

**FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE
CATSKILL/DELAWARE UV FACILITY
METHODOLOGIES**

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3.16. INFRASTRUCTURE AND ENERGY

3.16.1. Introduction

The Infrastructure and Energy analyses address existing and future infrastructure in the vicinity of the proposed project at the Eastview Site and the associated off-site work locations.

Infrastructure is defined as a physical system capable of supporting an area's population. This system includes the water supply, wastewater, sanitation, stormwater drainage, and energy supply within the project area. The analysis assists in determining if the construction and operation of the proposed Catskill/Delaware Ultraviolet Light Disinfection Facility (UV Facility) would place an increased demand on the existing infrastructure for water supply, sewage treatment and energy usage and therefore, result in a potential impact upon the existing infrastructure. The methodology used to determine the extent of the proposed facility's impact is discussed below.

3.16.2. Baseline Conditions

3.16.2.1. Existing Conditions

3.16.2.1.1. Water Supply

In assessing the existing water supply system, water distribution and water main maps were obtained from the relevant department within the Towns of Mount Pleasant and Greenburgh, Westchester County, New York. In addition, previous studies and evaluations by local and regional agencies and development groups were collected, and contact with several governmental officials was established.

The assessment of the area water supply system consisted of the identification of the water supply source(s) and the review of water distribution maps and area water main maps. By reviewing these maps and the studies and evaluations a clear understanding of private and/or public infrastructure services within the study areas was established. If existing generation rates were not available, the City of New York's *City Environmental Quality Review (CEQR) Technical Manual* was used to estimate generation rates based on existing usage and population numbers.

3.16.2.1.2. Sanitary Sewage

In assessing the existing sanitary sewer system(s), sanitary sewer maps were collected from the relevant department within the Town of Mount Pleasant and Greenburgh.

The Town of Mount Pleasant, within the study area, is connected to the Westchester County-owned and operated Saw Mill Valley Trunk Sewer District, which connects to the Yonkers Joint Treatment Plant. Therefore, information pertaining to the sewer district and the treatment plant was obtained from the Town and the County to determine existing operation procedures and

capacity. In addition, information pertaining to area private connection systems were collected and evaluated.

3.16.2.1.3. Stormwater Infrastructure

The study area for the existing stormwater infrastructure includes the existing stormwater collection system. This analysis was concerned with the physical stormwater drainage, which includes existing pipes and detention and retention basins.

In assessing the stormwater drainage system, mapping and available studies and evaluations were obtained and evaluated. This information included mapping pertaining to the Grasslands Reservation.

3.16.2.1.4. Natural Gas

Maps were obtained from Consolidated Edison Company of New York (Con Edison), which supplies natural gas to all of Westchester County. The locations of natural gas mains and connection points were identified, and the amount of usage was determined. In addition, meetings were held with the utility company to discuss the availability of natural gas for the proposed facility

3.16.2.1.5. Energy Demand

The Con Edison supplies electricity to project study area. Therefore maps of area cable and transformer locations were obtained and evaluated. These locations and the existing electrical rates and usages were reviewed. In addition, meetings were held with the utility company to discuss the availability of power for the proposed facility.

3.16.2.2. Future Without the Project

The Eastview Site was evaluated for water consumption, sewage generation, stormwater drainage system, and electrical and natural gas utilization for both the peak construction and operation year assuming the proposed facility would not be built. This evaluation forms the Future Without the Project baseline conditions against which the proposed facility was evaluated. A substantial amount of the information needed for this analysis was ascertained through discussions with the New York State Department of Environmental Conservation (NYSDEC), NYCDEP, the Town of Mount Pleasant, and the WCDEF. In addition, the Land Use analysis, discussed in [Section 4.2](#), was referred to concerning future developments within the study area.

3.16.3. Potential Impacts

3.16.3.1. Potential Project Impacts

The potential impacts on water supply, sanitary systems, and energy were analyzed using guidelines presented in the *CEQR Technical Manual* (released in October 2001). The total demand on the systems generated by employees of the proposed UV Facility and anticipated

visitors was estimated and compared to the Future Without the Project condition. Connections to the area water supply system were evaluated to determine whether water pressure would be impacted.

The ability of the sewer district and the treatment plant to convey and process flows from the proposed facility was assessed. Flows were estimated using generation rates from the *CEQR Technical Manual* and engineering plans, were appropriate. The projected demand for electric and gas utilities and potential impacts as a result of the proposed facility were also evaluated given process options and site layouts.

The proposed stormwater drainage plan was described and the impact of this system was analyzed against the existing stormwater drainage system.

3.16.3.2. *Potential Construction Impacts*

Similar to the operating analyses described above, the ability of the existing infrastructure to handle additional loads attributable to construction workers and activities was assessed. The characteristics of the predicted stormwater flow based on the construction plan of the Eastview Site is described in [Section 4.14](#), Water Resources and summarized in this section.

3.16.4. Mitigation

Mitigation measures were identified wherever significant adverse impacts to the infrastructure system could occur from the proposed facility. The appropriate mitigation measures were identified and discussed regarding any potential significant adverse impacts to water demand, sewage generation, stormwater infrastructure, and energy uses that were determined when comparing baseline conditions to potential project demands.

The mitigation of stormwater infrastructure included the potential diversion of contributing off-site stormwater collection systems and the proposed facility's stormwater infrastructure. These mitigation efforts are summarized in [Section 6](#), Mitigation of Potential Significant or Temporary Adverse Impacts.