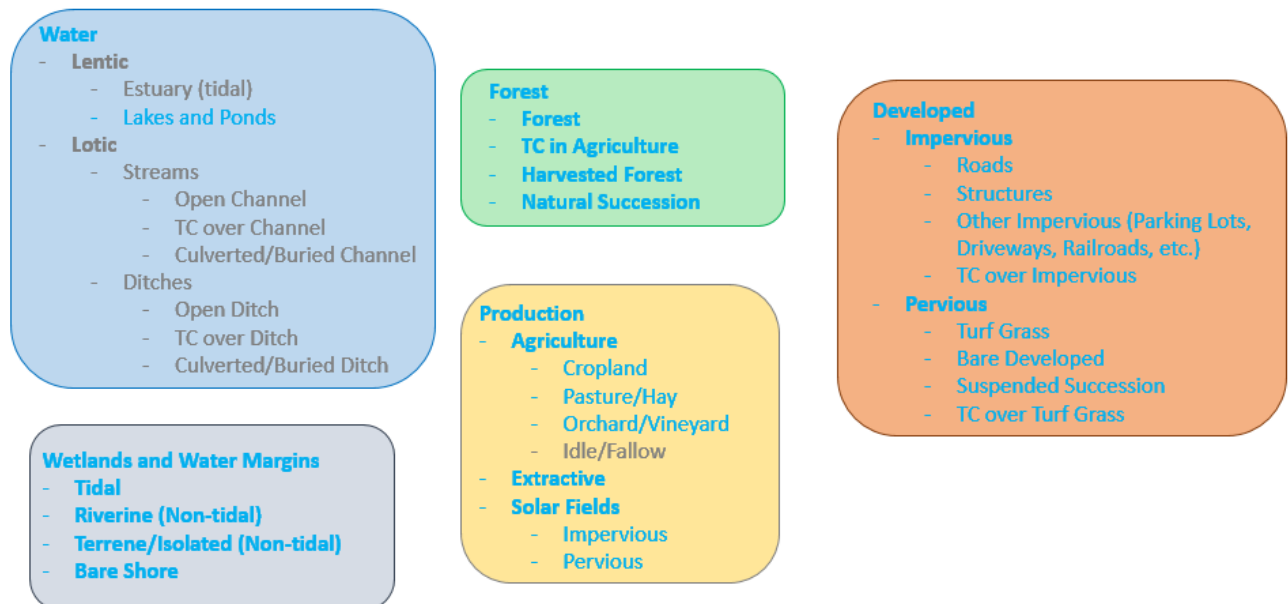CONSERVATION
INNOVATION
CENTER
CHESAPEAKE CONSERVANCY

2017/2018 Draft Land Use Viewer Instructions

Background Information

The Chesapeake Conservancy's Conservation Innovation Center (CIC), in partnership with the University of Vermont Spatial Analysis Lab (UVM SAL) and the Chesapeake Bay Program (CBP), is creating high-resolution land cover and land use maps for the Chesapeake Bay watershed. These datasets will be used to describe land use and land cover change and inform progress towards the 2025 Total Maximum Daily Load (TMDL) goals. The products are **1-meter** resolution. The existing 2013/14 dataset will be revised as needed and new datasets will be produced for 2017/2018 and 2021/2022.

This document provides instructions on reviewing the **draft 2017/2018 land use**. The classification scheme has been updated since the 2013/2014 land use dataset and is as follows (highlighted in blue are the classes that will be mapped in these 14 counties. In grey are the classes that will be mapped by the June or December 2021 deadline):

Water
- **Lentic**
    - Estuary (tidal)
    - **Lakes and Ponds**
- **Lotic**
    - Streams
        - Open Channel
        - TC over Channel
        - Culverted/Buried Channel
    - Ditches
        - Open Ditch
        - TC over Ditch
        - Culverted/Buried Ditch

Wetlands and Water Margins
- **Tidal**
- **Riverine (Non-tidal)**
- **Terrene/Isolated (Non-tidal)**
- **Bare Shore**

Forest
- **Forest**
- **TC in Agriculture**
- **Harvested Forest**
- **Natural Succession**

Production
- **Agriculture**
    - Cropland
    - Pasture/Hay
    - Orchard/Vineyard
    - Idle/Fallow
- **Extractive**
- **Solar Fields**
    - Impervious
    - Pervious

Developed
- **Impervious**
    - Roads
    - Structures
    - Other Impervious (Parking Lots, Driveways, Railroads, etc.)
    - TC over Impervious
- **Pervious**
    - Turf Grass
    - Bare Developed
    - Suspended Succession
    - TC over Turf Grass

These classes are derived from a combination of input datasets, rules, spectral and spatial characteristics. The Land Use dataset was created using many ancillary input datasets. A major input into the Land Use dataset is the 2017/18 1-meter Land Cover dataset, which is created based off of the 2017/2018 NAIP imagery and corresponding lidar. Other inputs include but are not limited to hydrography, parcels, local land use or zoning datasets, Cropland Data Layer (CDL), National Land Cover Database (NLCD), Census Urbanized Areas, etc. The date and availability of these datasets varies by location.

Comment Protocol:

- Add points to the web application and insert comment with feedback (directions below)
- Or, summarize comments and email to Peter Claggett (pclaggett@chesapeakebay.net) or Rachel Soobitsky (rsoobitsky@chesapeakeconservancy.org)
- Do not: Comment on isolated errors or an error that looks like a misclassification of the NAIP imagery. This means it is an issue tracing back to the Land Cover, and these comments should have been made in the Land Cover Review application. UVM is doing a QAQC of the land cover.
    - For example, if the Land Use is showing Tree Canopy over Turf, where there appears to be no Tree Canopy in the NAIP imagery. This is a misclassification stemming from the Land Cover (which is still in draft form)
- Do: Comment on specific systematic errors that could be fixed by rule or definition tweaking. Systematic errors are frequent misclassifications.
    - For example, if the land cover classifies the landscape as "herbaceous", the land use model then needs to filter it into a type of "herbaceous" land. It could fall into many categories, such as; cropland, pasture, turf grass, etc. If you notice a ton of residential yards being misclassified as cropland, that is something to make note of.

How to add points and comments to Web Application:

Web application: https://tinyurl.com/DraftLandUse20172018

Username: LU_Reviewer

Password: LU_Reviewer2021
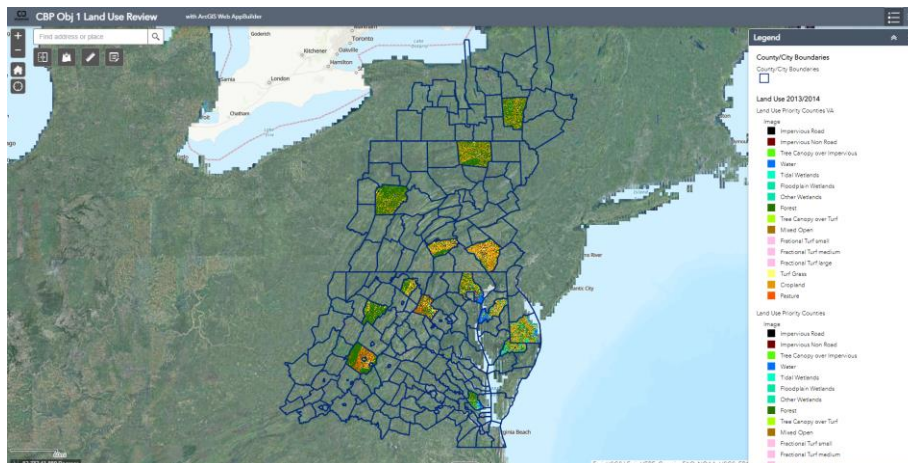
1. To use the swipe tool, click the "swipe" widget in the top left corner. In the drop-down menu, choose which layers you want to swipe between. Click and drag the swipe bar to compare layers.
*Recommended to swipe between the 2013/2014 LU and the new 2017/2018 classification scheme, or between the new 2017/2018 Classification scheme and the 2017/2018 NAIP.*
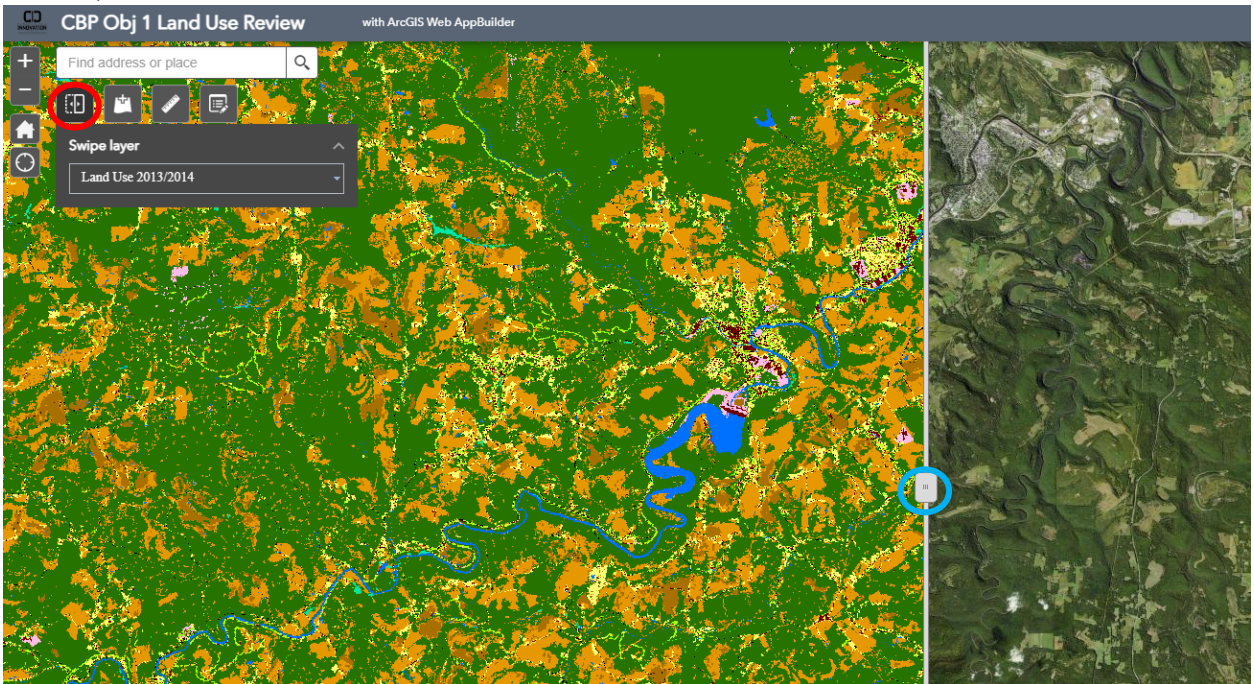

To swipe between 2017/2018 Classification scheme and the 2017/2018 NAIP, check of both the 2013/2014 Land Use and the 2017/2018 draft Land Use in the swipe dropdown options.

2. To add your own data to the web application, click the "add data" widget in the top left corner (second from the left). The most useful part of this tool is the "URL" tab. Here, you can post a link to an online data layer, and add it to the map. These datasets will only be added on your screen and will be removed when you exit the application and start fresh.
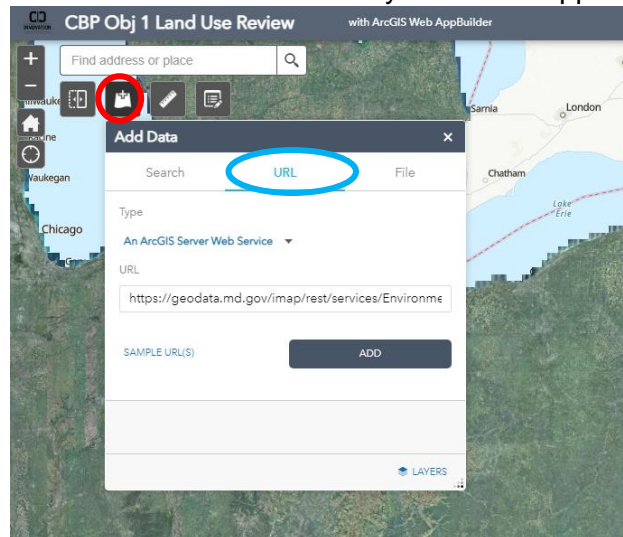
3. To measure anything in the map, use the "measure" widget in the top left corner (third from the left). You can measure distance or area with this tool, in a variety of units. Click once on the map to start measuring, click again to create vertices, and double click to stop measuring.
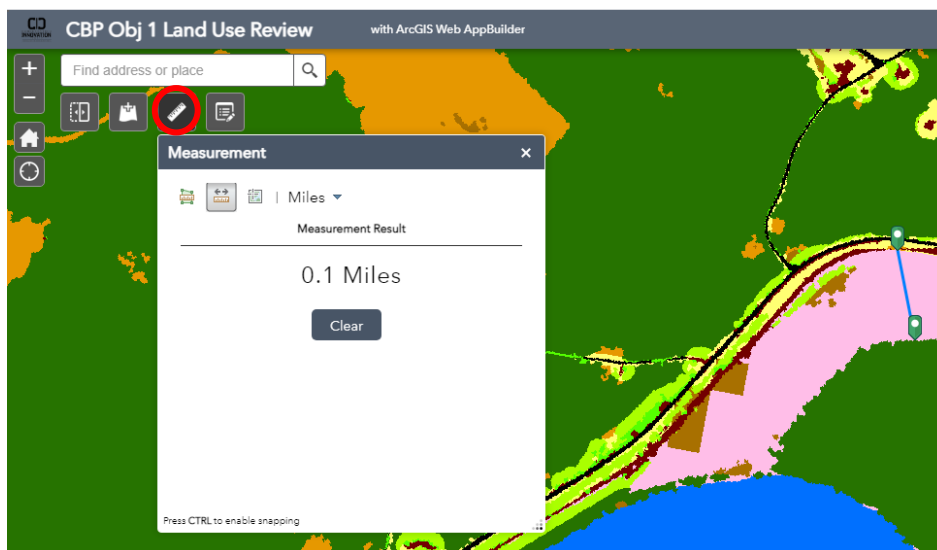

4. To add a point with a comment regarding the Land Use and the classification scheme, use the "edit" widget. Scroll to select the workgroup or county you are representing, and click on "New Feature" underneath. This example will use "Hardy County WV Points of Interest".
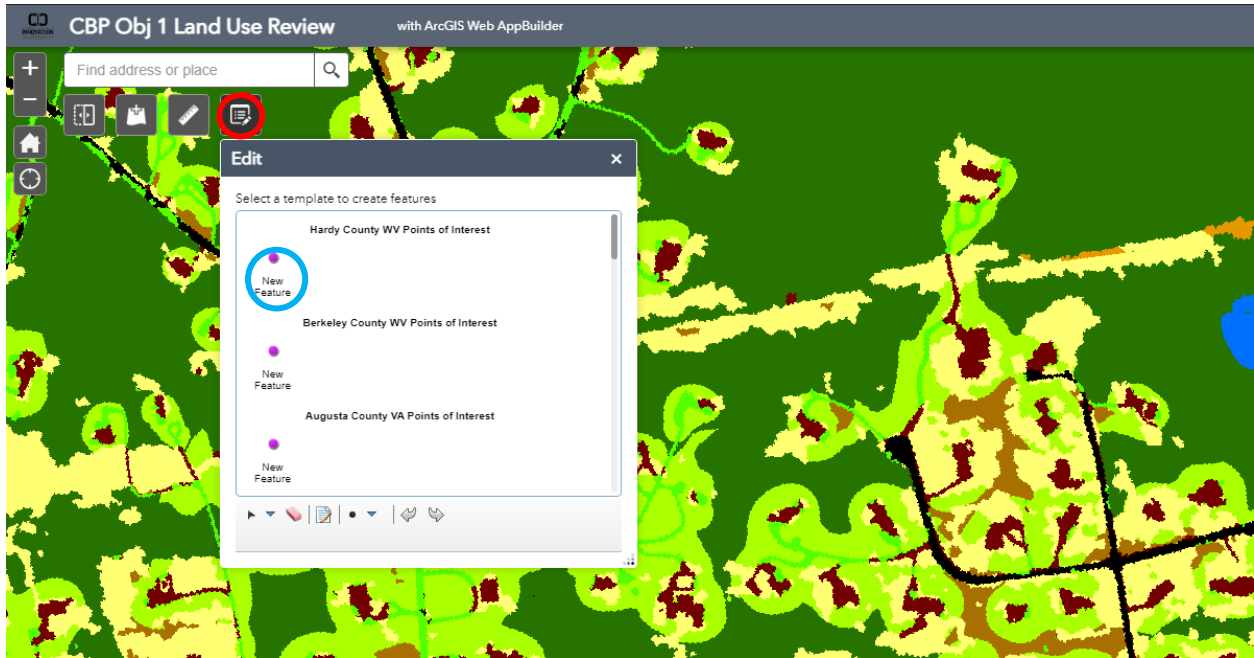
5. Click anywhere on the map to add a point, and add text in the text box to describe why you are adding a point. Click "close" to save. Click "delete" to remove the point and comment.

6. After you've clicked close and the comment saves, you can still delete the point and comment. Back in the "edit" widget, click the point you want to delete, and click the "x" in the edit widget or the "delete" button on the pop-up.
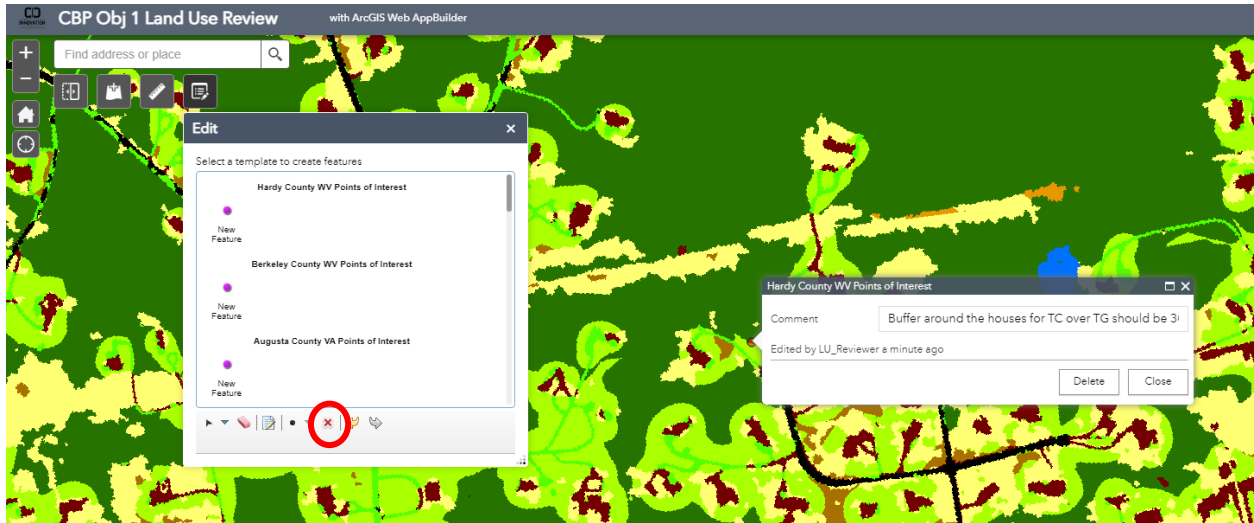
7. To toggle on and off layers, go to the "layer list" on the top right of the web application. Turn on and off layers by clicking the check box next to each layer. Click the ellipses next to the layer to change transparency.