Stillwater Reservoir Navigation Project

- A little history & background
- Goals
  - Provide accurate, safe routes to every corner of the reservoir
  - Never lose another propeller
  - Never be nervous on the reservoir again
  - Highlight as many (all?) of the hazards as possible
  - Integrate all available online data
  - Find all the useful ortho-imagery
  - Easy to access data, and easy to utilize on the water

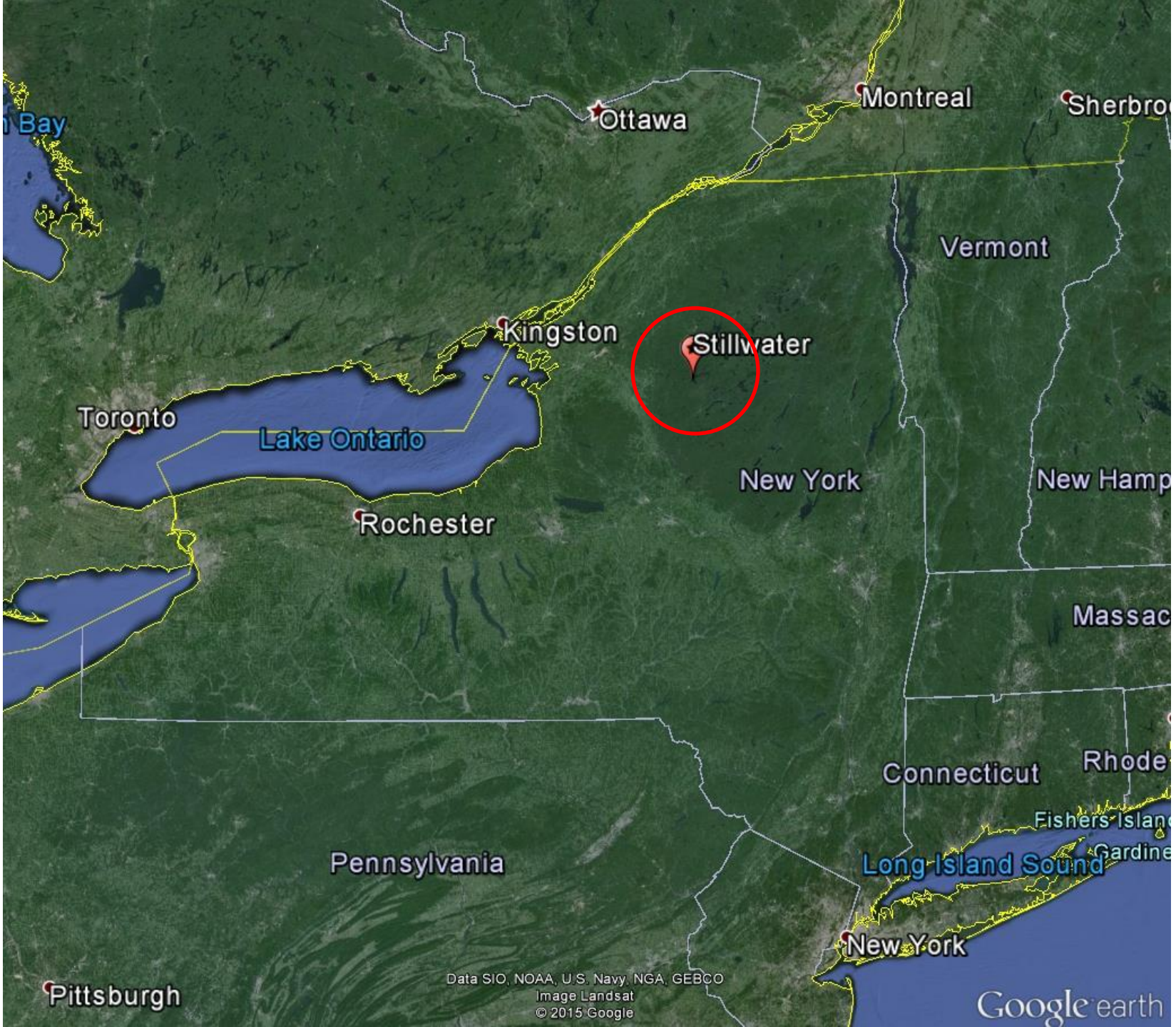
How Did it Start, Where Did it Go?

- Google Earth
  - Using only included historical imagery
  - Simplistic drawing of a few routes and small number of hazards
- MOBAC, Global Mapper, QGIS, Mobile Apps
  - Complex color coded data layers
  - Archive of offline orthoimagery
  - Compiling a lot of information all in one place

Sources of Imagery

- USGS
  - Landsat 7
  - Aerial Imagery
  - Topographical Maps
  - Reservoir Level Data
- NYS GIS
- NYS DHSES (Orthos)
- Google
  - GE Historical
  - Tile Maps
- NASA Blue Marble
- Bing Maps
- NAIP
- Mapquest
- USDA
- Family Home Video
- Local Residents

  - Source Types
    - WMS, Tile Servers, JP2, JPG, SID, TIF, PNG


Bay
Ottawa
Montreal
Sherbro
Vermont
Kingston
Stillwater
Toronto
Lake Ontario
New York
New Hamp
Rochester
Massac
Connecticut
Rhode
Fishers Islan
Gardine
Pennsylvania
Long Island Sound
New York
Pittsburgh
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat
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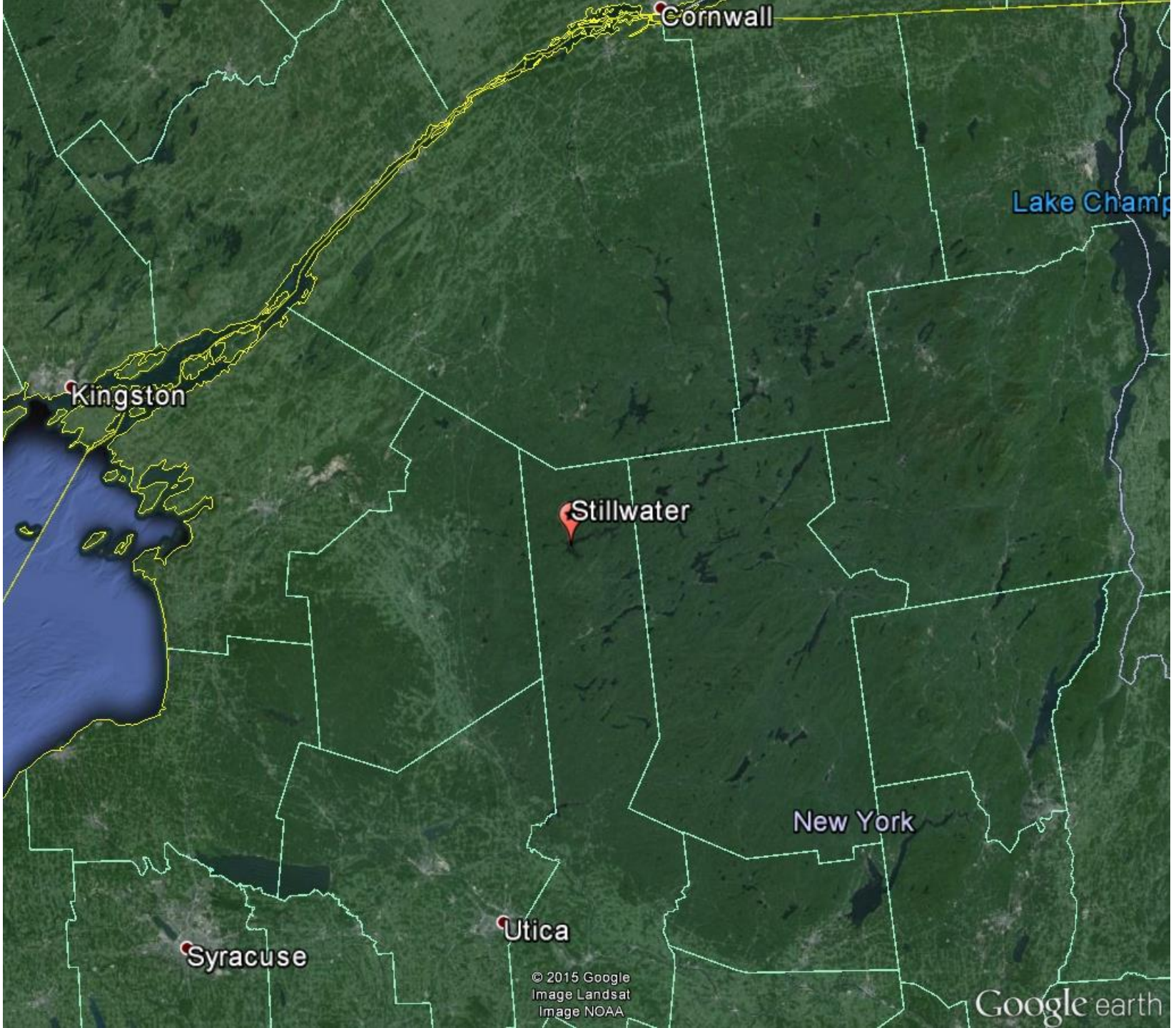
Cornwall
Lake Champ
Kingston
Stillwater
New York
Utica
Syracuse
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Image Landsat
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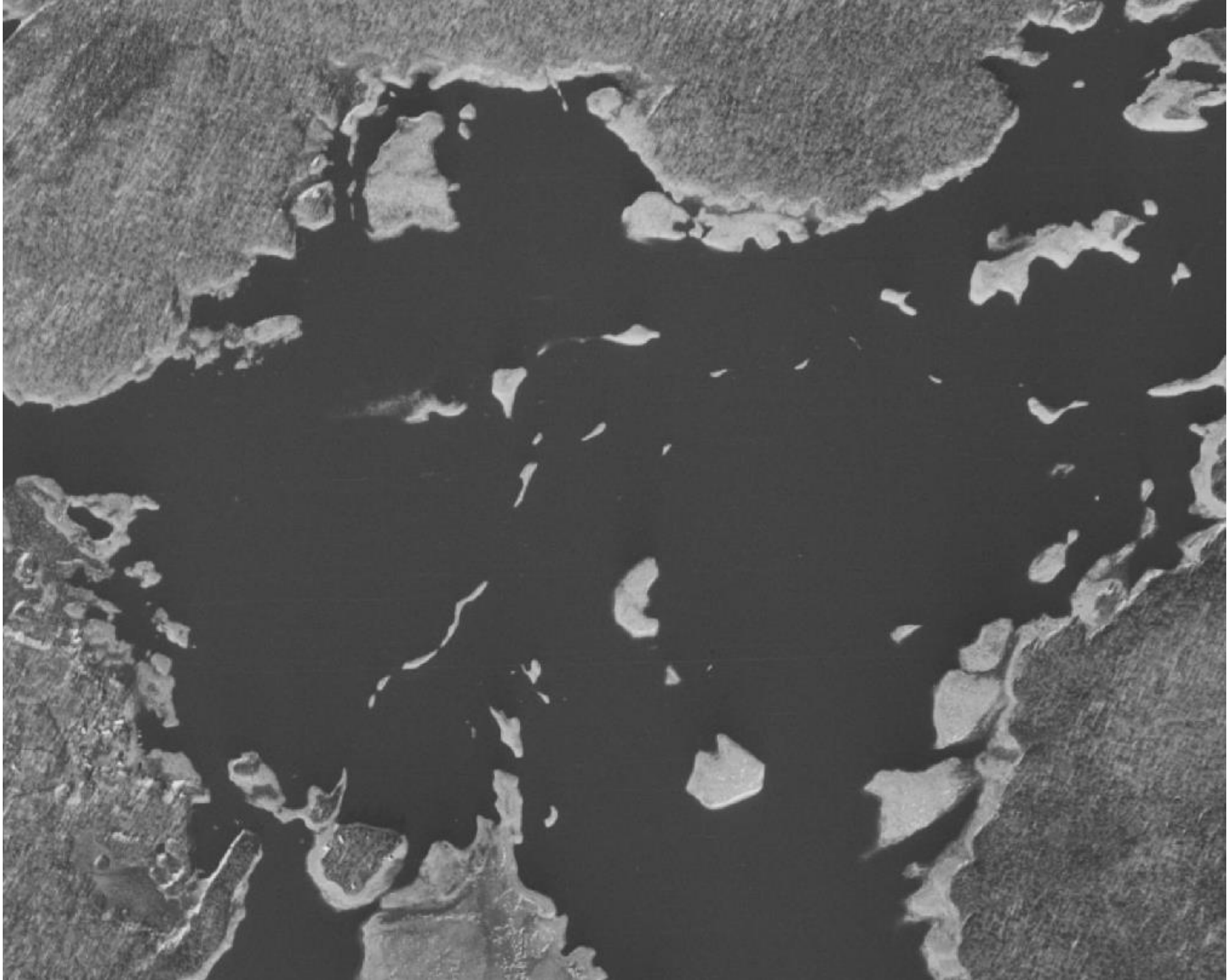
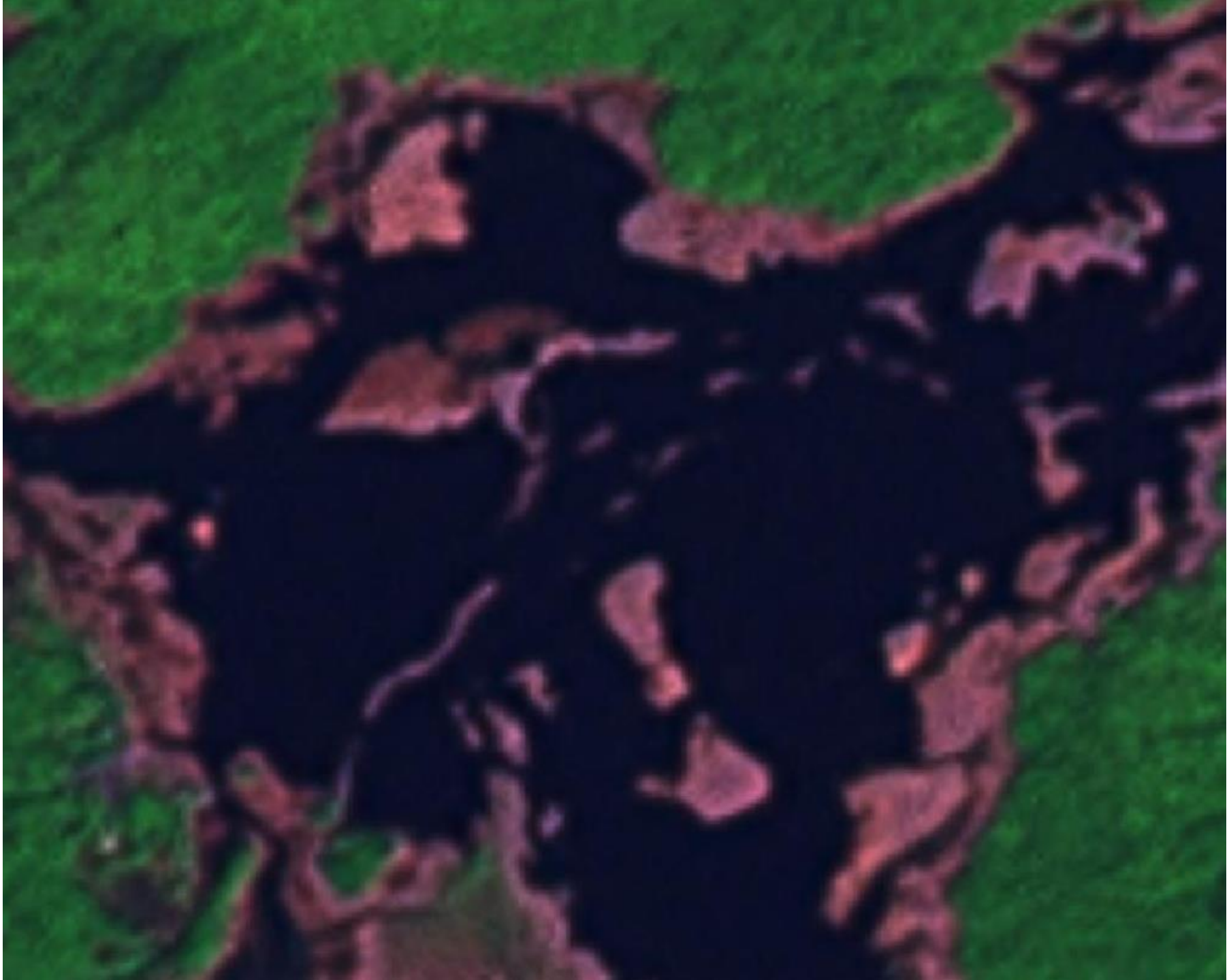
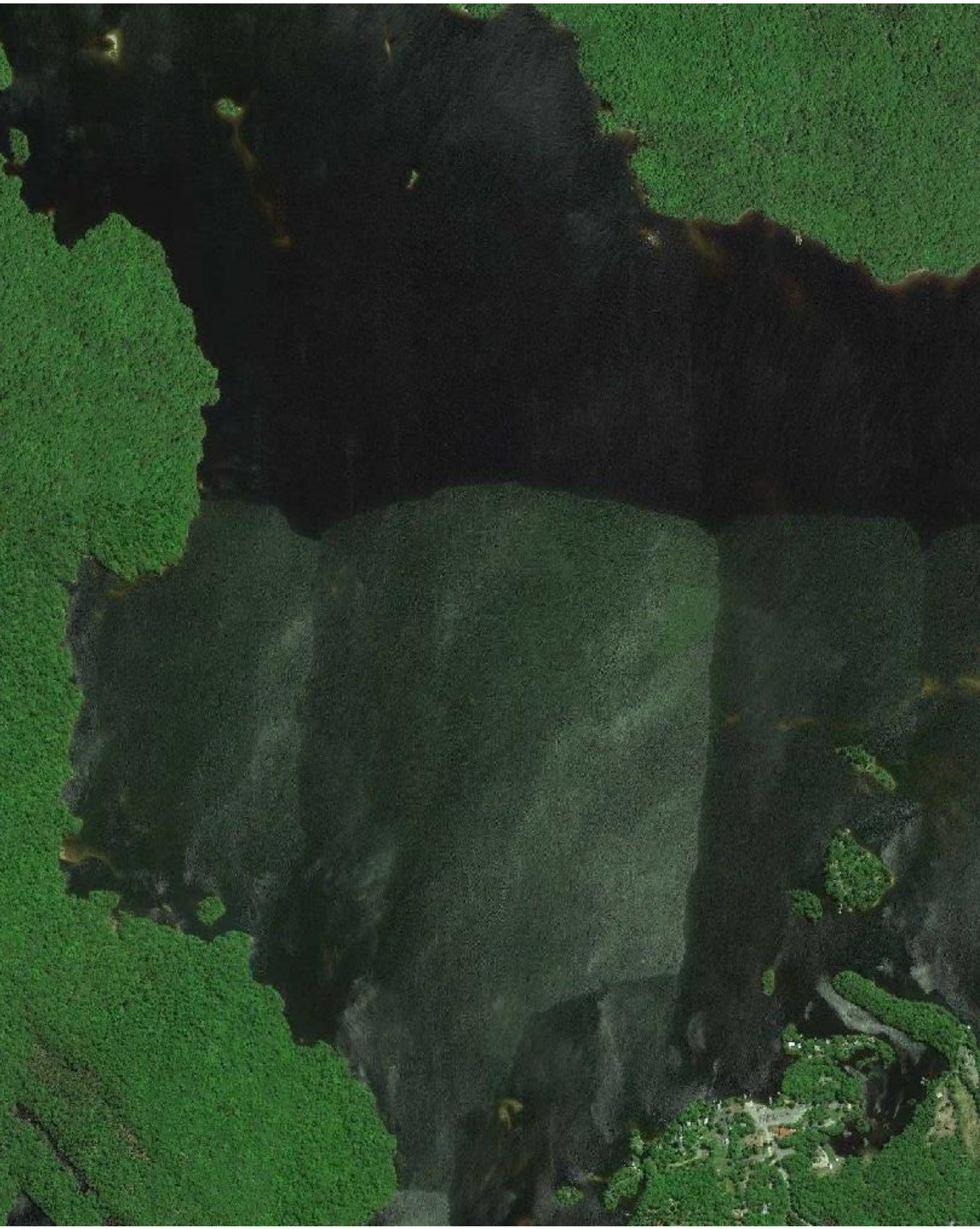
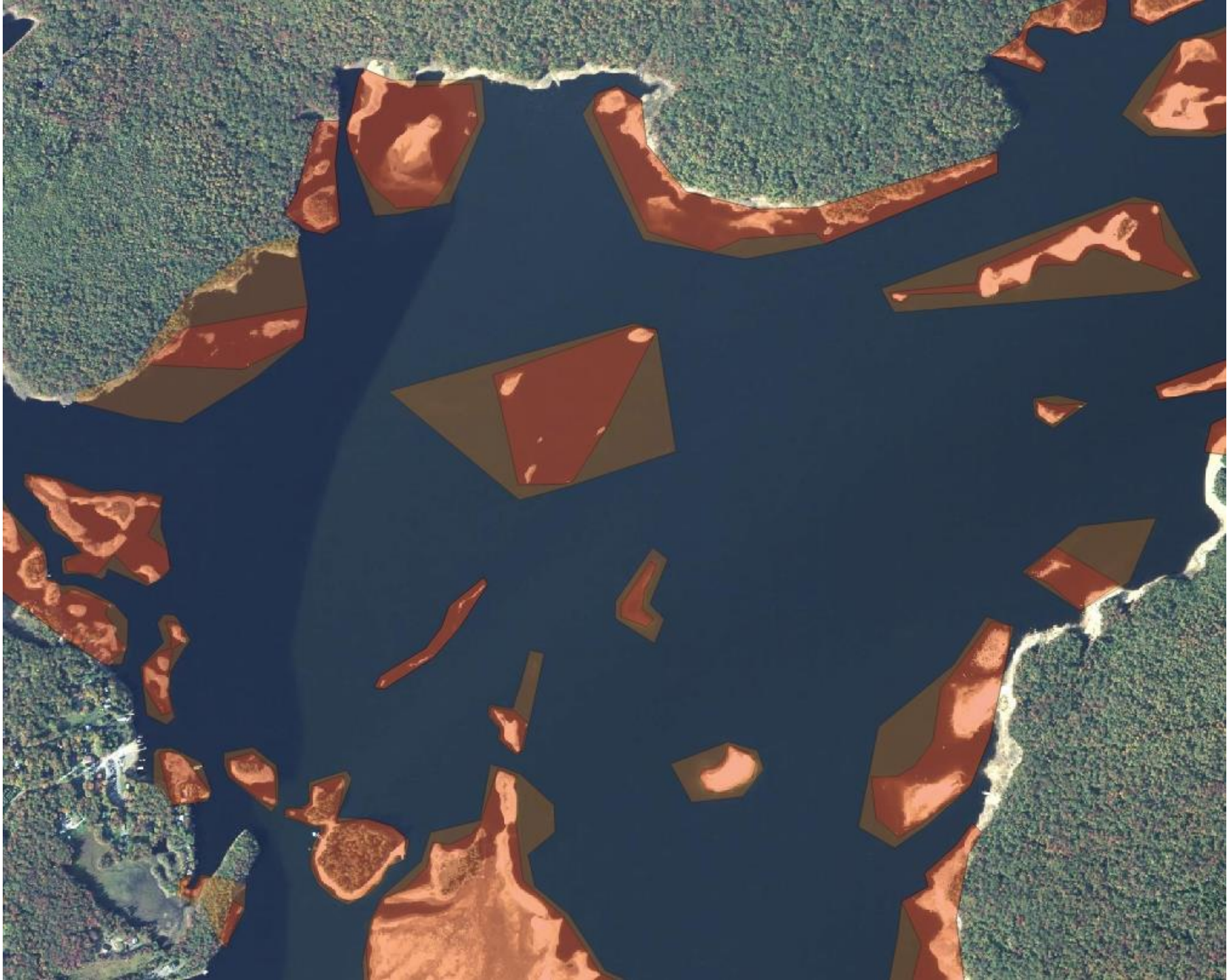
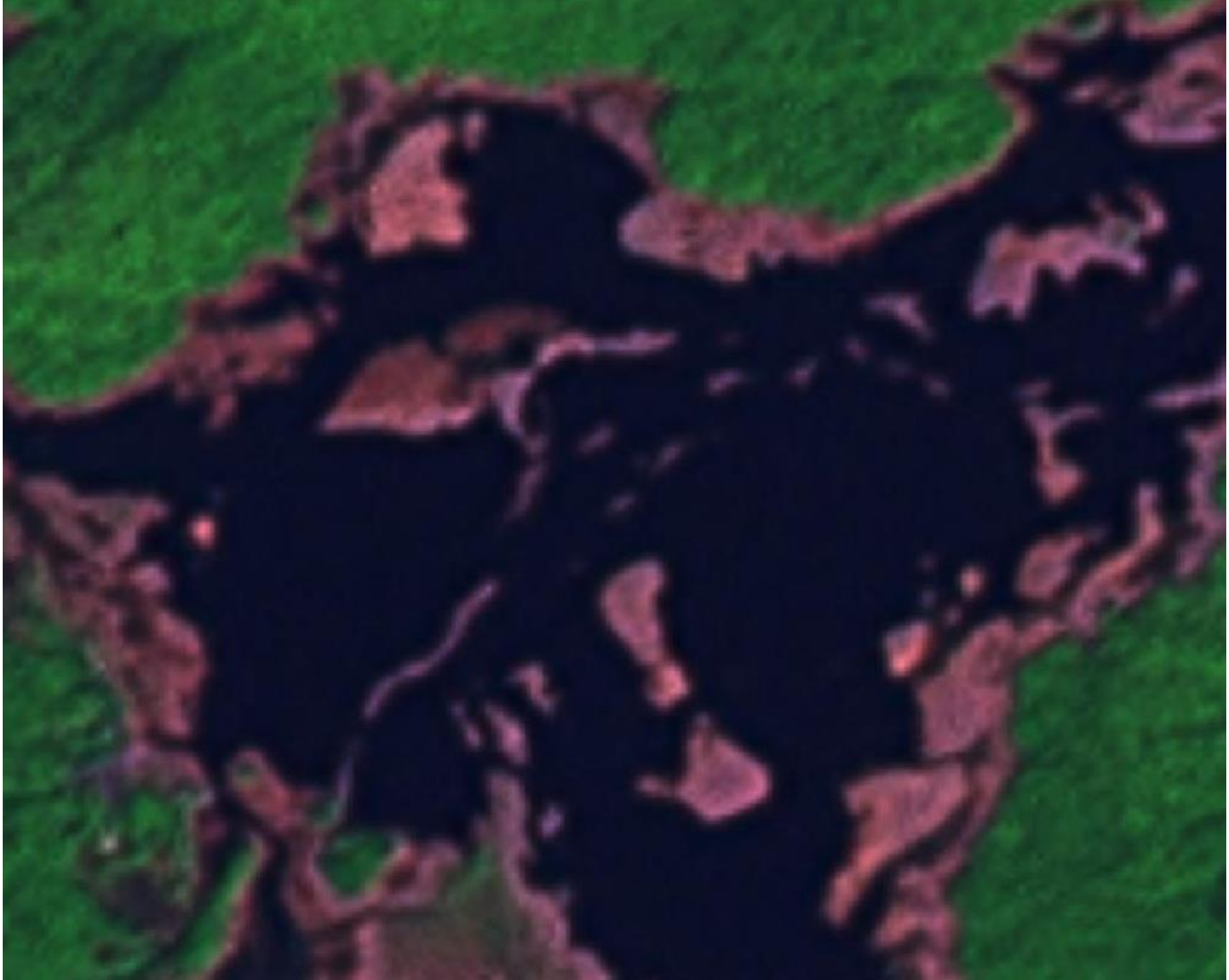
Public
Boat
Launch

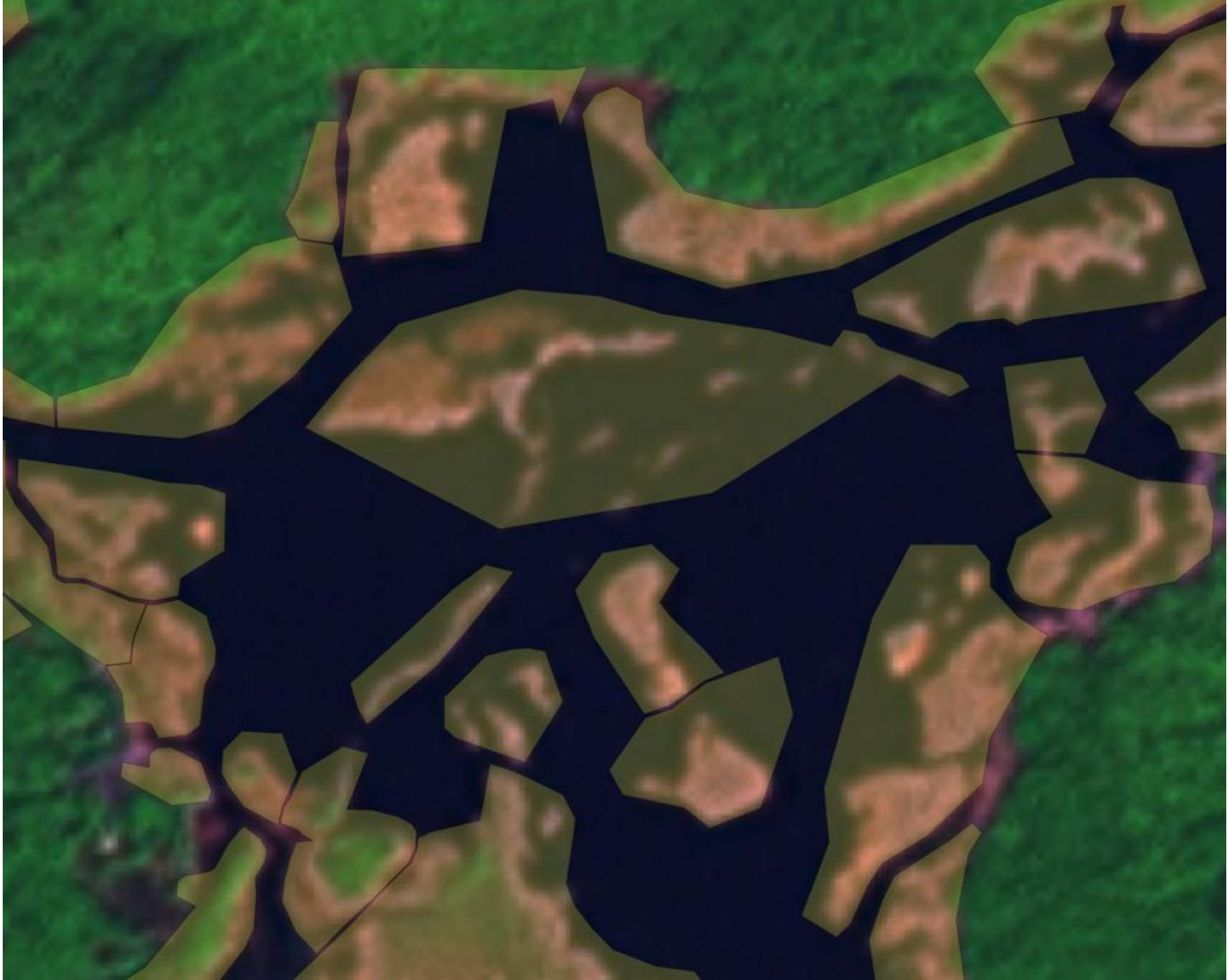


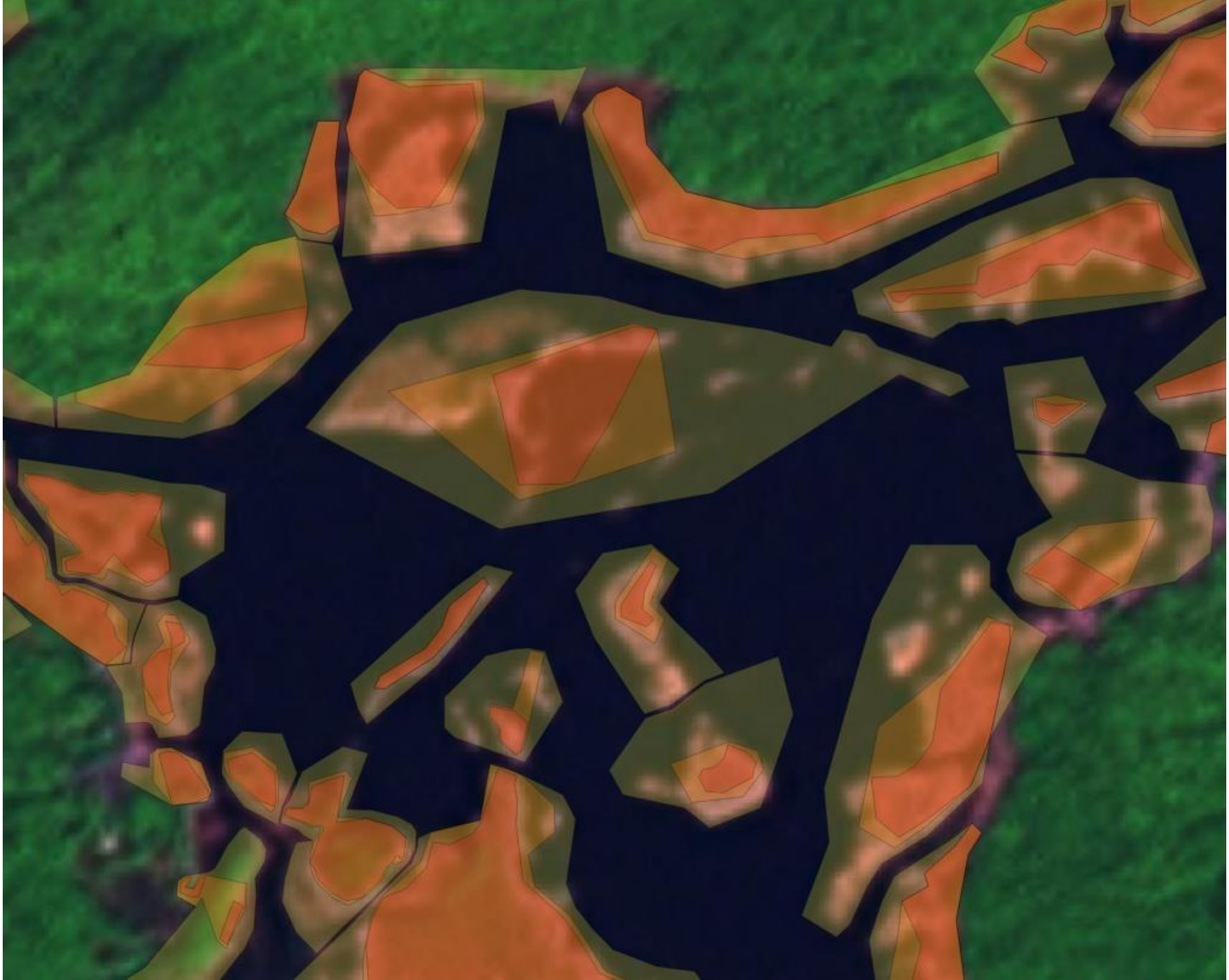


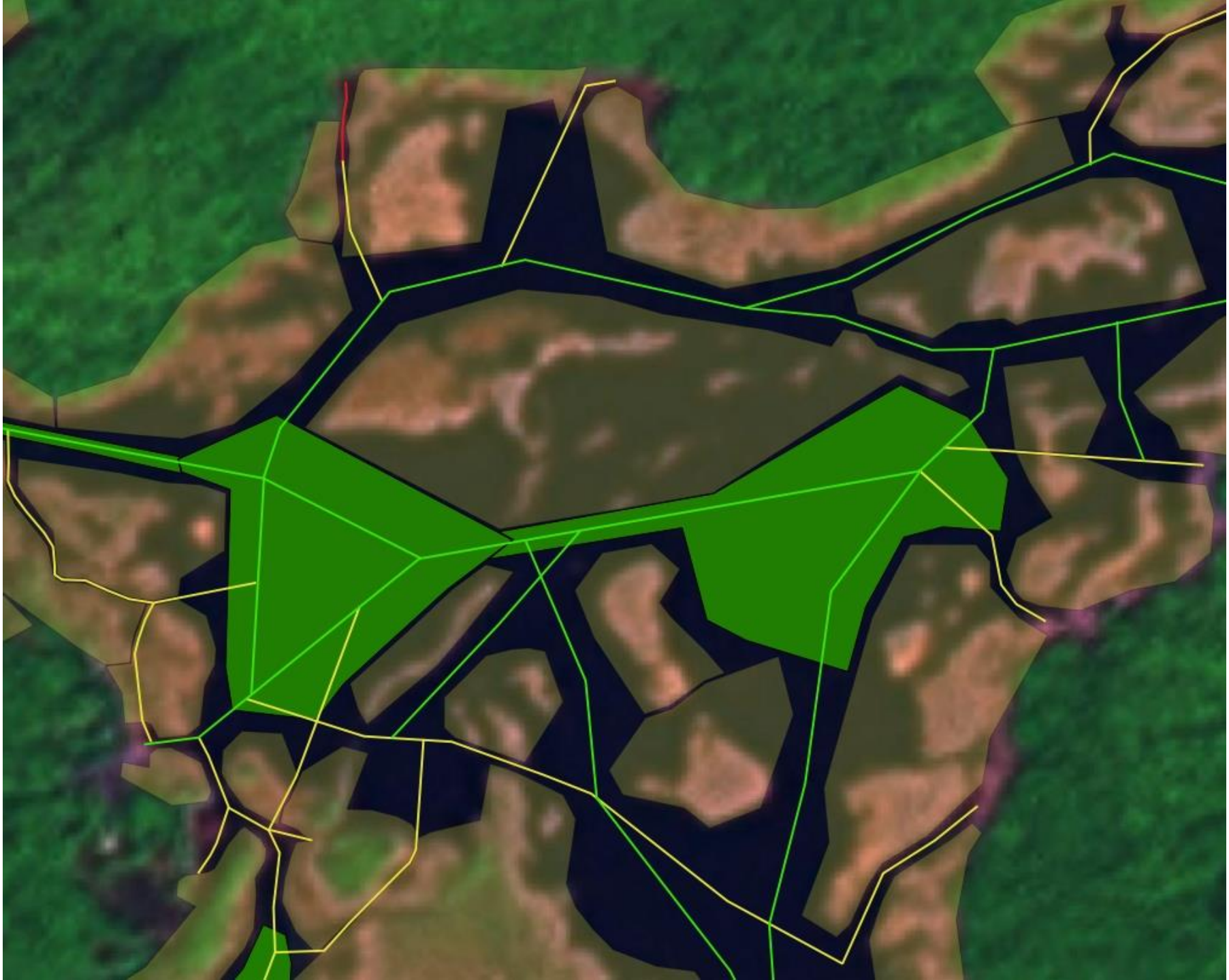


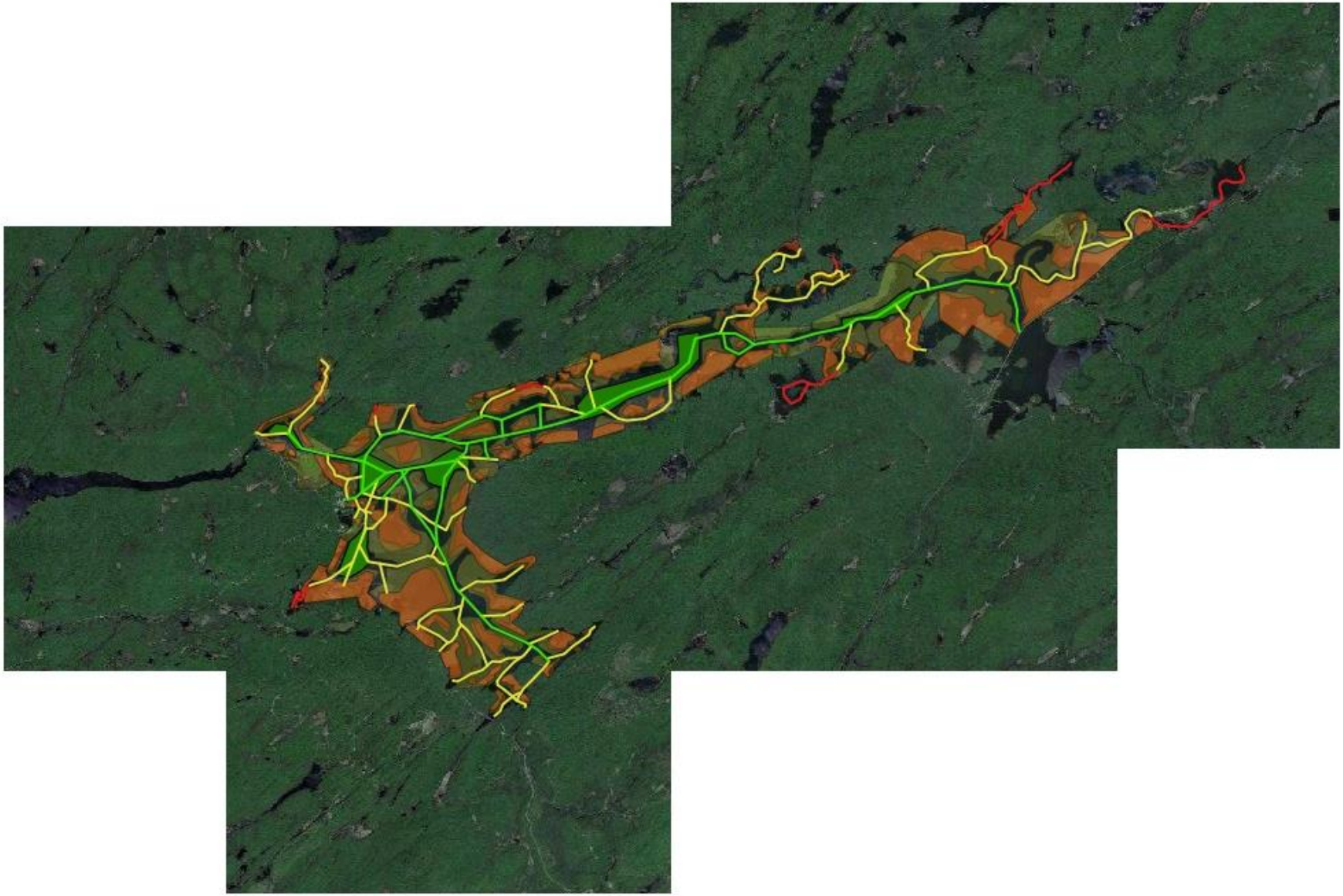












CREATED BY BILL PARTRIDGE (2001)

SO I'M NOT THE FIRST PERSON TO
WORK ON A STILLWATER GIS PROJECT,
NOR THE LAST. IN FACT, THIS WASN'T THE
FIRST STILLWATER GIS PROJECT EITHER.
SEE THE MAP BY TERRY PERKINS IN GOOGLE EARTH GOVT IMAGE OVERLAYS,
OR VERPLANCK COLVIN BEFORE HIM FOR THE ULTIMATE PROJECT!

Website Provides All Data

https://sites.google.com/site/stillwaterreservoirnavigation/

- Google Earth Network Link
  - Allows easy changes to underlying data
  - Routes, Hazards, Campsites
  - Image Overlays (Govt Vector, Topo, Raster)
  - 3D hazards
- Direct links for downloads directly to mobile
  - Routes, Hazards, Campsites
- MBTILE Raster Data
  - Included all imagery I could convert to mbtile

Step-by-Step Guides

- Interpreting the vector layers
- How to use Google Earth to view the project
- Loading all data onto mobile devices
  - LocusMaps & OruxMaps on Android
  - Map Plus on Apple
  - Garmin units that support custom maps
- Depth/Fish Finders with GPS and Memory
- QGIS

Also found on the site

- Detailed list of imagery used in project
- Detailed campsite information
- Archive of Updates to data/web site
- Disclaimer
- Government Links (USGS, DEC, HRBRRD)
- Local Business Links
- News Articles & Historical Dates
- Organizations and Social Media Pages
- Multimedia Links (Videos, Photo Blogs)
- Weather Links

Future Efforts – Depth Map

- Initially looked at building my own drone boat
- Then I found the commercial version
- NYS USGS operates these boats
  - Attempting to get a project underway, but outcome unknown at this point (funding)
  - Video highlighting how it works (not from USGS)

- If USGS project fails, back to the drone boat idea, or I buy my own depth finder with GPS & Memory, and start paddling.
- Capable software to create the inferred contour information includes QGIS, Reefmaster or Dr. Depth

Final Comment

Google Earth Reservoir Tour
and
QGIS Project Demonstration

Questions?