

# Ala Wai Neighborhood and Community Park DPR NPDES Small MS4 PERMIT PROGRAM IMPROVEMENTS

**OWNER:** City and County of Honolulu

**DESIGNER:** Fukunaga and Associates, Inc.

**FACILITY:** Ala Wai Community and Neighborhood Parks

**ADDRESS:** 2015 & 2021 Kapiolani Blvd. Honolulu, HI 96826

**PROJECT TITLE:** Ala Wai Neighborhood and Community Park  
DPR NPDES Small MS4 Permit Program  
improvements

**TMK:** 2-7-036-001, 005

## REFERENCES:

1. City and County of Honolulu Stormwater Best Management Practice Manual, New and Redevelopment; July, 2014.
2. 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) which requires management practices prioritized to favor infiltration, evapotranspiration, or harvesting/reuse follow by treat and release practices.

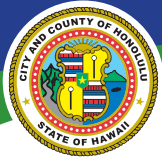
## PROJECT SUMMARY:

The Ala Wai Community and Neighborhood Parks project included post construction treatment control Best Management Practices (BMPs) in the facility's parking lots to improve water quality of the Ala Wai canal. The design for the project was done prior to the City's Storm Water Best Management Practices Manual for New and Redevelopment dated July 2014 and the new Municipal Separate Stormwater Sewer System permit. The City installed rain gardens, a type of Low Impact Development (LID), and drain inlet filters. Rain gardens are planted depressions which remove pollutants like oil, grease, toxins, and dirt from parking lot runoff. Dirty water from parking lot runoff will flow down to this LID, through the amended soil, and cleaner water is soaked into the soil. LIDs are used as a means to control storm water quality at its source, using methods to promote infiltration, retention, and treatment of pollutants.



Figure 1: Ala Wai Community Park post construction treatment control BMPs.

The green box and arrows depict the area of the parking lot where rain garden and drain inlet filters were installed.



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Left photo taken January 11, 2017 prior to the commencement of the project.  
Right bottom photo taken December 26, 2017, during a rainfall event of 3.72 inch intensity. (Waikiki 717.2 rain gauge station).



The Installation of the rain garden and grass infiltrations not only complied with the City's NPDES requirement (HI S000002) but also resolved a ponding issue in the Ala Wai Neighborhood Park's parking lot.