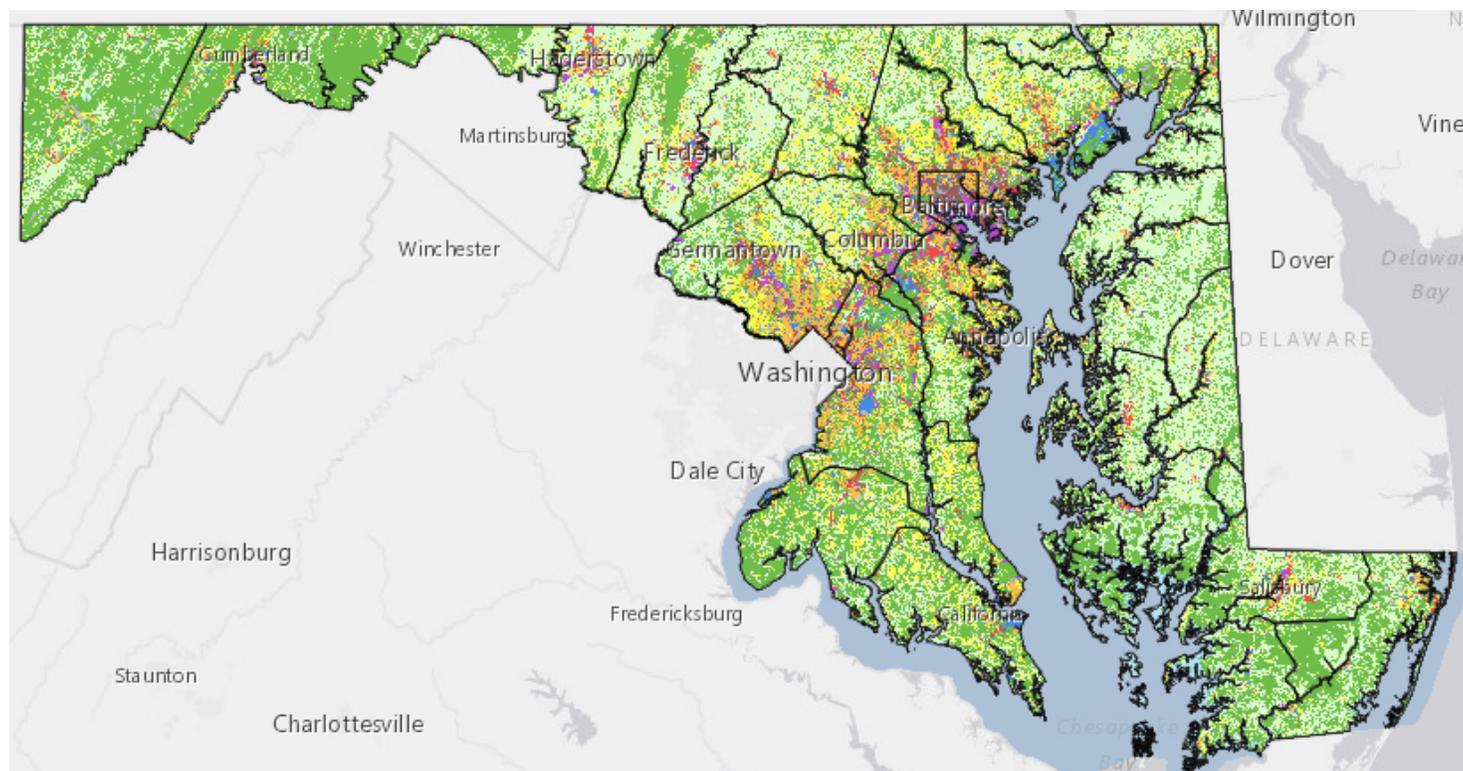


2020 STATEWIDE LAND USE MAP UPDATE



May 12, 2020

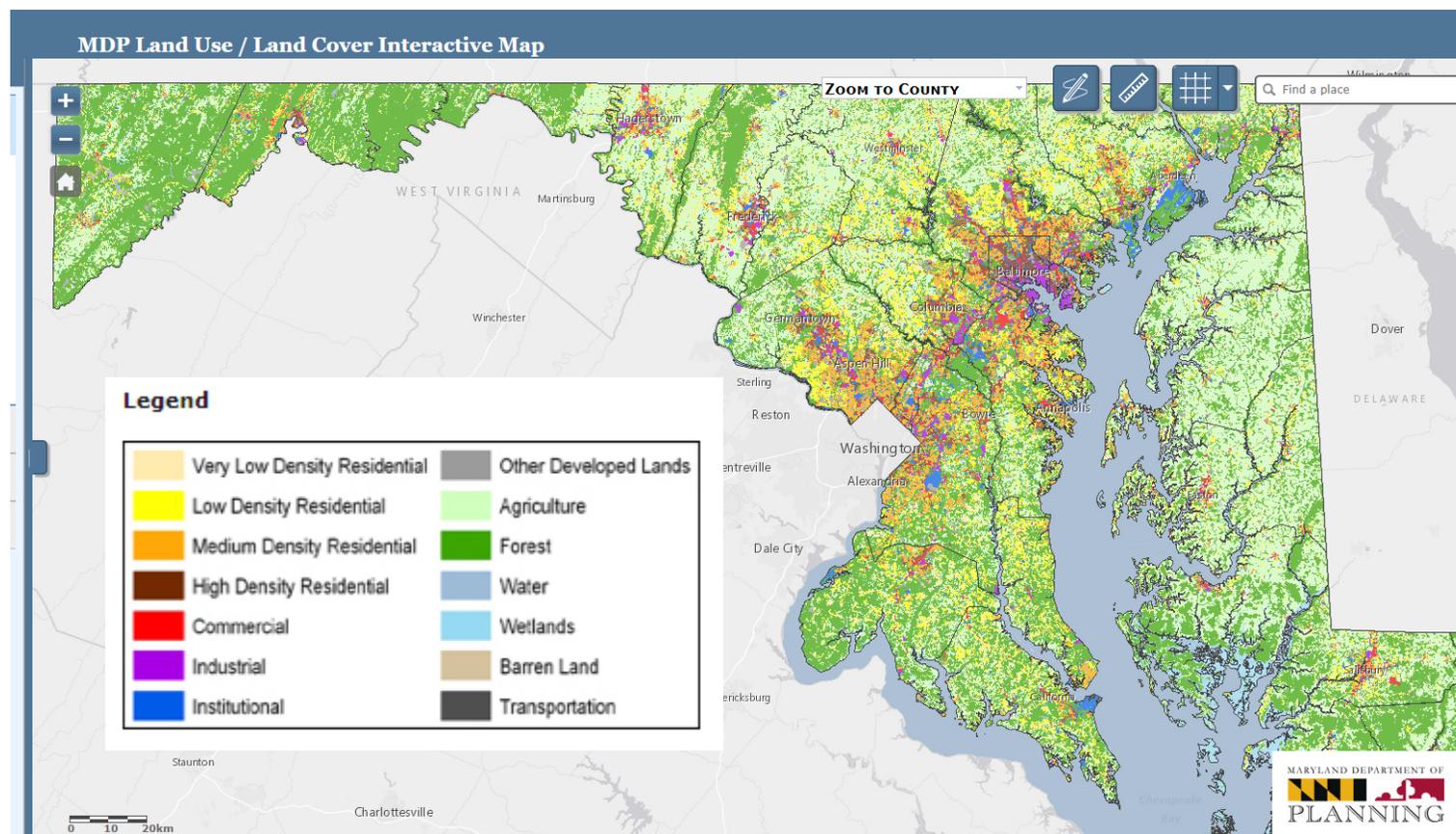
Deborah Sward, Project Manager

Ken Choi, Manager, Geospatial Data and Analysis Unit

MEETING PURPOSE

- Land use product overview
- 2020 update process and potential methodology/classification revisions
- Discussion
- Gather additional ideas and feedback through post-webinar questionnaire

2010 LAND USE LAND COVER PRODUCT



Webpage and Documentation: <https://planning.maryland.gov/Pages/OurWork/landuse.aspx>

Data Download: <https://planning.maryland.gov/Pages/OurProducts/DownloadFiles.aspx>

2010 CLASSIFICATIONS

Developed Land	Remaining Undeveloped (Resource) Land or Water
Very Low Density Residential (< 0.2 du/ac) -Primarily Agriculture vs. -Primarily Forest	Agriculture Forest Water Wetland Barren
Low Density Residential (0.2-2 du/ac)	
Medium Density Residential (2-8 du/ac)	
High Density Residential (8+ du/ac)	
Commercial	
Industrial	
Institutional	
Other Developed Lands <ul style="list-style-type: none"> • Major transportation facilities • Extractive • Open urban land 	

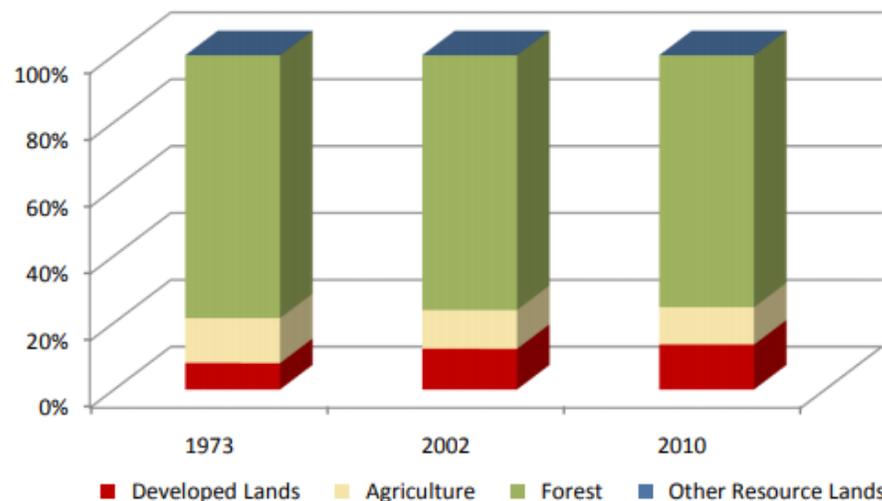
For definitions see: <https://planning.maryland.gov/Pages/OurWork/landuse.aspx>

Allegany County

	Land Use in Acres		Land Use Change	
	2002 ³ Acres	2010 ^{1,2} Acres	2002-2010 Acres	Percent
Very Low Density Residential ¹	6,320	6,880	560	8.9%
Low Density Residential	9,387	10,693	1,307	13.9%
Medium Density Residential	7,308	7,572	264	3.6%
High Density Residential	1,291	1,309	18	1.4%
Commercial	1,998	2,158	160	8.0%
Industrial	1,097	1,119	22	2.0%
Other Developed Lands/ Institutional/Transportation ¹	5,067	6,122	1,055	20.8%
Total Developed Lands⁵	32,468	35,854	3,386	10.4%
Agriculture	31,002	29,791	-1,211	-3.9%
Forest	203,269	201,053	-2,216	-1.1%
Extractive/Barren/Bare	16	57	41	253.2%
Wetland	29	29	0	0.0%
Total Resource Lands⁵	234,316	230,930	-3,386	-1.4%
Total Land	266,784	266,784		
Water	2,725	2,725		

	Land Use in Acres			Land Use Change
	1973 ⁴	2002 ³	2010 ^{1,2}	1973-2010 Acres
All Residential	12,876	24,306	26,455	13,579
All Non-Residential	8,183	8,162	9,398	1,215
Total Developed Lands⁵	21,059	32,468	35,854	14,794
Total Resource Lands⁵	245,630	234,316	230,930	-14,700
Total Land	266,689	266,784	266,784	
Water	2,820	2,725	2,725	

Land Use Change 1973 - 2010

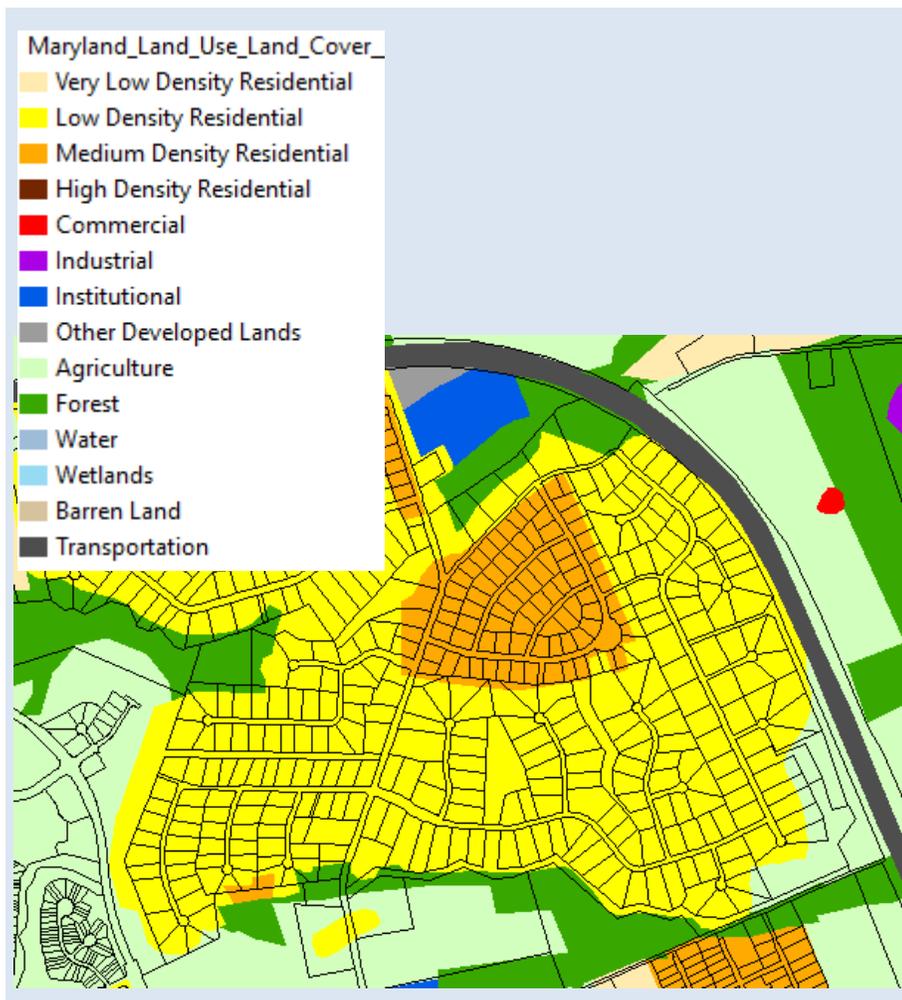


- Two new categories have been added to the 2010 Land Use/Land Cover layer update; very low density residential development (191,192) and transportation (80).
- Updates/modifications to the 2010 land use/land cover layers used the 2007 NAIP aerial imagery and parcel information from Maryland Property View 2008.
- The original 2002 data were mapped using geo-rectified LANDSAT satellite imagery and 2000 MD Property View. In 2010 two new land use categories were added, transportation and very low density residential making it necessary to modify the 2002 land use/land cover layer to incorporate these categories for comparative purposes. Additionally, better imagery and property data information were used to make further modifications. The enhanced 2002 dataset is available upon request.
- Very low density residential was not mapped in 1973, so there is no data associated with changes. Transportation was not mapped in 1973.
- As noted above, new land use categories were added in 2010 and associated adjustments were made to 2002 data. Similar adjustments were not made to 1973 data, making it impossible to know how much change from 1973 is due to new development since then, versus misclassified land uses at that time. For these reasons, we suggest reliance only on change statistics for the aggregate land use categories, Total Developed and Total Resource Lands

EXAMPLE USES THE LAND USE MAP

Planning Activity	Use
Comprehensive planning	Calculate existing land use distribution
Pollutant loading analyses	Calculate loading based on rates by land use type
Development capacity, land preservation targeting, and land stability analyses	Where does development capacity or pressure exist in undeveloped areas?
Transportation planning	Trip generation/distribution NEPA Indirect and Cumulative Effects Analyses

LAND USE AND LAND COVER DATASET VARIATIONS



Source: Maryland Department of Planning, 2010 Land Use Land Cover



Source: Chesapeake Conservancy, 2013/2014 Land Cover

2020 METHODOLOGY UPDATES

- Tools and Data:
 - Vectorized parcel polygons attributed with tax parcel assessment data
 - High-resolution land cover data (Chesapeake Conservancy)
 - GIS license for raster analysis
- Goals:
 - Automate and standardize procedures to extent feasible
 - Capture where development has occurred
 - Balance land use detail and generalization
 - Defer to others for undeveloped land use and land cover

POTENTIAL REVISED CLASSIFICATIONS

Urban (Developed) Land Uses	Remaining Undeveloped (Resource) Land
Very Low Density Residential (< 0.2 du/ac) -Primarily Agriculture vs. -Primarily Forest	Agriculture Forest Water Wetland Barren
Low Density Residential (0.2-2 du/ac)	
Medium Density Residential (2-8 du/ac)	
High Density Residential (8+ du/ac)	
Commercial	
Industrial	Remove sub-classifications related to land cover or undeveloped land use
Institutional	
Other Developed Lands <ul style="list-style-type: none"> • Major transportation facilities • Extractive • Open urban land 	

POTENTIAL REVISED CLASSIFICATIONS

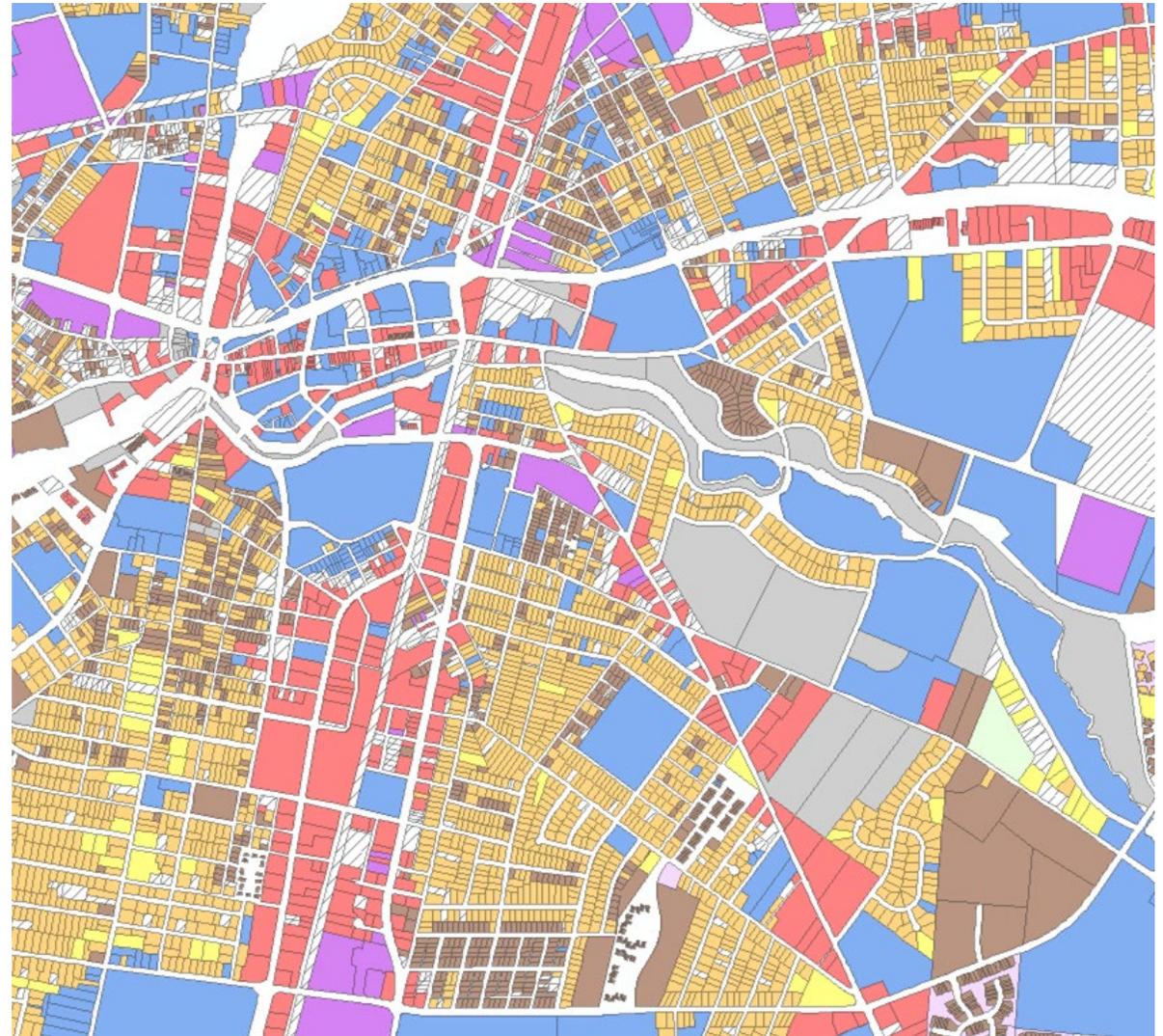
Urban (Developed) Land Uses	Remaining Undeveloped (Resource) Land
Very Low Density Residential (< 0.2 du/ac) -Primarily Agriculture vs. -Primarily Forest	Agriculture Forest Water Wetland Barren Possibly expand transportation classification to include additional roads. Possibly classify entire right-of-way as transportation
Low Density Residential (0.2-2 du/ac)	
Medium Density Residential (2-8 du/ac)	
High Density Residential (8+ du/ac)	
Commercial	
Industrial	
Institutional	
Other Developed Lands	
<ul style="list-style-type: none"> • Major transportation facilities • Extractive • Open urban land 	

POTENTIAL REVISED CLASSIFICATIONS

Urban (Developed) Land Uses	Remaining Undeveloped (Resource) Land
Very Low Density Residential (< 0.2 du/ac)	Undeveloped Resource Land
Low Density Residential (0.2-2 du/ac)	
Medium Density Residential (2-8 du/ac)	
High Density Residential (8+ du/ac)	
Commercial	
Industrial	
Institutional	
Other Developed Lands <ul style="list-style-type: none"> • Transportation facilities • Extractive • Open urban land 	

STEP 1: CLASSIFY PARCELS

- Classified using tax parcel assessment data
- Single-family residential density classified based on lot size

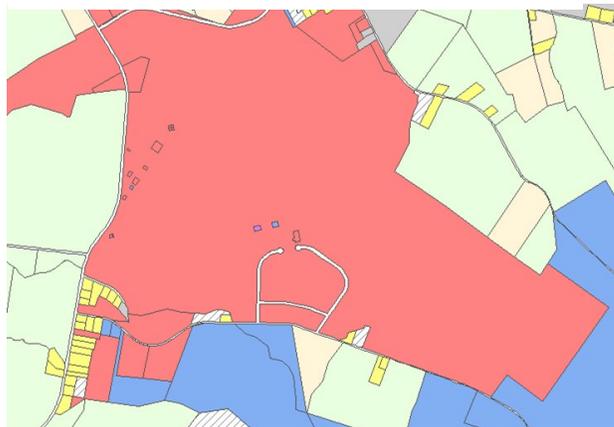


Note: Image shows hypothetical example.
Actual land uses may differ.

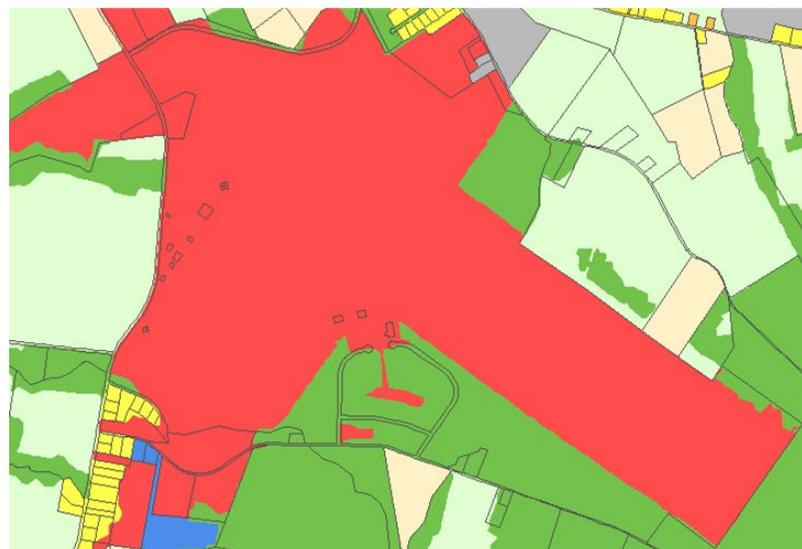
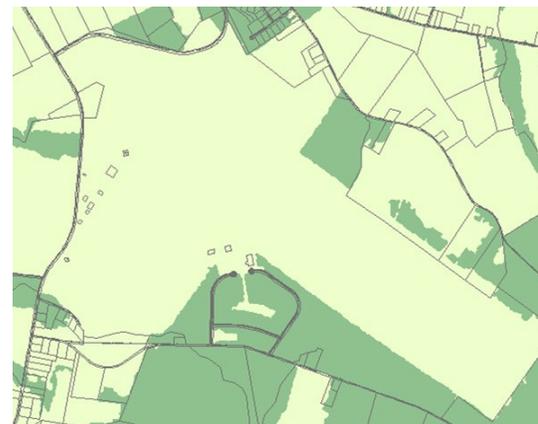
STEP 2: DELINEATE URBAN LAND USES

- Single-family residential uses follow parcel boundaries
- Forest line assists in delineating other urban uses
 - ⑩ Large parcels only partially in use
 - ⑩ Helps distinguish between areas assessed for vs. in use

Classified Parcel



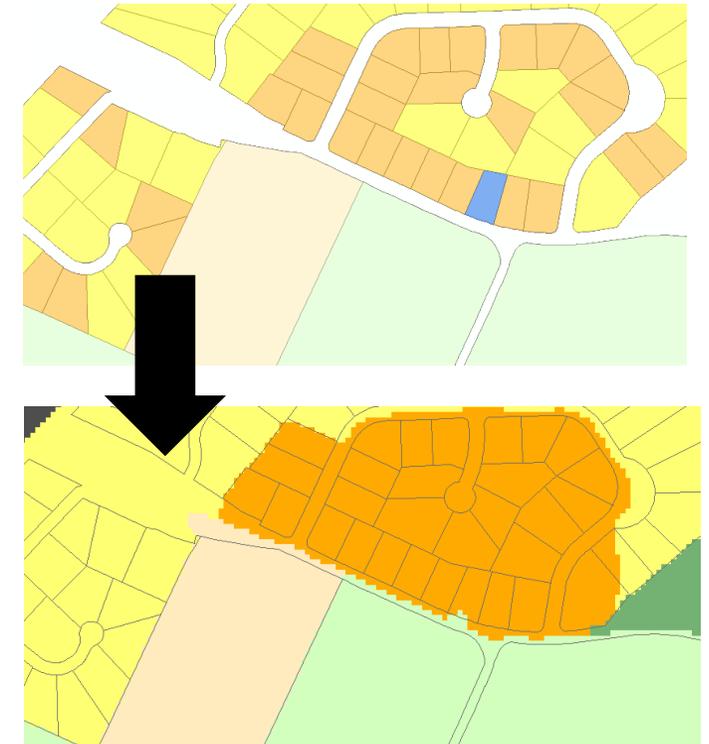
Generalized Tree Line



Note: Image shows hypothetical example. Actual land uses may differ.

STEP 3: GENERALIZE LAND USES

- Generalize residential density
- Determine appropriate level of detail for nonresidential and potential ancillary uses



Note: Images show hypothetical example. Actual land uses and generalization scheme may differ.

DRAFT GENERALIZATION SCHEME

Land Use	Generalization Scheme (Subject to Revision)
<ul style="list-style-type: none">• Multifamily residential• Very low density residential single-family• Key institutions (schools, hospitals, government offices, etc.)	Capture individual instances
<ul style="list-style-type: none">• Single-family residential	5 clustered housing units or five acres
Other developed uses (commercial, industrial, institutional)	TBD

STEP 4: FINALIZE AND QC

- Review output against aerial imagery, 2010 map, and supplemental sources
- Opportunity for county or local governments to review
- Draft completion late 2020/early 2021 (subject to adjustment)
- Final product will be in vector format and will be referred to as a “Land Use” map

ADDITIONAL CONSIDERATIONS

- Not directly comparable to 2010 map. Land use change estimates may be completed as second phase of project
- Generalized map is not for parcel-scale analysis
- Consider using product in conjunction with other datasets
- Data sharing partnerships (mixed use, housing units per parcel, key institutions, etc.)

DISCUSSION

Contact Us

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Visit Our Website

<https://planning.maryland.gov/Pages/OurWork/landuse.aspx>

Those registered for the webinar will receive a questionnaire by email to provide additional feedback on the statewide land use map.

Thank you for participating!