



### [Newsletter Archive](#)

#### In This Issue

1. [Topic 1: GIS Supports Water Conservation Enforcement](#)
2. [Topic 2: NEARC – The Professional Organization for Concord GIS](#)
3. [Topic 3: Coming in 2026: A New Online Hub to Town Maps & Applications](#)
4. [Map/App Gallery](#)
5. [Topic 5: Plate Tectonics](#)

*Note: Starting this year, the GIS newsletter will be published **every April and October** instead of quarterly.*

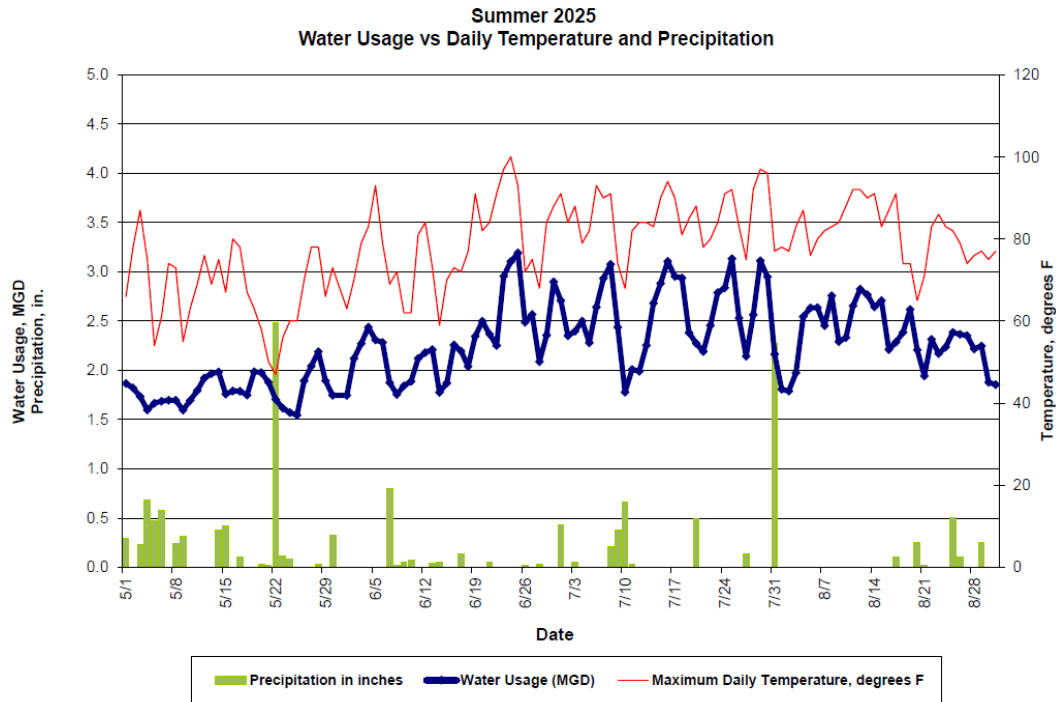
[Back to Top](#)

#### **1. GIS Supports Water Conservation Enforcement**

During drought seasons, towns often implement watering restrictions to help conserve our shared water resources. These restrictions are especially important during the summer, when irrigation demand increases and water supply becomes more limited. To monitor compliance with these restrictions, Concord's Water staff conduct irrigation inspections across town, looking for violations of the water conservation policies.

In coordination with Water staff, the GIS team developed a mobile inspection app using **Survey123** and **ArcGIS Field Maps**. Inspectors can document violations with photos, GPS locations, and notes—even offline—making the process more efficient and user-friendly. Field Maps allows us to build logic into a dynamic form, providing inspectors with property-specific information, saving time and furthering app usage. Survey123 also allows for automated generation of warning and citation letters, addressed to individual owners, from the collected data.

In July alone, nearly 500 warnings were issued, a significant increase from previous years. Following this, August saw a notable drop in early morning water usage typically associated with automated irrigation systems, despite high temperatures. This suggests that both enforcement and public awareness had a measurable impact on compliance and conservation outcomes.



We'll be presenting this project in a poster session at the Fall NEARC conference later this month. Over the winter, we also plan to further streamline the process. Planned improvements include automating parcel layer updates to ensure owner information is always current and accurate for citation mailings.

Learn more about Concord's water restrictions [here](#).

- *Heather Bhowmick*

[Back to Top](#)

**2. NEARC – The Professional Organization for Concord GIS**

GIS as a profession and academic discipline is not just making maps and managing data for municipalities—it is a whole ecosystem of sub-disciplines and specialties, each with their own career paths and even graduate programs. Therefore, we as a GIS team work to promote our work for the Town and collaborate with colleagues through the [North East Arc Users Group](#), or NEARC, the professional organization for GIS users and professionals for New England and surrounding areas.

NEARC hosts two conferences every year, one in the Spring geared toward academic organizations and students, and a larger Fall conference geared more towards professionals. Last year Concord's GIS team presented original work detailing past and ongoing projects in the Town at the Fall conference in Burlington, Vermont and we will be returning to present again in a few weeks' time at the next conference on Cape Cod.

While I won't spoil the content of the two presentations the team will be making, I can provide a preview of some of the work I'll be sharing. As the town prepares for stormwater utility billing to begin, I have been working behind the scenes to create a publicly accessible web tool for residents to view their properties and their new bill rates. With the beginning of the stormwater utility, property owners will be billed by the total square footage of impervious surface on their parcel. Under the new utility, the impervious surfaces in question include buildings, driveways, patios, walkways, and pools and other recreational structures that are grass-surfaced.

This new web tool (available soon!) will allow residents to look up where their impervious surfaces are located on their properties, see their bill rate, and will also include links to more information on the utility and links to abatement and other applications relevant to utility customers. Below is a behind the scenes look at part of the workflow to generate both the webtool and the new utility rates.



- *Tristan Boyd*

[Back to Top](#)

### 3. Coming in 2026: A New Online Hub for Town Maps & Applications

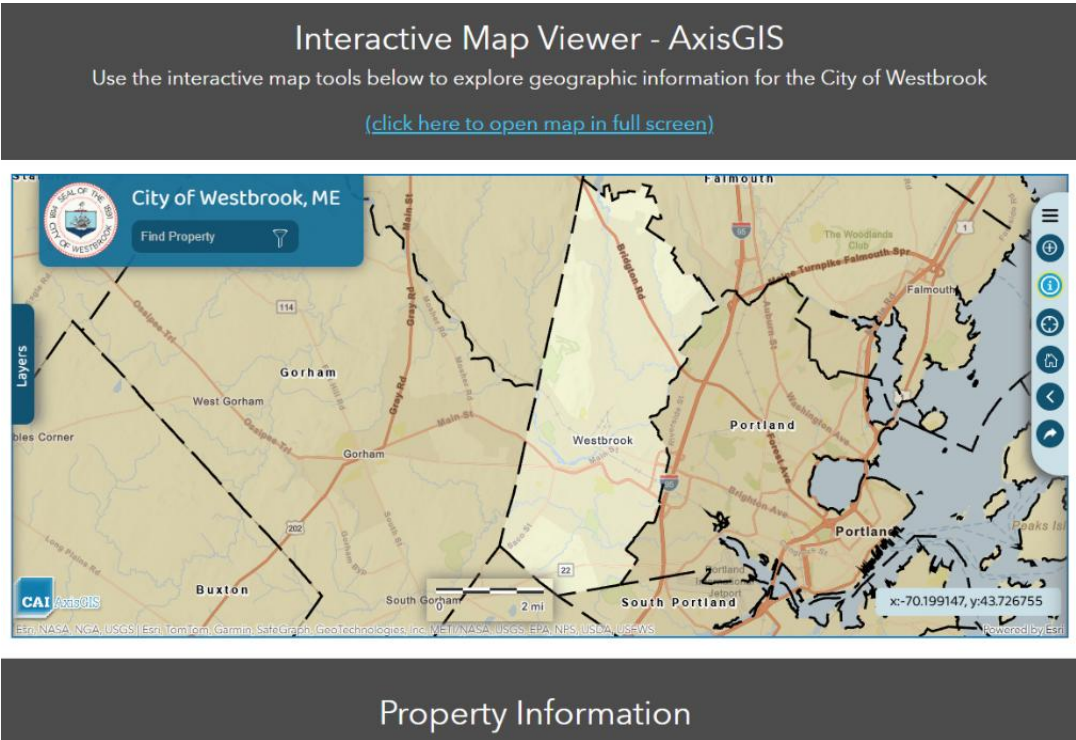
As we set goals for the upcoming year, one area we're excited to focus on is improving how residents access the Town's maps and data. Our current GIS webpage has served us well, but we see opportunities to make information even easier to find and explore. That's why we're planning to launch a new **ArcGIS Hub** site — a modern, interactive platform designed to bring everything together in one place.

An ArcGIS Hub is a flexible platform designed specifically for organizing and sharing maps, data, and applications. With a traditional webpage, adding new tools often means redesigning pages or creating separate links that can be hard to find. With Hubs, we can integrate new projects seamlessly.

Some key benefits include:





- Centralized and organized: Everything lives in one easy-to-navigate location.
- Interactive and user-friendly: Visitors can search, filter, and explore data directly on the site.
- Scalable design: New content and features can be added quickly as our GIS resources expand.

We'll be working on our Hub site over the coming months, and we'll share updates on the progress in the future. We also want to look at and expand the selection of maps and data that we have accessible to the public. In the meantime, here's an example of a Hub site, from the City of Westbrook, Maine: <https://maps-westbrookmaine.hub.arcgis.com/>



Property Information

## GIS Applications

 <p>CAI Technologies Web App</p> <p><b>AxisGIS</b></p> <p>View and interact with City GIS data layers</p>	 <p>CAI Technologies Web App</p> <p><b>Cemetery Application</b></p> <p>View Lot Owners and Burials within the City Cemeteries</p>	 <p>CAI Technologies Web App</p> <p><b>Subdivision Plan Viewer</b></p> <p>Search for and view historic subdivision plans</p>	 <p>CAI Technologies Web App</p> <p><b>Zoning Map Viewer</b></p> <p>View current City zoning districts and information</p>
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## Printable Maps

Collection of Printable PDF Maps

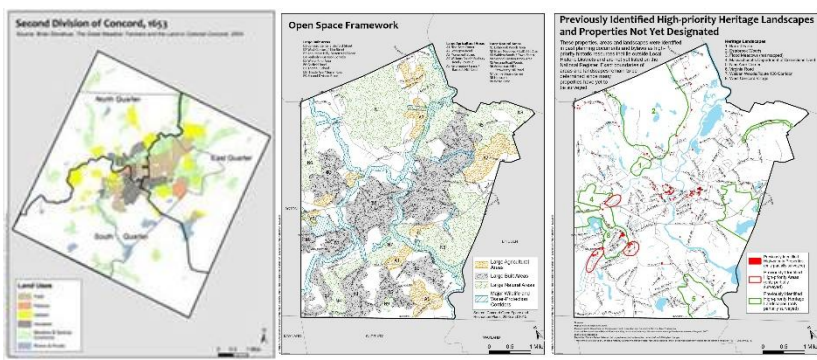
 <p>CAI Technologies PDF</p> <p><b>Assessor's Tax Maps</b></p>	 <p>CAI Technologies PDF</p> <p><b>Zoning Map - Official</b></p>	 <p>CAI Technologies PDF</p> <p><b>Snowplow Route Map</b></p>	 <p>CAI Technologies PDF</p> <p><b>Trash Route Map</b></p>
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- *Neill Fotheringham*

[Back to Top](#)

### 4. Map/App Gallery

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

<p><b>Historic Preservation</b></p>		<p>Created a series of maps for Historic Preservation Planning, for Ann Clifford</p>
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<p><b>Water Map Book</b></p>		<p>Updated the Water (and Sewer) Map Books used by the crew, for Melissa S</p>
<p><b>Moratorium Roads</b></p>		<p>Updated Moratorium Roads map for 2025, for Joe Cormier</p>

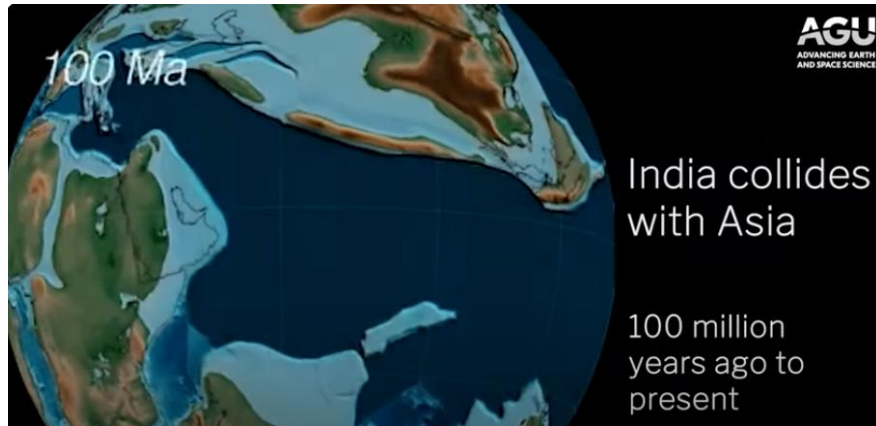
[Back to Top](#)

## 5. Plate Tectonics

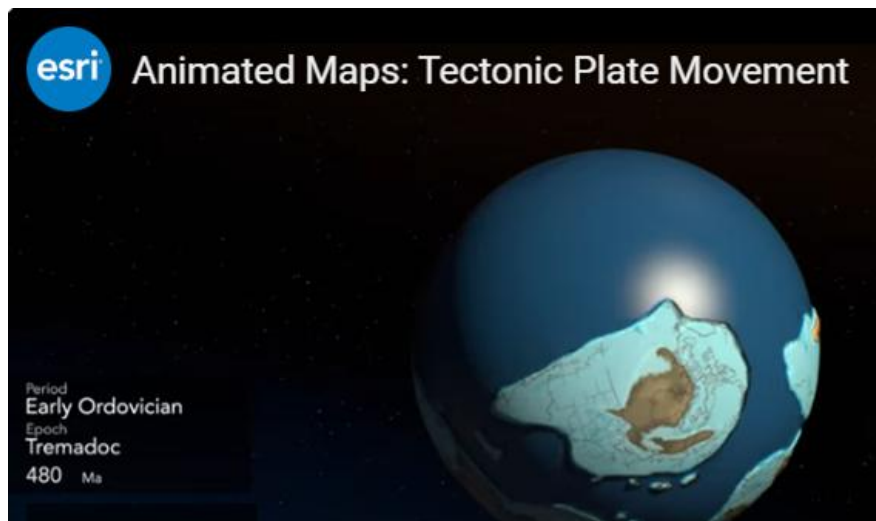
I've been reading about mountains lately (which motivated a recent trip to Denali in Alaska!) *Mountains of the Mind*, by Robert MacFarlane, reminded me that our understanding of plate tectonics, the mechanism behind continental drift, has emerged only recently – within my lifetime.

MacFarlane described the creation of the Himalaya as follows: “at the rate of six inches per year or so...India hurtled into Tibet.” I thought it would be interesting to visualize this ‘hurtling’. Poking around on the web, I found several videos depicting just that.

This animation by AGU provides three focused views: the breakup of the supercontinent Pangaea, the formation of North America, and finally India – which does indeed hurtle! Fascinating...



ESRI's version is particularly lovely, and the first segment includes major city labels for context.



Cartography has come a long way from “Here be dragons”!



- *Jill Moonheron*

[Back to Top](#)