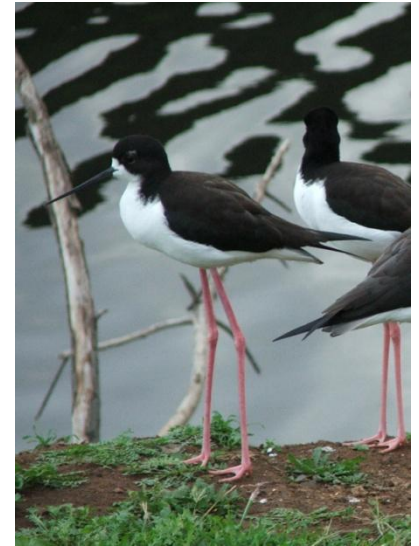


# Establishing Water Quality Parameters to Address Wet Weather Flow Impacts, Pathogens and NPDES Program Strategies In a Priority Urban Watershed.



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# Who is Clyde Tamaru and Why is He Here?



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**HAWAII INSTITUTE OF  
MARINE BIOLOGY**  
AT COCONUT ISLAND





Kaelepulu canal

Hamakua Canal

Kaelepulu Pond (Enchanted Lake)

# Kaelepulu Stream Watershed system

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# Why Are We Doing This Work?

- Section 303(d) of the 1972 Clean Water Act (CWA) directs each State to develop a list of water bodies that do not meet State water quality standards.
- In 1998, DOH issued its initial list of impaired water bodies. This list was updated in 2001 and again in 2004.
- The 2005 list included the Kaelepulu Stream Watershed system which consists of Kaelepulu Estuary, Kaelepulu Stream and Hamakua Stream as an impaired water body.



# Why Are We Doing This Work?

- Under this designation the waters do not meet water quality standards for specific constituents (e.g., nitrogen, phosphorus, sediment, enterococci, and chlorophyll a) and thereby inhibit beneficial uses of the water body, such as for recreational uses or for supporting fresh water or marine wildlife.
- The sampling effort will determine the actual extent of non-compliance and specifically provide water quality and hydrologic/meteorologic data necessary to calibrate a watershed model needed to establish Total Maximum Daily Loads (TMDLs).









# Input Site 1



**Coordinates: 21 22.725N 157 43.705W**

# Input Site 31



**Coordinates: 21 22.158N 157 44.174W**

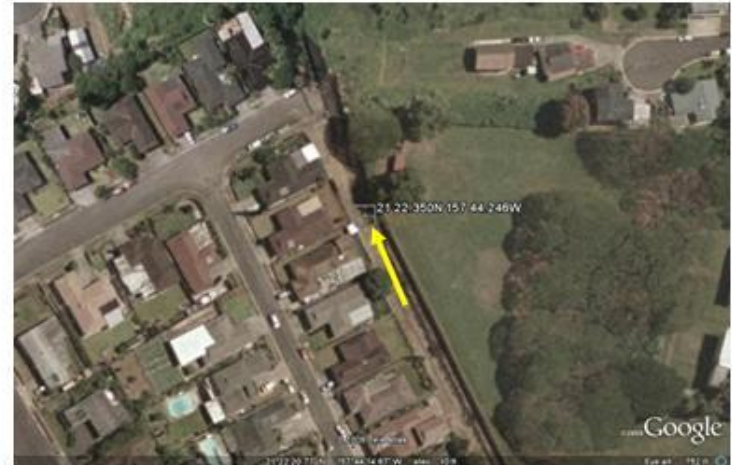


# Input Site 9



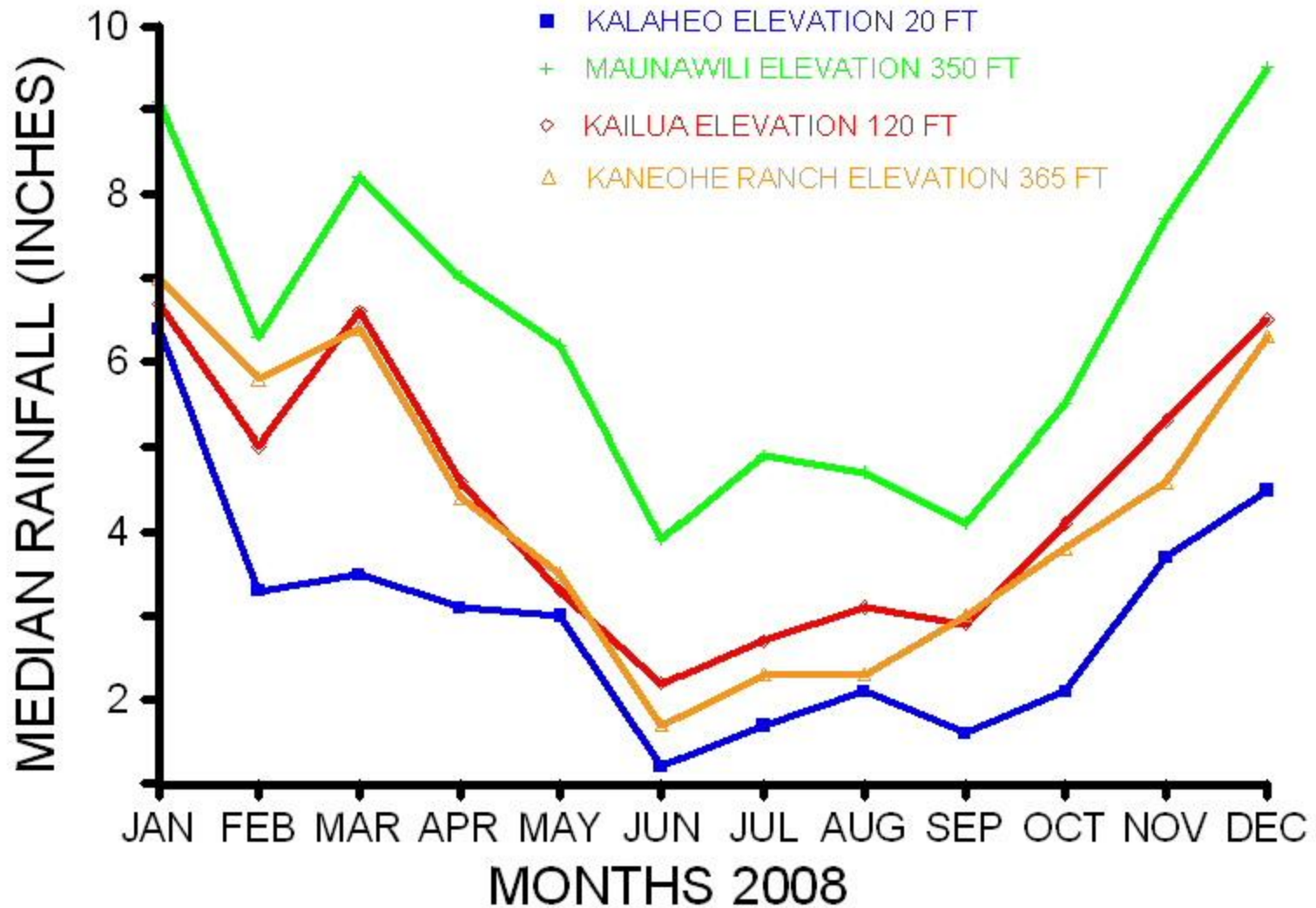
**Coordinates: 21 21.939N 157 44.332W**

# Input Site 6



**Coordinates: 21 22.364N 157 44.252W**





Dry period (May 1 – October 31) Wet period (November 1 – April 30)



Study requires other kinds of data in addition to water quality parameters.

