

Turf Grass v. Open Space

Peter Claggett, U.S. Geological Survey

March 2, 2016

Land Use Workgroup Meeting

Land Use Mapping Definitions (for P6 beta)

Turf Grass: low vegetation within developed areas that are potentially fertilized.

Open Space: barren, scrub-shrub, and low vegetation that is not turf grass or known to be agriculture (e.g., beaches, vacant lots, transmission line right-of-ways, junkyards, fairgrounds, etc.).

Agriculture (maximum potential area): low-vegetation lands outside developed areas that are not explicitly mapped as open space or turf grass.

P6 Developed Areas- defined

With local data:

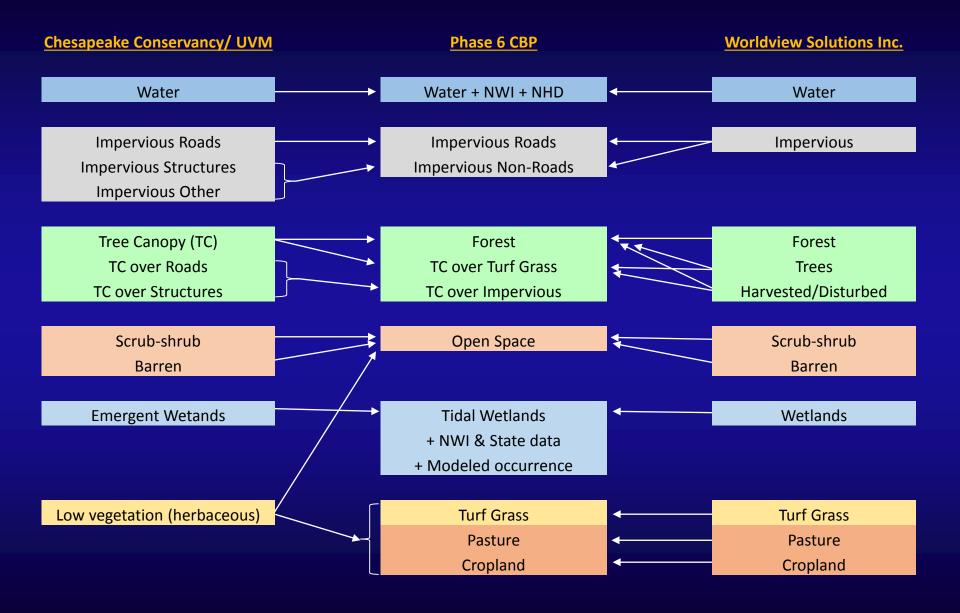
- Land Use: residential, commercial, industrial, recreational, institutional and other urban uses.
- Parcels: <= 5 acres with over 100-ft² of non-road impervious surfaces.

With national data:

- Census Blocks: average housing density >= 0.2 dwelling units per acre (e.g., less than 5-acre lots).
- Institutional and recreational areas (Falcone, 2015)



Land Cover to Land Use Crosswalk



Mapping Shrubbery from High-res Imagery and LiDAR





Forest vs Tree Canopy over Turf



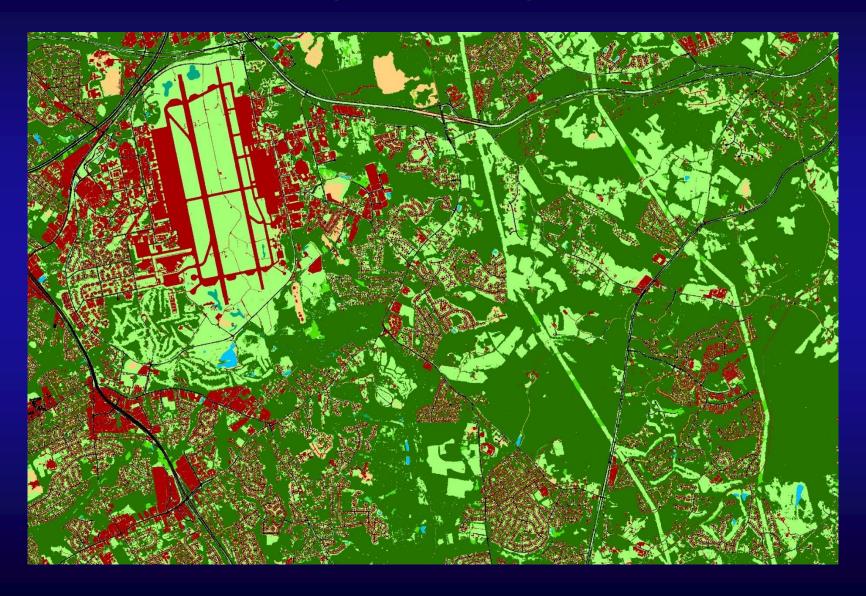
Urban Area

Forest

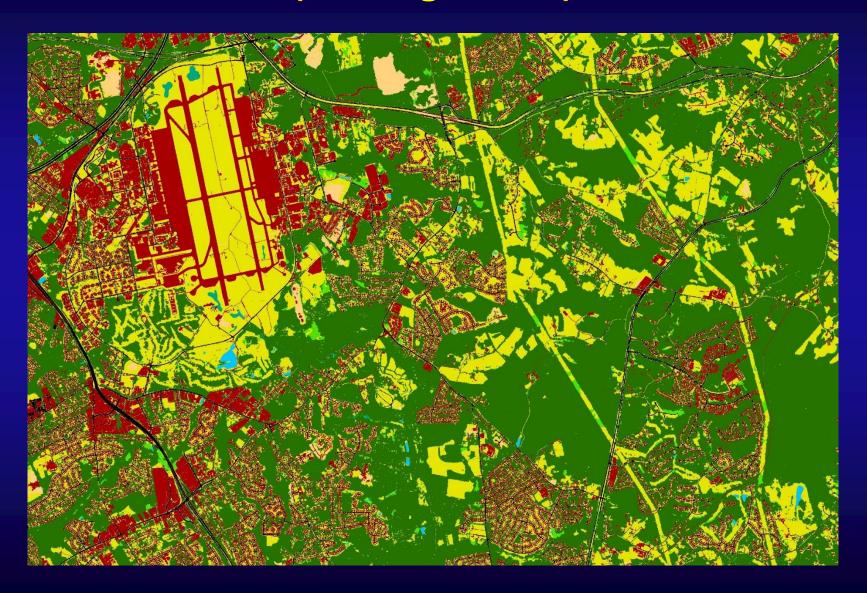
Tree Canopy over Turf

Rural Area

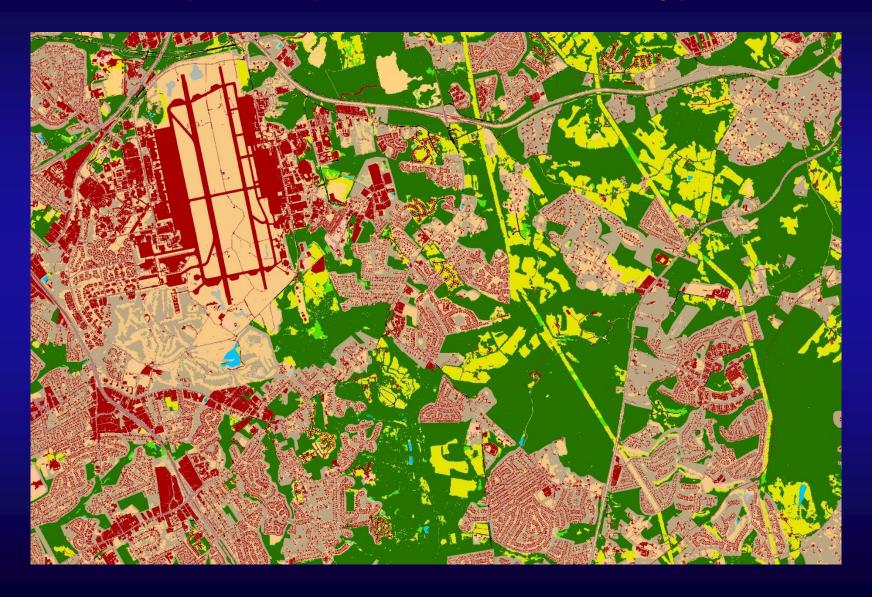
Turf Grass vs Agriculture (land cover)



Turf Grass vs Agriculture (low vegetation)



Turf Grass vs Agriculture (developed land use overlay)



Definition Problems

How do we classify low vegetation, scrub-shrub, and barren land within:

- Institutional campuses
- Military installations
- County, State, and National Parks
- Dirt and gravel roads
- Highway right-of-ways
- Railroad right-of-ways
- Commercial/industrial barren areas
- Quarries and surface mines
- Landfills
- Vacant lots
- Sandy and rocky waterbody margins
- Adjacent to rural buildings

Should we use a fractional estimation of turf vs open space on all low vegetation, scrub-shrub, and barren lands?

Definition Questions

What are the defining characteristics of turf grass?

- fertilized?
- mowed?
- compacted?
- minimal organic A soil horizon?
- all of the above?

What are the defining characteristics of open space?

- maintained in early successional state (brush hogged)?
- minimally compacted/disturbed?
- not fertilized?
- potentially barren?
- outside developed areas?

Problems with "Open Space" moniker?

- 1. Implies land is protected or valued for protection
- 2. Implies land is publicly accessible

Name change suggestions:

- Unmanaged Terrestrial
- Other
- Unclassified
- Mixed open
- Mixed bag
- Woody open
- Pervious open