

1 URBAN OR BUILT-UP LAND	2 AGRICULTURAL LAND	3 RANGELAND	4 FOREST LAND	5 WATER	6 WETLAND	7 BARREN LAND	8 TUNDRA	9 PERENNIAL SNOW OR ICE
11 Residential 12 Commercial and services 13 Industrial 14 Transportation, communications 15 Industrial and commercial 16 complexes 17 Other urban or built-up land	21 Cropland and pasture 22 Orchards, groves, vineyards, nurseries, and ornamental horticultural operations 23 Confined feeding operations 24 Other agricultural land	31 Herbaceous rangeland 32 Shrub and tree savanna 33 Mixed rangeland	41 Deciduous forest land 42 Evergreen forest land 43 Mixed forest land	51 Streams and canals 52 Lakes 53 Reservoirs 54 Bays and estuaries	61 Forested wetland 62 Nonforested wetland	71 Dry salt flats 72 Sandbars 73 Shrub areas other than beaches 74 Bare exposed rocks 75 Strip mines, quarries, and excavations 76 Transitional areas 77 Mixed barren land	81 Shrub and brush tundra 82 Bare ground tundra 83 Wet tundra 84 Mixed tundra	91 Perennial snowfields 92 Glaciers

For definitions of Level I and Level II categories see U.S. Geological Survey Professional Paper 964, Aerial Photography Interpretation Manual, 1964, and with remote sensor data, 1976, by J. R. Anderson, E. E. Hardy, J. T. Roach, and R. E. Wimmer.

The development of a geographic information system incorporating digital land use data is described in U.S. Geological Survey Professional Paper 1059, GIS/AS: A geographic information retrieval and analysis system for handling land use data, 1977, by W. E. Mitchell, S. C. Gurdak, K. E. Anderson, R. G. Fagan, and C. A. Hallam.

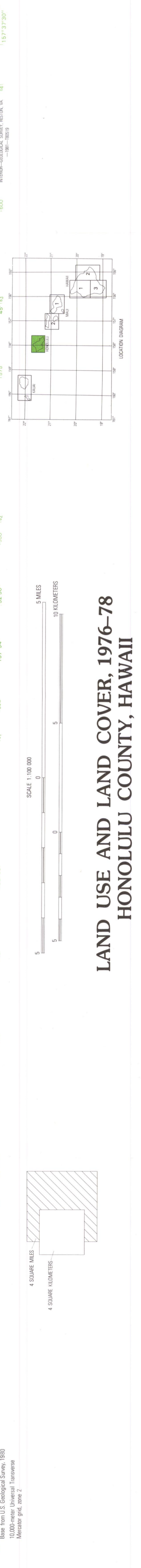
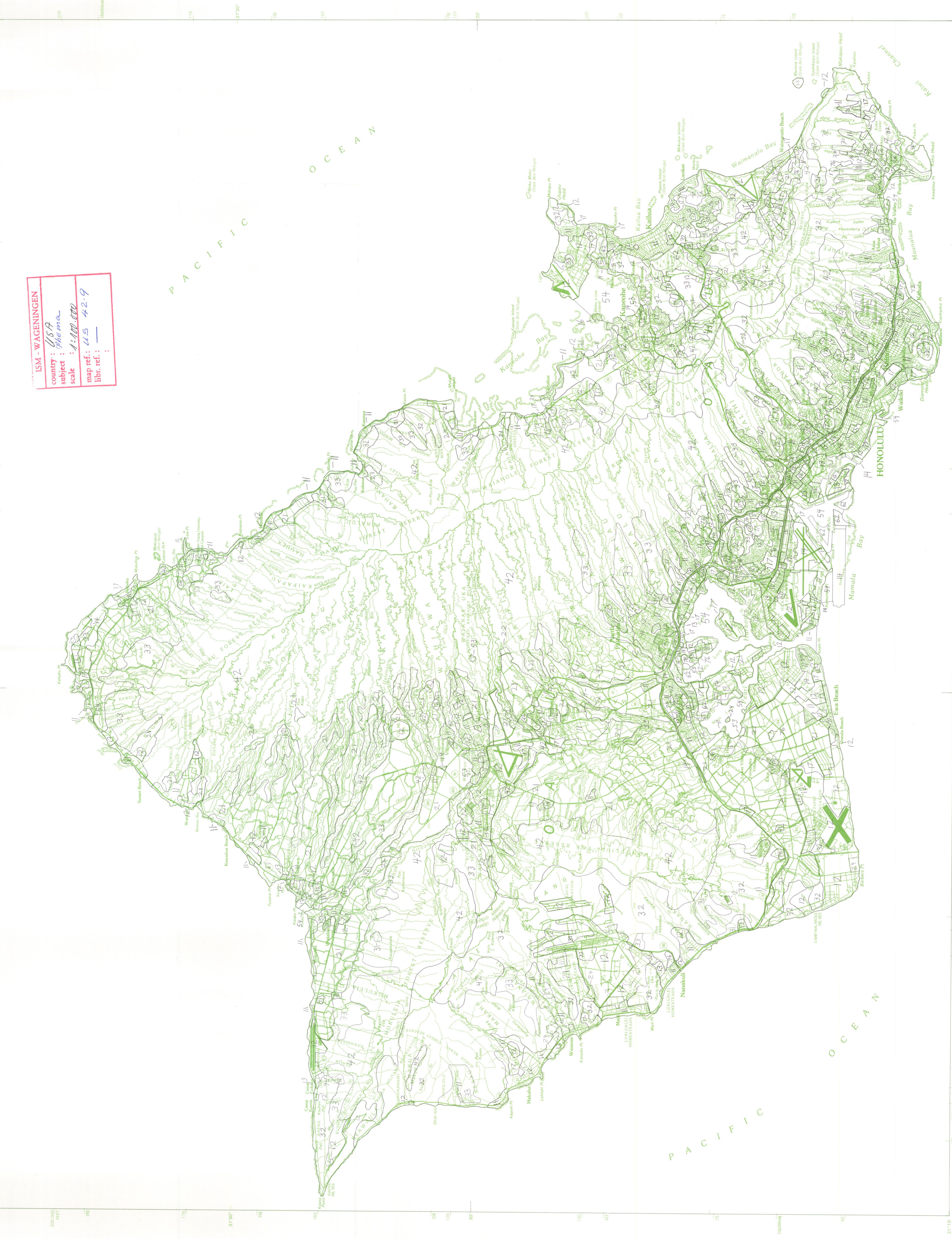
Land use and land cover information compiled from source materials dated 1976-78.

Minimum mapping units are 4 hectares (10 acres) for Level II categories 11-17, 23-24, 31-34, 35, and for all occurrences of 76, and 16 hectares (40 acres) for all other Level II categories.

For a complete description of the U.S. Geological Survey Open file data system, see U.S. Geological Survey Open file data system and associated maps, 1977, by G. L. Loebke, Jr.

Compilation verified by field check.

ISM - WAGENINGEN
country: USA
subject: Hawaii
scale: 1:100,000
map ref.: US 42-9
libr. ref.: —



LAND USE AND LAND COVER, 1976-78
HONOLULU COUNTY, HAWAII