

1-meter Land Cover Dataset Metadata

MapService and data download available at: <http://arcg.is/29h4XkV>

Summary

1-meter Land Cover Dataset based on a 12-classification scheme. This statewide dataset is divided into tiled imagery from the Virginia Base Mapping Program (VBMP) orthophotography between the dates of 2011 and 2015.

Description

The Virginia Geographic Information Network (VGIN) and its partners have coordinated the development of a statewide Land Cover Dataset, improving land coverage data to assist localities in planning and implementing stormwater management programs. The Land Cover product leverages the Commonwealth's investment in the VBMP digital orthophotography and is focused on creating a consistent, statewide 1 meter digital land classification. Land Cover data extraction is being publicly provided back to local governments and state agencies in both raster and vector data formats.

The Land Cover data is created based on the following revised Anderson classifications:

- 11. Open Water** - Includes drainage network and basins such as rivers, streams, lakes, canals, waterways, reservoirs, ponds, bays, estuaries, and ocean as defined by the NHD.
- 21. Impervious Extracted** - Includes areas characterized by a high percentage of constructed materials such as asphalt and concrete, buildings and parking lots, and infrastructure as defined by the EPA; this class includes all impervious features extracted through feature automation that did not overlap external datasets provided.
- 22. Impervious External** - Similar to previous class; includes all impervious externally developed datasets from state/localities.
- 31. Barren** - Includes areas with little or no vegetation characterized by bedrock, desert pavement, beach and other sand/rock/clay accumulations, as well as areas of extractive mining activities with significant surface expression as defined by the EPA.
- 41. Forest** - Includes areas characterized by tree cover of natural or semi-natural woody vegetation as defined by the EPA, encompassing an acre in size; this class includes deciduous, evergreen, and mixed foliage types.
- 42. Tree** - Includes areas characterized by tree cover of natural or semi-natural woody vegetation as defined by the EPA, that does not encompass at least an acre in size; this class includes deciduous, evergreen, and mixed foliage types.
- 51. Scrub/Shrub** - Includes areas characterized by natural or semi-natural woody vegetation with aerial stems generally less than 6 meters tall; features classified here will include those that would otherwise be determined Harvested/Disturbed but appear to show unmanaged stunted growth, or managed as easements.
- 61. Harvested/Disturbed** - Includes areas of forest clear-cut, temporary clearing of vegetation, and other dynamically changing land cover due to land use activities as defined by the EPA; these features should be categorized only where there is 30% canopy cover or less.

71. TurfGrass - Primarily grasses; including vegetation planted in developed settings for erosion control or aesthetic purposes, as well as natural herbaceous vegetation and undeveloped land, including upland grasses and forbs, as defined by the EPA.

81. Pasture - Includes areas of grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops as defined by the EPA.

82. Cropland - Includes areas characterized by herbaceous vegetation that has been planted or is intensively managed for the production of food, feed, or fiber, or is maintained in developed settings for specific purposes as defined by the EPA.

91. NWI/Other - Includes all areas where forest, shrubland vegetation, or perennial vegetation accounts for 25% to 100% of the cover and the soil or substrate is periodically saturated with or covered with water, as provided by the TMI & NWI; this class has an additional attributed subclass to correspond with the extracted software output had external wetland data not been incorporated.

The data provided here is a compilation of feature extraction utilizing Textron Systems Feature Analyst software, a third party extension to ESRI's ArcGIS Desktop software, and a variety of state and locally managed geospatial datasets. Locality datasets include Parcels, building footprints, edge of pavement and additional impervious layers, and hydrography. State and federal data includes hydro features from NHD, wetland features from TMI and NWI and VBMP RCL centerline data. Additional datasets were acquired from state agencies to improve upon the QA of certain classifications. For updated digital Tidal Marsh Inventory data, please visit http://ccrm.vims.edu/gis_data_maps/static_maps/gis/tmi_updated.html

Credits

Virginia Geographic Information Network (VGIN), Department of Conservation & Recreation (DCR), Department of Environmental Quality (DEQ), Virginia Department of Forestry (VDOP), Tidal Marsh Inventory (TMI), National Hydrography Dataset (NHD), National Wetlands Inventory (NWI), Virginia Economic Development Partnership (VEDP), Virginia Department of Mines, Minerals, and Energy (DMME), Worldview Solutions, Inc.

Use limitations

The re-distribution of this dataset for profit is prohibited. Differentiation in mapping methodology, output resolution, and sources of input data for the VBMP 4-band orthophotography product will confound any direct comparison between it and the USGS National Land Cover Dataset. Users are cautioned that direct comparison of these two independently created land cover products is not recommended.

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