Massachusetts Water Resources Authority
Deer Island Treatment Plant Performance
September 2009

Dry Day Flow

September’s Dry Day Flow is the average of all dry day flows for the period from 10/1/2008 to 9/30/2009.

TSS

In September, both the weekly and monthly concentrations of TSS were below permit limits. TSS, or Total Suspended Solids in the effluent, is a measure of the amount of solids that remain suspended after treatment.

cBOD

In September, both the weekly and monthly concentrations of cBOD were well below permit limits. cBOD, or Carbonaceous Biochemical Oxygen Demand, is a measure of the amount of dissolved oxygen required for the decomposition of organic materials in the environment.

Total Chlorine Residual (TCR)

In September, both the maximum daily and monthly concentrations of TCR were below permit limits. TCR, or Total Chlorine Residual in the effluent, is a measure of the amount of chlorine that remains after the disinfection/dechlorination process. If the chlorine residual in the effluent is too high, it may threaten marine organisms.

Fecal Coliform by Week

In September, all permit conditions for Fecal Coliform were met. 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 four conditions in the permit that must be met: daily geomean; weekly geomean; 10% of all samples; and greater than three consecutive samples not to exceed 14,000 col/100mL.