

# Objective 1 & 2 Updates

May 6, 2020: LUWG

Rachel Soobitsky

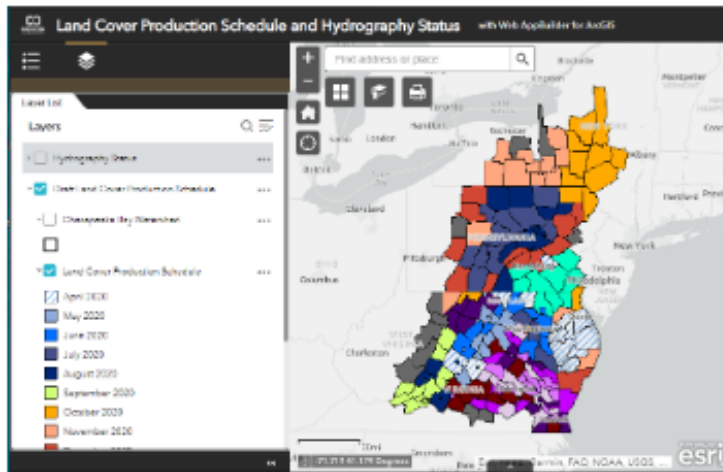
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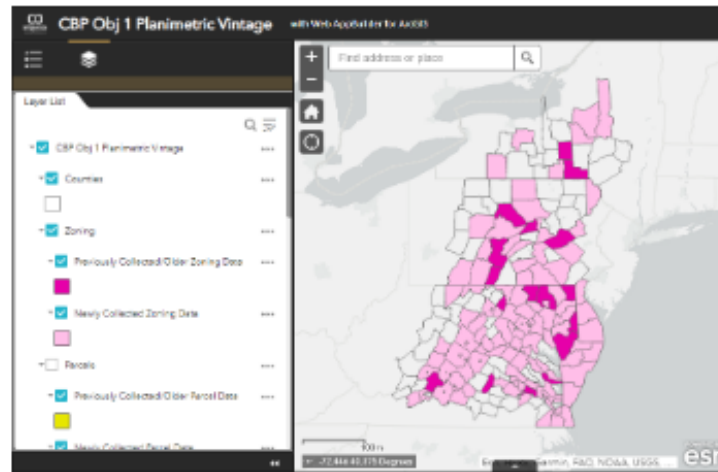
# Objective 1 Updates

## Chesapeake Bay Program Status and Review



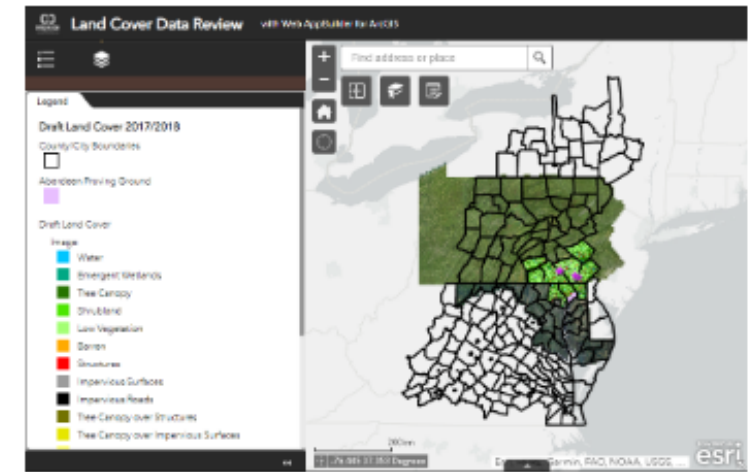
### Land Cover Production Schedule and Hydrography Status

Web viewer of draft land cover (2017/2018) production schedule and hydrography status. Subject to change.



### Planimetric Vintages

Thematic map of planimetric vintages collected from municipalities in the bay watershed, to aid in creation of the Land Cover and Land Use data.







### Land Cover Data Review

Web application for reviewing the 2017/2018 draft land cover products. Password Protected.


# CBP Status and Review Web Applications

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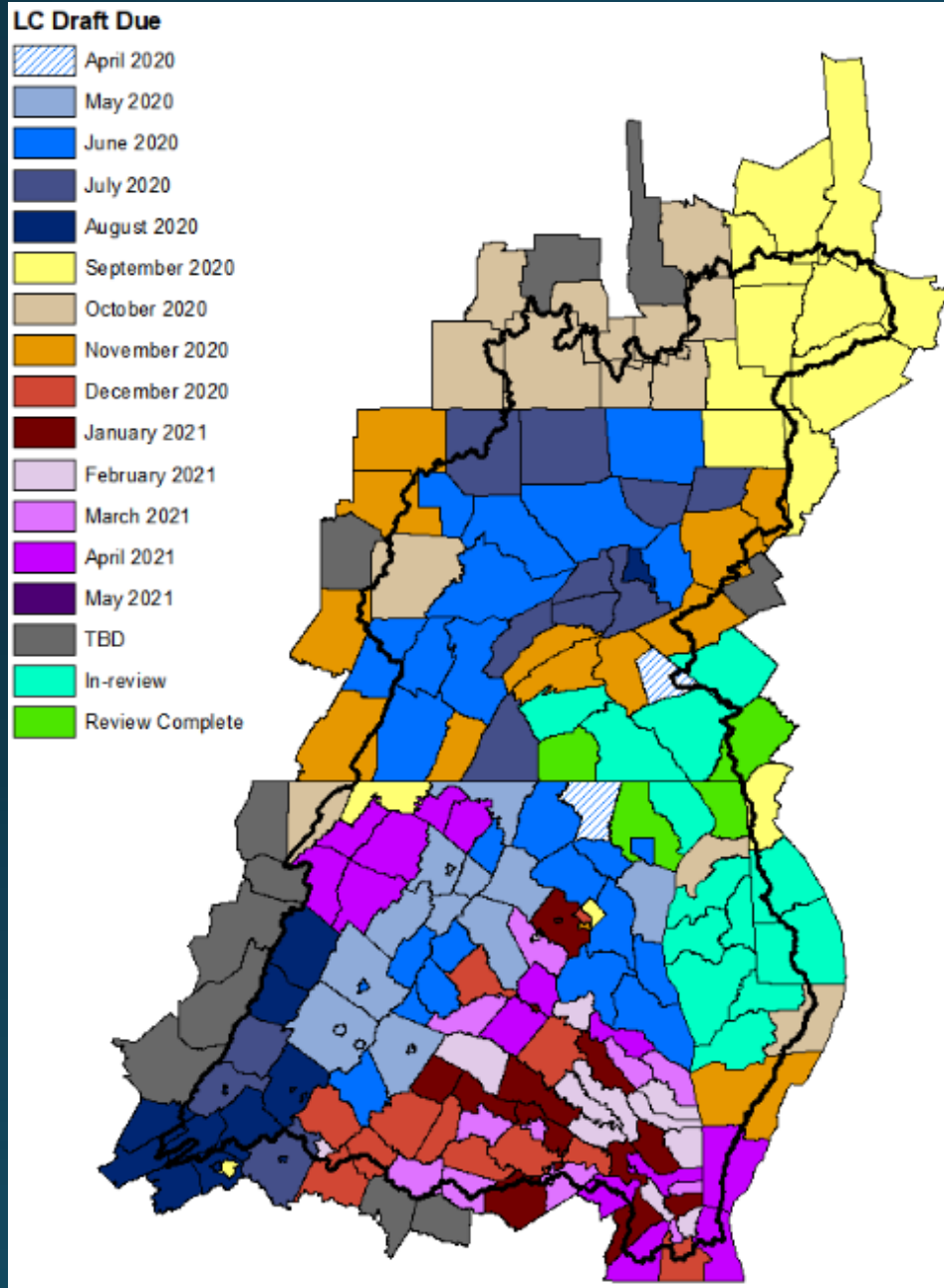
**Analysis & Consulting** >  
Data-Driven Conservation and Restoration Support for the Chesapeake Bay Program

**High-Resolution Data** >  
Land Use Data Project 2013/2014  
Land Cover Data Project 2013/2014  
Enhanced Flow Path Data

**Geospatial Web Applications** >  
Restoration Prioritization  
Anne Arundel Tree Canopy Analysis  
Arundel Rivers Federation Water Quality  
**More Applications**

Precision Conservation

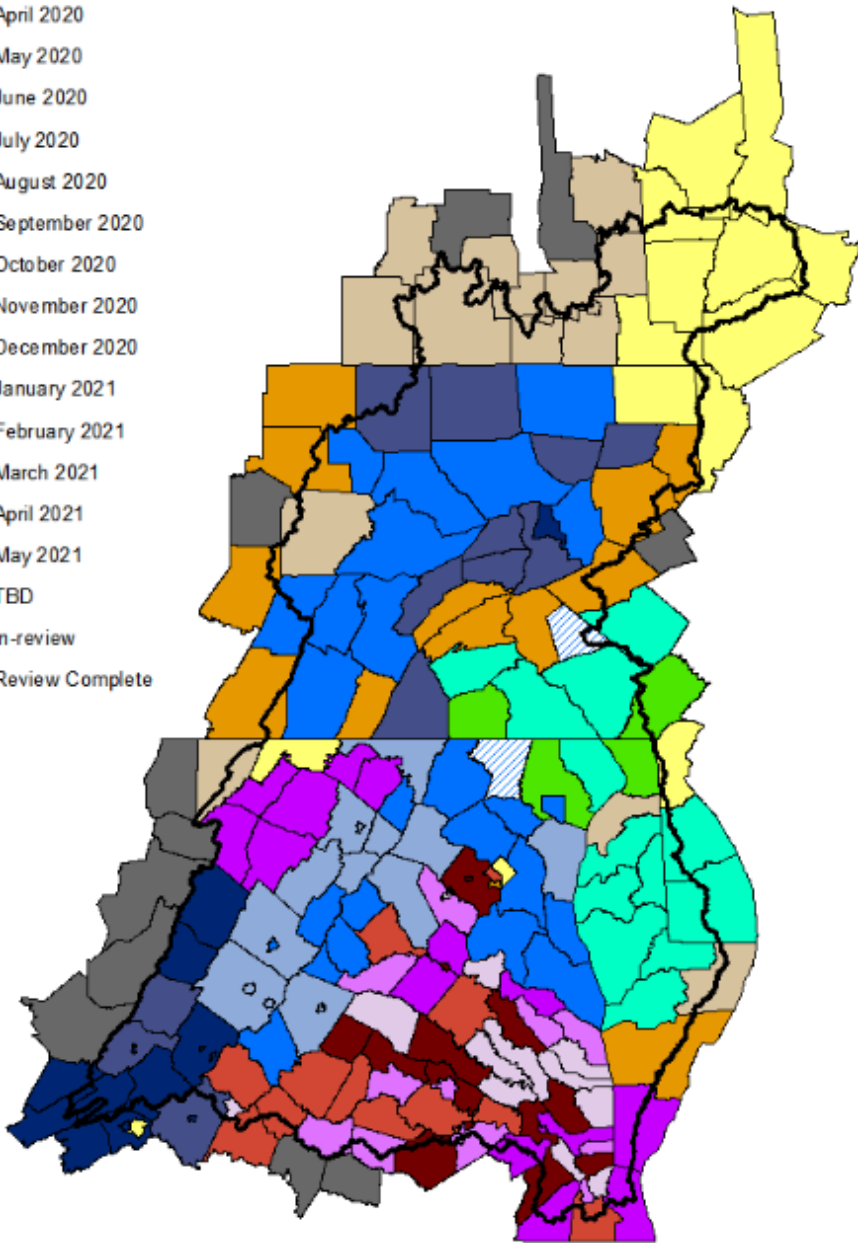
# Land Cover Production Schedule



- Review temporarily postponed due to COVID-19:
  - Carroll County, MD
  - Lebanon County, PA
- Review extended due to COVID-19:
  - Harford County, MD
  - Lancaster County, PA
  - York County, PA
  - Cumberland County, PA
  - Berks County, PA
- Review completed:
  - Baltimore County, MD
  - Cecil County, MD
  - Adams County, PA
  - Chester County, PA
- In-review:
  - Kent County, DE
  - Sussex County, DE
  - Caroline County, MD
  - Dorchester County, MD
  - Queen Anne's County, MD
  - Somerset County, MD
  - Talbot County, MD
  - Wicomico County, MD

# Land Cover Production Schedule

## LC Draft Due

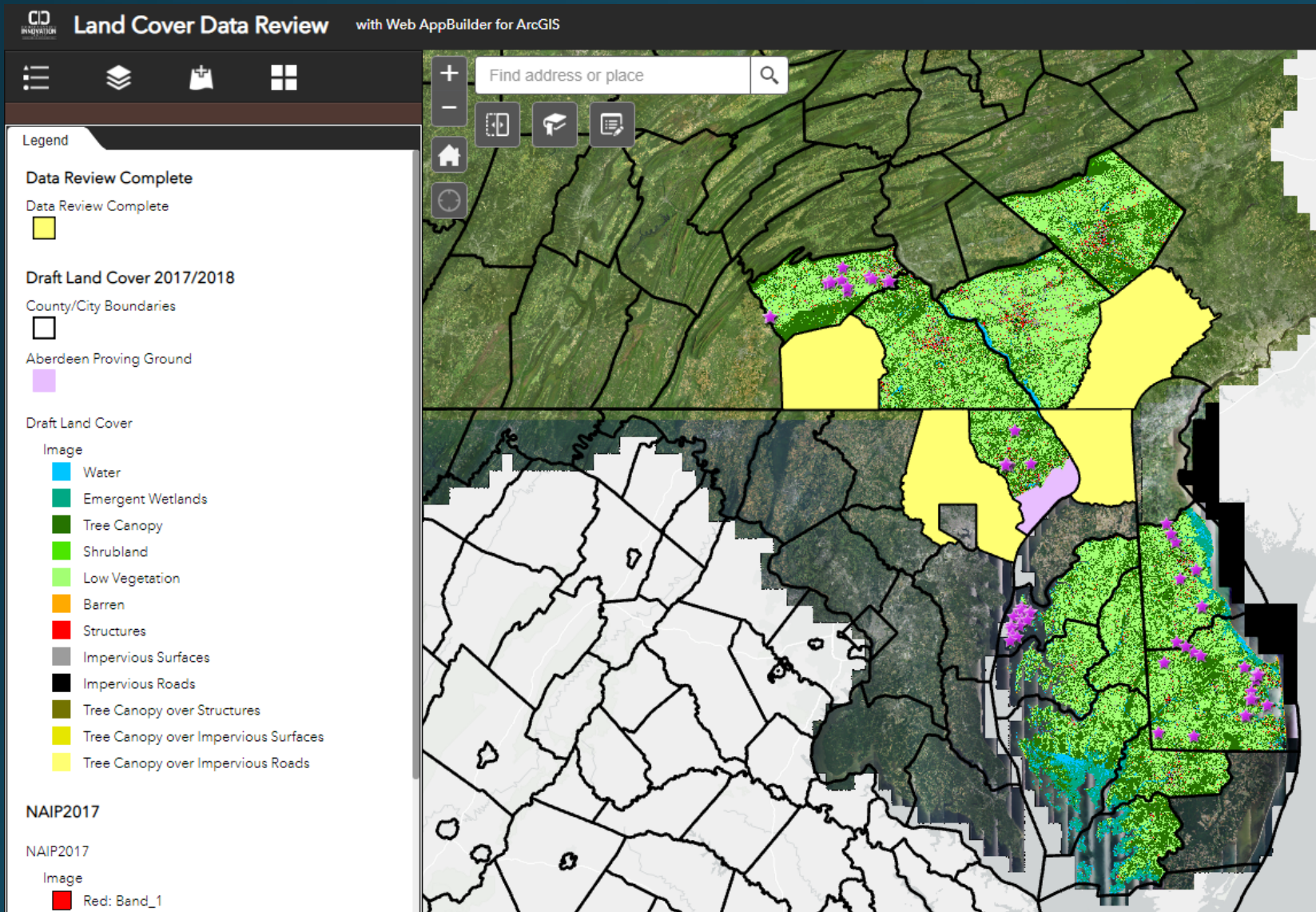


## Upcoming counties for review:

- Anne Arundel County, MD
- Washington County, MD
- Albemarle County, VA
- Augusta County, VA
- Charlottesville, VA
- Clarke County, VA
- Fauquier County, VA
- Frederick County, VA
- Loudoun County, VA
- Rockingham County, VA
- Shenandoah County, VA
- Staunton, VA
- Warren County, VA
- Waynesboro, VA
- Winchester, VA



# Land Cover Data Review



- States receive:
  - Notice of county review
  - Emails of county contacts I am reaching out to
  - Password protected web application
  - Instructions on how to review if they choose to
- Counties receive:
  - Notice of impending review
  - Password protected web application
  - What ancillary data inputs were used in the creation of their LC data
  - Instructions
  - Deadline with the flexibility to extend or adjust accordingly

# Land Use Update

- 2013/2014 LU script
  - Successfully ran on CIC network
  - Documented decision rules
  - Timed individual module executions
  - Documented potential inefficiencies
- 2017/2018 LU script
  - Optimization of new script
    - Utilizing open source code (can be faster)
    - Structuring code to increase parallelization
    - Maximize preprocessing
- Developing “roadmap” for decision rules
  - Likely turf and agriculture first

# Objective 2: Hyper-res Hydrography Updates

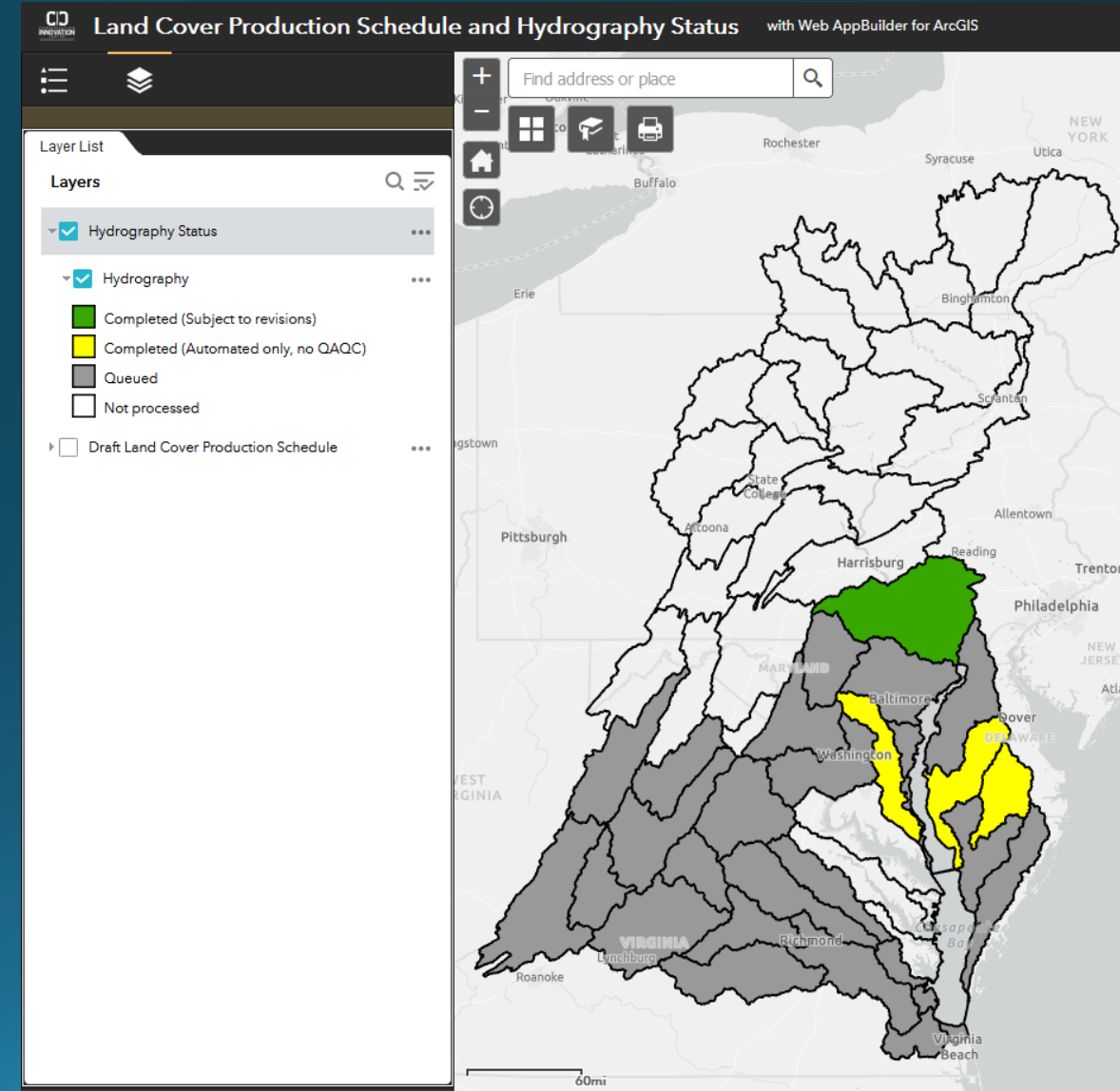
- Improved stream connection algorithm to better cross roads, culverts, other digital dams, and open water
- Begun coding bank height calculation for reach-scale attribution
- Successfully ported code to HPCF cluster
  - Full suite of hydrography scripts run in a test environment
  - Currently setting up framework to run in parallel
  - Once parallelized, should be able to run automated portions of workflow for CBW in just weeks





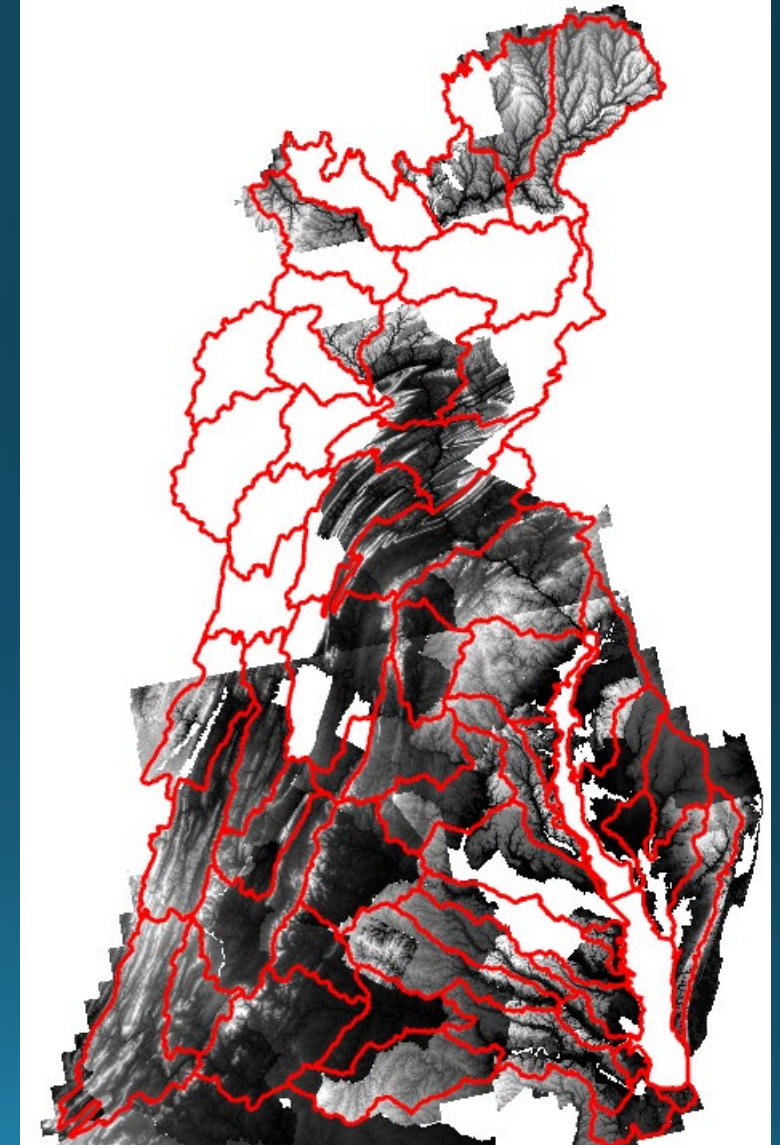
# Objective 2: Hyper-res Hydrography Status

- HUC8s with **complete** LiDAR DEM coverage split by HUC12 and uploaded to cloud for HPCF processing (“Queued” on map)
- After processing on HPCF, status will updated to “Completed (Automated only)”



# Objective 2: Hyper-res Hydrography Status

- Complete or partial LiDAR DEM coverage exists for nearly all HUC8s in CBW
- Remainder of PA to be receiving new LiDAR DEM by end of 2020, could run hydrography on 2006 PAMAP data or wait
- UVM to provide DEMs for areas with LiDAR but no existing publicly available DEM
- HUC8s with missing LiDAR coverage and no foreseeable updates can be run as-is or supplemented with highest resolution DEM available (1/9 arc second or 1/3 arc second NED)



# Questions?

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