



[Newsletter Archive](#)

Happy New Year!

In This Issue

1. [Topic 1](#): Concord GIS Data in Nearmap
2. [Topic 2](#): Nearmap Imagery Update
3. [Topic 3](#): GIS App for Health Department Site Inspections
4. [Map/App Gallery](#)
5. [Topic 5](#): Pitch Pine Publication

[Back to Top](#)

1. Concord GIS Data in Nearmap

Delia Kaye in Natural Resources asked “Is it possible to bring ArcGIS layers onto a Nearmap image? That would be sooooo helpful!” Helpful, yes, and also very possible. All I needed to do was:

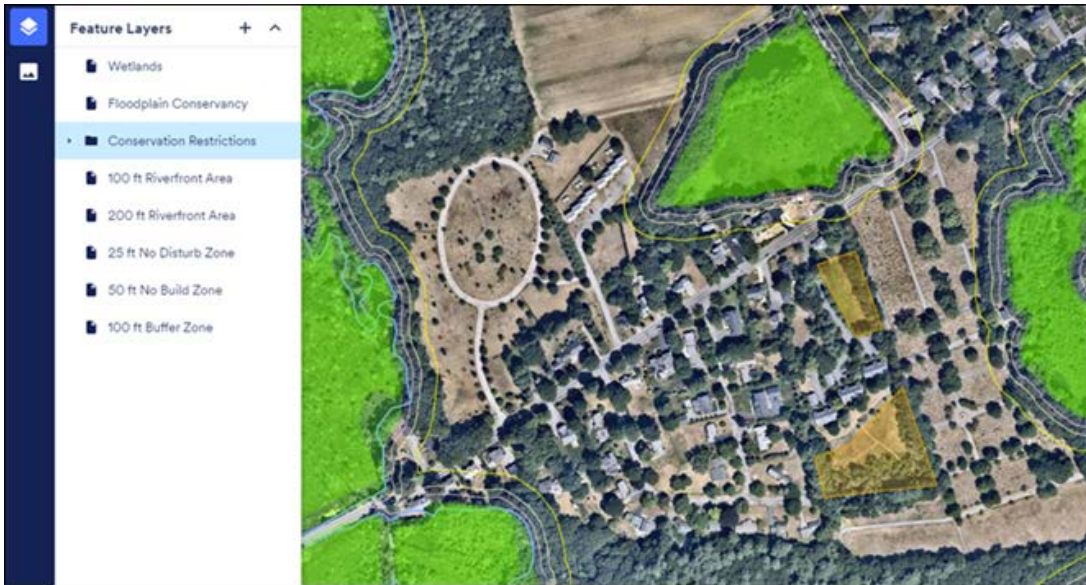
1. Convert the **Feature Class** to a **Feature Layer**
2. Modify the Feature Layer symbology for good visibility when superimposed on imagery
3. Convert the **Feature Layer** to **KMZ** format

Then Delia added the KMZ files to her Nearmap display.



Before

After



[Back to Top](#)

2. Nearmap Imagery Update

Highlighting a couple of items from Nearmap's Fall 2022 Aerial Imagery:

1. Celebrating the successful replacement of the Sawmill Brook culvert under Monument Street
Under Construction Complete!




2. Keeping an eye on Hanscom construction
Spring 2022

Summer

Fall



- If you already have a [Nearmap](#) account you can log in and view the new imagery directly, or from the [Staff Webmap](#) by clicking on the Nearmap button: 
- If you don't have a Nearmap account but would like one, I will be happy to set you up, just let me know.

[Back to Top](#)

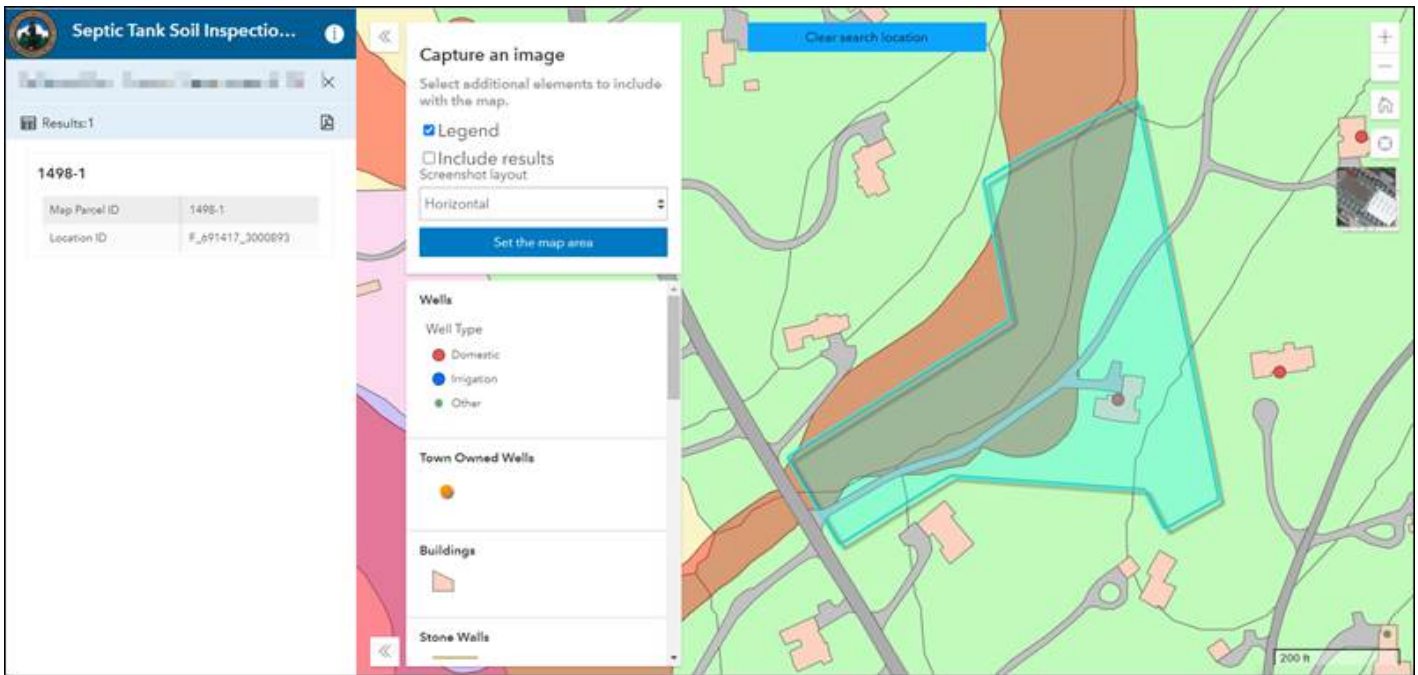
3. Health Department Site Inspections

We met with the Health Department to discuss some of their ongoing projects and to see if GIS could be of any assistance. One project involves conducting soil inspections for septic tank permitting. The department needs to inspect a property before approving a permit, testing the soil percolation for leach field sites and ensuring proposed septic tank sizes and locations meet certain requirements, such as distance from buildings and wells.

Previously, they had to sketch the property on a paper form while out in the field, marking where the tests were conducted in relation to buildings, driveways, wells, etc. This method wasn't incredibly accurate or convenient, nor did it provide the inspector any additional information about the property being inspected. For example, as they were testing for soil percolation and composition, it would be useful to know what type of soil was present on the property.

So, we created a web mapping application in ArcGIS Online which displays all the necessary data for these septic tank inspections and tests. The app allows the user to find, select, and zoom to the parcel for a given address; we also added widgets (tools) to export tidy screenshots of the map area, or export the map and parcel results to a PDF. The Health Department can now place those property screenshots in the digital copy of the soil inspection forms, and take detailed and informative maps out to the properties.

Here's an example of what the app looks like:



In the future, we may want to integrate more of the process into GIS. We could:

- Create an app in Field Maps or Collector for ArcGIS for users to collect and record the soil percolation test data in the field, using their phone or tablet GPS to accurately mark test locations, with text box options to record test results
- Replicate the current soil percolation test document as a layout to be printed with that collected data and the map of the property, all in one location

These ideas would take some time and effort to test and implement but are certainly worth considering!


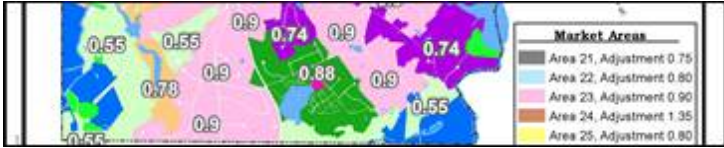

– Neill Fotheringham

[Back to Top](#)

4. Map/App Gallery

CTRL-Click on a thumbnail to view a full-size map

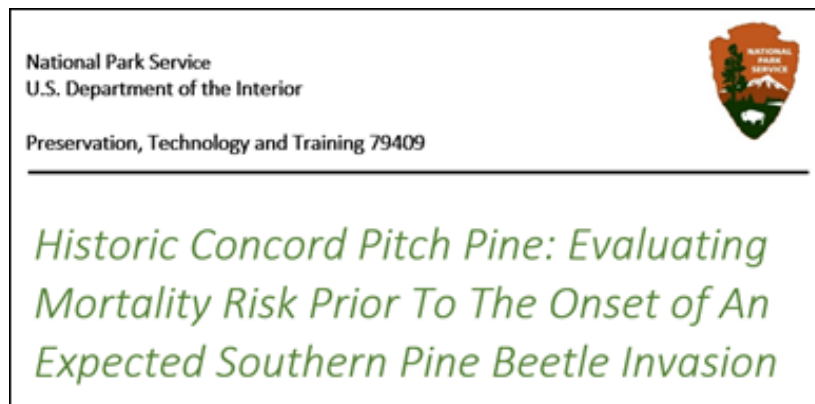
<p>Complete Streets Webmap</p>		<p>Erin Stevens requested a webmap showing the locations of all the Complete Streets projects in Concord</p>
<p>Fall Hydrant Flushing Maps</p>		<p>Melissa Simoncini requested a map showing Fall Hydrant Flushing locations and dates</p>

<p>Recent Nagog Beaver Activity</p>		<p>Melissa also requested an update for a map showing recent beaver activity at Nagog Pond in Acton and Littleton</p>
<p>Market Areas Map</p>		<p>Prepared annual update of (very colorful) Market Areas map for Assessing</p>
<p>Emerson-Thoreau Amble</p>		<p>Prepared a map display to support a proposed Conservation Restriction protecting a portion of the historic Emerson-Thoreau Amble trail, for Delia Kaye</p>

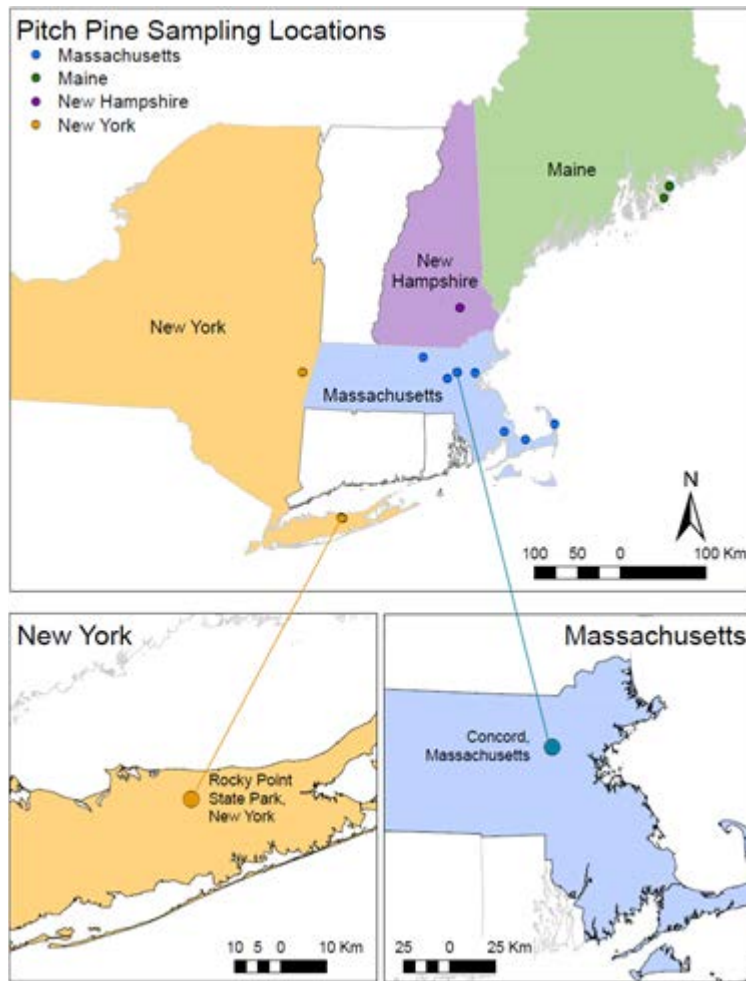
[Back to Top](#)

5. Professor Pitch Pine Update

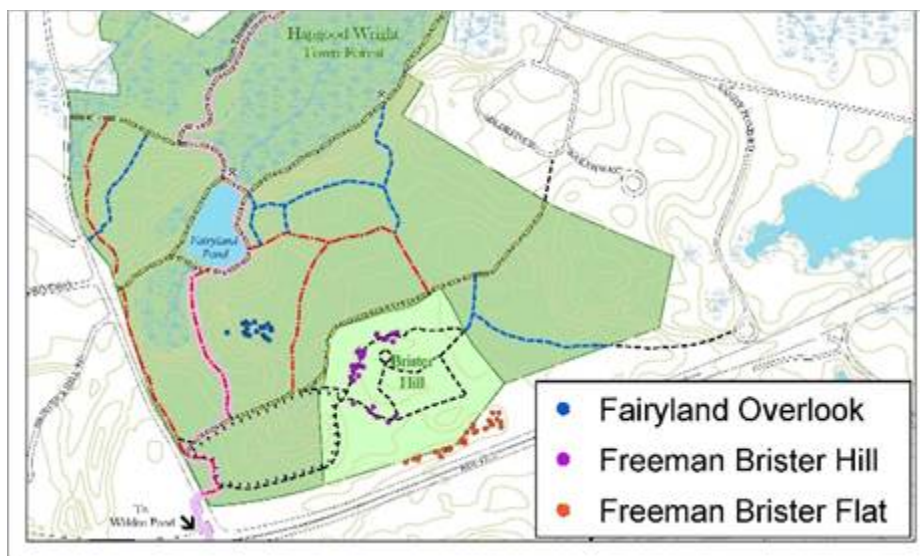
Professor Jeff Licht, researching factors affecting Pitch Pine resistance to the approaching Southern Pine Beetle, requested several maps to be included in a research paper he is submitting to wrap up a National Park Service grant he received. The grant covered Jeff's work in Concord and several other locations.



Jeff investigated a variety of factors relating to tree health, comparing data from Concord Pitch Pines – not yet attacked – and populations on Long Island which have been hit hard by the beetle.



The paper also places Concord’s Pitch Pine stands in the context of Town history, referencing in particular Emerson and Thoreau, who ‘ambled’ (pink-highlighted trail) together through the Town Forest portion of the study area:



Working in Concord GIS has taken me into so many different areas of interest! Keeps things lively!

[Back to Top](#)

Post Script

I will be retiring from full-time employment with Concord GIS as of January 3, 2023. However, I will continue to work part-time (3 days per week) to provide some continuity until new GIS talent joins us, and then to train that talent in the many wonderful aspects of our GIS program. I love this work, but my aging eyes need less screen time!

–Jill

[Back to Top](#)