FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR THE CROTON WATER TREATMENT PLANT
METHODOLOGIES

4.18. SOLID WASTE

4.18.1. Introduction

This section discusses the production, management, and collection of solid wastes currently and potentially generated at the proposed Croton Water Treatment Plant site, and at all off-site facilities. The three potential projects sites include the Eastview Site in the Town of Mount Pleasant, NY, and the Mosholu and Harlem River Sites, both located in the Bronx, NY. Additional work would be done at off-site facilities, including work sites along the NCA such as NCA Shaft Nos. 9, 14, 18, Gate House No. 1, and the Jerome Park Reservoir.

4.18.1.1. Baseline Conditions

The New York State Solid Waste Management Act of 1988 (updated 1999 – 2000)[1] and the New York State Department of Environmental Conservation (NYSDEC) Regulations (Official Compilation of Codes, Rules and Regulations of the Ste of New York (NYCRR), Part 360-15)[2] establish a hierarchy of waste management techniques to minimize reliance on landfills by maximizing waste prevention and recycling. In fact, the State established a target goal of reducing waste by 8 to ten 10, and having 40 percent of waste being recycled by 1997[3]. NYSDEC also maintains a comprehensive register of all permitted solid waste landfills within the State of New York.

The Westchester County Refuse Disposal District No. 1 consists of: solid waste transfer stations (Brockway Place Transfer Station, South Columbus Avenue Station, Thruway Transfer Station); a waste-to-energy plant (Charles Point Resource Recovery Plant, Peekskill, NY); a fleet of tractors and transfer trailers for waste hauling and recyclable containers for hauling recyclable materials; a landfill at Sprout Brook, solely permitted for the disposal of ash residue from the Charles Point facility; a Materials Recovery Facility (MRF); and various equipment for organic yard waste processing and transport[4]. The Charles Point Facility has a permitted capacity of 657,000 tons per year (tpy).

Since 1881, the New York City Department of Sanitation has served 59 districts within the City of New York. With a department consisting of approximately 10,000 employees; 2,000 collection trucks; 450 street sweepers; 350 salt/sand spreaders; and approximately 3,000 various other support vehicles, the Department of Sanitation collects over 13,000 tons of residential and institutional refuse and recyclables a day. The City's businesses, whose waste is collected by private carting companies, generate another 13,000 tons of refuse each day.

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[1] New York State Department of Environmental Conservation. 2000. New York State Solid Waste Management Plan: 1999 – 2000 Update.
[2] New York State Department of Environmental Conservation. November 24, 1999. Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York 6 NYCRR. http://www.dec.state.ny.us/website/regs/360v.htm.
[3] New York State Department of Environmental Conservation. 2002. http://www.dec.state.ny.us/website/dshm/sldwaste/index.htm.
[4] Westchester County Department of Environmental Facilities. 2002. Solid Waste Management. http://www.westchestergov.com/envfacil.htm.

4.18.1.2. Existing Conditions

The existing solid waste generation rate was estimated for each of the water treatment plant sites by applying the appropriate solid waste generation rate to the number of employees currently occupying the existing facilities at the sites, based on the rates recommended in the *CEQR Technical Manual.* The amounts of solid waste generated at the off-site facilities were also calculated. A per capita waste generation rate of 13 pounds per week per individual; the estimate for commercial office buildings, was used as an average solid waste production rate in reference to the proposed project. A standard five day, 40-hour workweek was assumed. Generation rates for other situations were used where applicable.

The existing solid waste generation rates in the study areas, defined in the land use section, were obtained by determining the square footage of existing uses (i.e. office, laboratory, residential) where applicable. The number of people employed per 1,000 square feet of existing use was estimated using industry standards.

4.18.1.3. Future Without the Project

The evaluation of the solid waste generation was estimated for the year 2008 for the peak year of construction, and 2010 for the year of operation if the proposed project is located at Eastview Site. The evaluation of the solid waste generation was estimated for the year 2009 for the year of peak construction, and 2011 for the year of operation if the proposed project is located at the Mosholu or Harlem River Site. Each of the off-site facilities in both Westchester and the Bronx were evaluated according to the proposed construction and operations schedules. Anticipated changes in the solid waste handling system and volumes of solid waste in the future without the proposed project were analyzed. Based on planning documents, NYCDEP estimates, information obtained from local officials and owners of individual sites, future changes in the amount of solid waste produced at the sites were estimated.

4.18.2. Potential Impacts

4.18.2.1. Potential Project Impacts

Potential impacts associated with the proposed project and off-site facilities included worker-generated solid waste and residual waste from the Dissolved Air Flotation (DAF) process. Worker-generated solid waste was estimated by multiplying the number of employees working a 40-hour week (Monday - Friday) by the standard 13 pounds a week per employee. For those employees working two days per week (Saturday and Sunday) the standard 13 pounds per week per employee was modified to account for 2.6 pounds per eight hour work shift (corresponding to generation during one-fifth of the work week). This amount of worker generated solid waste would be collected by a private hauler, and disposed of in the existing Westchester County or New York City solid waste system. The amount of waste generated per day by these individuals would only cause an impact on the existing solid waste system if it were to exceed the maximum capacity of the existing solid waste disposal facilities. The amount of

process waste was calculated based on the proposed Croton WTP conceptual design estimates. Industry standards for the DAF process were used to determine beneficial reuse and other disposal techniques. Toxicity characteristic leaching procedures (TCLP) from other water treatment plants and priority pollutant testing results of DAF residuals have been obtained to estimate chemical constituents in the residuals. These data were used to determine disposal options.

4.18.2.2. Potential Construction Impacts

The construction impacts were calculated based on the estimate of the amount of solid waste that would be generated during the proposed peak year of construction (2008 for the Eastview Site, and 2009 for the Mosholu and Harlem River Sites). The two principal sources of solid waste that would be generated during the construction period of the proposed plant and the off-site facilities would include: worker and construction related debris, such as food or paper trash and packaging debris and construction waste including scrap materials. Excavated dirt, soil and rock are not considered solid waste and, therefore, were not included in the analysis.

The construction impacts estimation was based on the number of loads that would be hauled off-site per month, which was based on the proposed construction schedule, resource loading and project statistics for the proposed plant. The 13 pounds per week per employee were used to aid the estimation of the construction waste.

4.18.3. Mitigation

If solid waste disposal capacity were determined to be insufficient, a mitigation plan would be developed to alleviate the strain on disposal capacity.