

## Metadata for NREM 601 Maunalua Bay Case Study Sediment Transport Modelling Project

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Abstract: The focus of this project was to model sediment transport throughout the Maunalua Bay watershed during specific rain events using NOAA's OpenNSPECT modelling tool. The data required to run this model is explicitly listed in *OpenNSPECT 1.2 Data Acquisition and Preprocessing: Instructions for Your Watershed* manual, which can be found here:

<https://coast.noaa.gov/data/digitalcoast/pdf/opensnspect-data-acquisition-and-preprocessing.pdf>.

Data such as elevation, land cover, rainfall, and soil surveys were acquired from various sources (see table below) and subsetted to the Maunalua Bay region. All data inputs were projected to the WGS 1984 UTM Zone 4N projection.

<b>Dataset</b>	<b>Description</b>	<b>Source</b>
Elevation	2007 Digital Elevation Model (DEM; 10m resolution)	National Oceanic Atmospheric Association (NOAA)
Land Cover	2011 C-CAP Land Cover of Oahu, Hawaii (2.4m resolution)	NOAA's Coastal Change Analysis Program (C-CAP)
Rainfall	Average annual rainfall from 1920-2012 (250 m resolution)	Rainfall Atlas of Hawaii University of Hawai'i at Mānoa, Geography Department
Rainfall Erosivity Factor (R-Factor)	Effects of raindrop impacts and reflects the amount and rate of runoff associated with the rain from 1975-1997. (30m resolution)	NOAA Office for Coastal Management
Soil Erodibility Coefficient (K-Factor)	2003 digital soil survey of geographic and attribute data developed by the National Cooperative Soil Survey	Soil Survey Geographic (SSURGO) database, USDA Natural Resource Conservation Service
Watershed Boundary	Raster .tif of Maunalua Bay watershed region	Nrem 601 Spring 2017 class