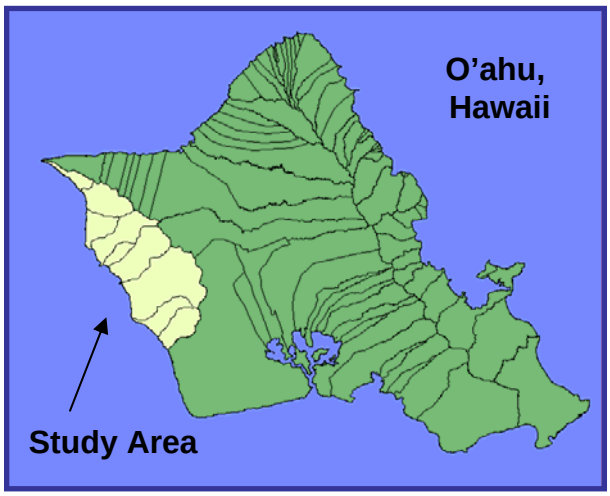
N-SPECT

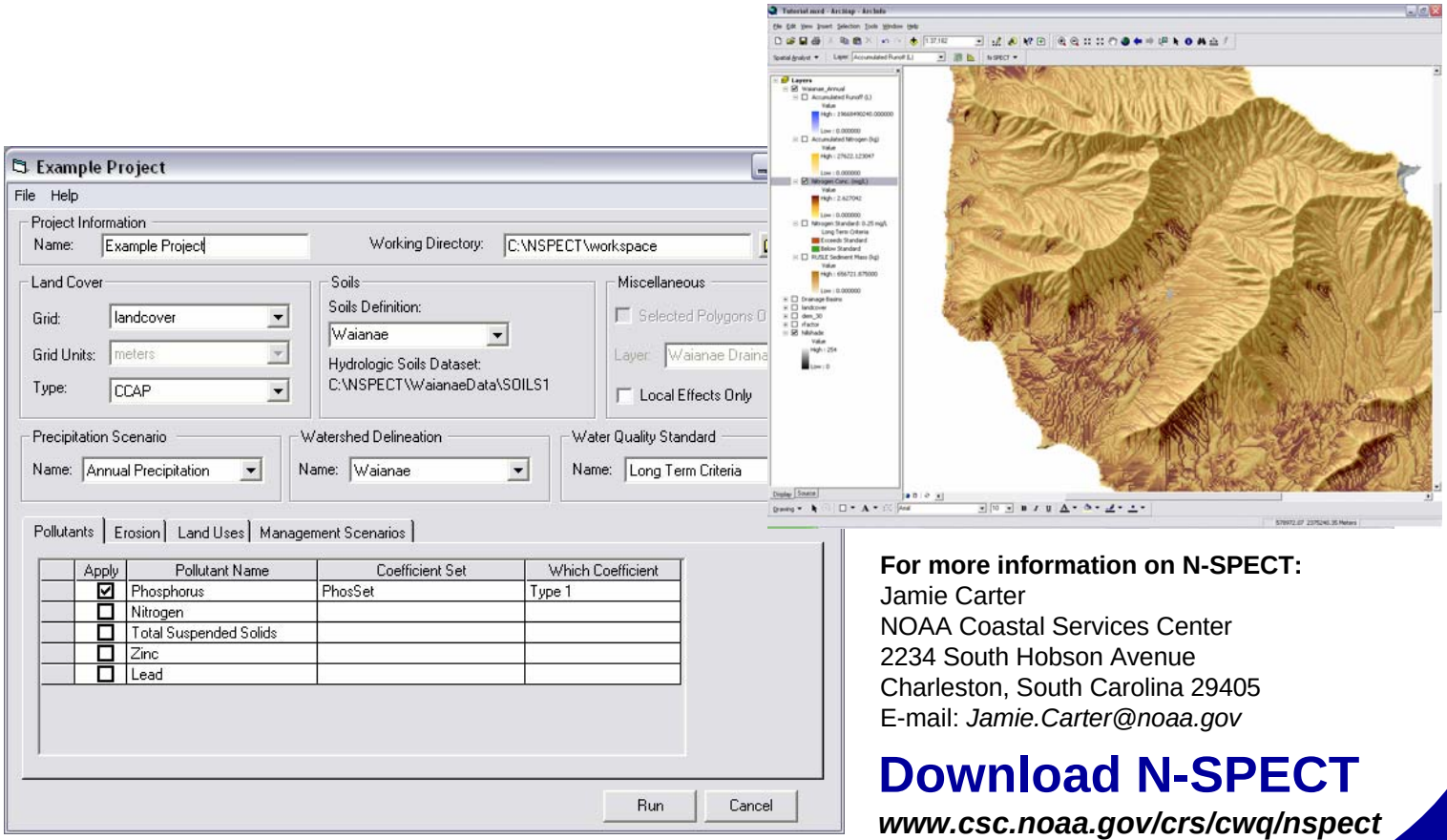
A tool for examining the relationship between land cover, nonpoint source pollution, and erosion

The Nonpoint Source Pollutant and Erosion Comparison Tool was developed by the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center to accompany the Wai'anae Ecological Characterization developed by the Hawaii Coastal Zone Management (CZM) program. The tool was initially developed for the Wai'anae region; however, it can be used universally by calibrating the coefficients and other input datasets to other localities. N-SPECT can be used as a management tool to help coastal managers make decisions about watershed planning.



N-SPECT:

- Requires the Spatial Analyst® extension
- Requires the following inputs:
  - ✓ Land cover grid
  - ✓ Digital Elevation Model
  - ✓ Precipitation grid
  - ✓ Set of land cover pollutant coefficients
  - ✓ Water quality standards
  - ✓ Soil type data
- Creates the following outputs:
  - ✓ Accumulated runoff, pollutant, and sediment load grids
  - ✓ Pollutant and sediment concentration grids
  - ✓ Pollutant assessment grid, which compares the resulting concentrations in receiving waters to user-specified water quality standards
- Incorporates management scenarios to allow the user to simulate the effects of land cover changes on pollutant loads



For more information on N-SPECT:
Jamie Carter
NOAA Coastal Services Center
2234 South Hobson Avenue
Charleston, South Carolina 29405
E-mail: *Jamie.Carter@noaa.gov*

Download N-SPECT

www.csc.noaa.gov/crs/cwq/nspect

NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY