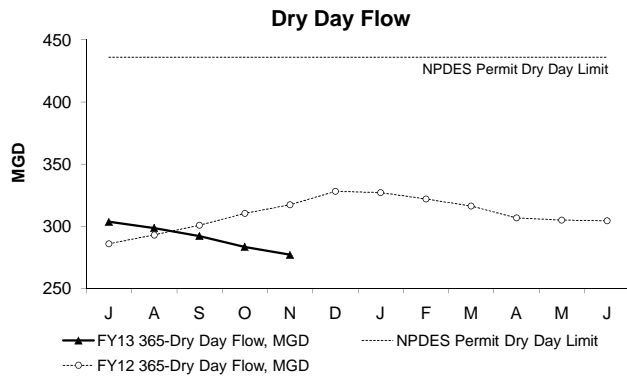
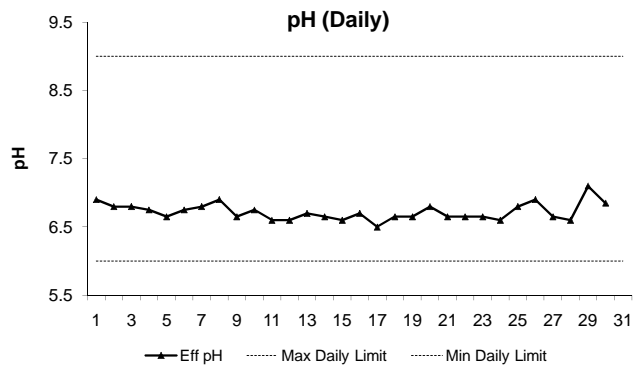


**Massachusetts Water Resources Authority
Deer Island Treatment Plant Performance
November 2012**



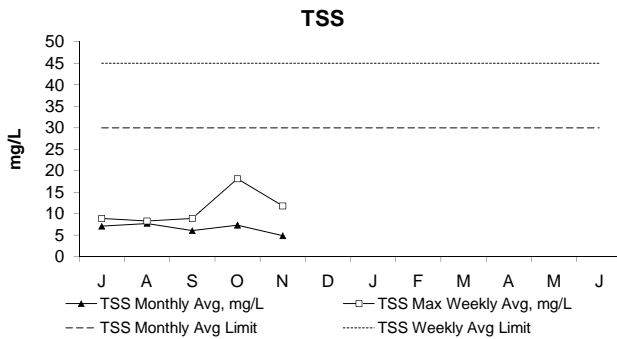
November's Dry Day Flow is the average of all dry weather influent flows over the previous 365 days from 12/2/2011 to 11/30/2012. The Dry Day Flow for November was 277.0 MGD, well below the permit limit of 436 MGD.

November's 277.0 MGD Dry Day Flow is the lowest 365-Dry Day Flow in the history of the new NPDES Permit (1999). The previous 365-Dry Day Flow record of 279.6 MGD was from April 2011.



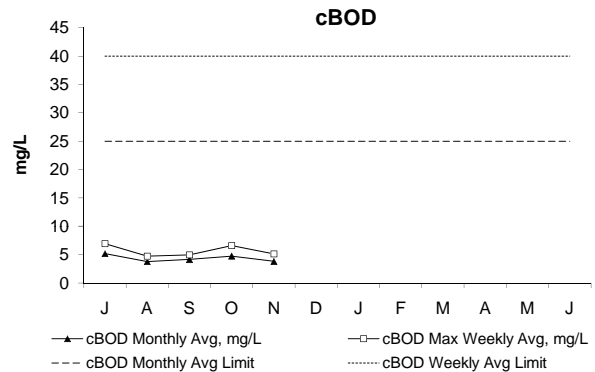
In November, all pH measurements were fairly typical for the season and within permit limits.

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.



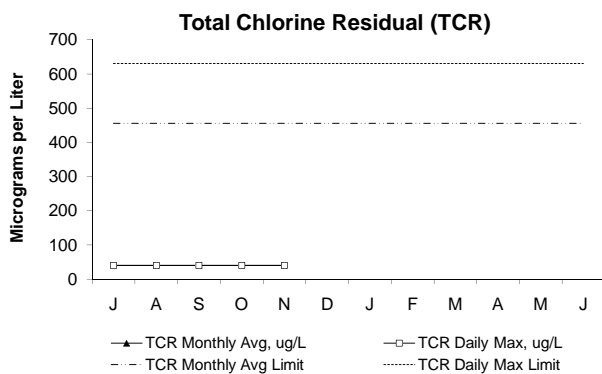
In November, both the weekly and monthly concentrations of TSS were below permit limits and within the expected ranges for the season.

TSS, or Total Suspended Solids in the effluent, is a measure of the amount of solids that remain suspended after treatment.



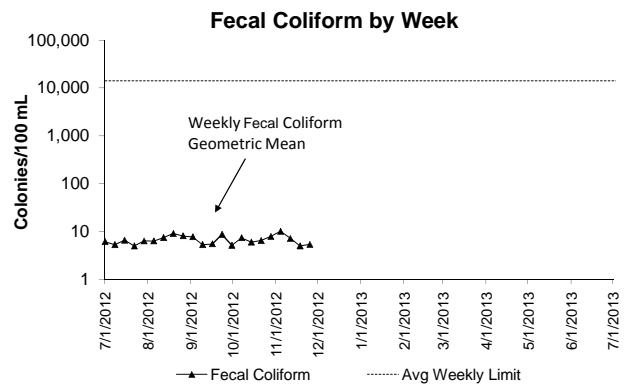
In November, both the weekly and monthly concentrations of cBOD were well below permit limits.

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.



In November, both the maximum daily and monthly concentrations of TCR were below permit limits. Note: Both the TCR Monthly Avg and the TCR Daily Max values have been non-detectable at 40 ug/L for each month of FY13. Therefore, both parameters are represented by the same trendline in the above graph.

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 November, 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 geometric mean; weekly geometric mean; 10% of all samples; and greater than three consecutive samples not to exceed 14,000 col/100mL.