

NOAA Climate Data Prepares Oahu Construction Industry for Wet Season

Each year NOAA's Climate Prediction Center, a part of the National Weather Service, issues several long-range seasonal forecasts for our nation. These include winter, spring and hurricane outlooks, and El Niño and La Niña advisories. NOAA meteorologists in Hawai'i then adapt these forecasts to island conditions, drawing on past and present climate data and local knowledge to develop a "wet season outlook." This outlook gives residents a heads-up about conditions that are critical to both their safety and the economy of Hawai'i.

Traditionally, wild land fire managers, the agriculture sector, and water supply agencies have been the primary consumers of NOAA climate data and forecasts. Irrigation reservoir operators for instance, use drought forecasts to implement water-use restrictions to help sustain the water supply for farmers.

In Hawai'i, as elsewhere across the nation, the demand for climate products beyond the usual user base is rising. This year, for example, climate data have been immensely

valuable to the construction industry on Oahu. When

Steve Joseph, vice president of PVT Land Company in Nanakuli, learned from a NOAA briefing last October that the winter season would be much wetter than usual, his firm went into mitigation mode. PVT upgraded structures to increase storm water capacity. It also improved road design and conditions, not only for dependable travel but to withstand storm water run-off and erosion. As a result, there were no shutdowns or washouts when the predicted wet weather hit this winter. Also avoided was the loss of \$600,000 in gross sales, \$100,000 in lost salaries, and a potential \$300,000 to \$600,000 in damage to roads and landfill.

Without the heads-up, not only PVT but Oahu's entire construction industry would have been hurt, with losses in the millions of dollars. As the only construction landfill on the island, more than 200 trucks come to PVT each day. A shutdown would have stopped some construction



Newly constructed storm water retention pond at the PVT landfill in Nanakuli, Oahu, Hawai'i



Road to landfill subject to erosion and washout that can cause closures during heavy rainfall

"No one wants to hear about washouts or shutdowns at a construction landfill. NOAA's long-range predictions have helped us mitigate the worst effects of a wet winter. They are vital to our long-range business planning and, therefore, to every one of our customers."

Steve Joseph, Vice President, PVT Land Company



Newly install culvert and retention pond at the PVT Landfill in Nanakuli, Oahu, Hawai'i

projects completely and slowed down others, affecting hundreds of construction and trucking jobs across the island.

PVT's landfill area usually gets 10 to 14 inches of rain annually. By the end of March, over 18 inches of rain had already fallen. Despite nine inches of rain from a single storm in January, PVT was up and operational within 24 hours. A nearby landfill, without the same level of mitigation measures, was shut down for two weeks.

As individuals and decision-makers across all sectors ask how they can best adapt to prepare their lives, communities and businesses for the impacts of a changing climate, NOAA, working with its partners, is providing reliable, easily accessible climate information to inform state, regional and national policy decisions.

From promoting more resilient communities and supporting energy, manufacturing and planting decisions, to envisioning a future with early warnings about sea level rise, infectious disease outbreaks and food quality, NOAA's climate information is essential to making informed choices in an uncertain world. For more information visit www.climate.gov or www.noaa.gov/climate.