A. INTRODUCTION

This chapter discusses the demand for sanitary sewer service generated by the Proposed Project in general and the Phase 1 development specifically. The Proposed Project is independent of the project sponsored by Concord Associates, LP ("CALP") adjacent to the Project Site, on the west side of Concord Road. In addition, details on the proposed sanitary sewer system that will be constructed to serve the Proposed Project and information on the Proposed Project's conformance with local, State, and regional regulations are included. Finally, this chapter presents information on how the increase in sanitary sewer demand will be mitigated by the Proposed Project and Phase 1 development.

B. COMPREHENSIVE DEVELOPMENT PLAN (DGEIS)

EXISTING CONDITIONS

The Project Site is located entirely within the Kiamesha Lake Sewer District (KLSD). KLSD has one sewage treatment plant (STP), located on Rock Ridge Road in the Town of Thompson, which is operated by the Town of Thompson. KLSD's STP is designed and permitted to treat 2 million gallons per day (MGD) of wastewater flow, as confirmed by the New York State Department of Environmental Conservation's (NYSDEC) State Pollutant Discharge Elimination System (SPDES) permit. According to the Superintendent of the STP, the plant currently treats between 300,000 and 500,000 gallons per day (GPD) of wastewater. One MGD of wastewater capacity at the STP has been allocated to CALP pursuant to a certain Settlement Stipulation and Agreement, dated January 21, 2012. Therefore, the plant currently has available capacity to treat an additional 500,000 to 700,000 GPD ("excess capacity"). In addition, the KLSD STP can be expanded to accommodate additional future demand.

All existing uses on the Project Site, with the exception of the Chalet/pro-shop and temporary modular clubhouse, utilize subsurface treatment septic systems for disposal of sanitary waste. The Chalet/Pro Shop and temporary modular clubhouse are currently connected to a temporary holding tank, which is pumped out by a certified hauler.

THE FUTURE WITHOUT THE PROPOSED ACTIONS AND PROPOSED PROJECT

Of the "No Build" projects detailed in Chapter 2, "Land Use, Community Character, Zoning, and Public Policy," only the CALP project is located within the KLSD. As documented above, one MGD of capacity at the KLSD STP has been allocated to the CALP project. This capacity was deemed sufficient to meet the CALP project's estimated demand of between 1 MGD and

1.25 MGD for full build out of that project's CDP. However, the CALP project as defined in Chapter 2, and included in this analysis, is anticipated to generate approximately 490,000 GPD.[1]

PROBABLE IMPACTS OF THE PROPOSED ACTIONS AND PROPOSED PROJECT

PROJECT DEMAND

At full build out of the Proposed Project, it is anticipated that it will generate approximately 880,200 GPD of wastewater. **Table 9-1** breaks down this amount by each anticipated project phase. Phase 1 of the Proposed Project, as defined in Chapter 1, will consist of the construction of the Casino Resort near the intersection of Thompsonville and Joyland Roads. The wastewater generated from the Phase 1 portion of the Proposed Project is expected to be approximately 121,800 GPD.

Table 9-1
Sanitary Sewer Demand

Project Phase	Incremental Sewer Demand (GPD)
Phase 1 – Casino Resort A	121,800
Golf	17,500
Casino Resort B and Entertainment Village	122,200
Residential Village, Hospitality & Recreation	391,900
Hospitality, Commercial & Residential	226,800
Total	**880,200**

Source: Water and Sewer Demand Calculations, AKRF Engineering, May 2012.

Golf Phase – The focus will be on improvements to the existing Monster Golf Course with the construction of a 20,000-square-foot Golf Clubhouse, 12 golf cottages, and a 9,000-square-foot golf course maintenance building. This construction is expected to generate a minimal amount of wastewater, approximately 17,500 GPD.

Casino Resort B and Entertainment Village – This phase will include a second hotel, to be constructed adjacent to the Casino built in Phase 1 and the addition of the Entertainment Village at the intersection of Thompsonville and Joyland Roads. The Entertainment Village will include a movie theater, bowling alley, arcade, comedy club, and various restaurants and retail facilities. The sewage expected to be generated by this phase is approximately 122,200 GPD.

Residential Village, Hospitality & Recreation – This phase of the Proposed Project consists of the development of further varied land uses such as a recreational vehicle (RV) park, a waterpark, a spa, an innovative medical facility, a civic center, 20,000 square feet of retail space, and a 183,000-square-foot hotel and conference center. The construction of this phase is expected to generate a wastewater flow of almost 391,900 GPD.

Hospitality, Commercial & Residential – This phase consists of 170 residential units, as well as the sporting club hotel. It will also include a 175,000-square-foot movie studio/soundstage and 290,000 square feet of commercial space which will combine to generate approximately 226,800 GPD.

[1] Based on Table 1 in Appendix C.3 of the 2006 DGEIS.

The sanitary sewer design flow estimates presented above are conservative, and in many cases the actual flows may be less than anticipated.

PROPOSED WASTEWATER INFRASTRUCTURE

The development of the Proposed Project will require an on-site sanitary sewer network. The Applicant will construct this sanitary sewer network as part of the Proposed Project, and the network will subsequently be privately owned and operated. Portions of the proposed system may be located within the public right-of-way where an easement will be obtained from the municipality as necessary. This sanitary sewer network may include gravity and/or force main piping as well as associated pump stations, manholes, and lateral connections to proposed buildings.

The sanitary network will be divided into two network systems (see **Figure 9-1**):

- Thompsonville Road Connection - This proposed sanitary sewer network may extend into or adjacent to Thompsonville Road and Chalet Road via gravity mains or force mains in areas where the grades prohibit gravity flow. These mains will converge in a manhole in the vicinity of the intersection of Thompsonville Road and Joyland Road and convey the sewage along Thompsonville Road to a pump station located near the low point in Thompsonville Road to the west of the proposed Casino employee parking area. The sewage will then be pumped down along Thompsonville Road to a sanitary manhole which is the connection point of the Phase 1 Casino and Hotel on-site system. From this connection manhole, the sewage will be conveyed via gravity main in Thompsonville Road to a manhole near the maintenance building driveway, in which it will converge with additional wastewater flows from the paddock and maintenance buildings adjacent to the harness horse racetrack. From there, the sewage will enter a pump station constructed on the western side of Thompsonville Road, and be pumped to an existing manhole located at the northwest corner of the existing KLSD STP site. This portion of the collection system will be designed to convey flows from the Lake Club, Casino Resort complex, the Resort Core, the 18-hole Monster Golf Course and Golf Clubhouse, and the Family Resort Hotel areas.
- Rock Ridge Drive Connection - This sanitary network is proposed to extend into Chalet Road and new private roads via gravity mains and force mains in areas where the grades prohibit gravity flow. These mains will ultimately convey the sewage via gravity towards an existing sanitary line in Rock Ridge Drive. Wastewater will be conveyed to the KLSD STP through the existing sanitary lines. This portion of the collection system will be designed to convey flows from the Village, the Sporting Club, and the future residential development site along Rock Ridge Drive.

At the present time, it is estimated that at full build out, there will be 11 pump stations constructed in low areas of the Project Site to convey the sanitary flows via force main to the KLSD STP (see Figure 9-1). The first pump station to be constructed is proposed to be located along Thompsonville Road to the west of the proposed paddock and maintenance buildings area. This pump station will serve to pump the waste to the existing manhole on the STP property. A second pump station is proposed to be constructed along Thompsonville Road to the west of the Casino employee parking area. This pump station will serve to convey the flows from the future phases of development. A third pump station is proposed to be constructed along Chalet Road to convey the wastewater generated by the Monster Golf Course and its associated amenities, the golf phase of the Proposed Project. Subsequent pump stations are proposed to be constructed

primarily within the residential and hospitality phases as the topography of the land inhibits the flow of gravity sewers.

In accordance with NYSDEC requirements, grease interceptors will be provided on laterals emanating from all kitchen facilities to prevent grease and oil from entering the sanitary sewer system. Backflow preventers will be installed on the lateral ahead of the grease trap to ensure the kitchen waste does not re-enter the building system. In addition, each of the sanitary pump stations will be designed and constructed with flow meters recording the daily flows. The pump stations will also be equipped with a high level alarm alerting the operator of potential failures, allowing for the implementation of emergency procedures to prevent discharges of sanitary wastewater to the surface. Finally, all pump stations will be connected to emergency power in the event of a power outage.

Although the Proposed Project will be constructed in phases, the sanitary infrastructure will be designed to accommodate the flows from the maximum build out of the Proposed Project. For example, the sanitary main proposed to be constructed in the vicinity of Thompsonville Road to convey the wastewater flow from Phase 1 to the existing KLSD STP, will be sized to handle not only Phase 1 flows, but the additional flows from future phases as they are constructed.

IMPACTS ON THE KIAMESHA LAKE SEWER DISTRICT SEWAGE TREATMENT PLANT

As previously discussed, the KLSD STP has approximately 500,000 to 700,000 GPD of excess capacity. As subsequent phases of the Proposed Project are developed, the projected flows generated could eventually exceed the existing capacity of the STP, thereby potentially requiring modifications to the KLSD STP.

MITIGATION

REGULATORY REQUIREMENTS

The current PRD zoning regulations, and the amendments proposed by the Applicant, require that “all contiguous land within a CDP shall be served by commonly controlled central water and sewer systems.” (§250-27.2(B)(4)) As discussed above, it is currently intended that the Proposed Project will construct, maintain, and operate the sanitary sewer network. This network will connect to the KLSD STP. Therefore, the Proposed Project will conform to the requirements of the PRD by utilizing a central conveyance and treatment system for project-generated sanitary sewage flows.

All conveyance systems will be designed and constructed to minimize impacts and prevent leaks at stream crossings. The proposed sanitary pump stations will be located outside of the existing 100-year floodplain, thereby minimizing potential for sanitary overflows into surface waters. The system will be designed in accordance with Ten State Standards, and NYSDEC-88 Design Standards. The Applicant, at the appropriate time, will establish a sewage works corporation pursuant to the New York State Transportation Corporation Law. As such, the proposed sewerage collection system will be designed and constructed in conformance with the regulations of the New York State Department of Health and NYSDEC.

The KLSD STP is also subject to state and regional regulation. As described above, the KLSD STP is currently permitted by New York State to treat two MGD of wastewater flow and is located within the Delaware River Basin. Therefore, the KLSD STP is also required to comply with the requirements of the Delaware River Basin Commission (DRBC) and is currently

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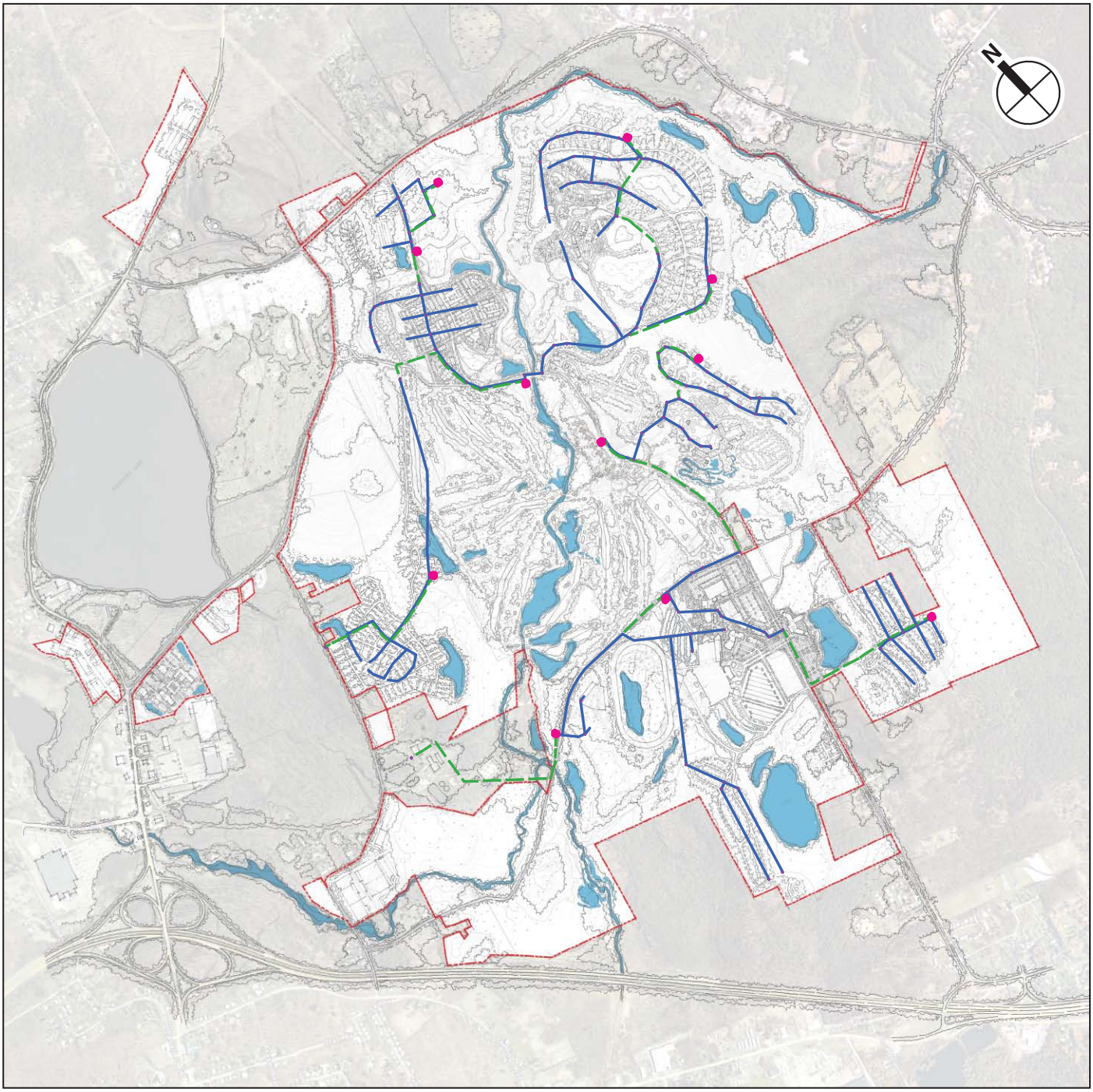

Project Site

Proposed Sanitary Pump Station

Proposed Sanitary Gravity Main

Proposed Sanitary Force Main

0 400 1000 FEET

SCALE

Proposed Sanitary Sewer Network

permitted under Docket No. D-89-11 CP. Any expansion of the plant to treat additional flows will require the approval of both NYSDEC and the DRBC. It is expected that if additional capacity is required at the STP, the KLSD and Town of Thompson will apply for, and secure, the necessary approvals.

SEWER TREATMENT PLANT CAPACITY IMPROVEMENTS

The KLSD STP is currently permitted to treat two MGD. Accounting for existing use and capacity that has been previously contractually committed, as discussed above, the facility currently has excess capacity to receive between 500,000 and 700,000 GPD.

At full build out, the projected flows generated by the Proposed Project will be greater than the existing capacity of the STP, thereby potentially requiring modifications to the STP. According to the Superintendent of the STP, the plant was originally designed and constructed so that additional treatment modules could be added to the facility once wastewater flows reached the designed capacity. If expansion of the STP is necessary, the Applicant will be responsible for its proportionate fair share of the costs, as they are needed. In addition, as a tax paying property within the KLSD, the Applicant has the same rights to excess capacity as other property owners within the district, including those who may have opted out of hooking-up. As such the Proposed Project will in no way preclude other properties within the KLSD from hooking up to the STP in the future.

OTHER MITIGATION ACTIVITIES

The Proposed Project will use water-saving plumbing fixtures, when available. In addition to reducing the demand for potable water, efficient plumbing fixtures also reduce the amount of the wastewater that is generated. The sanitary sewer demand presented above already takes into account the use of water-saving fixtures, where applicable.

The Applicant is also investigating potential water use initiatives that could further reduce the wastewater flows that reach the KLSD STP, as well as options for reusing the treated wastewater effluent from the plant on the Project Site, thereby reducing the wastewater discharges from the STP.

C. SITE-SPECIFIC DEVELOPMENT OF PHASE 1 (DEIS)

This section details those conditions, impacts, and mitigation measures that are specific to development of Phase 1.

EXISTING CONDITIONS

Currently, the Phase 1 Site is unimproved, with the exception of a very small portion of the Monster Golf Course. As such, there is no wastewater generated on the site, nor is there any sanitary sewer infrastructure on the site.

As noted above, Phase 1 is located entirely within the KLSD. KLSD has one sewage treatment plant, located on Rock Ridge Road, which is operated by the Town of Thompson. The KLSD STP is currently permitted to treat two MGD. Accounting for existing use and allocable capacity as discussed above, the KLSD STP currently has excess capacity to treat between 500,000 and 700,000 GPD.

THE FUTURE WITHOUT THE DEVELOPMENT OF PHASE 1

In the future without the development of Phase 1, there will be no development on the Phase 1 Site and no wastewater demand will be generated.

PROBABLE IMPACTS OF THE DEVELOPMENT OF PHASE 1

It is estimated that Phase 1 will generate approximately 121,800 gallons of wastewater per day.

Wastewater will be collected from Phase 1 via new 8-inch and 12-inch sanitary laterals from the Casino and Hotel buildings to a connection at a newly constructed manhole along the proposed sanitary main in Thompsonville Road (see Figure 9-1). From this connection, the wastewater will travel by gravity main in Thompsonville Road to a pump station located on the north side of the road near the proposed maintenance building. From this pump station, the flow will be conveyed via force main along an existing path leading to the manhole at the head works of the KLSD STP. The design will avoid and minimize, to the maximum extent practicable, disturbance of the land in this area, which is within the 100-foot adjacent area of a NYSDEC wetland. To this end, it is proposed that the sanitary force main to be installed in this area be constructed using trenchless technology, which will require a minimal amount of disturbance at Tannery Brook and no disturbance to the stream bed and banks or the wetlands.

MITIGATION

The KLSD STP is currently permitted to treat two MGD. Accounting for existing use and allocable capacity as discussed above, the KLSD STP currently has excess capacity to treat between 500,000 and 700,000 GPD.

Phase 1 is estimated to produce approximately 121,800 GPD of wastewater. This wastewater will be conveyed to the KLSD STP for treatment. Based on the permitted capacity and current daily flows, the STP has adequate capacity to treat the wastewater generated by Phase 1.

In accordance with NYSDEC requirements, grease interceptors will be provided on laterals emanating from all kitchen facilities to prevent grease and oil from entering the sanitary sewer system. Backflow preventers will be installed on the lateral ahead of the grease trap to ensure the kitchen waste does not re-enter the building system. In addition, each of the sanitary pump stations will be designed and constructed with flow meters recording the daily flows. The pump stations will also be equipped with a high level alarm alerting the operator of potential failures, allowing for the implementation of emergency procedures to prevent discharges of sanitary wastewater to the surface. Finally, all pump stations will be connected to emergency power in the event of a power outage.

OTHER MITIGATION ACTIVITIES

The Proposed Project will use water-saving plumbing fixtures, when available. In addition to reducing the demand for potable water, efficient plumbing fixtures also reduce the amount of the wastewater that is generated. The sanitary sewer demand presented above already takes into account the use of water-saving fixtures, where applicable.

The Applicant is also investigating potential water use initiatives that could further reduce the wastewater flows that reach the KLSD STP, as well as options for reusing the treated wastewater effluent from the plant on the Project Site, thereby reducing the wastewater discharges from the STP. For example, approximately 75,000 GPD of non-potable water is needed for dust control

on the proposed racetrack. Therefore, reuse of treated effluent for track watering purposes is currently being investigated to limit the increase in flows generated by the development and to reduce the potable water demand of the Proposed Project. ✷