High-Resolution Land Cover Datasets

Leveraging imagery and machine learning for precision planning

Land cover data is the foundation of environmental planning and evaluation efforts—it is categorical information about the natural and human-made features that exist on the landscape, such as buildings, tree canopy, and water resources. Country-wide GIS users rely on the National Land Cover database which has a 30-meter resolution and is updated every 5 years. The Chesapeake Conservancy Conservation Innovation Center (CIC) has developed a methodology for the creation of one-meter resolution land cover datasets using remote sensing and geospatial technologies. With 900 times more accuracy than the national dataset, our datasets includes specific land cover categories, such as trees, sidewalks, and roads, that reflect real-world conditions that matter to our stakeholders. CIC spearheaded the creation of a land cover dataset for the entire Chesapeake Bay watershed in 2013 which was used to prioritize conservation and restoration locations.

- Select Inputs
- Train Model
- Classify
- Perform Corrections

- Identify project-scale opportunities
- Measure habitat metrics
- Enable accessibility for analysis