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Subject: Water Quality Monitoring at Kaloko-Honokohau National Historical Park
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Aloha Scott and Riley,

Last month at the LUC meeting in Kona, Commissioners were interested in the Park's water quality monitoring program. I told the Commission I would get more details and share it with them. Below is a synopsis from the National Park Service's Inventory and Monitoring Program. We would appreciate it if you would share this with the Commissioners.

The NPS Inventory and Monitoring Pacific Island Network monitors water quality in the nearshore marine environment, anchialine pools, and groundwater of Kaloko-Honokohau NHP. Water is sampled quarterly at three groundwater monitoring wells, four permanent, or "fixed", off-shore sites along with four off-shore "temporary" sites randomly selected each quarter, four fixed anchialine pool sites and four temporary anchialine pool sites. Water is monitored for Total Dissolved Phosphorus (TDP), Total Dissolved Nitrogen (TDN), Nitrate + Nitrite, temperature, pH, oxygen, turbidity, chlorophyll, and salinity. Following quality reviews data is made publicly available in online databases and published reports. Marine water quality has been reported for 2008 -2014 (<https://irma.nps.gov/DataStore/DownloadFile/567902>). Anchialine pool and groundwater water quality has been reported for 2012 -2014 (<https://irma.nps.gov/DataStore/DownloadFile/546854>). Water quality data has been "certified", or reviewed for quality and approved by the PACN aquatic ecologist for 2015. Water quality for 2016 will be certified this year.

Fixed marine sites include a location outside the Honokohau small boat harbor which regularly detects a plume of water that is more nutrient rich, cooler, and fresher than surrounding seawater. This plume is submarine groundwater discharge (SGD) and considered to be influenced by up-slope wastewater injections. The park has anchialine pools south of the harbor, and sampling by others has shown them to generally be more nutrient-rich than pools in other parts of the park, but there are currently no fixed anchialine pool sites south of the harbor.

The Pacific Island Network website also has information about water quality monitoring in the Park https://www.nps.gov/im/pacn/water_quality.htm

~Jeff

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