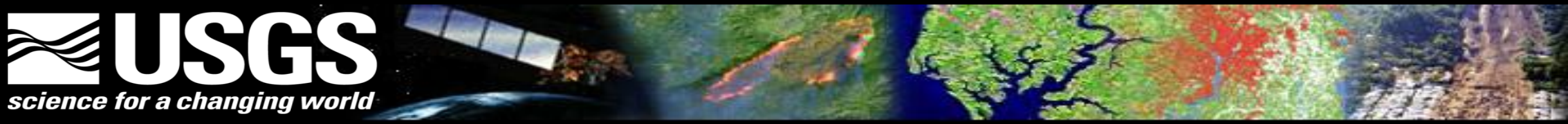

Proposed Land Use Methods and Metrics Outcome Indicators for 2022

Peter R. Claggett,
Research Geographer, Lower Mississippi-Gulf Water Science Center, U.S. Geological Survey, Annapolis, MD 21403

Land Use Workgroup Meeting
February 16, 2022

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

Finalization of Land Use Methods and Metrics Indicators

Impervious Cover (2017/18)
% impervious cover by catchment, watershed*, place, municipality, and county
Acres of impervious cover by catchment, watershed, place, municipality, and county

Impervious Cover Change (2013-2017)
% change in impervious cover by catchment, watershed, place, municipality, and county
Acreage change of impervious cover by catchment, watershed, place, municipality, and county

Effective** Impervious Cover (2017), proposed to be added in 2023
% effective impervious cover by catchment and watershed

Effective** Impervious Cover Change (2013-2017), proposed to be added in 2023
% change in effective impervious cover by catchment and watershed (2013-2017)

* Watershed metrics are estimated at the catchment scale by accumulating acreages of X downstream to each catchment
** Effective Impervious Cover = impervious cover weighted by its proximity to streams relative to ridges.

Red text means TBD for later in 2022

Finalization of Land Use Methods and Metrics Indicators

All Tree Cover* (2017/18)
% tree cover by catchment, watershed, place, municipality, and county
Acres of tree cover by catchment, watershed, place, municipality, and county

All Tree Cover Change (2013/14 – 2017/18)
% change in tree cover by catchment, watershed, place, municipality, and county
Acreage change of tree cover by catchment, watershed, place, municipality, and county

Riparian** Tree Cover (2017/18)
% riparian tree cover by catchment and watershed

Riparian Tree Cover Change (2013/14 – 2017/18)
% change in riparian tree cover by catchment and watershed

*All tree cover = all trees including those classed as forest, other tree canopy, and tree canopy over turf grass, tree canopy over impervious cover, wetland forests, and wetland other tree canopy.
**Riparian tree cover= all tree cover EXCEPT tree canopy over impervious within the 30-meter buffer along all 1:100K streams aligned to the latest LiDAR DEM and accounting for channel width.

Finalization of Land Use Methods and Metrics Indicators

Natural* Land (2017/18)
% natural land by catchment, watershed, place, municipality, and county
Acres of natural land by catchment, watershed, place, municipality, and county

Natural Land Change (2013/14 – 2017/18)
% change in natural land by catchment, watershed, place, municipality, and county
Acres of change in natural lands by catchment, watershed, place, municipality, and county

Riparian** Natural Lands (2017/18)
% riparian natural land by catchment and watershed

Riparian Natural Land Change (2013/14 – 2017/18)
% change in riparian natural land by catchment and watershed

*Natural land = tree canopy within areas mapped as “forest”, “other tree canopy”, or “wetlands”, managed for forest resources (e.g., timber harvests), and lands undergoing natural succession. Tree canopy over impervious surfaces and over turf grass will be excluded.
**Riparian = 30-meter buffer along all 1:100K streams aligned to the latest LiDAR DEM and accounting for channel width.

Finalization of Land Use Methods and Metrics Indicators

Tree Canopy over Development* (2017/18)
Acres of tree canopy over development by municipality, place, and county

Tree Canopy over Development* Change (2013/14 – 2017/18)
% change in tree canopy over development by municipality, place, and county – include change from forest and other tree canopy

Farmland** Conversion to Development (2013/14 – 2017/18)
Acres of farmland converted to development by municipality, place, and county

Natural Land*** Conversion to Development (2013/14 – 2017/18)
Acres of natural land converted to development by municipality, place, and county

* Tree Canopy over Development = tree canopy over impervious cover and tree canopy over turf grass
** Farmland = cropland and/or pasture
***Natural land = forest, other tree canopy, timber harvest, natural succession, and wetlands

Red text means TBD for later in 2022


USGS
science for a changing world