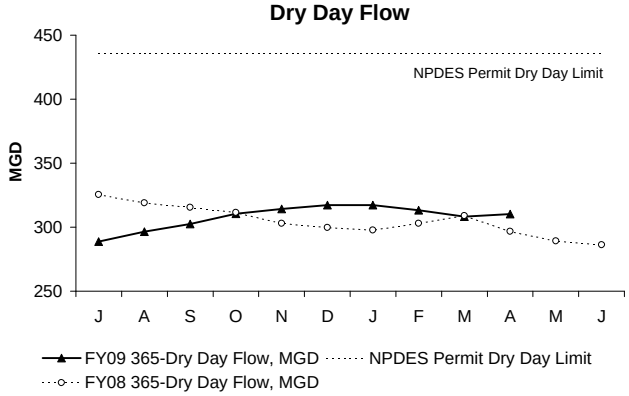
Massachusetts Water Resources Authority
Deer Island Treatment Plant Performance
April 2009

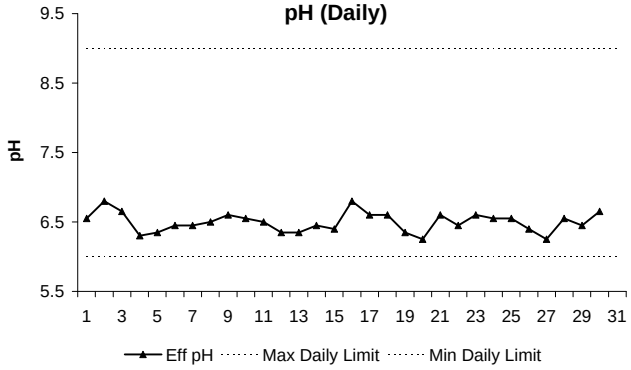
Dry Day Flow



April's Dry Day Flow is the average of all dry day flows for the period from 5/1/2008 to 4/30/2009.

Dry Day Flow is calculated by averaging influent flows over the previous 365 days during dry weather.

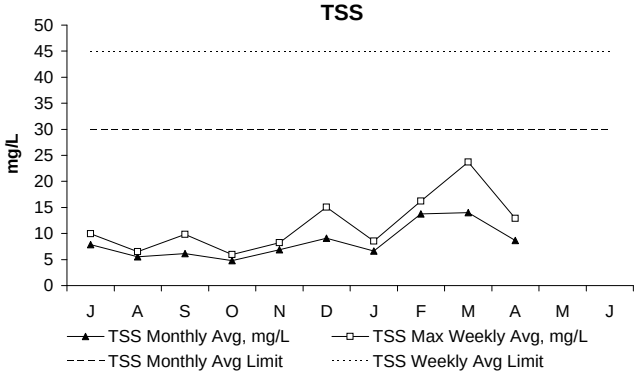
pH (Daily)



In April, all pH measurements were fairly typical for the season and within permit limits.

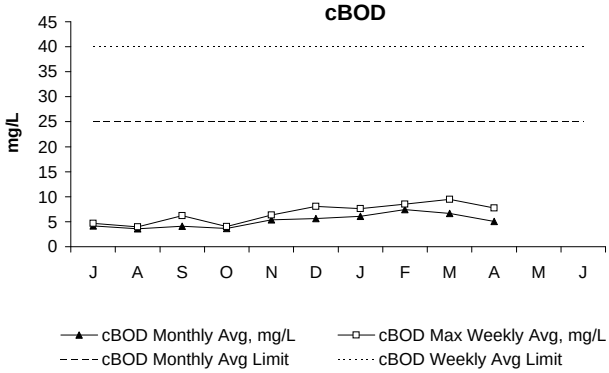
pH is a measure of the acidity or basicity of the effluent. Small fluctuations in pH do not have an adverse effect on marine environments. Because pure oxygen is used in the activated sludge reactors, the effluent pH tends to be at the lower range.

TSS



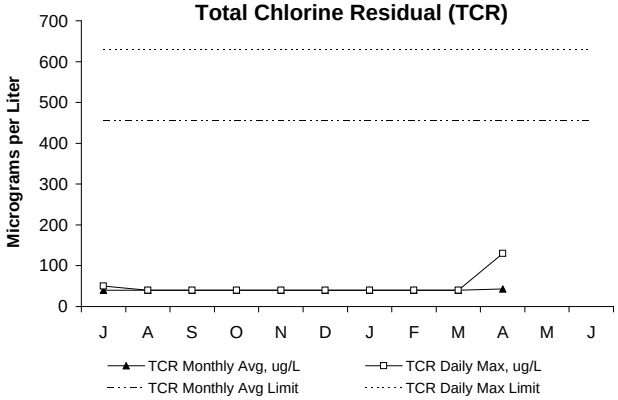
In April, both the weekly and monthly concentrations of TSS were below permit limits. TSS, or Total Suspended Solids in the effluent, is a measure of the amount of solids that remain suspended after treatment.

cBOD



In April, 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.

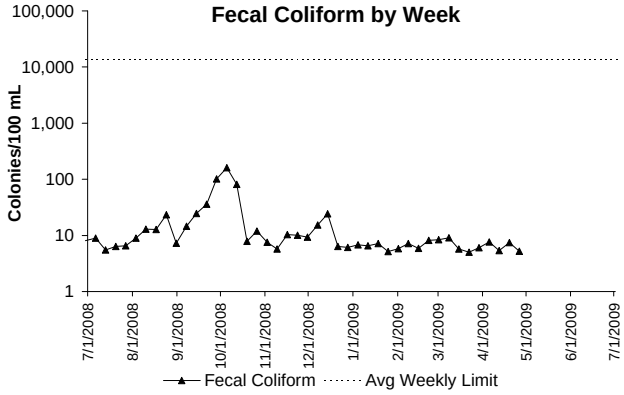
Total Chlorine Residual (TCR)



In April, 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.

Note: The 130 ug/L TCR daily maximum in April was higher than normal because the final effluent sample site was offline at the time of sampling on April 24 due to a pump failure and the final effluent dechlorination process had to be simulated using a backup manual procedure which tends to yield a more conservative (higher) residual chlorine value. The sample site was only offline during one (1) of the three (3) daily samples on this day. All other TCR results for April were 40 ug/L.

Fecal Coliform by Week



In April, 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.