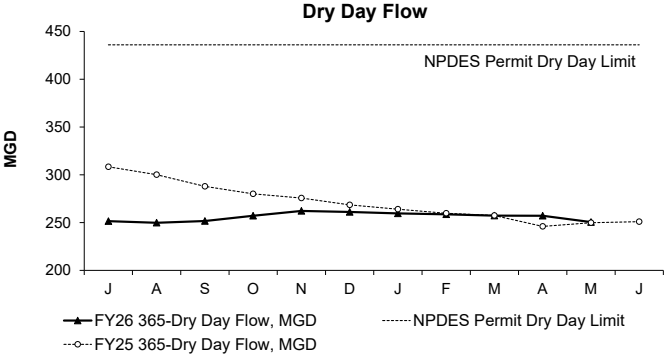
Deer Island Operations

May 2026 - FY26

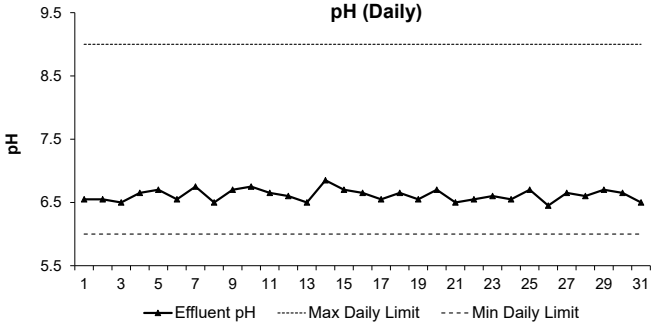
Dry Day Flow



May's Dry Day Flow is the average of all dry weather influent flows over the previous 365 days from 6/1/2025 to 5/31/2026. The Dry Day Flow for the month was 250.5 MGD, well below the permit limit of 436 MGD.

In the new draft NPDES permit, the proposed 365 day rolling average Dry Day Flow limit may change from 436 MGD to 361 MGD (based on design flow).

pH (Daily)

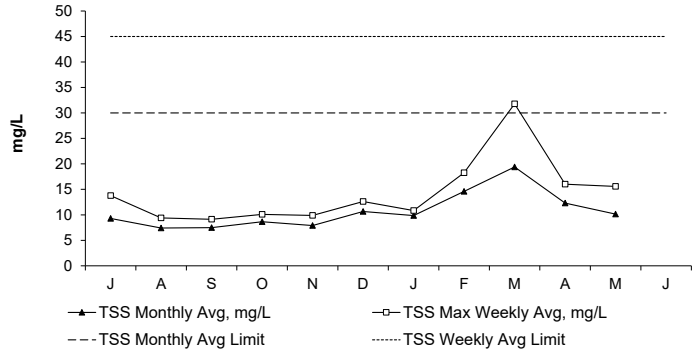


In May, all pH measurements were typical for the season and within permit limits.

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 the new draft NPDES Permit, the proposed pH limits may change from a pH of 6.0 to 9.0 S.U. to a pH of 6.0 to 8.5 S.U.

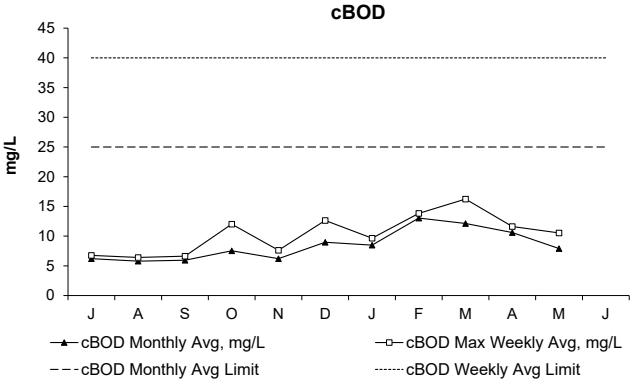
TSS



In May, both the weekly and monthly concentrations of TSS were below permit limits. The Max Weekly and Monthly Avg concentrations of TSS were higher in March due to higher-than-expected plant flows from storm events combined with significant snow melt, resulting in reduced solids removal efficiencies. This pattern of higher solids in the spring is not atypical for the season.

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

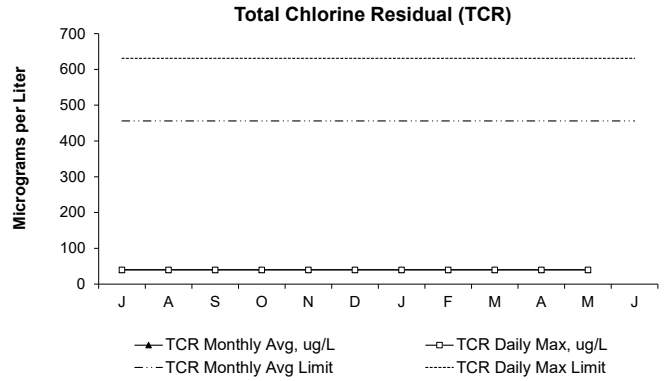
cBOD



In May, both the weekly and monthly concentrations of cBOD were well below permit limits. Similar to TSS, the Max Weekly and Monthly Avg concentrations of cBOD were higher in March due to higher-than-expected plant flows from storm events combined with significant snow melt, resulting in reduced removal efficiencies. This pattern of higher cBOD in the spring is not atypical for the 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.

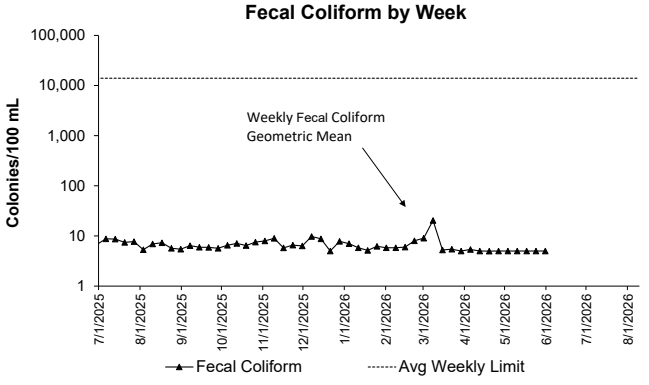
Total Chlorine Residual (TCR)



In May, both the maximum daily and monthly concentrations of TCR were below permit limits. The TCR Monthly Avg and the TCR Daily Max values are both non-detectable at 40 ug/L for FY26-to-date. Therefore, both parameters appear to be represented by the same trendline.

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 May, 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 geomean; weekly geomean; 10% of all samples in a month; and greater than three (3) consecutive samples not to exceed 14,000 colonies/100mL.

In the new draft NPDES permit, the proposed Fecal Coliform limit may change to a daily and monthly geomean of 1,960 and 2,450 colonies/100 mL, respectively, with no weekly geomean limit.