



Commissioners of St. Mary's County

May 18, 2021

Critical Area Boundary Map Update



Where Is the Critical Area?

- All waters of the Chesapeake Bay, the Atlantic Coastal Bays, and their tributaries to the head of tide
- All land under these waters





Where Is the Critical Area?

All land within 1,000 feet of the landward edge of tidal waters and tidal wetlands



Background



- The original 1,000-foot Critical Area Boundary was manually drawn using the 1972 Tidal Wetlands Maps
- Boundary was drawn manually = inherent inaccuracies

Background



- Extensive changes to the landscape, shoreline, and wetlands; maps must match the landscape
- Electronic maps are now the standard



Background

- 2008 House Bill 1253 – Mapping Provisions
- Legislation required the State to work cooperatively with local governments to update the Critical Area Maps

Background



- HB 1253 directed the Department of Natural Resources to prepare a Statewide Base Map with a State-determined shoreline
- The new boundary line has been drawn using Color Infrared Imaging, new Light Detection and Ranging Data (LiDAR), new aerial photography, and GIS software

Background



- Critical Area Commission Staff, the Eastern Shore Regional GIS Cooperative, and Salisbury University GIS Staff worked with local governments to make the new Boundary Line.
- Field visits were conducted to ground truth aerial photography and color infrared imagery.

Background



- CAC held a public information meeting August 2018
- Property owners with at least a 1% change in the Critical Area boundary on their property were notified by letter of the change and the meeting with CAC staff
- This letter had photographs of the proposed change on their property

Mapping Process: Digitize Shoreline

Factors to Consider

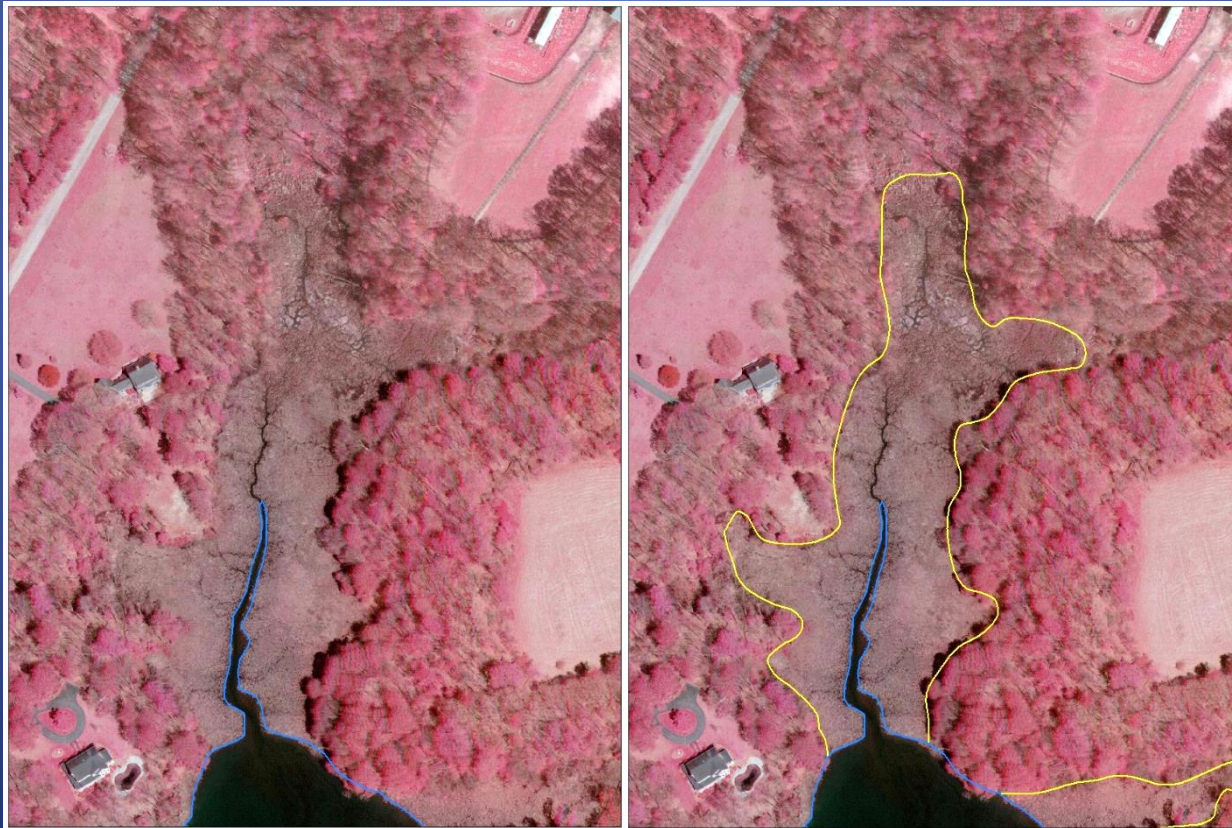
- Edge of open water
- Location of water at time of image capture
- Consideration given to tree canopy / shadows
- Width of channel



Mapping Process: Digitize Wetlands

Factors to Consider:

- Vegetation patterns
- Consideration given to tree canopy / shadows
- Multiple data sources needed to confirm



Mapping Process



- Discrepancies, anomalies, inconsistencies identified by ESRGC, CAC, and local jurisdictions were reviewed
- Additional resources – such as permits, historical aerials, etc. – helped resolve issues
- Ground truthing



Public Critical Area Map

- County GIS Division created an on-line map for County residents to show a comparison of where the Critical Area Boundary is currently located on their property, and where it will be located with the adoption of the new boundary line
- The maps were on the County's web page so residents could look at their properties



- CAC responded to residents with questions about the revised boundary
- Field verification was done when needed
- St. Mary's County – all local governments – must adopt the new maps without changes



The request for a public hearing on the adoption of the revised Critical Area Boundary maps as an amendment to the Official Zoning Maps was made on February 2, 2021