

Final Phase 6 Land Use Database Project Plan

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US Geological Survey
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Overview

- USGS Process Development Status
- Work Plan
- Schedule

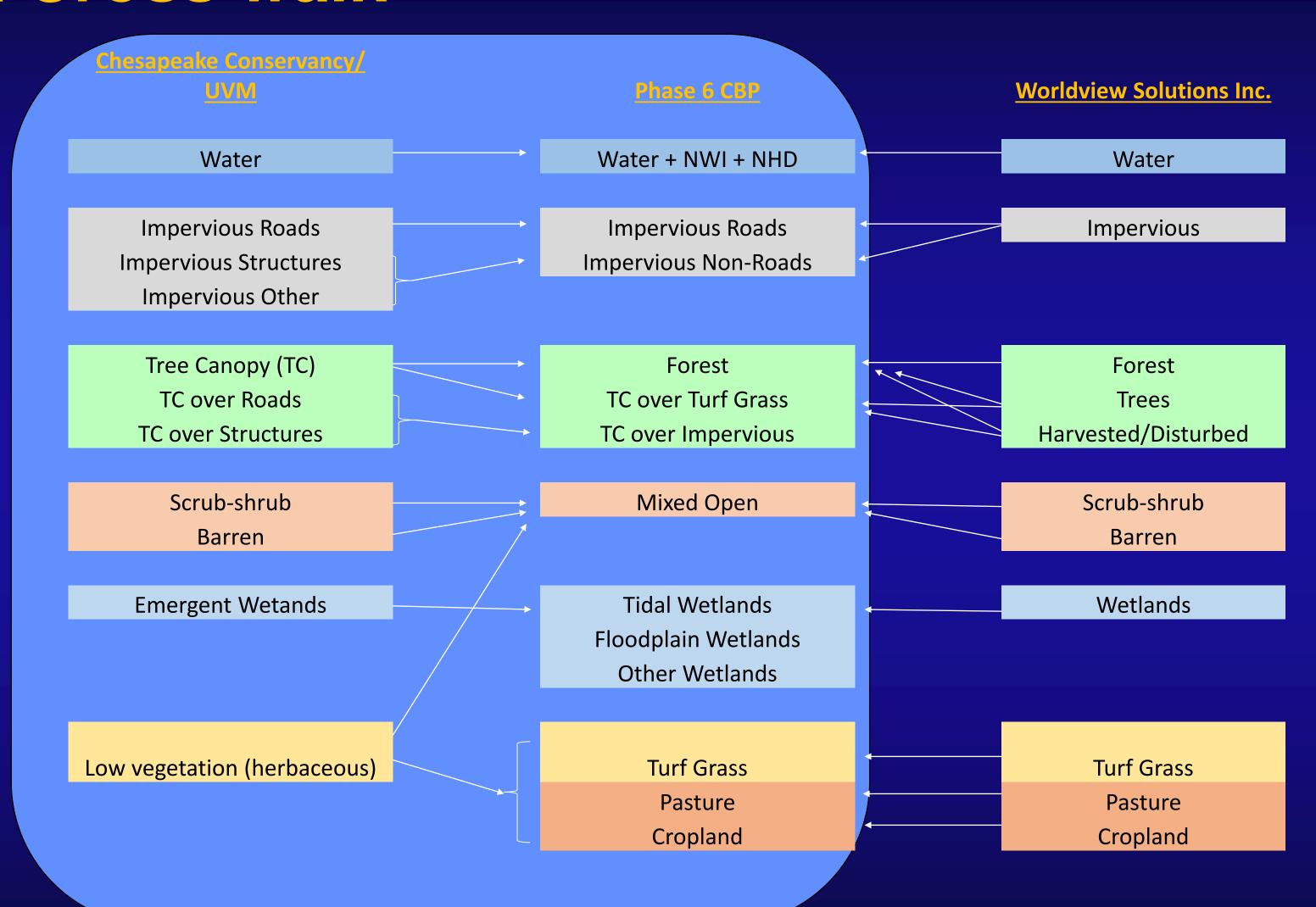


High Resolution LU Process

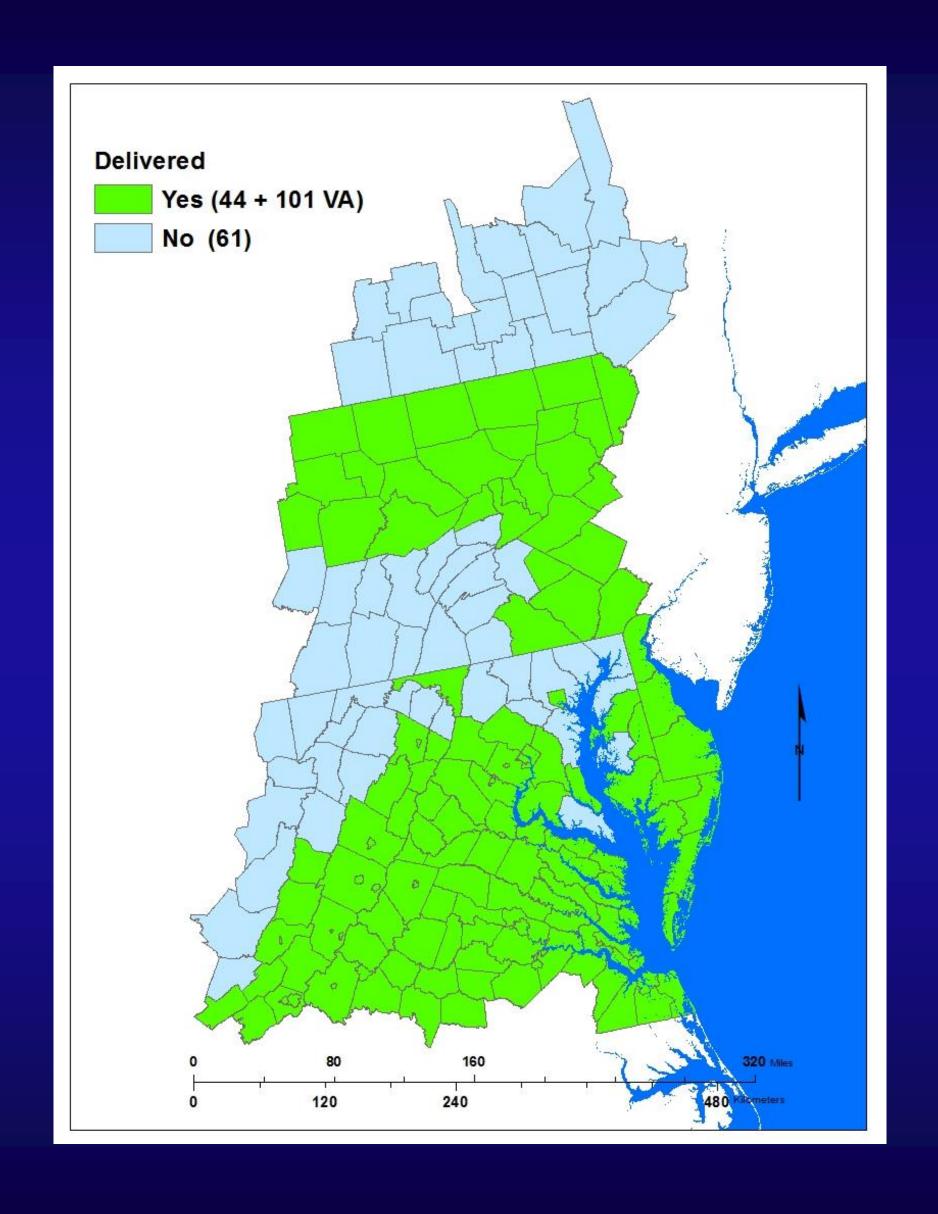
- Dec '15 July '16 Automate Steps to:
 - Perform Cross Walk to Create 13 Classes at 1 Meter Resolution:
 - Impervious Road,
 - Impervious Non-Road
 - Tree Canopy over Impervious
 - Tree Canopy over Turf Grass
 - Turf Grass
 - Forest
 - Mixed Open
 - Pasture,
 - Crop
 - Tidal, Floodplain, and Other Wetlands (3 Layers)
 - Water



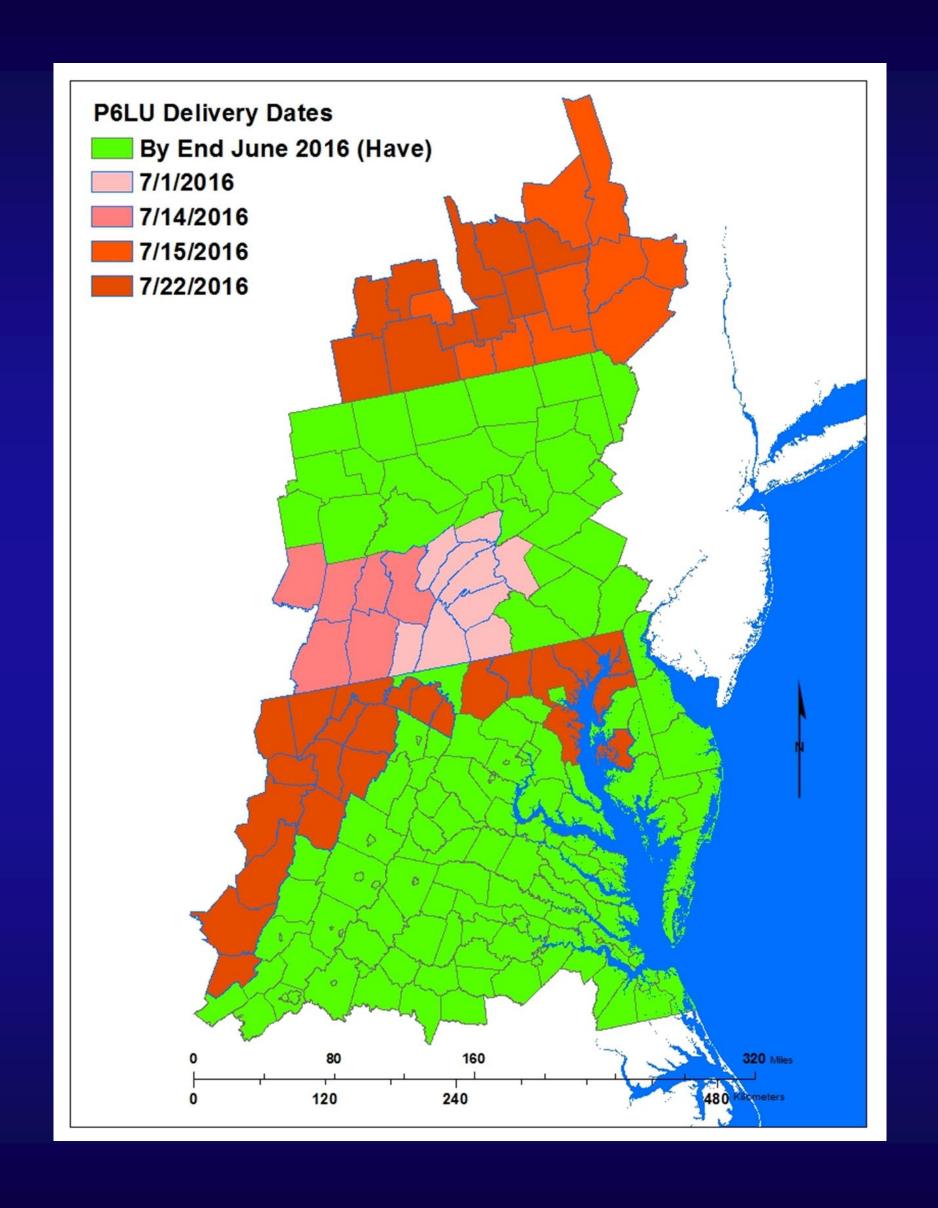
Data Cross walk





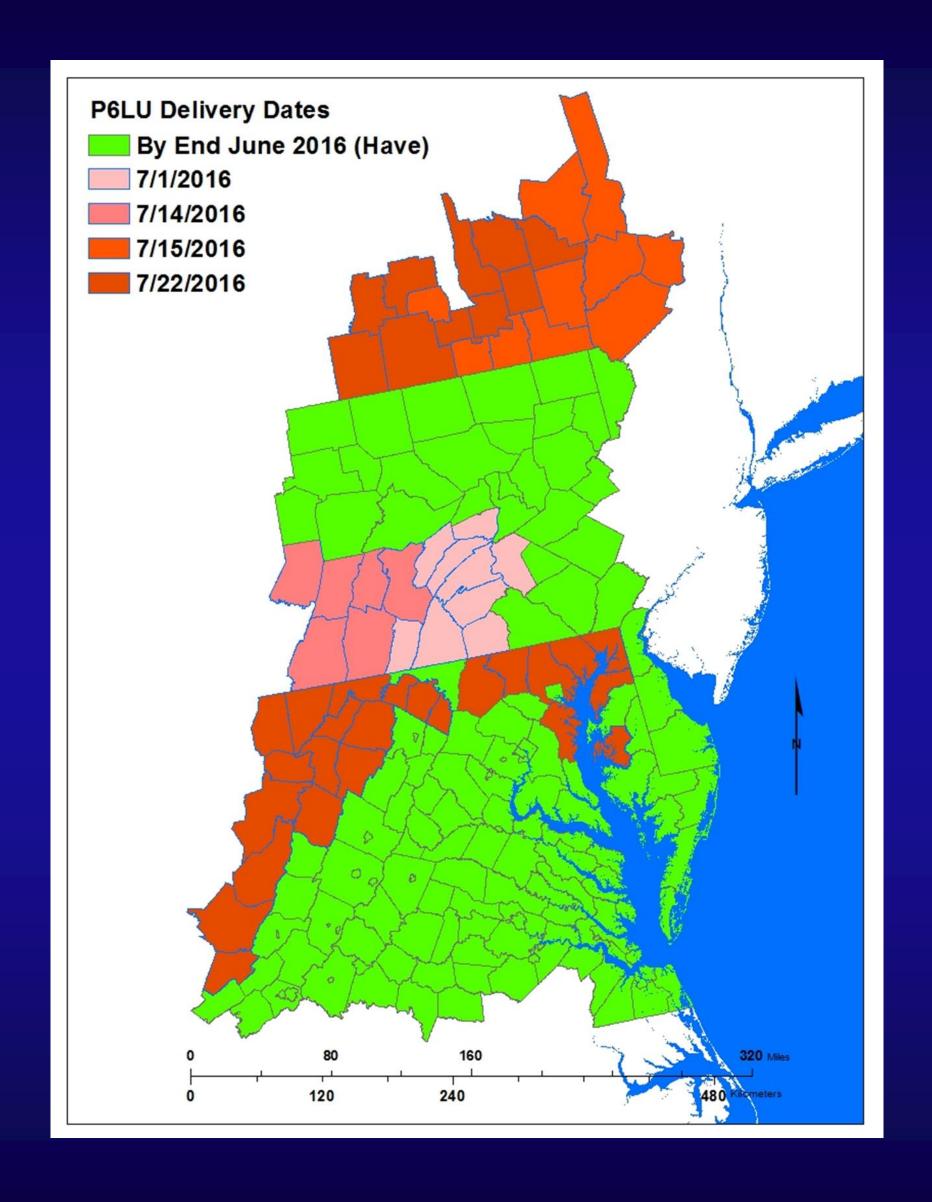








- For Each of 206 Counties Masks
 Rasterized from Derived Regional Vector
 Data:
 - Rail RoW
 - Extractive / Land Fill
 - Federal Lands
 - NavTec Turf
 - NavTec Fractional
 - NavTec Beach (Mixed Open)
 - Open Water (NWI)
 - Street Right of Ways
 - Crop and Pasture Masks





Phase 6 Land Use Development Process 07/06/16 Land Cover Class (1m) NAVTEQ **SSURGO** NWI State **FEMA** Land Use A & Local Flood Wetlands & Wetland Water **Ancillary Data Preprocessed by Floodplains Land Use** В Frequency Waterbodies **Datasets** County subset Local data (county level) Low **Fractional** Water Wetland **Emergent** Vegetatio NWI Model **Fractional** Model **Intermediate Model Data** Wetland **Model** Ponds and Lakes (Dependency Mask (2) (1) Level: 1) Intermediate Data Mask Overlay (1, **Barren** null) Other **Fractional Fractional Semi-automated Models** Water Wetland Class B Class A INR/MO TG/MO Phase 6 land use interim classes (1m) **Impervious** Impervious Low Tree Impervious Scrub-Tree Tree Vegetatio Structures Canopy Other Road **Barren** Tree shrub Regional Canopy Canopy over Canopy **Extractive** Low over over **Impervious** Water vegetation Structures and Roads Other Scrub-Landfills **Tidal** shrub Wetland **Impervious** Mixed Tree Canopy **Mixed** NAVTEQ **Forest** Barren **Local Land** Model (3) Open over **Model** Open Rail Model Use Wetland **Impervious** (2) **NAVTEQ Trees** RoW Model (1) **Rail RoW NAVTEQ** Wetland Land Use A mpervious **Tree Canopy Mixed Open** Non-Road subset over Impervious **Mixed Open** Mask **Forest over Turf** Impervious Other, Local Local **Impervious** Land Use Developed **Parcels** Structures, and Areas **Tree Canopy over NAVTEQ Developed Areas Fractional CDL (10m) Land Use** Mask Turf 2008-2015 A&B Grass Low Low subset **Model** Vegetation Vegetation **Impervious NAVTEQ** Density Model (2) **Streets** Barren Pasture RoW Barren Crop Ag **Space AG Space Pasture** Turf **Turf Mask** Mask (10m) Model Model **Cropland** (4) **(4)**

Production Resources

- Resources
 - 2 FT + 8 PT Analysts = ~ 6 FT Analyst Hours per Week
 - Or ~ 12 Analyst Hours per County
 - 2 Analysts from Chesapeake Conservancy with cloud processing.



Production Schedule

- 206 Counties / 10 Weeks (July Sept) = 20 COs per Week
 - Rolling Delivery Review Final Delivery Schedule
- COs to be Processed by State in the Following Order:
 - 1. Delaware
 - 2. DC
 - 3. Maryland
 - 4. Pennsylvania
 - 5. West Virginia
 - 6. New York
 - 7. Virginia



P6 Land Use Production Schedule

- July 18th: County-by-county production will start on July 18th.
- July 25th: Local review will start.
- August 31st: Backcast methodology tested- to be reviewed by LUWG in September and later by STAC.
 Annual land cover change data delivered by USGS to CBP. PA Wetlands mapping complete. VA Tree Canopy mapping complete.
- September 30th: Complete initial production of Phase 6 land use datasets for all counties in the watershed and disseminate for local review.
- October 7th or 14th: Incorporate P6 land use datasets (pre-local review) into the October 2016 calibration.
- October 31st: All local reviews of the P6 land use datasets are complete.
- November 4th: All responses to reviewer comments are complete. Maryland land use data incorporated into tabular Phase 6 land use.
- November 18th: Annual backcast of 2013/14 land use data to 1985 complete.
- November 25th: Land use data subdivided into Regulated (MS4 and CSO), Federal, and Non-federal categories.
- December 2nd: Phase 6 land use, 1985 2013/14, delivered to the CBP modeling team.
- December 9th: Adjustments to Phase 6 land uses and to the Census of Agriculture are made at the LRSEG level to incorporate the Census of Agriculture.



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