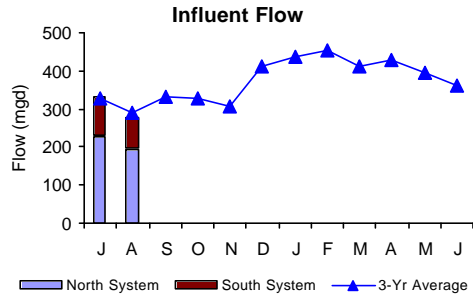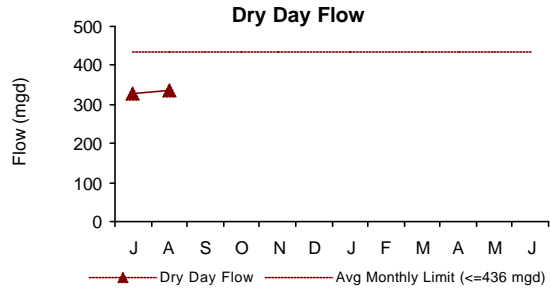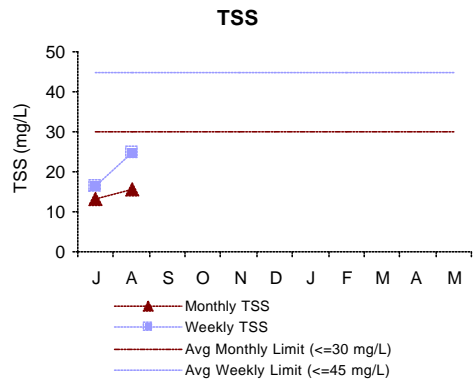# Deer Island Treatment Plant Performance
August 2000

Wastewater effluent quality is monitored by MWRA to assess compliance with water quality standards and the pollutant limits set forth in the NPDES permit issued by EPA and DEP to MWRA. The graphs below display the levels of pollutants measured compared with the NPDES permit limits.
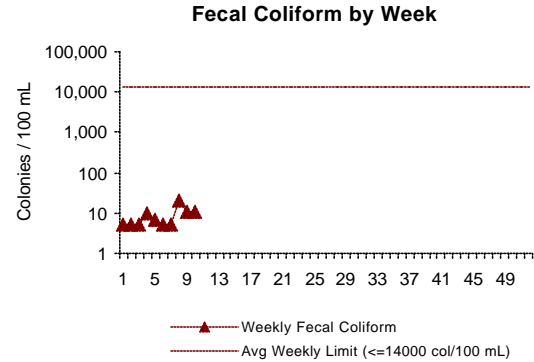
Influent Flow

There is no influent flow limit. The graph depicts the total monthly flow from the combined North and South systems. The 3-year average represents FY-98, FY-99, and FY-00.
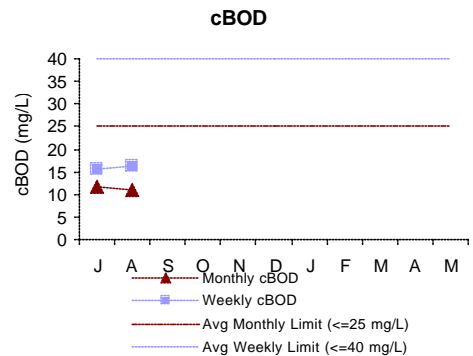
Dry Day Flow

The dry day flow is calculated by averaging influent flow over the previous 365 days during dry weather. The August dry day flow, therefore, is the average of all dry day flows for the period September 99 to August 00.
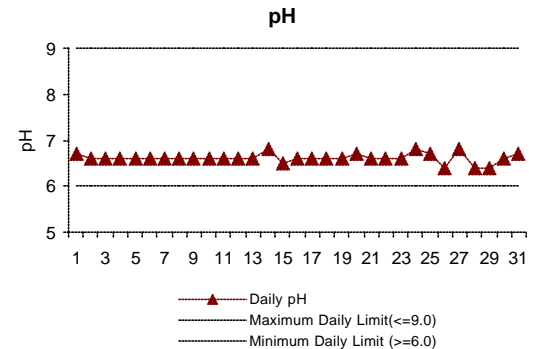
TSS

Total Suspended Solids in the effluent is a measure of the amount of solids that remain suspended after treatment. In August, both the weekly and monthly concentrations were well below permit limits. The TSS removal rate was 91.0%.

Fecal Coliform by Week

Fecal Coliform is an indicator of the presence of pathogens. The levels of these bacteria after disinfection show how effectively the plant is inactivating many forms of disease-causing microorganisms. There are three conditions in the permit including a weekly average, 10% of all samples, and three consecutive samples not to exceed 14,000 col/100mL. In August, all of these conditions were met.

cBOD

The cBOD is a measure of the amount of dissolved oxygen required for the decomposition of organic materials in the environment. In August, both the weekly and monthly concentrations were well below permit limits. The 5-day cBOD removal rate for August was 94.0%.

pH

pH is a measure of the alkalinity or acidity of the effluent. Sudden change in pH does not have an adverse effect on marine environments. Because of the pure oxygen used in the activated sludge reactor, the effluent pH tend to be at the lower pH range. In August, all pH measurements were within the permit limit range.