

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

8. UNAVOIDABLE ADVERSE IMPACTS, IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES, AND USE AND CONSERVATION OF ENERGY	1
8.1. INTRODUCTION	1
8.2. UNAVOIDABLE ADVERSE IMPACTS	1
8.3. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES	3
8.4. USE AND CONSERVATION OF ENERGY	3

8. UNAVOIDABLE ADVERSE IMPACTS, IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES, AND USE AND CONSERVATION OF ENERGY

8.1. INTRODUCTION

This section addresses the potential unavoidable adverse impacts of the proposed project and the potential irreversible and irretrievable commitment of resources that would need to be made. This section also describes the proposed project's projected use and conservation of energy.

8.2. UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts occur when a proposed project results in significant or temporary adverse impacts for which there are no reasonably practicable mitigation measures, and for which there are no reasonable options to the proposed project that would meet the purpose and need of the action, eliminate the impact, and not cause other or similar significant adverse impacts.

All the potential significant or temporary adverse impacts of the proposed project would be fully mitigated, except perhaps those associated with mobile noise, traffic and transportation, historic resources, neighborhood character, and upland natural resources during the construction period, under the scenario where both the proposed UV Facility and the Croton project would be constructed at the Eastview Site. In addition, as discussed in **Section 6**, Mitigation of Potential Significant Adverse Impacts, the traffic mitigation measures that have been developed for both with and without the Croton project need the approval of other agencies. Some of the traffic mitigation measures may be deemed impracticable; construction of the proposed UV Facility could result in significant or temporary adverse impacts that would be not be mitigated. However, in this case, NYCDEP would consider other traffic management techniques during construction (e.g., the use of traffic control officers, traffic cones, variable message signs, etc.), if approved by the governing roadway entity, to offset the significant or temporary adverse traffic impacts, and ensure the smooth and safe operation of traffic. In addition, once construction of the proposed UV Facility has commenced, the various agencies responsible for maintaining traffic flow and roadways in the study area would conduct field inspections of the operations of the various intersections to determine if the proposed mitigation measures are actually warranted (particularly because traffic from anticipated No Build projects or background growth may be less than analyzed in this report). Furthermore, the projected significant or temporary adverse traffic impacts, either mitigated or unmitigated, would be temporary and would only occur during the construction period. As noted in **Section 6**, the projected significant adverse traffic impacts of the project's operation with and without the Croton project would be fully mitigated.

Impacts from the simultaneous construction of both the proposed UV Facility and the Croton project may be more noticeable off-site in terms of the traffic and noise that would be generated by construction worker vehicles and trucks. The introduction of the proposed UV Facility to the site would result in construction truck trips greater than the number of the truck trips generated if the Croton project were under construction alone, because of the reduction of staging area available for the UV Facility with both projects under construction. As a result, significant adverse traffic and temporary adverse noise impacts could occur at numerous intersections and road segments

throughout the study area. Due to constraints involving road geometry, mitigation of these construction-period traffic impacts may not be feasible. Therefore, during construction, temporary adverse impacts to neighborhood character, due to traffic congestion and elevated noise levels, would occur. Traffic impacts during construction would result in widespread congestion in the regional area, resulting in potential temporary inconvenience to commercial, institutional, retail and residential uses within the surrounding area. Potential traffic mitigation measures would continue to be pursued by NYCDEP to minimize traffic impacts on the community and thus reduce temporary adverse impacts on neighborhood character in the Future With the Croton project scenario.

Potential temporary adverse noise impacts due to construction-related truck traffic may occur on roadways utilized during construction. There are no practical measures that can be taken to reduce noise generated by the temporary construction-related truck traffic. Therefore, potential temporary unavoidable adverse noise impacts during construction could occur.

Historic Resources.

The Hammond House, a historic resource located on the Eastview Site, is listed on the State and National Registers of Historic Places (S/NR) and is also on the Westchester County Inventory of Historic Places. NYCDEP may choose in the future to relocate the Hammond House from the Eastview Site to another location as part of the proposed UV Facility project due to security concerns associated with a private residence being located on the same site as critical components of the City's water system. As shown in [Section 7, Alternatives](#), [Figure 7-8](#), Full Buildout, which shows the NYCDEP's comprehensive long-term plan for the site, the Hammond House would be an isolated residential use surrounded by NYCDEP's water supply facilities.

If the Hammond House remains on the Eastview Site, construction of the proposed project would not have significant adverse physical impacts on the historic resource from vibrations, subsidence, or other accidental construction damage, nor would it have any significant adverse visual or contextual impacts on the house during operation of the UV Facility.

However, the possible relocation of the Hammond House, if pursued by NYCDEP as part of the proposed project, could have potential significant adverse physical and contextual impacts on the resource. To avoid or minimize such impacts, NYCDEP would develop a relocation and preservation plan in consultation with the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), and other applicable agencies in accordance with Section 106 of the National Historic Preservation Act of 1966. A Memorandum of Agreement between NYCDEP and the OPRHP, and the federal Advisory Council on Historic Preservation, if necessary, would stipulate items to be addressed in the plan. It is anticipated that plan components would include the selection of an appropriate site for the Hammond House, preparation of Historic American Buildings Survey (HABS) documentation of the house and current site, preparation of a structural analysis of the house and a detailed relocation protocol, and provisions for future maintenance and preservation.

The removal of the Hammond House could result in unavoidable significant adverse impacts to historic resources.

Natural Resources.

At the Eastview Site, the clearing of 66 acres of upland and wetland habitat for the proposed UV Facility footprint, and construction staging and stockpile areas would alter the natural resources habitat on the Eastview Site. To provide mitigation for the significant natural resources impacts that have been predicted to occur on the project site, 17 acres of shrubland/grassland restoration, 21.3 acres of meadow/grassland/wildflower restoration, and 7.5 acres of wetland restoration would be undertaken on-site. In addition, one off-site mitigation area has been identified, which would provide 3.6 acres of forested wetland, 0.6 acres of upland forest, and 1.9 acres emergent and open water wetland restoration/creation. Significant on-site tree replanting is not possible due to security concerns associated with the proposed UV Facility and because of the potential for other areas of the site to be developed for water supply uses in the future.

8.3. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Several resources, both natural and built, would be expended in the construction and operation of the proposed UV Facility. These resources include: use of the land for the proposed UV Facility and its associated conduits, as well as land for the new Screen Chamber at the Kensico Reservoir; construction materials; energy; and the human effort required to construct the proposed project. These are considered irretrievably committed; however, the commitment of these resources is not exceptional or significant.

8.4. USE AND CONSERVATION OF ENERGY

During construction of the proposed UV Facility, energy would be used for operation of construction equipment (trucks, cranes, bulldozers, front-end loaders, air compressors, etc.). These activities would not consume significant quantities of energy. During operation, the proposed UV Facility would consume up to 6.3 megawatts (MW) of electricity at peak flows. Average power usage (at 1310 mgd) would be about 4.45 MW. This commitment would persist throughout the operation of the proposed UV Facility.