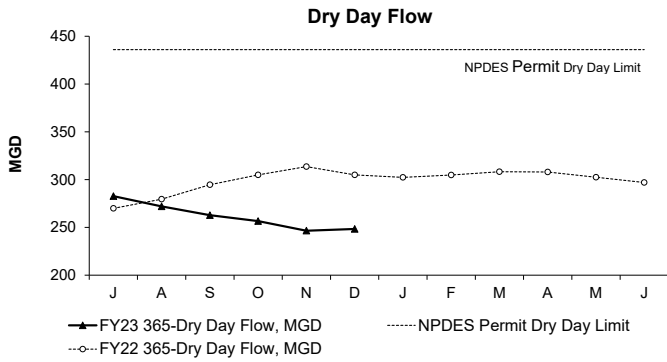
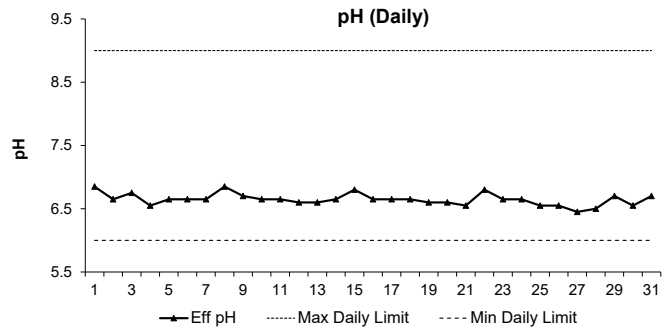


Deer Island Operations

December 2022 - FY23

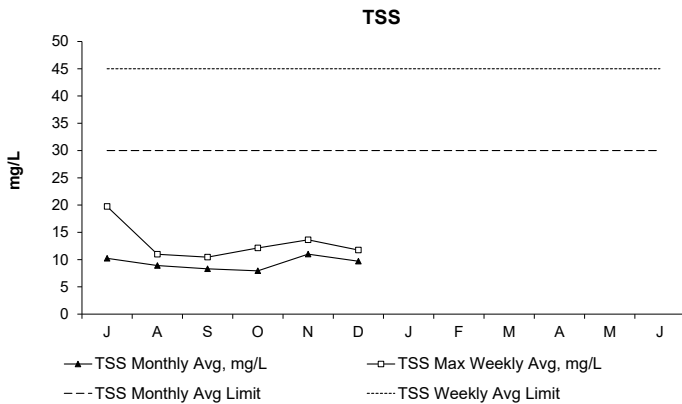


December's Dry Day Flow is the average of all dry weather influent flows over the previous 365 days from 1/1/2021 to 12/31/2022. The Dry Day Flow for the month was 248.3 MGD, well below the permit limit of 436 MGD. The Dry Day Flow has been trending down since May 2022 due to much lower-than-expected plant flows since April.



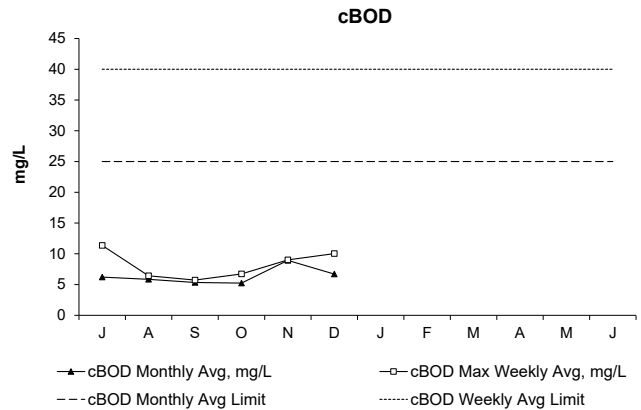
In December, all pH measurements were fairly typical for the season and within permit limits.

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.



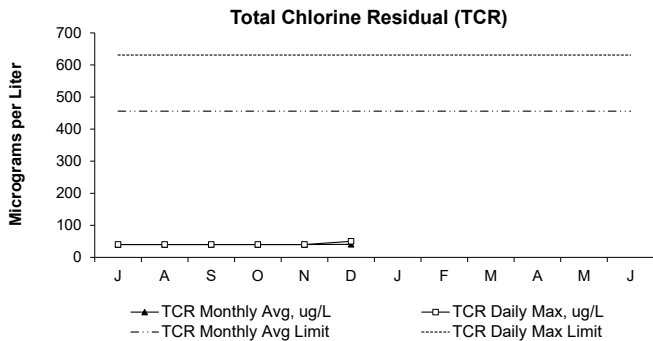
In December, both the weekly and monthly concentrations of TSS were below permit limits.

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



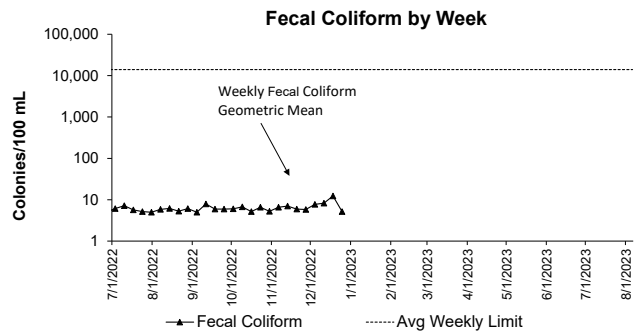
In December, both the weekly and monthly concentrations of cBOD were well below permit limits.

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 December, both the maximum daily and monthly concentrations of TCR were below permit limits. The TCR Monthly Avg and the TCR Daily Max values were non-detectable at 40 ug/L from July through November. Therefore, both parameters appear to be represented by the same trend in the above graph, until December, when there were two (2) samples with detectable levels of TCR (70 ug/L) which were still well 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 December, all permit conditions for Fecal Coliform were met. Fecal Coliform is an indicator for the possible 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 (4) conditions in the permit that must be met: daily geometric; weekly geometric; 10% of all samples in a month; and greater than three (3) consecutive samples not to exceed 14,000 colonies/100mL.