



Storm Water Pollution Prevention Low Impact Design  
Installation Initiative  
Department of Facility Maintenance



**OWNER:** City and County of Honolulu

**DESIGNER:** Park Engineering

**FACILITY:** Kumuhau Street, Waimanalo, Oahu, Hawaii

**ADDRESS:** Kumuhau Street, between Humuniki Street and Mahailua Street

**PROJECT TITLE:** NPDES Erosional Area Improvements at Kumuhau Street

**TMK:** 4-1-028:107, 4-1-040:052, 4-1-025:019, 021, 023

**REFERENCES:**

1. NPDES Permit for City and County of Honolulu, MS4, Small MS4, Industrial Facilities; HI S000002; effective February 16, 2015; Part D.1.e.(1)(iii)
2. NPDES Kumuhau Street Project Construction Drawings

**PROJECT SUMMARY:**

The City and County of Honolulu worked with Park Engineering on an erosion area improvement project in Waimanalo, Oahu. The erosion improvement project included the construction of two grass-lined bioswale segments along Kumuhau Street from Kumuniu Street to its intersection with Mahailua Street. The grass-lined sides of the bioswales were filled in with both existing materials and imported backfill material. The underground base of the bioswale is made up of a soil layer, a layer of draining rock, and two perforated PVC pipe sub-drains. During a rain event, water is directed from the sides of the swale to its base to infiltrate the soil and rock layers, helping to remove particulates and pollutants. Then, clean water drains through the two perforated PVC sub-drains, thus improving the water quality and reducing storm water runoff.

