

Georgia Development Selects Enviroquip MBR Technology For Expansion of Water Reclamation Facility



The Hamptons, a 480-unit subdivision development in northern Forsyth County, Georgia, has selected Enviroquip Membrane Bioreactor (MBR) technology for the expansion of its Water Reclamation Facility (WRF). The new WRF provides wastewater treatment for the 514-acre property as part of an upgrade of the existing urban reuse and land application system. In addition, the Forsyth County Water and Sewer Department has purchased bulk capacity in the plant and will be a major contributor of wastewater to the plant in the near future.

The Hamptons development includes a premier 18-hole golf course, which utilizes the effluent from the WRF for irrigation of its greens and fairways. Plant effluent is also utilized to irrigate lawns and ornamental landscapes, thus servicing the demand for reuse water in the community.

The Enviroquip MBR process was selected for its superior effluent quality, small footprint, low maintenance, simple operation, and flexibility for plant expansion. The unit

processes included in the complete treatment facility include influent screening, membrane-filtration activated sludge (with anoxic and aerobic stages), chemical phosphorus removal, and chemical disinfection. Enviroquip supplied a process design and technology package for the project, including Kubota flat-plate membranes. Enviroquip's gravity permeate process is employed at the Hamptons, in order to further simplify operation of the MBR plant.

The new facility is designed for a future daily average flow of 900,000 gallons per day (gpd), with an initial average daily flow of 100,000gpd, in accordance with a current permit capacity of 275,000gpd. The plant will be capable of treating water to meet current and projected metropolitan Atlanta discharge parameters, including nitrogen and phosphorus. Influent characteristics and effluent limits for the project are:

Parameter	INF	EFF	Units
BOD	200	<3	mg/l
TSS	200	<2	mg/l
TN	40	<10	mg/l
TP	10	<0.13	mg/l
Turbidity	N/A	<0.5	NTU

Fully enclosed, the treatment plant blends into the surroundings to minimize its visibility at the site. The new MBR plant became operational as of September 2003.

PARSONS

Protected by USA patent #'s 5192456, 5482625, 5651888, 6277209, 6287467 and patent pending.