

Layer Name: Carbon Assessment of Hawaii Land Cover – Vector Polygon Version

File Name: cah_land_cover_poly

Layer Type: Polygon

Status: Complete

Geog. Extent: Main Hawaiian Islands

Projection: Universal Transverse Mercator, Zone 4 (Meters)

Datum: NAD 83 HARN

Please note - if you are using data in the [State's web services](#) or downloading from the [State's geoportal](#), the data is served and exported in WGS84 coordinates, although it is stored internally in UTM coordinates.

Purpose: The CAH Land Cover Map was produced to serve as a base map for estimating current and future carbon stocks for the main Hawaiian Islands as part of the U.S. Geological Survey's national carbon assessment.

Description: While there have been many maps produced that depict vegetation for the state of Hawai'i only a few of these display land cover for all of the main Hawaiian Islands, and most of those that were created before the year 2000 have very generalized units or are somewhat inaccurate as a result of more recent land use changes or due to poor resolution (both spatial and spectral) in the imagery that was used to produce the map. Some of the more detailed and accurate maps include the Hawai'i GAP Analysis (HI-GAP) Land Cover map (Gon et al. 2006), the NOAA C-CAP Land Cover map (NOAA National Ocean Service Coastal Services Center 2012), and the more recently released Hawai'i LANDFIRE EVT Land Cover map (U.S. Geological Survey 2009). However, all of these maps as originally produced were not considered to be detailed enough, current enough, or had other classification issues that would not allow them to be used as the primary base for the Hawai'i Carbon Assessment. For the Hawai'i Carbon Assessment we integrated components from several of these previously mentioned land cover and land use mapping efforts and combined them into a single new land cover map (CAH Land Cover) that was further updated using very-high-resolution imagery. The hierarchical classification system of the CAH Land Cover map allows for grouping the mapped units into different configurations, ranging from very detailed plant communities reflecting current conditions to very generalized major land cover units and biomes that represent land use and potential vegetation zones, respectively. The CAH Land Cover classification is hierarchical with forty-eight CAH Detailed Land Cover units which can be grouped into twenty-seven CAH General Land Cover units, thirteen CAH Biome units, and seven CAH Major Land Cover units (Appendix 1). The CAH Detailed Land Cover units generally correspond to the rUSNVC Association level, the CAH General Land Cover units are related to the rUSNVC Group level, and the CAH Biome units connect to the rUSNVC Subclass level.

Source: Provided to Statewide GIS Program by James Jacobi, USGS, Pacific Region. Original data (raster format) can be found at <https://www.sciencebase.gov/catalog/item/592dee56e4b092b266efeb6b>.

History: Hawaii Statewide GIS Program converted the raster dataset to a vector polygon dataset by running the Raster to Polygon geoprocessing tool with NO polygon simplification to avoid any artificial smoothing of the source data. This processing step was performed at the request of Statewide GIS users for ease of use with their spatial analysis tasks. It is being shared with the public as a convenience to other users.

For more information about this dataset, including inventory of updates and changes to the layer, please refer to [full metadata](#).

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