

NAVFAC commands partner to support STEM outreach program

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Naval Facilities Engineering Command Pacific
Public Affairs

Naval Facilities Engineering Command (NAVFAC) Pacific and NAVFAC Hawaii partnered to provide an educational science, technology, engineering and mathematics (STEM) opportunity for Radford High School to visit the Navy Wastewater Treatment Plant (WWTP) on Feb. 7.

Paul Carter of NAVFAC Hawaii gave a guided tour of the 11.61 acre facility located at Joint Base Pearl Harbor-Hickam to the school's advanced placement environmental science (APES) class.

"Water was a big topic in the APES curriculum, and the tour was directly related to what the students were learning," said Jennifer Hall, Radford High School APES teacher. "The day before the tour, the students had just finished learning about water pollution, waterborne diseases and the process of water treatment."

The tour consisted of a safety brief at the beginning of the plant, then onto sewer water intake, then through the different stages in the plant process, and finally to the lab where the water is tested.

"Very often students just read about what they've learned, but never have the opportunity to witness it," said Hall. "The students were glad to witness the process of water treatment and be able to view the samples of water under a microscope. The aeration tanks also piqued a lot of interest."

STEM-related sections of the tour included the overall plant water intake capacity of water flow in and out, flocculation formation, the different aeration basins, chemical reactions with the bacteria, pH of the water at the outfall and methane production.

"The students were thoroughly engaged in every part of the tour, asking questions and being intrigued about the entire process," said Lt. Brian Christner, NAVFAC Pacific aide to the commander and tour escort. "They enjoyed the tour and learned about the pivotal role NAVFAC and the plant serves to treat the waste water we produce."

The WWTP was built in increments starting in 1969 and is owned, operated and maintained by NAVFAC Hawaii. It provides advanced secondary treatment through the use of clarifiers, an activated sludge process, and effluent filtration for approximately 5.5 million gallons of wastewater per day.

The WWTP's primary, secondary and tertiary treatment, such as sand filtration and ultraviolet disinfection of both domestic and industrial wastewater is beneficial to the U.S. Navy and the state of Hawaii, keeping the island's ocean waters clean.



NAVFAC Pacific and NAVFAC Hawaii partnered to provide the Radford High School Environmental Science class with an educational tour of the Navy Wastewater Treatment Plant (WWTP) on Feb. 7.

