
Fruitland WWTP Expansion & Upgrade

Fruitland, MD



Capacity: 1.4 MGD Sequencing Batch Reactor and Equalization Tank

Description: The City of Fruitland, MD needed to expand the capacity of its wastewater treatment plant from 0.5 to 1.4 MGD and upgrade the level of treatment to include biological nutrient removal. Population growth, coupled with the need to protect the Chesapeake Bay Watershed, prompted expansion of the 28 year old plant.

As part of the \$7.7M treatment plant upgrade, Dutchland built a SBR/Equalization tank measuring 106'-2" by 99'-4" and a second SBR tank measuring 106'-2" by 50'-4". The tank was built on 699 treated timber piles and included a building integrated into the structure. The building measures 106'2" by 60'-1" and required that the tank walls common to it be designed for very low deflections.

The structure was originally designed for cast-in-place concrete. Dutchland did a complete structural redesign, including pile layout, which resulted in an overall reduction in concrete. Hence, Dutchland was able to generate considerable savings for Fruitland while improving their project schedule. The project was recognized with an ACEC/MD Engineering Excellence Award in 2004.