CHESAPEAKE BAY WATERSHED LAND USE: THE NEXT GENERATION

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CBP Land Use Workgroup

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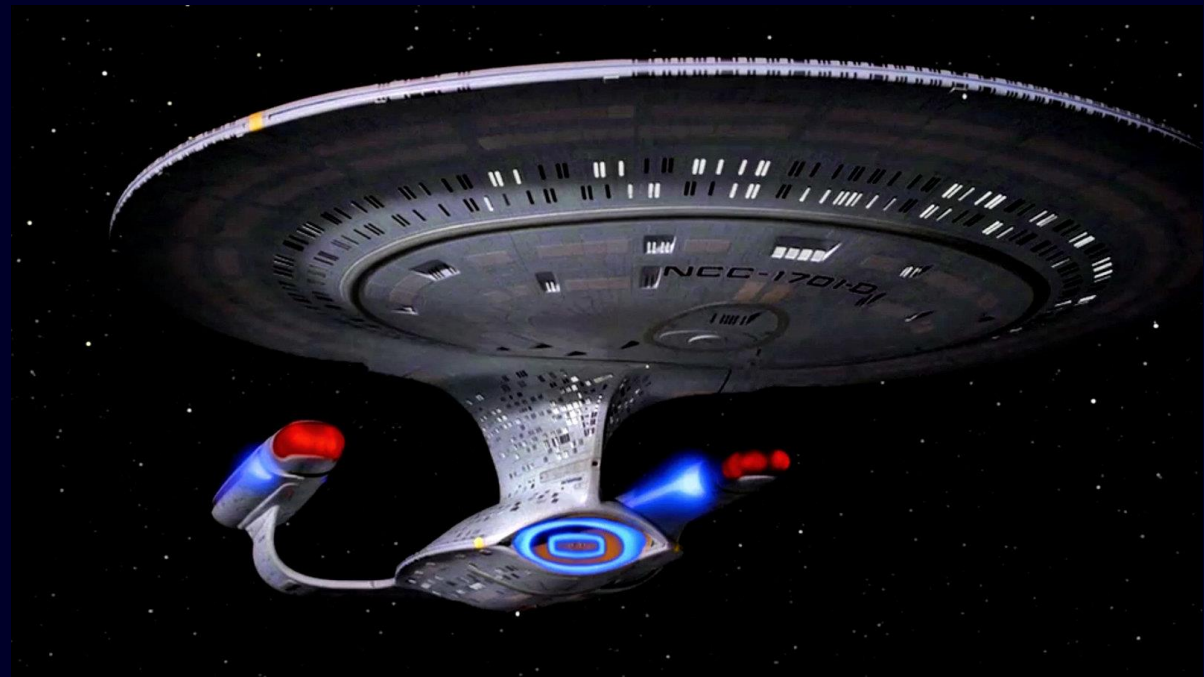
U.S. Department of the Interior
U.S. Geological Survey



Local land use and parcel data

- Low-density Residential
- Recreation
- Agriculture
- Roads

High-resolution land cover data

- Impervious surfaces
- Tree canopy
- Low vegetation
- Water

Phase 6 Land Uses

- Impervious-Roads
- Forests
- Turf Grass
- Open Space

USGS

2013 Chesapeake Bay Watershed Land Cover/Use Data

1m Land Cover

- Water
- Wetlands
- Tree Canopy
- Scrub-shrub
- Low vegetation
- Barren
- Impervious (structures)
- Impervious (other)
- Roads
- Tree Canopy over Structures
- Tree Canopy over Impervious Other
- Tree Canopy over Roads

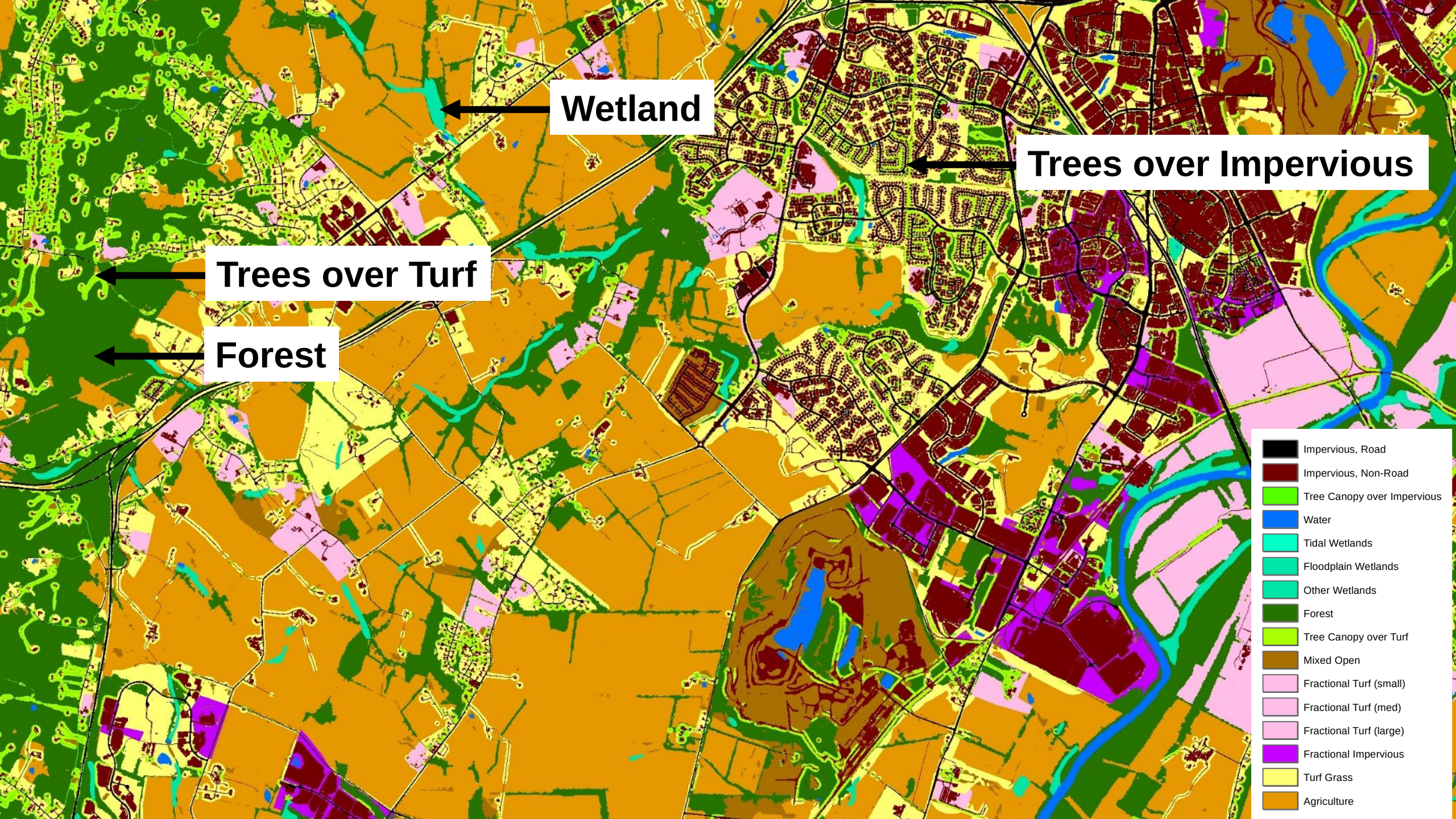
1m Land Use

- Impervious, Road
- Impervious, Non-Road
- Tree Canopy over Impervious
- Water
- Tidal Wetlands
- Floodplain Wetlands
- Other Wetlands
- Forest
- Tree Canopy over Turf
- Mixed Open
- Fractional Turf (small)
- Fractional Turf (med)
- Fractional Turf (large)
- Fractional Impervious
- Turf Grass
- Agriculture

10m Land Cover/Use

- Impervious Roads
- Impervious Non-Roads
- Tree Canopy Over Impervious
- Tree Canopy Over Turf Grass
- Turf Grass
- Forest
- Wetlands (Floodplain)
- Wetlands (Other)
- Wetlands (Tidal)
- Water
- Mixed Open
- Cropland
- Pasture

USGS


Wetland
Trees over Impervious
Trees over Turf
Forest
Impervious, Road
Impervious, Non-Road
Tree Canopy over Impervious
Water
Tidal Wetlands
Floodplain Wetlands
Other Wetlands
Forest
Tree Canopy over Turf
Mixed Open
Fractional Turf (small)
Fractional Turf (med)
Fractional Turf (large)
Fractional Impervious
Turf Grass
Agriculture

New Land Uses Nested in Land Cover

Tree Canopy

- Tree Canopy Over Impervious
- Tree Canopy Over Turf Grass
- Forest
  - Non-Tidal Wetlands (Forested)
    - Floodplain
    - Headwater
    - Other
- Cultivated Trees (orchards, vineyards)

Impervious

- Roads
- Non-Roads
  - Buildings
    - Urban
    - Agricultural
  - Solar fields
  - Other (driveways, parking lots)

Water

- Tidal
- Non-Tidal Lotic (stream)
- Non-Tidal Lentic (pond)

Herbaceous/Barren/Scrub-shrub

- Turf grass
- Pasture
- Cropland
  - Center Pivot
- Mixed Open
  - Harvested Forest (0-3 yrs)
  - Managed succession (post harvest)
  - Natural succession (fallow)
  - Suspended succession (rights-of-way)
  - Extractive (active)
  - Construction (bare pre-development)
  - Bare shore
- Tidal Wetlands
- Non-Tidal Wetlands (Scrub/Herb/Bare)
  - Floodplain
  - Headwater
  - Other

* White classes are current.
* Yellow classes are proposed.

USGS

Land Use Overlays*

Existing

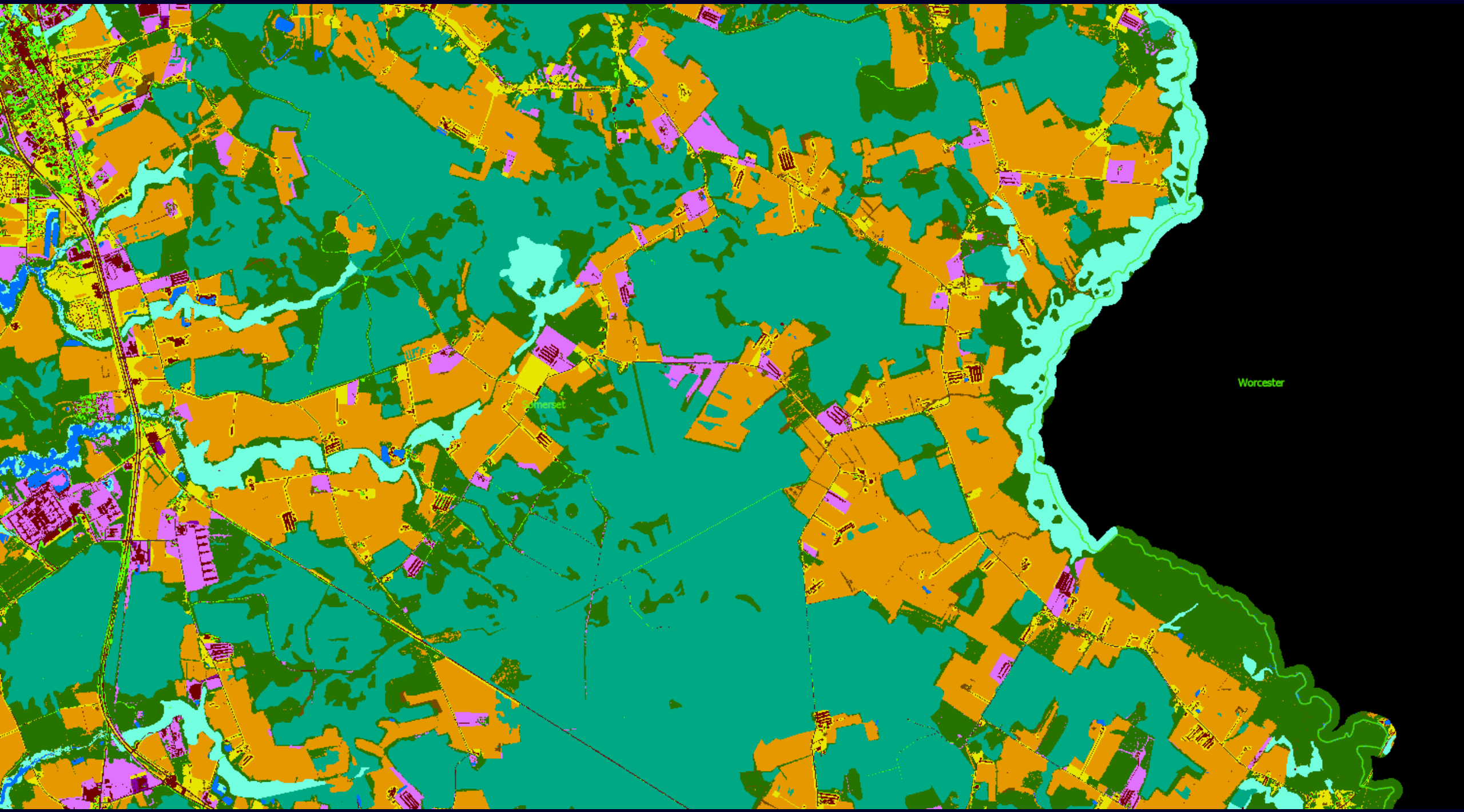
- Federal Lands
- MS4 Areas
- Sewer Service Areas
- FEMA Floodplains (HAZUS)
- Frequently Flooded Soils (gSSURGO)
- National Wetlands Inventory
- State Wetlands Inventories
- Cropland (Cropland Data Layer)
- Pasture (Cropland Data Layer)
- Parcels
- Land Use (County/City/State)
- Tidal/Estuarine Zone
- Surface Mines
- Landfills
- Roads

Proposed (new)

- Deciduous Trees (from land cover)
- Evergreen Trees (from land cover)
- Ground Elevation (1m, LiDAR DEM)
- Ground Elevation (1m, LiDAR DTM)
- Surface Elevation (1m, LiDAR DSM)
- Classified Point Cloud (normalized to the ground)
- Height (normalized DSM to ground elevation)
- Intensity (1m, LiDAR)
- Compound Topographic Index (3m, LiDAR)
- Poultry Houses (USGS polygons- for DelMarVA)
- Solar fields (points from VA-DEQ, other?)
- Center-Pivot Irrigated Fields (DE)
- Historical Land Cover Change (1985 – 2017; USGS-LCMAP)
- Agricultural business addresses (ESRI)
- Transmission Lines (TBD)
- Buildings (Microsoft)
- Marine/ Lentic/ Lotic shore

USGS

* Overlays represent ancillary spatial data that are either used or could be used to inform the land use classification.


Worcester
Somerset