historic landfill will utilize 3,000 to 5,000 cubic yards of the excess excavated material. Filling in of historic surficial mine cuts, which are not bat habitat, will potentially use another 9,555 to 11,555 cubic yards. No materials will be disposed of on-site unless it is

determined to be uncontaminated earthen materials. The remaining material will be removed from the site.

2. Soils

Potential impacts

Approximately 66.13 acres of soil and lake sediments will be disturbed for the development. The soils of the development area are generally well-drained or excessively drained. Hydric soils are present, generally associated with the waterbodies (Williams and Fourth Binnewater Lakes) and the NYS DEC-regulated freshwater wetland (RD-2). Potential impacts include loss of soils through erosion and loss of topsoil through excavation.

Discussion and Findings

Disturbance to hydric soils is limited to temporary disturbances for utility installations including the wastewater outfall. Disturbance to soils and bedrock will be minimized by limiting grading to a ten-foot perimeter around buildings and roads. Buildings and roads will be sited along existing contours to the maximum extent feasible to minimize grading. All topsoil will be stripped and stockpiled for re-use in accordance with Town of Rosendale General Code, Chapter 60, as indicated in the Draft EIS. Potential loss of soils during construction will be minimized by the use of standard erosion and sediment controls (silt fencing, etc.) in compliance with the NYS General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001).

3. Steep slope development

Potential impacts

Almost half of the Development Area (47.5%) is on slopes of 10% or greater with 14.5% on slopes of 25% or greater. Development on steep slopes should be avoided because there is potential for erosion and a high rate of runoff for stormwater. Avoidance of steep slopes is recommended in the NYS Standards and Specifications for Erosion and Sediment Control, and the NYS Stormwater Management Design Manual (2010).

Discussion and Findings

The area of development on steep slopes (greater than 25%) was reduced from 25.48 acres in the Draft EIS plan to only 9.59 acres in the Final EIS plan, a 60% reduction. This included the elimination of the yoga/ meditation studio and teahouse and the relocation of the hotel parking. Of the 30% of the proposed development on slopes 16% or greater, approximately half is for roadway design and half is for dwelling unit construction.

Impacts to slopes greater than 25% are unavoidable without significantly reducing the number of residences. As indicated in the discussion of the Conservation Resort Alternative, a significant reduction in the number of residential units would jeopardize the financial viability of the development. The social and economic benefits of the development outweigh the potential impacts of steep slope development.

To minimize potential erosion, all disturbed areas on steep slopes will be stabilized within 24 hours if final slope grading and stabilization will not be completed within 7 days.

B. Surface Water Resources

1. Direct impacts to surface waters

Potential impacts

Direct impacts to surface waters include the excavation of Williams Lake for the construction of the adjacent lagoon, installation of docks and platforms on the Lake, installation of heat-exchange plates within Williams Lake, and installation of an industrial sewer outfall on an unnamed tributary of the Rondout Creek and discharge of treated waste.

Impacts to state-regulated freshwater wetland are limited to temporary disturbance of wetland and adjacent area along Binnewater Road for the installation of utility lines.

The proposed construction of docks and platforms includes an 885 square foot platform, two docks of less than 500 square feet each, and a third dock of less than 125 square feet.

The heat-exchange system will involve fill within Williams Lake in the form of heat exchanger plates, lines, and support structures totaling 561 cubic feet of fill. The system will also discharge thermal energy into Williams Lake. Directional boring for the inlet and outlet pipes has the potential for contamination of the lake if the bore hole collapses. A closed-loop system is proposed with the potential for contamination of the lake with the antifreeze solution if there is a leak in the system.

The discharge of treated sanitary waste with the admixture of industrial waste has the potential to effect the water quality and chemical composition of the receiving stream, an unnamed tributary of the Rondout Creek, and to non-DEC regulated wetlands downstream.

Motorized watercraft are already prohibited on Williams Lake and Fourth Binnewater Lake in accordance with the 1993 Agreement Restricting Land Use between Binnewater Realty Corporation (and assigns) & Edward Williams and the Rondout Esopus Land Conservancy Conservation Easement, respectively.

Discussion and Findings

The excavation of approximately 0.07 acres of Williams Lake is necessary for the construction of the “lagoon” water feature. The lagoon is intended to provide stormwater quantity retention and aesthetic appeal; it will not provide stormwater quality treatment. This represents the conversion of lakeshore habitat into open water habitat. However the loss is minimal and will be partly mitigated by habitat creation in the lagoon, which after construction will be considered part of Williams Lake and subject to regulation under 6 NYCRR Part 608, Protection of Waters. The lagoon design will ensure a permanent pool with a depth greater than 10 feet to maintain aesthetic function and to support aquatic habitat even in dry periods.

The docks are all configured to minimize shading and have a maximum width of four feet. The platform has a width of twelve feet, but this is reasonable and necessary for a structure which may have many people on it at a single time.

Based on the model provided by the heat exchange manufacturer, included in the DEC Protection of Waters application and referenced in the Final EIS, it is calculated that the maximum potential change in lake temperature will be 0.0291 degrees Fahrenheit over a 24-hour period. This is based on a "worst case" scenario of a 24-hour, full load, runtime of the heat exchange unit. This temperature fluctuation is well below the maximum surface temperature increase of 3 degrees Fahrenheit as stipulated in the NYS Thermal Discharge regulations, 6 NYCRR Part 704.2(b)(3).

Prior to the start of construction of the heat exchange system, HRVR must establish the thermocline in Williams Lake in accordance with the US Environmental Protection Agency's procedure. Once the thermocline is established, HRVR will be required to demonstrate and receive written concurrence from NYSDEC that the system meets the standards in 6 NYCRR Part 704, "Criteria Governing Thermal Discharges" and does not require a SPDES permit for Thermal Discharge.

Prior to initiating directional boring for the installation of the heat exchangers inlet and outlet pipes, HRVR will submit to DEC and receive written approval of a contingency plan for the boring which addresses measures for bore collapse.

A turbidity curtain will be installed prior to the start of any excavation or boring within William's Lake and will be maintained and monitored daily throughout the duration of work in the lake to ensure the effectiveness of the barrier.

Only food-grade propylene glycol will be used as antifreeze in the heat exchanger closed loop system to avoid possible contamination of the lake from a leak. Continuous pressure monitoring during operation will be used for leak detection. The top of the plates will be located 30 feet below the water surface so there is little danger of watercraft damaging the structure.

The impacts to state-regulated freshwater wetland and adjacent area along Binnewater Road for the installation of utility lines are required because the only alternative locations for the utility lines would require additional clearing to run the line along the north shore of Williams Lake or a larger pump station to run the line up the approximately 60-foot rise along the northern entrance road. The areas of disturbance will be restored to their previous condition.

The proposed SPDES discharge to an unnamed tributary of the Rondout Creek is of sanitary waste with the admixture of industrial waste in the form of pool and water-treatment system filter backwash. The SPDES effluent will be treated to meet intermittent stream effluent limitations. These are the most stringent requirements for discharges and presume that, at least periodically, the effluent will be the only flow in the stream. Phosphorous removal will also be required to address impacts from the potential persistence of effluent in downstream areas like wetlands and impoundments. The discharge is not expected to have any impact on water quality in the receiving stream or associated wetlands.

2. Indirect impacts on surface water bodies related to water use and sewer discharge

Potential impacts

A maximum of approximately 183,936 gallons per day of water will be withdrawn from Williams Lake to supply potable and non-potable water to the development. The sewer discharge location is downstream of Williams Lake as well as downstream of the NYS-regulated freshwater wetlands RD-2 and RD-4. The maximum discharge of 90,000 gallons per day will by-pass these wetlands and waterbody and will not contribute to recharge of the aquifer.

Standard estimated irrigation values account in part for the difference between the average water demand of 91,968 gallons per day (64 gallons per minute) and the sewage discharge of 90,292 gallons per day (62.5 gallons per minute).

There is potential for the withdrawal of water and by-pass of the wetlands by the sewage discharge to change the hydraulic balance in the wetlands and lower the level of the lake.

Discussion and Findings

The hydrologic study in the Draft EIS, supplemented by the updated bathymetry, watershed map, and groundwater data in the Final EIS analysis, demonstrates a sustainable water supply from Williams Lake for the projected water demand. Total runoff (surface water runoff plus groundwater recharge) is 204 gallons per minute (GPM) under average annual precipitation and 130 GPM under drought conditions. The average water demand for the development is 64 GPM; maximum is 128 GPM.

This analysis assumes all withdrawn water is lost to the system, so no additional analysis was required for the sewer by-pass of flow. The analysis shows that even under drought conditions and maximum potential withdrawal, the recharge rate of the Lake will be sufficient to maintain water levels. Therefore no significant impact on Williams Lake is expected.

Both Williams Lake and Fourth Binnewater Lake contribute water flows to NYSDEC Freshwater Wetland RD-2, which flows into RD-4. Outflow contributions to the wetlands are highly variable from season to season and year to year.

Water contributions to the wetlands are also made by surface runoff from the surrounding areas. Williams Lake represents only about half of the watershed of Wetland RD-2, which flows directly into Wetland RD-4. The average proposed withdrawal represents only about 15% of the total flow through Wetland RD-2.

Given the relatively small amount of the approximately 62.5 gallons per minute of wastewater diversion in comparison to the size of the contributing watershed⁴ and the total runoff of 204 gallons per minute (GPM), it is not expected that the diversion will result in any significant hydrologic impacts to the wetland systems.

⁴ See Final EIS Appendix J.1 “Revised Figure 5-1 - Major Watersheds”

3. Stormwater Management

Potential impacts

Improper stormwater management has the potential to affect the quality and quantity of both surface water and groundwater resources. Insufficient erosion control has the potential to affect water quality and lead to the loss of topsoil, especially on steep slopes.

Discussion and Findings

The former Williams Lake Hotel facilities have no stormwater management. Erosion and sediment controls and post-development stormwater management measures for the development will be utilized, consistent with NYS SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001), the NYS Standards and Specifications for Erosion and Sediment Control, and the NYS Stormwater Management Design Manual (2010).

The lagoon to be excavated adjacent to and connected to Williams Lake will be part of the post-development stormwater management. The lagoon will not be utilized for stormwater quality treatment. Storm water runoff entering the lagoon will be treated with standard stormwater quality management practices prior to entering the lagoon.

The lagoon will be utilized for stormwater quantity retention only; it will provide storage volume to hold up to a 100-year storm event. The lagoon weir structure will function as an outlet to William Lake and will permit peak rates of stormwater runoff to discharge from the lagoon into the lake at a rate that is less than the predevelopment rates for the 10- and 100-year 24-hour storm events. The lagoon will also provide 24 hours of detention for a 1-year, 24-hour storm event.

The project will include a total of 17.68 acres of impervious surfaces; a net increase of 12.9 acres from the existing impervious area of 4.8 acres. Impervious surfaces have been minimized through the incorporation of Green Infrastructure site planning measures such as narrow roadways and shared drives. The total impervious surface area may be further reduced in the final design by the use of additional Green Infrastructure measures such as green roofs and pervious pavers.

The final Stormwater Pollution Prevention Plan (SWPPP) will incorporate Green Infrastructure practices consistent with the NYS Stormwater Management Design Manual (2010), such as bioretention areas, vegetated swales, a green roof on a portion of the hotel, and porous pavement. As noted above in section “A. Soils and Topography”, stormwater controls will include mitigation in karstic areas with high infiltration to prevent transfer of potential contaminants to groundwater.

The Draft EIS included development of a yoga studio and teahouse on Soil Slope Phases identified as “E” or “F” on the USDA Soil Survey which drain into Williams Lake, a Class AA waterbody. These features would have precluded coverage under the stormwater General Permit and would have required an individual stormwater SPDES permit. Both structures were eliminated from the Final EIS plan. As noted above in subsection A.3 “Steep slope

development”, all remaining areas on disturbance to steep slopes will be stabilized within 24 hours if final grading and stabilization will not be completed within 7 days.

The Town of Rosendale Stormwater Officer will have final approval of the SWPPP as the Municipal Separate Storm Sewer System (MS4). Written approval by the Stormwater Officer is a required element of coverage under NYS DEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001). No significant negative impacts from stormwater management are expected.

C. Ground Water Resources

1. Impacts to groundwater quantity, quality, or elevations and to regional hydrology

Potential impacts

The Draft EIS included a study of groundwater resources and found the site to be underlain by a fractured bedrock aquifer; following acceptance of the Draft EIS, investigation by staff from the US Geological Survey identified areas of karstic potential on the site⁵. The development will include 17.68 acres of impervious area at completion; this is a net increase of 12.9 acres from the existing impervious area of 4.8 acres. No groundwater withdrawals are proposed in conjunction with this development.

Karstic formations are characterized by high infiltration rates which pose a risk of increased potential for groundwater contamination.

The water supply will be withdrawn from Williams Lake. Withdrawal of a surface water supply has the potential to impact groundwater resources by forcing increased groundwater recharge of the lake if the levels are drawn down below that of the surrounding water table.

Discussion and Findings

The former William Lake Hotel facilities have no stormwater treatment, so the addition of treatment will be a benefit to groundwater quality.

To reduce the potential risk for groundwater contamination in karstic areas, most new development was removed from these areas and measures will be implemented to prevent stormwater contamination of groundwater in those areas, see section “A. Soils and Topography” above. Potential impacts to groundwater quality have been minimized to the maximum extent practicable.

The hydrologic study in the Draft EIS, supplemented by the updated bathymetry, watershed map, and groundwater data in the Final EIS, demonstrated that sufficient storage volume is available in the lake to meet the maximum daily demand without significantly affecting the elevations of the water table.

⁵ See Final EIS section IV. Comments & Responses , “Paul Heisig, USGS, Email 7/1/11”, page 95

Stormwater will be primarily managed through Green infrastructure to facilitate aquifer recharge. This will include infiltration practices such as rain gardens and porous/permeable pavements.

Impacts to groundwater quantity from the water withdrawal or stormwater management have been minimized to the maximum extent practicable. As no significant local impacts to groundwater quantity or quality on the site are expected, there is no indication of impacts to regional hydrology.

D. Water Supply

1. Sufficiency of the proposed water supply source for the Public Water Supply System

Potential impacts

A maximum of 183,936 gallons per day is proposed to be withdrawn from Williams Lake to serve as the sole source of water for the Public Water Supply system serving the hotel, spa, associated amenity buildings, and the 154 housing units. There is no existing municipal service in the area and test wells prepared by HRVR were not able to provide an adequate supply. The withdrawal of water from the lake has the potential to impact the Lake by lowering water levels as well as impacting groundwater by increasing groundwater recharge into the Lake.

Discussion and Findings

The Draft and Final EIS hydrologic information and the Water Withdrawal Permit Application Preliminary Water Supply Engineer's Report demonstrate a sustainable water supply from Williams Lake for the projected water demand. Total runoff (surface water runoff plus groundwater recharge) to the Lake is 204 gallons per minute (GPM) under average annual precipitation and 130 GPM under drought conditions. The average water demand for the development is 64 GPM; the maximum is 127.7 GPM.

A sufficient supply of water exists to support the full buildout of the proposed development based on the conservative estimates required by State and County. HRVR has committed to additional measures to reduce the actual water demand, including minimal landscaping to decrease the need for irrigation and installation of a grey water system for toilet flushing.

For a discussion of impacts on surface waters and groundwater, see the applicable sections.

E. Wastewater / Sewage Disposal

1. Direct and indirect impacts of wastewater treatment and discharge

Potential impacts

The proposed SPDES discharge to an unnamed tributary of the Rondout Creek is of sanitary waste with the admixture of industrial waste in the form of pool and water treatment system filter backwash. The discharge has the potential to impact water quality in the receiving stream

and downstream wetlands. The discharge location, downstream of DEC-regulated wetlands RD-2 and RD-4, will divert that quantity of water out of the wetland systems.

The location of the sewage treatment plant in proximity to buildings on Binnewater Lane poses potential visual, noise, and odor impacts on residents and the Women's Studio Workshop.

The proposed discharge location will require a right-of-way, easement, or other legal access to lands of the Wallkill Valley Land Trust.

Discussion and Findings

The Final EIS and DEC applications for State Pollutant Discharge Elimination System (SPDES) and Water Withdrawal permit applications establish that no significant impacts are expected from the discharge of the waste to an unnamed tributary of the Rondout or the by-pass of such discharge downstream of the DEC-regulated wetlands RD-2 and RD-4.

See Subsection "B.1 Surface Water Resources – Direct impacts to surface waters" for a discussion of impacts and minimization/mitigation to water quality in the receiving stream and downstream wetlands and see Subsection "B 2. Surface Water Resources – Indirect impacts on surface water bodies" regarding impacts and minimization/mitigation from the loss of aquifer recharge to Williams Lake and NYS-regulated wetlands through the by-pass of sewage discharge water downstream.

The distance between the treatment plant and the nearest property line was increased from Draft EIS to the Final EIS from 120 feet to 380 feet. The nearest existing structure is approximately 630 feet from the plant location, which is between the proposed employee parking and maintenance building. Approximately 80-125 feet of undisturbed forest buffer will remain between the closest feature (the parking area) and the neighboring property lines. The treatment plant operations will be a closed system, housed within a building, to mitigate noise and odor concerns. See also Subsection N.2 "Operational noise associated with the wastewater treatment plant". No significant impacts on neighboring properties are expected from the operation of the wastewater treatment plant.

Prior to issuance of a DEC permit, HRVR must form a sewage disposal corporation regulated pursuant to article 10 of the Transportation Corporations Law and must transfer the application to that corporation. The establishment of the legal access for the sewer discharge line will also be a requirement of issuance of the NYS State Pollutant Discharge Elimination System (SPDES) permit.

F. Solid Waste Disposal

1. Hazardous material collection and disposal associated with demolition of existing facilities

Potential impacts

All existing buildings will be demolished except for the historic Lawrence Cement Company office building (more recently the William Lake Hotel's Honeymoon Cottage) which will be refurbished as a Rosendale Cement Industry interpretation center. All of these buildings

potentially contain hazardous materials, including asbestos materials, lead-based paint, lead acid, mercury, Polychlorinated Biphenyls (PCB), and other unidentified materials.

There is also an estimated total of 326.8 tons of contaminated soil on the property associated with previous petroleum spills from underground storage tanks. Access to these soils will not be possible until the overlying buildings are demolished.

Discussion and Findings

All hazardous materials will be removed and disposed of in accordance with 6 NYCRR Part 370, Hazardous Waste Management System-General, and with the federal regulations 40 CFR Part 262, Standards Applicable to Generators of Hazardous Waste.

Prior to demolition or renovation of, or repair to, any building, HRVR will arrange for a hazardous materials survey to be completed by a licensed hazardous material contractor using certified inspectors to determine the presence of any designated hazardous waste. Suspected hazardous materials will be sampled prior to the commencement of demolition activities; sampling methods for different potentially hazardous materials will be in accordance with 40 CFR 261, Appendix I.

All identified materials will be removed, remediated, and disposed of in accordance with state and federal regulations for hazardous waste generation and transportation. The abatement contractor will provide suitable containment of hazardous wastes, segregated by type, prior to removal for disposal. The contractor will be covered for the appropriate level of hazardous waste liability coverage, as required in 40 CFR Section 261.147.

In addition to the survey of the physical buildings or structures, a complete survey and inventory of the contents of all buildings will be performed to identify possible hazardous waste materials. The process for determining if substances are hazardous waste will include review of all labeled containers for the presence of hazardous waste materials and sampling of any unlabeled containers to determine the presence of hazardous materials. All unlabeled containers will be assumed hazardous until sampled and defined otherwise.

Once all hazardous material contents and containers have been identified, they will be clearly labeled, inventoried, and held within a controlled location prior to transport to a hazardous waste disposal facility.

The disposal facilities used will have all necessary licenses for the receipt of hazardous wastes. All hazardous materials will be properly contained, labeled and manifested. A licensed hauler will be used to transport the waste to an appropriate disposal facility. Disposal receipts will be returned to HRVR and reported to the NYSDEC in accordance with all applicable regulations.

After the demolition of the individual structures, all petroleum-contaminated soil will be excavated until PID (photoionization detector) readings are less than 10 ppm, and confirmation samples will be taken from the pit walls and bottom to verify the excavation of all contamination. Monitoring of the removal of contaminated soil will be performed by a qualified professional. All contaminated soil will be excavated from the spill areas during the construction period.

Contaminated soil will be staged on polyethylene sheeting and confirmation samples for the disposal facility will be collected. The staged soil will be covered with polyethylene until it can be transported to the disposal facility by a permitted hauler. Disposal receipts and confirmation sample data will be summarized in a letter and submitted to the NYSDEC.

The remediation of solid and hazardous waste in the deteriorated buildings on the site will be a benefit to the environment and public health and safety.

2. Disposal of solid waste generated by commercial and residential development

Potential impacts

Projected estimates for waste production at final buildout are of 13.9 tons of commercial waste per week and 4.2 tons of residential waste per week.

Discussion and Findings

Waste generation will be reduced by mandatory recycling, to be enforced by the Property Owners Association, and composting programs for both the commercial and residential components. All waste will be conveyed to a regulated solid waste facility. The Ulster County Resource Recovery Agency (UCRRA) facility in Kingston, NY currently has sufficient capacity to handle the waste and under the Ulster County Flow Control Law enacted in 2012, waste generated in Ulster County must be directed to UCRRA.

See Section O, "Green House Gas Emissions (GHG)", regarding impacts and minimization/mitigation of GHG emissions associated with waste generation, transport, and disposal. No significant negative impacts from the disposal of solid waste are expected.

3. Closure of historic landfill on site

Potential impacts

Four dump sites were discovered during site review. The sites contain both refuse from historic mining, as well as commercial debris associated with the former William's Lake Hotel. Three consist solely of surficial debris.

The area designated as 'Dump Site 4' is an historic landfill. The site includes both buried and exposed waste materials which were deposited over many years. Inspection by DEC staff found that the site requires closure in compliance with the 6 NYCRR Part 360 regulations.

Discussion and Findings

Waste at the three surficial sites will be removed and disposed of at a regulated waste facility. Such removal will be documented and reported to the NYSDEC at the time of completion.

Dump Site 4 will be closed in compliance with the Part 360 regulations. HRVR will prepare a Closure Investigation Plan for approval by the Department which will then be executed, along

with any additional requirements of Part 360, to evaluate environmental impacts and determine requirements to satisfactorily cap and close the dump. Based on the results of the Closure Investigation, HRVR will prepare and implement a landfill closure plan which is acceptable to the Department.

The proper closure of this historic landfill will be a benefit to the environment and public health and safety.

G. Terrestrial and Aquatic Ecology

1. Impacts to terrestrial vegetation

Potential impacts

The site contains several NYS Natural Heritage Program Ecological Communities: Limestone Woodland, Calcareous Talus Slope Woodland, Red Maple-Hardwood Swamp, and the Hemlock-Northern Hardwood Forest.

A total of +/- 44.2 acres of existing naturally vegetated habitat will be impacted by the proposed development; +/- 43.4 acres of this area is forested habitat. The greatest area of habitat loss will be from existing mature successional northern hardwood forest and Hemlock-Northern Hardwood Forest cover types; 27.85 acres total of successional northern hardwood forest and 15.41 of Hemlock-Northern Hardwood Forest will be removed. The remaining forested land being disturbed is spruce/fir plantation and Calcareous Talus Slope Woodland.

Discussion and Findings

Strict tree clearing limits during construction and restrictive covenants on future residential homeowners will maintain forest cover to the maximum extent practicable. Restrictive covenants will also mandate landscaping with native vegetation and will limit lawn and road applications. Covenants will be enforced by the Property Owner's Association.

See Subsection G.2 "Impacts to Endangered, Threatened, or Special Concern Species" regarding additional restrictions on tree clearing.

No impacts are proposed to Limestone Woodland or Red Maple-Hardwood Swamp. The majority of the areas mapped as Limestone Woodland will be placed under permanent Conservation Easement. The areas mapped as Red Maple-Hardwood Swamp are within NYS-regulated wetland RD-2 and no disturbance is proposed within the mapped area of Red Maple – Hardwood Swamp.

Impacts to Calcareous Talus Slope Woodland on the Site amount to 0.83 acre, which occur at the toe of the slope on the eastern edge of the proposed development. Although the area of proposed disturbance is mapped by the NYS Natural Heritage Program, the location is actually adjacent to the bottom of the slope of the habitat area. No significant impact is expected.

2. Impacts to Endangered, Threatened, or Special Concern Species

Potential impacts

The site contains known cave-roosting bat hibernacula utilized by the state and federally endangered species Indiana Bat (*Myotis sodalis*) and the state species of special concern small-footed bat (*Myotis leibii*). The hibernacula are contained within underground mine chambers and passages left behind by historic mining.

Many of the mine areas are unstable and have the potential to shift or collapse; this could result in obstructing the entrance and egress of bats as well as changing the specific temperature and humidity requirements for hibernation. Vibrations from construction equipment, including rock removal, increase the potential for shift or collapse.

Disturbance of bats during hibernation is directly linked to mortality. Vibrations from construction activities have the potential to disturb bats. Human presence within the mines during hibernation can also disturb bats. Increased use of the site by the residents and hotel guests as well as the general public, through the extension of the Wallkill Valley Rail Trail, has the potential to increase human access to the mine complex and the potential for disturbance of hibernating bats.

Loose-barked trees provide roosts for Indiana bats outside the hibernation period. Wetland habitats provide a source of foraging for the bats, particularly during the crucial spring emergence and fall swarming. Although there is no definitive documentation of summer roosting on the site, it is assumed that Indiana bats use forested and wetland habitat on the property during summer as well as the spring and fall for roosting and foraging. Removal of potential roost trees and loss of wetland habitat constitute a loss of habitat.

Other potential threats to Indiana bat spring/summer/fall habitat include potential disturbance to roosting and foraging behavior from construction noise and dust, potential disturbance to foraging behavior from lighting impacts, and potential disturbance to roosting from human activity.

Eastern small-footed bat (*Myotis leibii*) roost in crevices in rock walls that have a southern or western exposure to the sun, however there do not appear to be suitable roost locations within the proposed area of disturbance.

Additional endangered or threatened species were reviewed (northern cricket frog, bald eagle, Allegheny woodrat, pied-billed grebe, and timber rattlesnake) as well as several species of concern (Jefferson's salamander, blue-spotted salamander, marbled salamander, red shouldered hawk, sharp-shinned hawk, and Coopers hawk) but these species were found to either not occupy the site or were in areas which will not be affected by the development.

Discussion and Findings

Determining the specific full extent of underground mines is not practical. Therefore a total Area of Historic Mining was established based on a literature review, archaeological fieldwork, field

mapping of underground mine openings and vertical mine cuts, and estimates of the area of underground mines.

To reduce the potential for impacts from construction over mines, all new disturbances were removed from the Area of Historic Mining except for a 0.07 acre disturbance associated with the proposed Recreation Center. Under the redesigned plan, all rock removal is at least 300 feet from any known mine openings. To address potential disturbance of bats by construction vibrations, no rock removal will take place within 500 feet of any known mine openings during the hibernation period.

To address the potential for vibratory impacts to the mines, vibrations from all construction activity will be limited. Vibrations will be monitored at a specified mine opening. This opening was chosen by DEC because it is the closest to the project area, it is crucial to maintaining the temperature and humidity in one of the major hibernacula areas, and it is the most vulnerable hibernacula structure due to the unstable nature of the opening. Therefore, as this is the most fragile structure, as long as there are no impacts at this location, it is reasonable to expect that there will not be impacts elsewhere. The DEC permit will specify that vibrations at this location be controlled so that the Peak Particle Velocities do not exceed 0.08 inches per second. Projected vibrations from the necessary construction equipment demonstrate that this is obtainable.

In addition, DEC has established a baseline range of normal humidity levels and temperatures for the same major hibernacula that is connected to the opening where vibratory monitoring will occur. The permit conditions will require continuous monitoring of humidity and temperature inside the hibernacula. At any significant change in the humidity or temperature from the baseline range, HRVR will be required to immediately cease work and will not be allowed to recommence without written approval from DEC.

If DEC determines, based upon the monitoring data, that humidity or temperature conditions have changed to a degree that this habitat is unsuitable for Indiana Bats, then the HRVR will be required to undertake such tests or investigations as deemed necessary by DEC to aid in a determination of the cause of temperature or humidity impact. HRVR will be responsible for implementing a DEC-approved plan to mitigate such impact by restoring the humidity or temperature.

A DEC-approved Hibernacula Protection Plan will be implemented to protect the hibernacula from human disturbance. The tiered plan is structured to first discourage human entry and then provide increased preventative measures if human entry to the mine areas occurs. The first tier includes seasonal closure of trails, monthly monitoring of human access through observation (tracks, trash, etc.), trail signs, measures to obscure openings from view, and educational outreach. If repeated entry is discovered, the second tier will require installation of alarmed sensors and patrols by resort staff. If entry still continues, permanent barrier fencing at the opening(s) will be installed.

Tree clearing for roads, homes and grading is expected to result in the loss of +/- 40 potential Indiana bat roost trees. Because bats change roosts frequently and a substantial area of forested habitat remains, the impact of this loss will be limited. To avoid the potential for direct mortality of roosting bats (cutting down an occupied tree), all tree clearing will be prohibited outside the

hibernation time period, specifically from April 1st and October 31st of any year. Suitable replacement roost trees will be planted along the edges of the area of disturbance.

Noise generated by construction equipment could disturb roosting bats during the day. However, the projected noise levels are unlikely to reach a level of severity that would cause roost abandonment so any impact should be minimal.

The commercial and residential components of the project will change the night lighting in the area. All exterior lighting will be directed downward to minimize light pollution. Lighting fixtures will be chosen that produce a wavelength of light that does not appear to attract insects or bats. All lighting will conform to the "Simple Guidelines for Lighting Regulations for Small Communities, Urban Neighborhoods, and Subdivisions" by the International Dark Sky Organization.

Deed restrictions or restrictive land covenants will be placed on all residences and administered by the Property Owner's Association. These will include limits on vegetative clearing to the limit of disturbance shown on the approved plans, compliance with the lighting guidelines referenced above, and a prohibition on disturbance to any state or federally delineated wetland or adjacent area except as shown on the approved plans.

As part of the mitigation to meet the regulatory permit issuance standard in 6 NYCRR Part 182 of a Net Conservation Benefit to the species, HRVR will dedicate a conservation easement on an approximately 105- acre area to the Rondout Esopus Land Conservancy, which holds the existing 411-acre conservation easement on the property. The Conservation Easement will utilize the DEC-approved language which includes providing access to the hibernacula for DEC and US Fish & Wildlife Service for monitoring and research purposes.

The easement area will also protect large rock outcrops with an open canopy above them and western exposure which are potential roost areas for eastern small-footed bat (*Myotis leibii*), a state-listed species of special concern.

A resort staff biologist will be hired to provide educational information to visitors and residents on the unique resources of the area.

The NYSDEC has determined that this development constitutes an incidental take of an endangered species pursuant to Article 11, Title 5 of the Environmental Conservation Law for the loss of roosting and foraging habitat for Indiana bat. Because of abundance of such habitat in the vicinity and the permanent protection of 105 acres of habitat under a conservation easement, this is not considered to be a significant loss.

While there is potential for damage to the mine complex, the reductions in the development area and the proposed measures for construction are expected to preclude any significant impact to the hibernacula. Therefore the project is not considered to be a taking of hibernacula habitat.

3. Impacts to other fish and wildlife

Potential impacts

The clearing of +/- 44.2 acres of vegetation will eliminate and fragment habitat for terrestrial fauna. Construction noise may interfere with wildlife use of remaining habitat. Project features may increase wildlife injury and mortality, such as bird strikes on windows, and entrapment of small animals (i.e. turtles, salamanders, etc.) on roadways or stormwater features.

The construction of residential and commercial development may increase human/wildlife interaction, including increased wildlife/vehicle collisions resulting in injury or death, wildlife-pet interactions, attraction of wildlife to refuse, and home and landscape damage by wildlife.

The disturbance of soil, the clearing of vegetation, the construction of new roads, and increased human and vehicle traffic all increase the potential for introduction of exotic species which will cause ecological problems such as increased competition with native species.

Any significant changes in the Williams Lake water levels from the water withdrawal or to lake temperatures from the geo-thermal system could negatively impact the fishery in the lake.

Sewage effluent discharges can potentially impact cold water fisheries by increasing water temperature, however there is no evidence that such a fishery is present in the Rondout tributary proposed as the receiving waters.

Discussion and Findings

Overall loss of habitat has been minimized by the reduction in the footprint of the project. Houses have been clustered and roadways will be the minimum width required under municipal law. The use of retaining walls will be implemented to minimize the overall area of disturbance.

Contiguous habitat will be preserved by the maintenance of largely uninterrupted north-south corridors along the eastern side of the property in the proposed Conservation Easement and on the western side associated with DEC wetland RD-2 and its associated adjacent area. An approximately 160-180 foot wide undeveloped east-west corridor will be maintained south of Fourth Lake connecting the two north-south corridors. Unique habitats, including the Calcareous Talus Slope Woodland, will be preserved.

Road curbs will be designed to avoid entrapment of wildlife. Low-reflectance glass or screening on windows as well as the placement of hawk silhouettes will be implemented to reduce the potential for bird strikes.

Pet containment rules will be enforced by the Property Owners Association; to reduce pet-wildlife interactions, no free-ranging animals will be allowed. Wildlife crossing signage will be employed to minimize the potential for road kill

Garbage will be contained in locked enclosures to discourage bears, raccoons, and other wildlife.

The use of native species in landscaping and the choice of species which are unpalatable, particularly to deer, will reduce the potential for landscape damage.

As discussed in Section B. "Surface Water Resources", no significant changes to water levels or lake temperatures are expected. HRVR intends to continue the Williams Lake Hotel practice of stocking the lakes in accordance with DEC regulations on fish stocking.

Impacts to fish and wildlife have been minimized and are outweighed by the economic and social benefits of the project.

4. Impacts to vernal pools

Potential impacts

Critical breeding habitat, particularly for amphibians (frogs, salamanders, etc.), can be lost through direct impacts to vernal pools through excavation or fill as well as indirect impacts from disturbance to the forested areas surrounding the pools during the non-breeding season (approximately 50 weeks/year).

Discussion and Findings

The review utilized Calhoun and Klemens (2002) definitions of vernal pool envelope, the area within 100 feet of a vernal pool's edge, and critical terrestrial habitat, the area within 750 feet of a vernal pool's edge.

All direct impacts to vernal pools were eliminated in the Final EIS plans. Most disturbances to the vernal pool envelope and critical terrestrial habitat were also eliminated. The only remaining disturbance is to the pool identified as HRVR-02, a shallow pool on the ridgeline east of DEC wetland RD-2. The development will disturb 40% of the vernal pool envelope and 20% critical terrestrial habitat with disturbance right to the edge of the pool. However this pool appears to have limited amphibian breeding value and may pose a potential 'ecological trap', drying up before tadpoles are able to metamorphose. This is not considered to be a significant loss of habitat because of this factor, as well as the close proximity of the high quality habitat associated with wetland RD-2.

H. Community Character, Land Use, and Zoning

1. Impacts to existing and future community character and land use

Community character is often defined by a community through its comprehensive plan; it is within a municipality's jurisdiction to make ultimate findings on whether the development is consistent with its comprehensive plan and land use laws. The impacts to community character and current/future land use were considered with regard to the Town of Rosendale Comprehensive Plan, adopted by the Town of Rosendale Town Board in January of 2007.

The Town of Rosendale Comprehensive Plan specifically targets the Binnewater Lakes and the nearby "caves" as areas where natural resources should be preserved and open space should be encouraged. There are no apparent natural caves on the site, but the mine structures will be

largely preserved with no disturbance to subsurface mines known to provide habitat for Indiana bats. The project is located in the karst region and near Indiana bat hibernacula; the revisions in the Final EIS avoid most new development directly over the karst feature and minimize impacts near the hibernacula. In addition, the Indiana Bat Mitigation Plan will provide for long-term protection of the hibernacula and placement of 105 acres into conservation easement.

All housing proposed for the site will be clustered as either townhomes or single-family residences on minimally-sized lots in order to maximize open space. The development as proposed in the Final EIS consists of 66.13 acres contained within the approximately 368 acres area in the southern portion of the site; the approximately 411-acre northern portion of the property is already under a conservation easement and will remain undeveloped. Of those 66.13 acres, +44.2 acres consist of new disturbance to existing naturally vegetated habitat. A total of 17.68 acres of impervious surfaces are proposed; a net increase of 12.9 acres from the existing impervious area of 4.8 acres.

Many of the historic features of the site related to the Rosendale Cement industry (e.g., kiln walls) will be stabilized and preserved. An historic building will be refurbished as an interpretive center and historic, geologic, and ecologic resources will be highlighted through interpretive kiosks and guided tours throughout the site.

The only disturbance to state-regulated wetlands will be for utility installation along the existing County road. An area of lake, ~ 0.07 acre will be excavated associated with the lagoon construction and a small area of a Class C stream will be disturbed for installation of the sewage discharge pipe. Motorized watercraft are already prohibited on both Williams Lake and Fourth Binnewater Lake.

Any final decision regarding consistency of the proposed HRVR project with the 2007 Comprehensive Plan falls under the jurisdiction of the Town of Rosendale.

2. Impacts of proposed zoning change

The Site is entirely within the Town of Rosendale Residential "A" zoning district. The hotel is permitted in the A district by special permit and single-family residences are permitted; multi-family residences (the 83 proposed townhouses) are not permitted and would require a variance.

The original application for this development in November 2007 that initiated the SEQR process included a petition to the Town of Rosendale for a Zone Text Amendment to create a "Planned Resort Special Permit (PRSP)" which would allow all of the project elements. During the development of the Draft EIS, the Town of Rosendale drafted revisions to the zoning code which included the development of a "Planned Development District," which would also enable the proposed development without further amendment. As of acceptance of the Final EIS, this proposed code has not been adopted. In March 2012, HRVR modified the original PRSP zone text amendment and submitted a revised zone text amendment ("Binnewater Lakes Conservation Planned Development Area, BLCPPDA") to the Town of Rosendale Board for consideration. Either adoption of the previous Town-proposed amendments or HRVR's BLCPPDA amendment would allow the development as proposed in the Final EIS and both options are discussed in the Final EIS.

The proposed zoning amendment is only applicable to this property and is required to allow the multi-family homes. The proposed multi-family homes in and of themselves have potential impacts on water supply, sewer disposal, and aesthetic resources.

Any final decision on zoning falls under the jurisdiction of the Town of Rosendale.

I. Transportation

1. Impacts of increased traffic from development

Potential impacts

Car and truck traffic on local roads will increase from contractors, employees of the resort complex, residents, and patrons of the hotel, spa, and other amenities. Intersection 'Level of service' was used as the measure of effectiveness for traffic flow conditions. Peak hour average vehicle delays were calculated to establish the quality of operation (level of service). Level of service is identified on a scale of level of service "A" representing the most efficient conditions to level of service "F" representing the least efficient conditions.

As stated in the Draft EIS, for signalized intersections a level of service D for all lane groups is the minimum acceptable, although due to cost of improvement, levels of service E and F may be tolerated. For unsignalized intersections, the level of service E and F are indicators to begin to examine potential improvements.

Discussion and Findings

The Draft EIS included a Traffic Study completed between September 2009 and March 2010. A revised analysis was provided for the Final EIS. The Draft EIS analysis utilized HCM 2000 software; additional analysis using Synchro 8 software was included in the Final EIS.

The Traffic Study examines the current and future transportation operations in the vicinity of the subject site for Existing Conditions, No-Build Conditions, and Build Conditions, including bicycle and pedestrian traffic. The future conditions (No-Build and Build) analyzed transportation operations in 2022, the anticipated year of full build-out of this development. The No Build Condition is the future baseline upon which projected traffic is based. The Build Condition represents the combination of the No Build Condition plus the projected traffic that would result at full buildout of all commercial and residential elements.

In the Draft EIS analysis, a total of eleven intersections in the Towns of Rosendale and Marletown were analyzed and existing traffic counts were recorded on weekdays and Saturdays peak hours (AM and PM) as well as separate typical peak PM hours for Friday and Sunday. Several streets in close proximity to the site were also inventoried to determine street widths, shoulder conditions, speed limits, prevailing speeds, number of travel lanes, sight distance measurements at intersections with restrictive conditions, traffic control devices, signs and markings. All but three intersections remained at a level of service of D or better for all times.

		Levels of Service					
Intersection Road	Direction Movement	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour		
		Existing	No Build	Build	Existing	No Build	Build
NYS Rtes 32 & 213 at Tillson Road and Grist Mill Road (unsignalized)							
NYS Rtes 32 & 213	Northbound	A	A	A	A	A	A
	Southbound	A	A	A	A	A	A
Grist Mill Road	Westbound	C	C	C	C	C	C
Tillson Road	Eastbound	D	F	F	E	F	F
NYS Rte 32 at Creeks Locks Road (signalized)							
Main Street	Eastbound	D	D	D	C	D	D
Creeks Locks Rd	Westbound	D	D	D	D	D	D
NYS Rte 32	Northbound	A	A	A	A	A	A
	Southbound	A	A	A	B	B	B
NYS Rte 32 & 213 at driveway and channel to Main Street (signalized)							
channel	Eastbound	D	D	D	D	D	D
driveway	Westbound	D	D	D	D	D	D
NYS Rte 32	Northbound	A	A	A	A	A	A
	Southbound	A	A	A	A	A	A
NYS Rte 213 at Keator Avenue (unsignalized)							
NYS Rte 213	Westbound	A	A	A	A	A	A
Keator Avenue	Northbound	C	D	F	C	C	E
NYS Rte 213 at CR 7 Binnewater Road (unsignalized)							
NYS Rte 213	Eastbound	A	A	A	A	A	A
CR 7	Southbound	C	C	D	C	C	E
CR 26 at CR 7 Binnewater Road (unsignalized)							
CR 7	Northbound	A	A	A	A	A	A
	Southbound	A	A	A	A	A	A
CR 26	Westbound	B	B	B	B	B	C
	Eastbound	A	B	B	B	B	C
CR 26 at CR 26A (unsignalized)							
CR 26	Westbound	A	A	A	A	A	A
CR 26A	Northbound	B	B	C	B	B	B
CR 26 at CR 1 Lucas Turnpike (unsignalized all-way stop)							
CR 26	Eastbound	B	B	B	B	B	B
	Westbound	C	C	D	A	B	B
CR 1	Northbound	B	B	C	A	B	B
	Southbound	B	B	B	A	B	B
CR 7 Binnewater Road at CR 1 Lucas Turnpike (unsignalized)							
CR 1	Westbound	A	A	A	A	A	A
CR 7	Northbound	A	B	B	A	A	A
US Rte 209 at CR 26 (signalized)							
CR 26	Westbound	C	D	D	C	D	D
US Rte 209	Northbound	B	B	C	B	C	C
	Southbound	A	A	A	A	A	A

		Levels of Service					
Intersection Road	Direction Movement	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour		
		Existing	No Build	Build	Existing	No Build	Build
US Rte 209 at NYS Rte 213 (signalized)							
NYS Rte 213	Westbound	C	C	C	C	D	D
US Rte 209	Northbound	A	A	A	A	A	A
	Southbound	A	A	A	B	B	B

As requested by the NYS Department of Transportation, the revised analysis in the Final EIS utilized Synchro software to review the three intersections identified in the Draft EIS as having level of services E or F in the Build Condition. The Synchro analysis utilized the Draft EIS projected build volumes and no reduction was made for the change from the Draft to Final EIS of 12 workforce housing units, although this change was otherwise estimated to result in a decrease of at least 12 AM peak hour trips and 9 PM peak hour trips.

		Levels of Service (Delay in seconds per vehicle) Volume to Capacity Ratio for Final EIS only			
Intersection Road	Direction Movement	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
		Draft EIS Build	Final EIS Build	Draft EIS Build	Final EIS Build
NYS Rtes 32 & 213 at Tillson Road and Grist Mill Road (unsignalized)					
NYS Rte 32 & 213	Northbound	A	A	A	A
	Southbound	A	A	A	A
Grist Mill Road	Westbound	C	C	C	C
Tillson Road	Eastbound	F	E	F	F
NYS Rte 213 at Keator Avenue (unsignalized)					
NYS Rte 213	Westbound	A	A	A	A
Keator Avenue	Northbound	F	D	E	D
NYS Rte 213 at CR 7 Binnewater Road (unsignalized)					
NYS Rte 213	Eastbound	A	A	A	A
CR 7	Southbound	D	C	E	C

Delays at the intersection of NYS Route 32 and Tillson Road remained at levels E (AM peak) and F (PM peak), although the delays indicated were close to half the length of delays projected in the Draft EIS. According to the Final EIS analysis, the difference in level of service is due primarily to how traffic peaking is handled; in the Draft EIS analysis the peak hour factor overestimates delay where volumes are low.

As determined in the traffic analyses in the Draft and Final EIS, only the Route 32 and Tillson Road intersection required consideration of mitigation; no other intersections were considered to be subject to significant traffic impacts. However, the Draft EIS analysis showed that even

under the No-Build projection, this intersection is projected to have a decreased service level of F. Various measures will be implemented to minimize traffic impacts from the development on all intersections.

The hotel will provide services throughout the day and thus not all staff will arrive or leave at the same time of day nor will they all be working every day. Hotel check-out times tend to be late morning, after the peak commuter rush, and check-in times are generally early afternoon, before commuters return. These two user-groups, staff and guests, tend to complement each other by not having simultaneous peak traffic periods. HRVR will stagger employ work hours and utilize staggered scheduling of hotel activities to distribute vehicle trips to reduce peak loading.

The pedestrian-focused layout and multi-purpose trail network will facilitate reduction of vehicular trips both internal to the site and within the region. The proposed connection to the Wallkill Valley Rail Trail will facilitate bicycle and pedestrian transportation to and from the hamlet of Rosendale and beyond. The development will provide low-emission or alternate fuel shuttles to the Rosendale Park and Ride and the Poughkeepsie rail station to encourage Resort guests to use public transit. Other minimization actions will include connection of the development to the external trail network (Wallkill Valley Rail Trail); on-site bicycle rentals and parking; and an on-site kiosk for transit services, including an information board to promote car-pooling.

Various changes were made to address specific concerns raised by the public. The proposed plan modifies the existing entrance (south entry) to improve sight lines. HRVR will offer the County land along Binnewater Road (CR 7) to facilitate road maintenance as well as offering to donate land, provide right-of-way, or establish easements along frontage to additional County and Town roads, if requested. HRVR will offer space to the Ulster County Area Transit (UCAT) to establish bus shelters on the site. HRVR will offer to pay for new speed limit signs, if such are needed, on Binnewater Road (CR 7) between Lucas Turnpike (CR 1) and Cottekill Road (CR 26).

Any final decision, and associated permitting, falls under the jurisdiction of the NYS Department of Transportation and the Ulster County Department of Highways & Bridges.

2. Traffic Impacts from Construction

Potential Impacts

Construction trucks and other heavy equipment are anticipated to impact travel on local area roads.

Discussion and findings

A ten-year, phased development is proposed to distribute and reduce the intensity of construction impacts. Construction-related traffic can be anticipated to be periodic rather than constant. Though all traffic will enter the Site via Binnewater Road (CR 7), there are multiple routes from multiple directions to access Binnewater Road. This will allow for distribution of traffic across the network and reduce the intensity of traffic.

Typically, heavy construction equipment is utilized in the early stage of site work for land clearing, excavation and grading. Heavy equipment usage will be most prevalent at the beginning of HRVR Phases 1, 2, 3, 4, and 5 when these initial site work activities are planned. Thus transport of heavy machinery to or from the site and transport of excess soil and demolition materials can be expected during these stages of construction.

Various measures will be undertaken to reduce the number of truck trips; see Section A. "Soils and Topography" regarding measures to reduce the amount of fill being removed from the site. Material from demolition of existing Williams Lake Hotel structures will be utilized on-site as much as is feasible. As many of the existing buildings are primarily concrete or cinder block construction, HRVR will attempt to separate cinder blocks for crushing for use as road-beds for the proposed development, where not precluded by the presence of hazardous materials.

HRVR intends to minimize the intensity of construction impacts by routing arrival and departures of construction vehicles to distribute truck traffic among multiple roads and the maintenance of all earthwork equipment on-site after initial mobilization. Tracking pads or other devices will be used to reduce mud tracked off-site by trucks; HRVR will be responsible for street cleaning services on Binnewater Road if needed as a result of construction truck traffic.

Any final decision, and associated permitting, falls under the jurisdiction of the NYS Department of Transportation and the Ulster County Department of Highways & Bridges.

J. Aesthetic Resources

1. Visual Impacts of structures on viewshed

Potential impacts

Fifteen significant scenic and aesthetic resources were identified within the five-mile potential viewshed. These included sites on the State or National Register of Historic Places (All Saint's Chapel, historic districts, etc.), public lands and publically-accessible private lands (Bluestone Wild Forest, Lake Mohonk Mountain House Complex, etc.), and an area identified by the Town of Rosendale in their Comprehensive Plan as being a significant resource (Joppenburg Mountain). The project has the potential to interrupt historic or scenic vistas. Facility operations and maintenance, including the proposed wastewater treatment plant, may be visible from adjacent homes on Binnewater Lane.

Discussion and Findings

The Final EIS included a visual study done in compliance with NYSDEC Program Policy DEP-00-2, "Assessing and Mitigating Visual Impacts". A visual assessment was conducted including a five-mile viewshed analysis with specific line-of-sight models for each resource. The project site was found to be fully obscured by topography, vegetation, or both for all the resources except Snyder Estate Natural Cement Historic District, Lake Mohonk Mountain House Complex, and Joppenburg Mountain.

For these three resources, the view was found to be obscured by vegetation in the summer. In the winter, although portions of the project were visible, the distance and the interruptions in the line of the site prevented any significant change in view. The Snyder Estate Natural Cement Historic District is less than 2 miles from the site, but the overwhelming majority of the intervening distance is forested, much of it protected wetland. Even in winter, the intervening trees interrupt the view to the site and limit visibility. The Lake Mohonk Mountain House Complex is over 800 feet higher in elevation and greater than 7 miles distance from the site. At this distance the small scale of the project relative to the panoramic views from the Complex diminish any potential visual impact. The peak of Joppenburg Mountain is approximately 1.5 mile from the site and over 100 feet higher in elevation than the highest proposed structures. The area is currently heavily wooded with no established vistas so visibility to the site is limited by the vegetation even in winter. The views from the proposed Wallkill Valley Rail Trail at Joppenburg Mountain and the adjacent Rosendale Trestle are completely obscured by topography. Because of their limited nature, impacts to significant scenic and aesthetic resources require no mitigation.

In accordance with the Scoping document and in addition to the significant aesthetic resources, HRVR assessed visibility of the site from public roads. Portions of the site will be visible by passing motorists on Binnewater Road. However significant vegetative buffers will be maintained, including the limiting of clearing around dwellings. Buildings will be designed to blend into the existing landscape and to be consistent with the character of existing structures in the area. All existing overhead utilities will be removed and buried underground. Therefore, although visible, no significant decrease in scenic views along Binnewater Road is expected.

The location of the wastewater plant was changed from only 120-feet north of the southern property line in the Draft EIS to ~380-feet north on the Final EIS plans. The nearest existing building is ~297 feet from the closest development feature, the employee parking. At least 80-125 feet of buffer will be maintained between the property line and the employee parking. Existing vegetation will be maintained to the maximum extent practicable and additional vegetation will be planted. No significant visual impacts are expected to neighboring properties.

2. Visual impacts on night sky.

Potential Impacts

The commercial and residential components of the project will increase light at the project site and thus potentially impact the night sky.

Discussion and Findings

All existing light fixtures will be removed, including the street lights along Williams Lake Road and all currently existing building-mounted flood lights. In summary, exterior lighting is proposed according to a conceptual lighting plan designed to achieve area lighting for distinct areas of the site plan as needed for safety and security but to avoid light pollution.

All proposed lighting will be either LED or low-pressure sodium vapor exterior lamps with cutoff fixtures. All exterior lighting will be directed downward to minimize light pollution. All lighting will conform to the "Simple Guidelines for Lighting Regulations for Small

Communities, Urban Neighborhoods, and Subdivisions" by the International Dark Sky Organization". Pole lamps along the length of Williams Lake Road will be eliminated and a single, cutoff pole lamp is proposed on internal roadway intersections and the new access road intersections with Binnewater Road, as needed for safety.

Proposed area lighting is limited to three parking areas in the project. Specification of cutoff pole fixtures throughout the project will limit the extent of ground illumination to the localized area immediately around the poles and limit the amount of horizontal stray light or reflection upward, thereby minimizing the potential for adverse visual impact on the night sky. The use of timers and motion sensors will be considered for area lighting around the common buildings to limit the amount of time during the night that the lamps are on. Locations of light fixtures at buildings have been placed on the side opposite the lake so as to avoid undue nighttime reflections toward Binnewater Road. Landscaping of the development areas is planned to include screening of vehicular areas (roadways and parking areas) from offsite views by the public, including vehicle lights at nighttime. New buildings and pavement areas potentially visible from nearby off site vantage points will receive screen planting to buffer the view. The conceptual lighting plan, as summarized here, therefore avoids impacts on the night sky to the extent practicable when balanced with safety requirements, and mitigates the impacts where possible.

K. Historic and Archaeological Resources

1. Impacts on archeological resources

Potential impacts

Road grading and construction will disturb archeological resources at prehistoric Locus 12. Locus 7 will be disturbed for construction of townhouses; this site contains archeological resources associated with the cement industry. Plan revisions from the Draft EIS to the Final EIS eliminated the previously proposed disturbances to pre-historic Loci 10 and 11.

Discussion and Findings

Although artifacts were recovered in the area of Locus 12, there were no indications of significant occupancy or use. Locus 7 was a disposal site for industrial refuse and/or domestic waste from tenant houses associated with historic mining operations in the area. Per the Draft EIS, engineering and grading analysis indicate that Locus 12 cannot be avoided in an economically feasible manner. Avoidance of Locus 7 was not considered.

The State Historic Preservation Office (SHPO) gave a conditioned determination of 'No Adverse Impact on Historic Resources' predicated on HRVR's continued consultation and approval by SHPO of avoidance and mitigation measures. By condition of the DEC permits, prior to starting construction, HRVR will have to demonstrate SHPO approval of a specific avoidance and mitigation plan for all archeological resources.

Loss of prehistoric and historic archeological resources has been minimized by limiting the extent of disturbance to the maximum extent practicable. All archaeological resources will be collected and preserved in accordance with specific measures to be approved by SHPO.

2. Impacts on historic structures

Potential impacts

Construction will disturb several significant historic areas related to the Rosendale Cement Industry (Loci 3, 4, 5, and 6 as identified in the Draft EIS). The sole remaining building from the cement era, Lawrence Cement Company office building (more recently the William Lake Hotel's Honeymoon Cottage), is proposed for re-use; modifications could impact the historic value of the building.

Discussion and Findings

The SHPO conditioned determination applies to historic structures in addition to archeological and the DEC permit condition will require demonstration of SHPO approval of a specific avoidance and mitigation plan for all historic resources as well.

All remnant structures associated with the Rosendale Cement Industry will be preserved to the maximum extent practical; this will include chimneys, walls, kilns, and other production features as well as the Lawrence Cement Company office building.

Construction in close proximity to the historic structures will be necessary for proposed development of roads, housing, and resort amenities (including the rail trail). The Draft EIS Confidential Construction Impacts Assessment established a threshold for vibratory impacts on historic structures of PPV less than or equal to 0.5 in/ sec (the threshold is 2.0 in/ sec for all other structures).

Portions of kiln walls that have begun to collapse or which are not structurally sound may be structurally reinforced or demolished for safety reasons or left as is, pending further engineering study. Professionals with background in historic preservation and restoration will be contracted to restore kiln walls.

In all cases, a pre-construction survey will be completed to assess stability of historic structures. Historic structures will be stabilized prior to construction for the proposed development in order to protect and preserve these resources. Historic structures will be closely monitored during construction to ensure they are not destabilized by vibratory impacts.

Lawrence Cement Company Office Building

The office building will be remodeled as an historic interpretation center to educate residents and visitors on the Rosendale Cement Industry. The exterior of the building will not be modified with the exception of possible structural stabilization. The interior of the building will be restored to model its appearance during its life as the administrative center for a 19th century cement processing plant. An approximately 1,000 square foot building will be built adjacent to this structure, separated by approximately 10 feet from the existing structure. This new building will allow greater interpretive space without any major impact to the existing structure. The connector between the buildings will be made in the existing bathroom, which is likely not part of the original office building.

Locus 3: Lawrence Cement Company Complex

In addition to the interpretive center, townhomes, a skating pond/courtyard, associated drives and stormwater features, and the rail trail will be built within or adjacent to Locus 3.

Besides the office building, the remnant cement industry features to be restored in this Locus include some of the stone walls from the cement mill and the kiln wall. The remains of the barrel shop at the north of Locus 3 will be demolished as this structure is in considerable disrepair.

Locus 4: Northern Cement Kiln Complex

Within Locus 4, a bistro café will be built to the west of the kiln wall and adjacent to the existing 19th century brick chimney. An outdoor recreational activity center will be built to the northwest of the chimney, ~70 feet from the Locus. In addition the Walkill Valley Rail Trail will pass through or near Locus 4. Other hiking/ walking trails will pass through or nearby.

The remnant features to be restored include the kiln wall and the brick chimney.

Locus 5: Railroad Related Features

This site appears to represent a series of railroad-related features associated with the operation of the surrounding cement complexes; it consists of a system of linear stone walls and a cistern.

Although not proposed for disturbance in the Draft EIS plan, in the Final EIS plan, this locus will be completely replaced by the parking area relocated to protect the hibernacula. As with the archeological resources, historic material will be recovered in accordance with the SHPO-approved avoidance and mitigation plan.

Locus 6: F.O. Norton Cement Works

A small portion (~4500 square feet) of the employee parking area will be constructed within Locus 6. Grading and retaining walls for the parking area will be in close proximity (5 feet or less) to an existing foundation of one remnant building from the Norton Cement works and to an existing kiln wall. While the parking area is proposed in closer proximity to the historic features than in the Draft EIS, the overall disturbance within the Locus is less (~8000 square feet in the Final EIS versus ~12800 square feet in the Draft EIS).

The kiln wall (only a portion of which is on the property) and standing ruins of cement industry buildings, including a brick chimney, will be restored.

L. Community Facilities and Services

1. Impact on community services including public utilities and public recreation/open space facilities.

Potential impacts

The construction of the commercial and residential development potentially will increase the need for public services including Town of Rosendale services, Ulster County services, fire, police, and emergency medical services. The residential development will also potentially increase the demand for education services and use of public recreation facilities.

Assuming full build-out and 100% full-time residency, the development will increase population by 408 residents and 52 school-age children.

Private sewer and water will be developed by HRVR; see applicable sections above.

Discussion and Findings

The projections and analysis in the Draft and Final EIS on impacts to fire, police, and emergency medical services indicated no significant impact on these services by the proposed development. Correspondence included in the Draft and Final EIS from NYS State Police, Town of Rosendale Police, Rosendale Fire Marshall, and Chief of the Bloomington Fire District concurred with these projects, provided specific recommendations were undertaken (sprinklers in the hotel, monitoring for alarms, etc.).

The projected net fiscal benefit to the Town is expected to cover the projections in the Draft and Final EIS that a total of 1.54 additional municipal staff will be required (General Government, Public Safety (misc. not police, fire, EMS), Public Works, and Health, Recreation, etc.) at full buildout. An increase in revenues to the Rondout Valley School District is projected. See section M. "Social, Economic and Other Essential Considerations" for further discussion of fiscal impacts.

Hotel guests and residents will have access to all resort amenities including trails, swimming areas, etc.; all other guests and members of the public will have access to amenities on a fee-based, day-pass model, subject to the use by hotel guests and residents. As stated in the Draft EIS, the availability of these amenities is projected to result in little or no increase in user-ship of the Town's recreational facilities by residents or guests.

The development will provide a significant benefit to recreational opportunities for the public in the region through the connection of the Wallkill Valley Rail Trail.

M. Social, Economic, and Other Essential Considerations

1. Fiscal impacts associated with the potential increased service demand generated by the project.

Potential impacts

A fiscal impact analysis was undertaken to ascertain the potential impacts associated with the potential increased service demand generated by the project. The analysis included the cost and revenue implications of the project for the Town of Rosendale, Ulster County, and the Rondout Valley School District. The potential participation of the development in a Payment In Lieu of Taxes (PILOT) agreement was reviewed for potential impact on revenue.

Discussion and Findings

The Draft EIS Fiscal Impact analysis was originally conducted in 2009. According to Mullin Associates, the consultant engaged to review the fiscal impact analysis for the Town of Rosendale, although there were concerns with some of the assumptions in the analysis, overall

they agreed that a net fiscal benefit from the project is projected. (Final EIS Appendix E.12, Mullins Associates Inc. review).

The Final EIS Fiscal Impact analysis was revised to address specific Draft EIS comments and to reflect changes in local tax rates and assessments and changes to municipal budgets as well as the budgets of local school districts. The Fiscal Impact analysis is contained in Final EIS Appendix I.1.

The impact of increased use of Town and County services is estimated as the increased population multiplied by the current per capita expenditures by the Town and County, respectively. The development area is entirely within the Rondout Valley School District. Although the development is intended to be marketed to second-home buyers, the projections for additional costs to the school district presumed year-round occupancy of all units and attendance of public schools by 52 students.

The updated fiscal impact analysis predicts a total net annual fiscal benefit (revenue minus service costs) to all tax districts of \$4.8 million. No district is projected to have net annual fiscal loss. According to the fiscal analysis, of the annual net fiscal benefits of \$4.8 million, the local school districts would receive over \$2.1 million per year, Ulster County would receive over \$1.9 million per year and the Town of Rosendale would receive over \$700 thousand dollars per year. The revised Final EIS fiscal benefits to the local community are summarized in Table III.A.1 of the Final EIS.

The Fiscal Impact Analysis was also updated to include calculations and a discussion of impacts if a PILOT program were applied for and granted for the commercial development. As stated in the Draft and Final EIS, financing of the development is not dependent on a PILOT and no formal request for a PILOT has been made by HRVR.

Finally, the Final EIS projected a total of 300 long-term (permanent) jobs and a total of over 1,300 construction job-years.

N. Noise and Air Resources

1. Construction-related impacts to surrounding neighborhoods

Potential impacts

Noise from construction equipment, while temporary in nature, will be ongoing in some portion of the property throughout the proposed 10-year phased development. As established in the DEC Program Policy on Assessing and Mitigating Noise Impacts (DEP-00-1), increases in 15 to 20 dbA are “Objectionable” and increases of over 20 dbA are “Very objectionable to intolerable”.

Dust has the potential to impact air resources during construction. No emissions sources are proposed which would require a permit or registration under 6 NYCRR Chapter III “Prevention and Control of Air Contamination and Air Pollution”, so no significant impacts to air resources from operation of the facility are expected.

Discussion and Findings

Section 47-6 A.5 of the Town of Rosendale Zoning code states that construction work is prohibited “other than between 7:00 a.m. and 9:00 p.m.”. The Final EIS states that work will be conducted from 7 am to 6 pm, Monday through Saturday with no work on Sundays or holidays.

The Final EIS included a noise assessment consistent with NYSDEC Program Policy DEP-00-1, “Assessing and Mitigating Noise Impacts”. Existing ambient noise levels were taken at 24 receptors (adjacent residences) at three different dates and ranged from 38.5 to 62.8 dbA. Temporary noise and air impacts will occur during the construction period, estimated to be up to 6 days per week and 10 hours per day. Construction activities will occur both near property lines and neighbors, as well as interior to the property. Under a “worst-case scenario” construction noise will increase sound pressure levels by 13.9 to 43.2 dbA, depending on the receptor and phase.

Receptor locations were determined to have potentially high noise levels due to construction activities if all of the following criteria were met: stationary construction activity; decibel noise level increase greater than 15 dB; and construction duration greater than 30 days. All but three receptor locations (receptor G, M and N) were identified as meeting the criteria for potentially high noise levels without attenuation.

To attenuate for construction noise, HRVR will implement the general construction mitigation and best management practices outlined in section VII.A of Final EIS Appendix K.17, “HRVR Construction Noise Assessment”. After application of BMPs, only receptors A (Clarkin residence) and D (Lasher residence) have potential construction noise impact levels exceeding 15 dB. The Clarkin residence is used on a part-time basis and HRVR will work with the property owner to schedule construction activities in proximity of the Clarkin residence for times when the cabin is not in use. Receptor D is currently a vacant parcel.

These two receptor locations that have potentially high noise levels, after implementation of the general construction mitigation and best management practices, may require additional sound attenuation through barriers or screens if work must commence when the receptor properties are in use. All noise impacts will be avoided or mitigated.

Standard construction best management practices will be utilized to prevent fugitive dust during construction, including proper operation of equipment, sweeping, and application of water or other dust suppressants. No significant impact from construction dust is expected.

2. Operational noise associated with the wastewater treatment plant.

Potential impacts

Noise from the operation of the wastewater treatment plant will be ongoing for the life of the plant and any significant increase in dbA on neighboring properties will impact quality of life.

Discussion and Findings

Analysis of potential noise impacts from operation of the proposed wastewater treatment plant was conducted. HRVR assessed the potential impact of the plant as compared to existing

conditions (no building is constructed). The analysis shows the noise level is expected to increase from 50 dbA to 66 dbA at the plant site. However, the noise level attenuates (reduces) over distance; thus at the south property line, the noise level is expected to be 52 dbA. The measured ambient level at the nearest receptor was 56.7.

The NYSDEC policy on noise indicates an increase in noise level of 5 decibels is not noticeable. No significant noise impacts are generated by the wastewater treatment plant.

O. Green House Gas Emissions (GHG)

1. Increase in GHG emissions from direct and indirect emissions from both stationary and non-stationary sources including waste generation.

Potential impacts

Development will contribute to GHG emissions as measured in CO₂ equivalent (a compilation of CO₂, CH₄, and N₂O). Total, unmitigated emissions from the operation of the facilities at full build-out are estimated at 7,544 CO₂ equivalent tons per year from direct stationary emissions (2,509 tons), indirect stationary emissions (1,636 tons), direct mobile emissions (13 tons), and indirect mobile emissions (3,857 tons). Negative values were predicted for GHG emissions related to waste generation (-471 tons). Construction of the development over a ten-year period will result in an average 8,870 tons per years.

The operation of the previous Williams Lake Hotel produced an estimated 1,241 tons per year of GHG emissions.

Direct stationary emissions include fuel consumption (propane) to produce heat, hot water, and steam for the commercial and residential components. Indirect stationary emissions were estimated for use of electricity produced off-site.

Direct mobile emissions are from residential and commercial project vehicle use, including maintenance vehicles. Indirect emissions from mobile sources were estimated for residential and commercial driving, including residents, employee commuters, resort patrons and resort suppliers.

Emissions from the generation and management of residential and commercial waste were calculated using the EPA Waste Reduction Model68 (WARM), one of the models listed in the DEC policy for assessing GHG emissions. Negative values were predicted for waste generation due to the capture of landfill gas and conversion to electricity by the presumed locations for final disposal and by the recycling of materials.

Discussion and Findings

As stated in the Draft EIS, the GHG analysis was completed in compliance with the NYSDEC Policy "Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements". The analysis considered direct and indirect emissions from both stationary and mobile sources as well as emissions related to the disposal of solid waste. The modeling and

analysis were reviewed by the DEC Office of Climate Change to confirm consistency with accepted methods and the DEC Policy.

HRVR will reduce direct, stationary emissions through a variety of alternative energy sourcing. Space heating and cooling energy for the hotel and spa will be entirely provided by on-site geothermal heat exchangers. A projected 50% of hot water demand for the hotel and spa will be provided by roof-top solar collectors. Electricity for the wellness center will be provided entirely by roof-top photovoltaic systems.

As discussed in Draft EIS subsection III.O "Green House Gas Emissions", other measures to reduce facility energy consumption are proposed which HRVR was not able to specifically quantify. It is recognized in the NYSDEC Greenhouse Gas policy that accurate estimates of energy use and resulting GHG emissions may be complicated by limitations of energy modeling tools, project-specific and site-specific characteristics, and the preliminary nature of project design. The policy requires consideration by the EIS of potentially significant environmental impacts and comparison with project alternatives, and use of the comparison in decision-making.

Some measures will not be quantifiable until final planning such as building orientation for passive solar heating, installation of energy-efficient appliances, increased thermal-efficiency in building construction, or use of hybrid or alternative fuel vehicles for shuttles and maintenance. Others are dependent on participation of individual residents and guests such as facilitation of public transit for resort patrons and employees through shuttles and pedestrian focused design to minimize internal vehicular traffic. Green procurement of materials to reduce waste, on-site reuse and recycling of construction waste, and use of local building materials will also contribute to lower energy consumption and GHG emissions during construction.

An estimated 5,502 tons per year of GHG equivalents is projected at full build-out through the 'mitigation scenario' utilizing the above measures; this is an increase from the estimated 1,240 tons per estimated in the Draft EIS for the historic Williams Lake Resort indicating that there will be an increase in GHG emissions from this project. There will also be substantial social and economic benefit from the redevelopment of this historic property; see Section M. 'Social, Economic and Other Essential Considerations' for economic benefits and see Section K. 'Historic and Archaeological Resources' regarding the stabilization and restoration of historic structures associated with the cement industry. These are substantial benefits to the community and the region compared to the impact from the increase in GHG emissions.

P. Alternatives

Four alternatives were considered. The maximum reduction in impacts to natural resources would be achieved by utilization of the existing disturbed area of the Williams Lake Hotel without disturbance to naturally vegetated areas; this would be achieved under all the alternatives except for the Conceptual Subdivision.

Conservation Resort and/or Subdivision Development Alternative: development of a new resort and/or residential development largely within the existing footprint of the Williams Lake Hotel

This alternative would minimize natural resource impacts. The scale of the development would be reduced, as would the associated water supply taking, sewage discharge, greenhouse gas emissions, traffic, and surface water impact. This alternative would have the same impact on wetlands and vernal pools as HRVR's proposed development plan. Open space would be slightly increased in this alternative over HRVR's proposed development plan (333.16 acres versus 297.8 acres). As this alternative still includes multi-family homes, a zoning amendment would be required.

Revenue under the Conservation Resort Alternative would be reduced due to fewer rooms in the hotel and the elimination of all 71 single-family homes. In addition, the elimination of all 71 single-family homes in this alternative is anticipated to reduce hotel, spa, and related revenue by an additional 9%. The reduction in hotel revenue would also lead to a reduction in the number of permanent post-construction jobs. This alternative would thus have a reduced benefit to the municipality, school district and county (\$2.523 million benefit, versus the projected \$4.361 million for HRVR's proposed plan, a 42% reduction in revenue).

In comparison with HRVR's proposed development plan, the costs of infrastructure (water supply, sewer, etc.) are similar, fewer jobs would be created, and less revenue would be generated in this alternative. While the analysis indicates this option could be economically feasible, the Final EIS concluded that the Conservation Resort Development was too economically risky to pursue.

Resort Rehabilitation Alternative: evaluation of the restoration or improvement of the existing lodging facilities, amenities, and trails, within the existing development footprint

The impacts of this alternative were similar to the Conservation Resort Alternative in the reduction of impacts to natural resources. However the costs of this option were substantially higher and the number of permanent post-construction jobs would be reduced. This option would not require a zoning change.

The current buildings are in considerable disrepair and require substantial work including replacement of all structural components, (e.g., heating and cooling systems, roofs, all windows and doors, insulating components and communications wiring). The current, scattered building locations are also inefficient and uneconomic to operate. The fiscal analysis in the Draft EIS indicates that redevelopment of Williams Lake Hotel is economically infeasible because of the high cost of rehabilitation of the existing structures and the reduced benefit of a smaller resort, projected to be 60% of the hotel-related revenue of the proposed development. The projected revenue for this alternative is \$1.166 million versus \$4.361 million for the proposed plan.

Conceptual Subdivision Alternative: single-family home development designed in accordance with existing zoning requirements, and to the maximum allowable density(ies)

This alternative considers a residential community of 183 single-family homes in accordance with the existing zoning. This option had the greatest area of disturbance at ~119 acres and the layout would create greater fragmentation of habitat. The higher number of residences would increase demand for community services while the residential tax revenue would be lower, leading to a severely decreased fiscal benefit for the community. The loss of open space and sprawling nature of development would have poor compatibility with the Town Comprehensive Plan. This option

would also eliminate the Wallkill Valley Rail Trail connection and the 300 permanent post-construction jobs.

While this option was determined to be economically feasible, it does not meet HRVR goals nor continues the historic commercial use of this property.

No-action Alternative: this consideration included an evaluation of the potential designation and use of the site as permanent and publicly-accessible open space or parkland

The No-action Alternative would offer a substantial reduction in projected fiscal benefits to the tax districts as well as not providing employment opportunities. This alternative would not address the deteriorating condition of either William's Lake Hotel buildings or the historic cement industry structures, nor would the existing petroleum spills or historic landfill be addressed. This alternative would decrease public access to the site as community recreational events and access to the rail trail connection would be lost. This alternative would avoid road and building construction and related impacts to soils, vegetation and wildlife.

The safety of the existing structures and remediation of the waste and spills issues would be necessary before the area could be reasonably used a public park as well as finding an administrating agency willing and able to purchase, remediate, and maintain the property. Although several state and local agencies expressed interest in the property when it was placed on the market in 2004, it was not deemed economically feasible at that time. This option does not meet HRVR's goals for development.

Q. Growth Inducing Aspects and Cumulative Impacts

The development will have growth inducing aspects for the Town of Rosendale and Ulster County by increasing the number of homes (154) and potential year-round residents (432) in Rosendale and by redeveloping the Williams Lake Hotel as a destination resort. Growth inducing aspects include increases in population, employment, increase in the tax base and tax revenue, potential increase in number of school age children, secondary economic development, and increased demand for local goods and services.

Assuming 432 new permanent residents, this is an increase of 1% over the current population of Rosendale. Infrastructure to serve these new residents will not impact the community as the infrastructure will be privately owned (water, sewer, internal roads).

As indicated in the Draft EIS "Community Facilities and Services", no significant impacts on police, fire and emergency medical services are anticipated. The Rosendale Chief of Police and Bloomington Fire Marshall agreed regarding police and fire impacts, as indicated in letters included in Final EIS Appendix G.

Using US Census multipliers, it is anticipated that 432 permanent new residents (assuming full buildout and occupancy of homes) would include 57 new school-aged children. It is likely this is a conservative estimate as different demographics in the secondary-home market would likely mean fewer school-aged children than 57 (i.e., older population, higher average income, fewer children on average per family, more private school attendance). This conservative number of potential new public school children would predominantly attend the Rondout school district. The

projected impact on the Rondout Valley School District is a maximum increase in students of 57 and a net revenue benefit of over \$1.8 million.

The project will be designed and built to reduce energy consumption through high performance buildings, southern orientation (where feasible) and on-site renewable energy production (geothermal, solar thermal, photo-voltaic). The hotel and spa will be primarily heated and cooled by geothermal heat exchangers and solar thermal sources. Central Hudson Gas and Electric currently (2011) distributes electricity to the site has determined that the network is adequate to service the development. (See Appendix L.15 "*Central Hudson Gas and Electric Will Serve Letter*").

Public recreational activities associated with the development will include: continued sponsorship by HRVR of community and recreational events, public use of the resort amenities on a fee basis, free use of the historical interpretive center, and increased use of the Rail Trail after connection through the development.

Although no negative impact on police services is anticipated, mitigation measures regarding security include: the anticipated nature of the residential community as primarily second homes or vacation homes reduces potential demand on the police department; the development will employ a projected six on-site security personnel; the development will hire Rosendale police for special events at the hotel; limited site access through a control point to deter vandals during the construction phase; there be limited vehicular access to the site; and HRVR intends to implement crime prevention through environmental design practice.

Although no significant impacts to the Bloomington fire district are anticipated, mitigation measures include the following: ensure on-site security personnel are trained as Certified First Responders (CFRs); hotel and resort buildings will utilize sprinkler systems; internal roads will be of sufficient width and design to facilitate safe passage of emergency vehicles; parking will not be allowed along road shoulders; sufficient water storage for fire suppression; existing standpipes and dry hydrants at Williams Lake will be upgraded; Williams Lake will remain available to Bloomington Fire District as a water supply for fire suppression for the greater community of Rosendale in case of emergency.

Although no significant impacts to emergency medical services are anticipated, mitigation measures include the following: a small number of residents are likely to live year round at the site; the wellness center will include medical professionals who may reduce the need for emergency services in some situations.

Cumulative impacts occur when multiple actions affect the same resource(s). At the time of the preparation of the Draft EIS, there were only four developments proposed in the area, three in the town of Rosendale and one in the Towns of Hurley and Ulster. Three are small-scale residential developments of less than 25 units. The fourth is a proposed mixed municipal/private development in the hamlet of Rosendale. None of these projects is in close enough proximity to have a cumulative effect on natural resources, visual impacts, or noise impacts. The proposed development projects within the vicinity of the site are generally too small for any potential cumulative impacts to be significant.

Certification to Approve:

Having considered the Draft and Final EIS and having considered the preceding written facts and conclusions relied upon to meet the requirements of 6 NYCRR 617.11, this Statement of Findings certifies that:

1. The requirements of State Environmental Quality Review (6 NYCRR Part 617) have been met, and;
2. Consistent with social, economic and other essential considerations from among the reasonable alternatives available, the action approved (Final EIS development plan) is one which avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigative measures (as set out above) that were identified as practicable.

 7/9/2013

Daniel Whitehead, NYSDEC Regional Permit Administrator, Region 3

Appendix A: List of Documents Reviewed

In developing this SEQR Findings Statement, the DEC has reviewed and considered the following documents:

Draft Environmental Impact Statement (Draft EIS) for the Hudson River Valley Resort, accepted May 4, 2011.

Final Environmental Impact Statement (Final EIS) for the Hudson River Valley Resort, accepted May 15, 2013.

Joint Application for Permit for the Hudson River Valley Resort with Supplemental form W-1

State Pollutant Discharge Elimination System (SPDES) Industrial Discharge Permit Application and attachments including Industrial Application Form NY-2C

Water Withdrawal Permit Application and all appendices, including Preliminary Water Supply Engineer's Report Hudson River Valley Resorts Town Of Rosendale, Ulster County, New York, revised July 25, 2012

Endangered/Threatened Species Taking Permit Application: Indiana Bat Mitigation Plan including all figures and appendices, revised March, 2013

Appendix B: SEQR Process Timeline

November 20, 2007	Application for Zoning amendment submitted to Town of Rosendale
December 10, 2007	Notice of Intent for Lead Agency received from the Town of Rosendale Planning Board
January 3, 2008	Town Board responds and challenges Town PB for Lead Agency
January 4, 2008	DEC responds and challenges Town PB for Lead Agency
July 2, 2008	Commissioner decision naming DEC Lead Agency
September 17, 2008	Positive Declaration and Draft Scoping document issued
October 29, 2008	Scoping meeting at the Town of Rosendale Recreation Center
April 1, 2009	Final Scoping document issued
April 22, 2009	Revision to Final Scoping issued (re hydro-geo dye-testing)
June 22, 2009	Second revision of Final Scoping document (re dye-testing)
May 4, 2011	Draft Environmental Impact Statement Accepted for public comment
May 17, 2011	Comment period extended by 1 week due to issues with public access to copies of the Draft EIS
June 6, 2011	Public hearing on Draft EIS at Ulster County Community College
June 22, 2011	Additional 2 weeks to provide comments allowed to the Town of Rosendale only
July 12, 2011	Public comment on Draft EIS period closes
July 21, 2011	Town comment period closes
August 11, 2011	DEC Comments on Draft EIS provided to applicant
December 5, 2012	Uniform Procedures Applications deemed Complete; start of UPA public comment period
January 11, 2013	Public comment period on UPA permit applications closes
May 15, 2013	Final EIS accepted by Lead Agency

Appendix C: Site Plan

