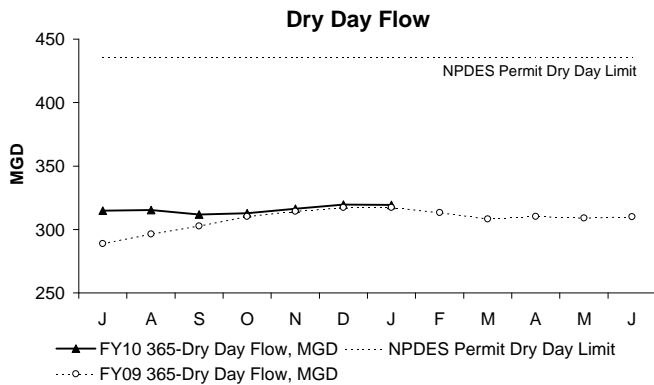


Massachusetts Water Resources Authority

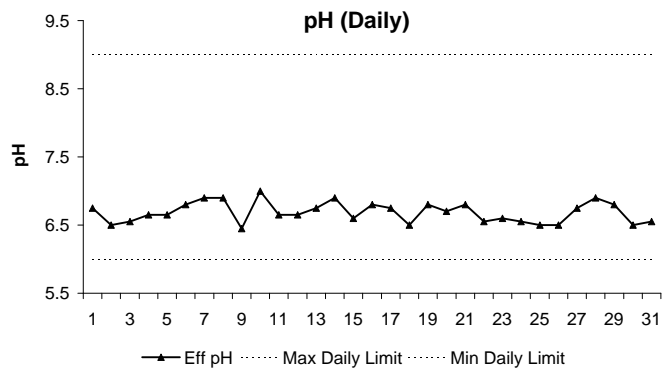
Deer Island Treatment Plant Performance

January 2010



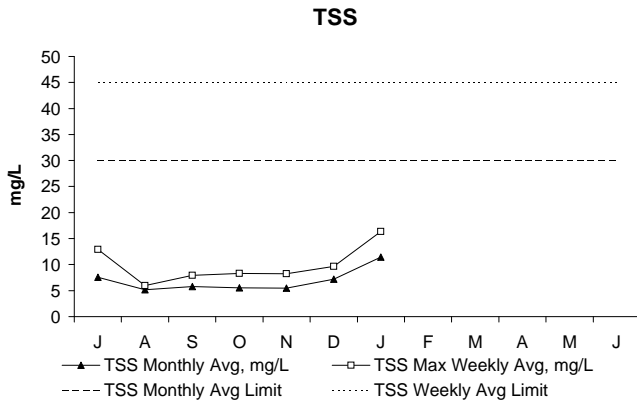
January's Dry Day Flow is the average of all dry day flows for the period from 2/1/2009 to 1/31/2010. The Dry Day Flow for January was below the permit limit.

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

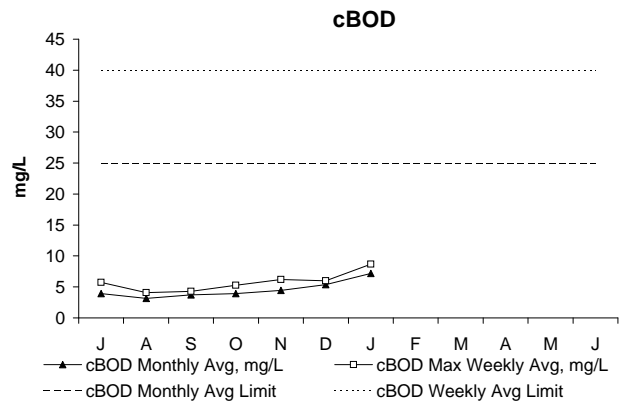


In January, all pH measurements were fairly typical for the season and within permit limits.

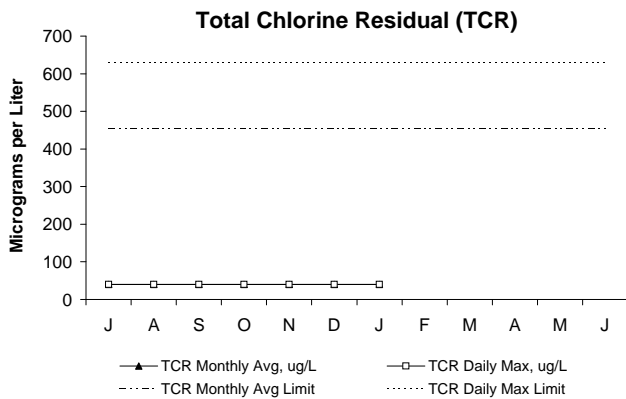
pH is a measure of the acidity or basicity of the effluent. Small fluctuations in pH do not have an adverse effect on marine environments. Because pure oxygen is used in the activated sludge reactors, the effluent pH tends to be at the lower range.



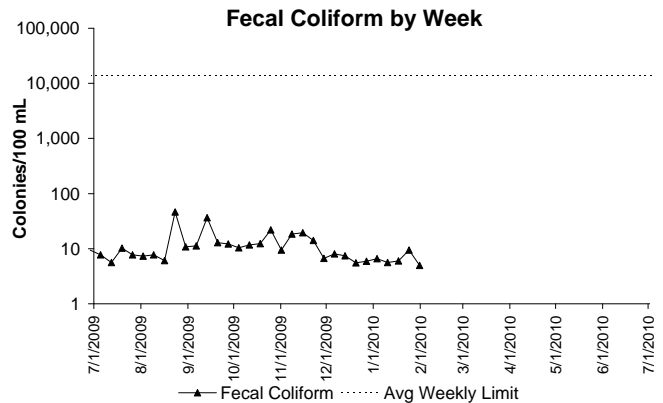
In January, both the weekly and monthly concentrations of TSS were below permit limits and within the expected ranges for this season. TSS typically trend slightly higher in the winter months due to slower settling as a result of the wastewater being denser, due to colder water temperatures, and also because plant flow in the winter are on average slightly higher. TSS, or Total Suspended Solids in the effluent, is a measure of the amount of solids that remain suspended after treatment.



In January, both the weekly and monthly concentrations of cBOD were well below permit limits and within the expected ranges for this season. 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.



In January, 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.



In January, 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.