



Water Pollution Control Facility Upgrade Design

Norfolk MCI Water Pollution Control Facility (WPCF), Norfolk, Massachusetts

The Horsley Witten Group, Inc. (HW) was retained by the Massachusetts Department of Capital Asset Management (DCAM) to prepare design plans and specifications to upgrade the existing 0.484 million gallons per day (MGD) Water Pollution Control Facility (WPCF) at the Norfolk Massachusetts Correctional Institute (MCI). The existing Norfolk MCI facility serves four MCI facilities: Norfolk, Cedar Junction, Bay State Correctional Center and Pondville Correctional Center.

In 2005, the wastewater flow to the facility exceeded the NPDES permitted discharge limit. The proposed upgrade is intended to bring the facility into compliance with the new National Pollution Discharge Elimination System (NPDES) limit of 0.1 mg/L on Total Phosphorous (TP).

HW prepared design upgrades, including: a screening process, anaerobic tanks, aeration tanks, a membrane bioreactor system, an ultraviolet disinfection system, chemical addition, treated water reuse, and reuse of existing clarifiers as part of the overall treatment processes and additional influent liquidation tanks.

HW also prepared and submitted a Notice of Intent (NOI) application to the Norfolk Conservation Commission for work within the 100-foot buffer to wetland resources regulated under the Wetlands Protection Act and the 200-foot buffer of the River Protection Act. HW is also providing Chapter 149, Section 44F public bid support and construction administration services. Project management and construction coordination is an integral component to this complicated project, as the facility must remain at full capacity during the upgrade.

The project also includes the installation of a 245kw PV solar array.

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