

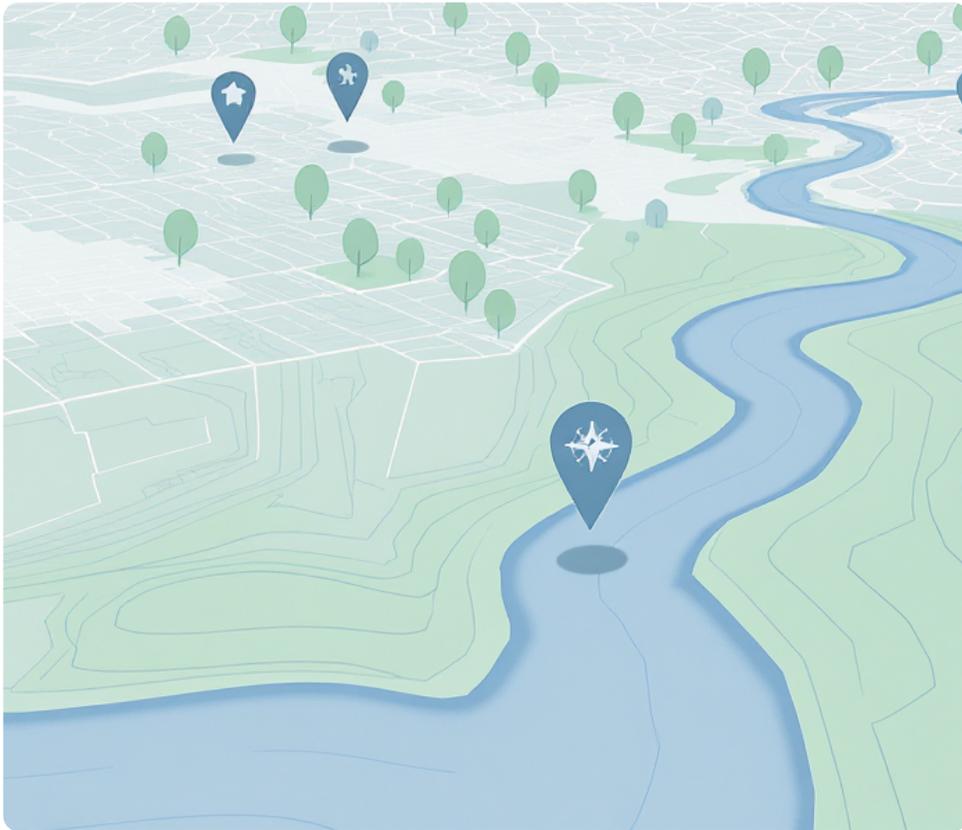
# Navigating the New Flood Risk Landscape

Connecticut Association of Flood Managers

November 20, 2025



# Agenda



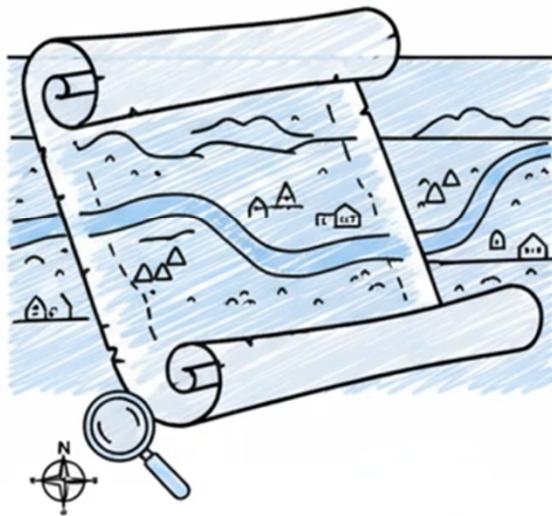
1. Introduction and Context
2. Which Map Should We Trust
3. Naugatuck Valley Flood
4. FEMA Maps as Baseline
5. Third-Party Mapping Vendors
6. Model Selection
7. Illinois Case Study
8. Governance
9. Q&A

## Introduction and Thanks

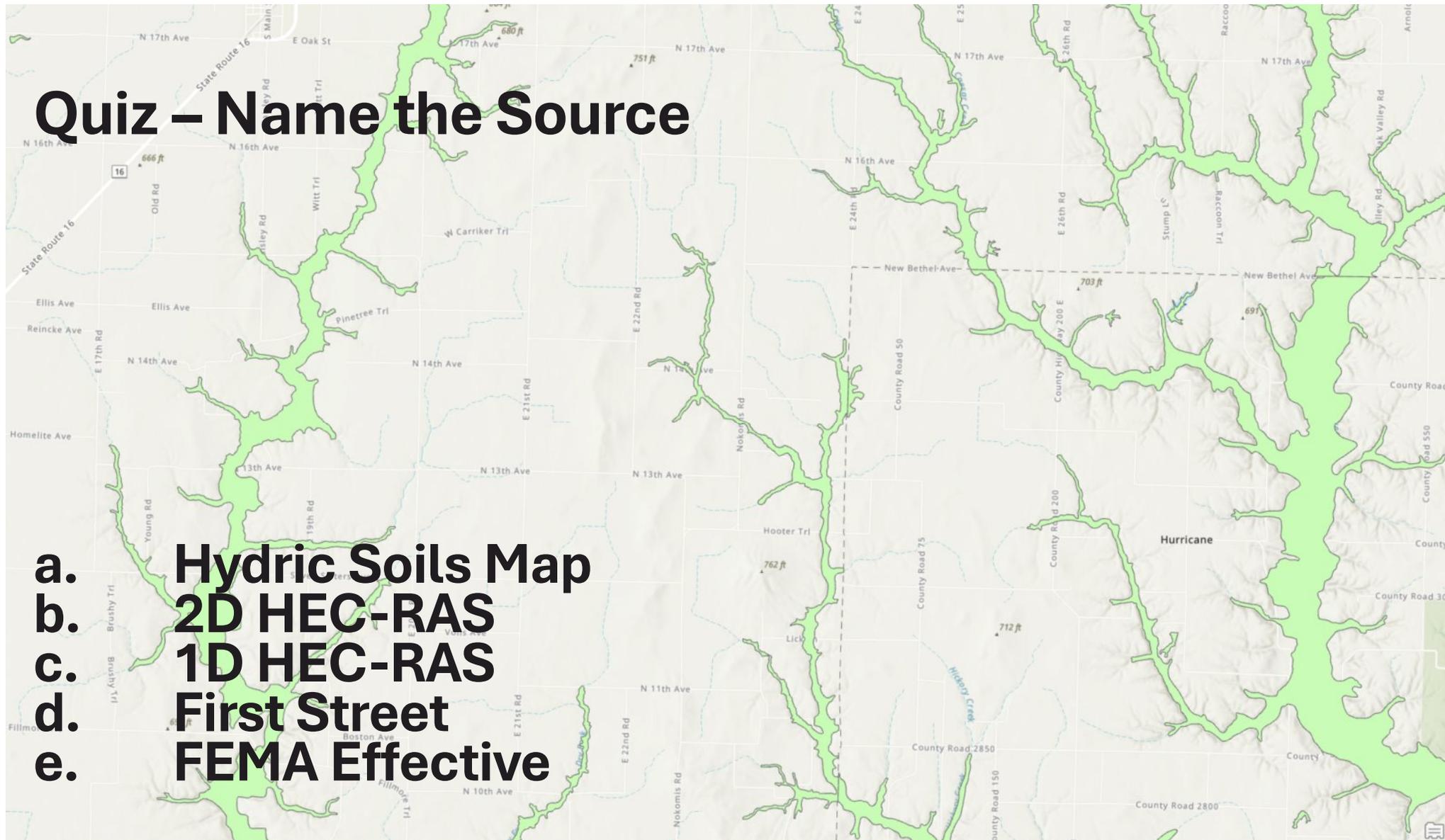
- **Thank you** to Scott Bighinatti, John Truscinski, David Murphy, and the Connecticut Chapter Board for the invitation and support.
- **Appreciation** to Chad Berginnis, Executive Director of ASFPM, for facilitating this opportunity to speak with you today.
- **Today's focus:** providing a clear, practical framework to help Connecticut navigate flood risk mapping challenges effectively.
- **My goal** is for you to leave with actionable insights that can be applied immediately in your flood risk management work.



# Which Map Should We Trust?



# Quiz – Name the Source



- a. Hydric Soils Map
- b. 2D HEC-RAS
- c. 1D HEC-RAS
- d. First Street
- e. FEMA Effective

# Quiz – Name the Source

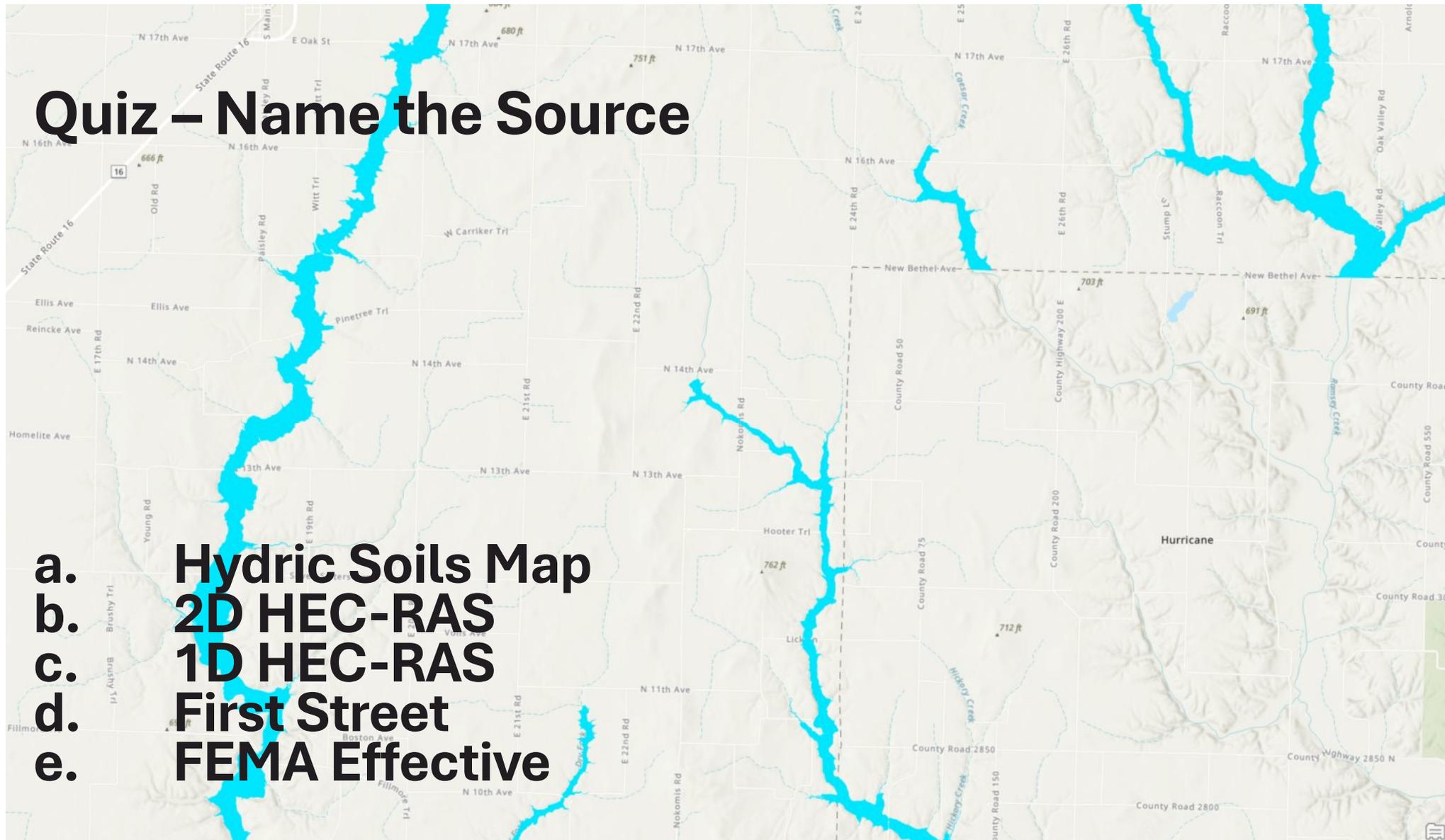
## Hydric Soils Map

- a.
- b.
- c.
- d.
- e.



# Quiz – Name the Source

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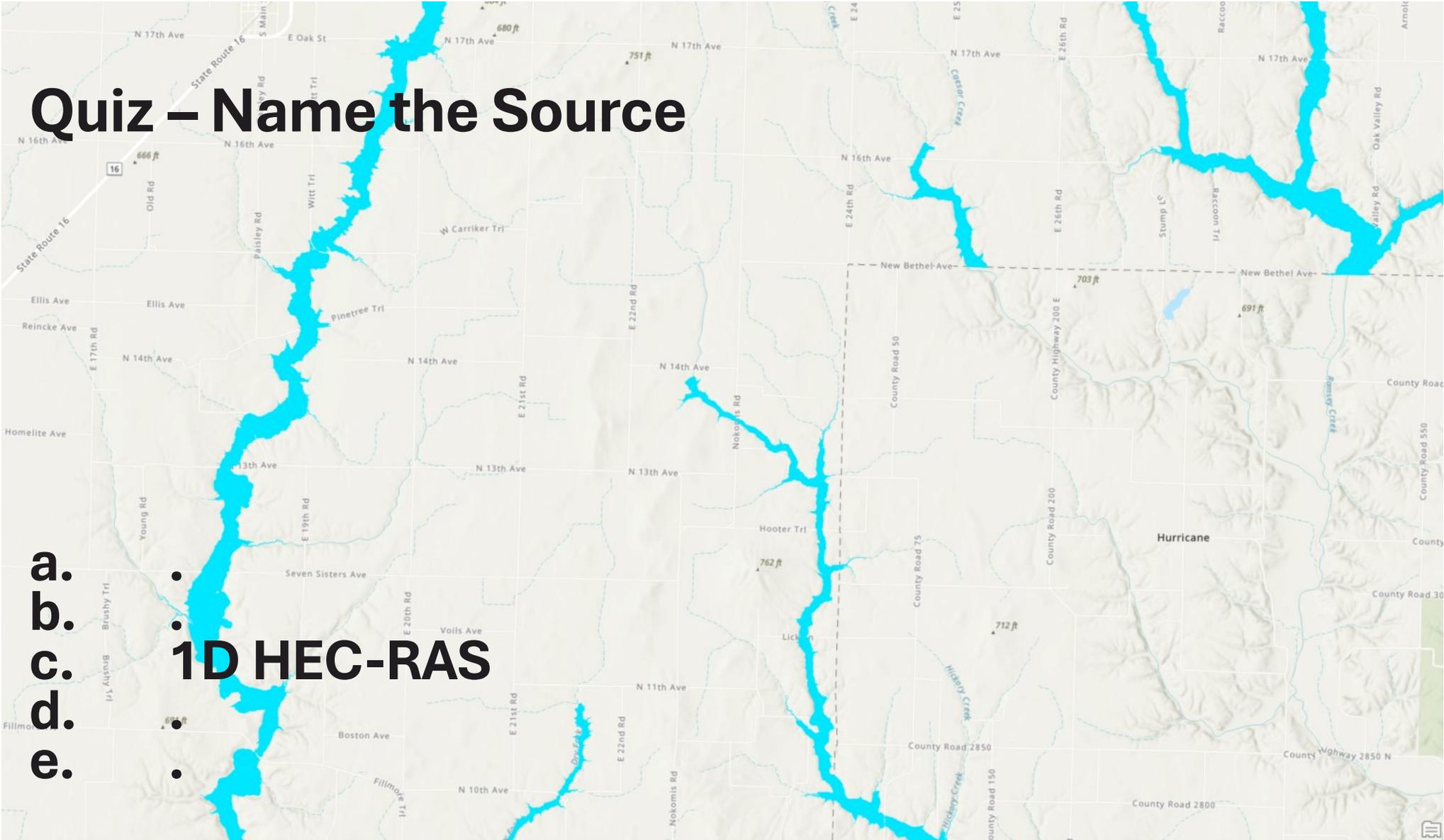


# Quiz – Name the Source

1D HEC-RAS

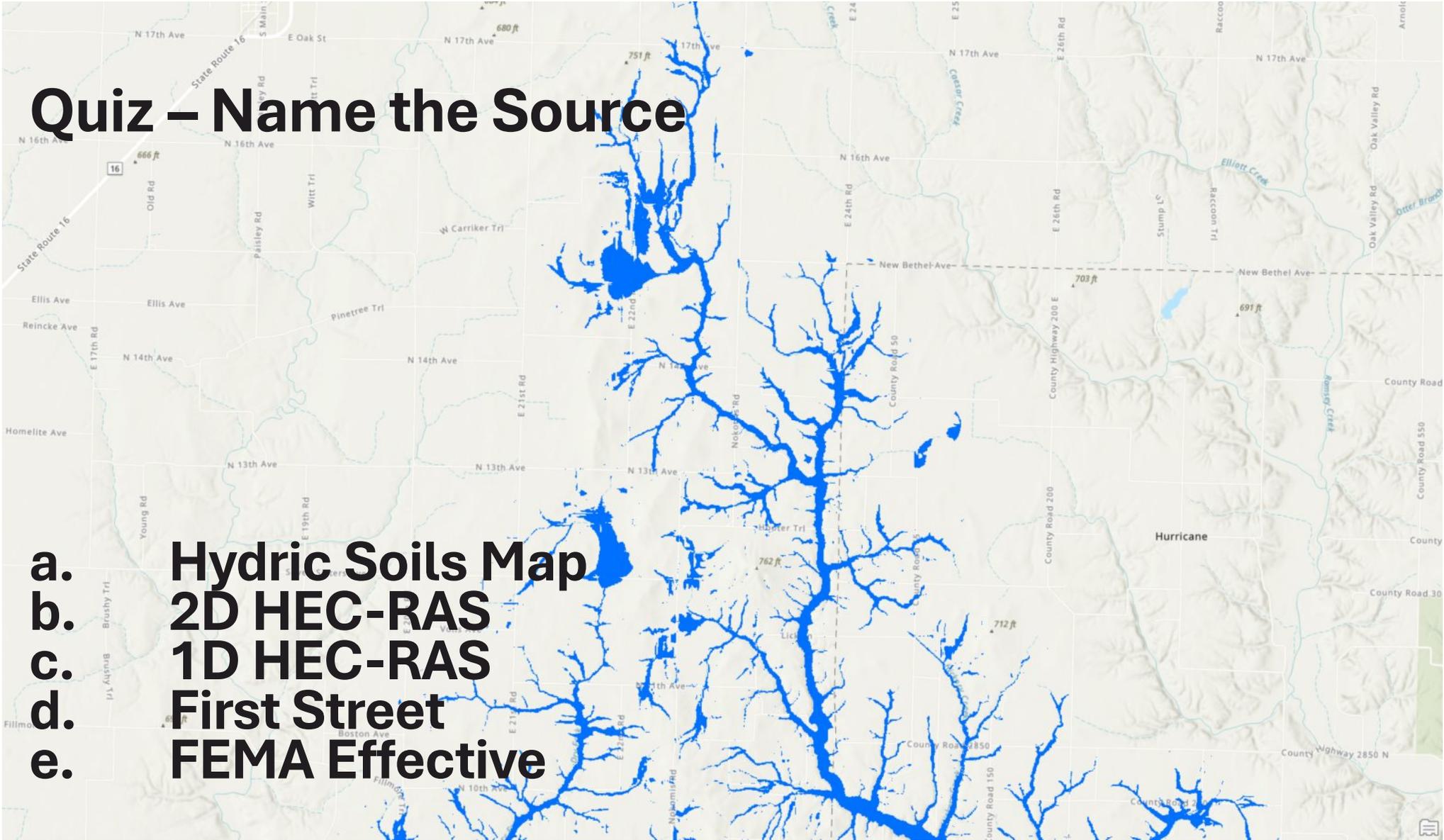
- a.
- b.
- c.
- d.
- e.

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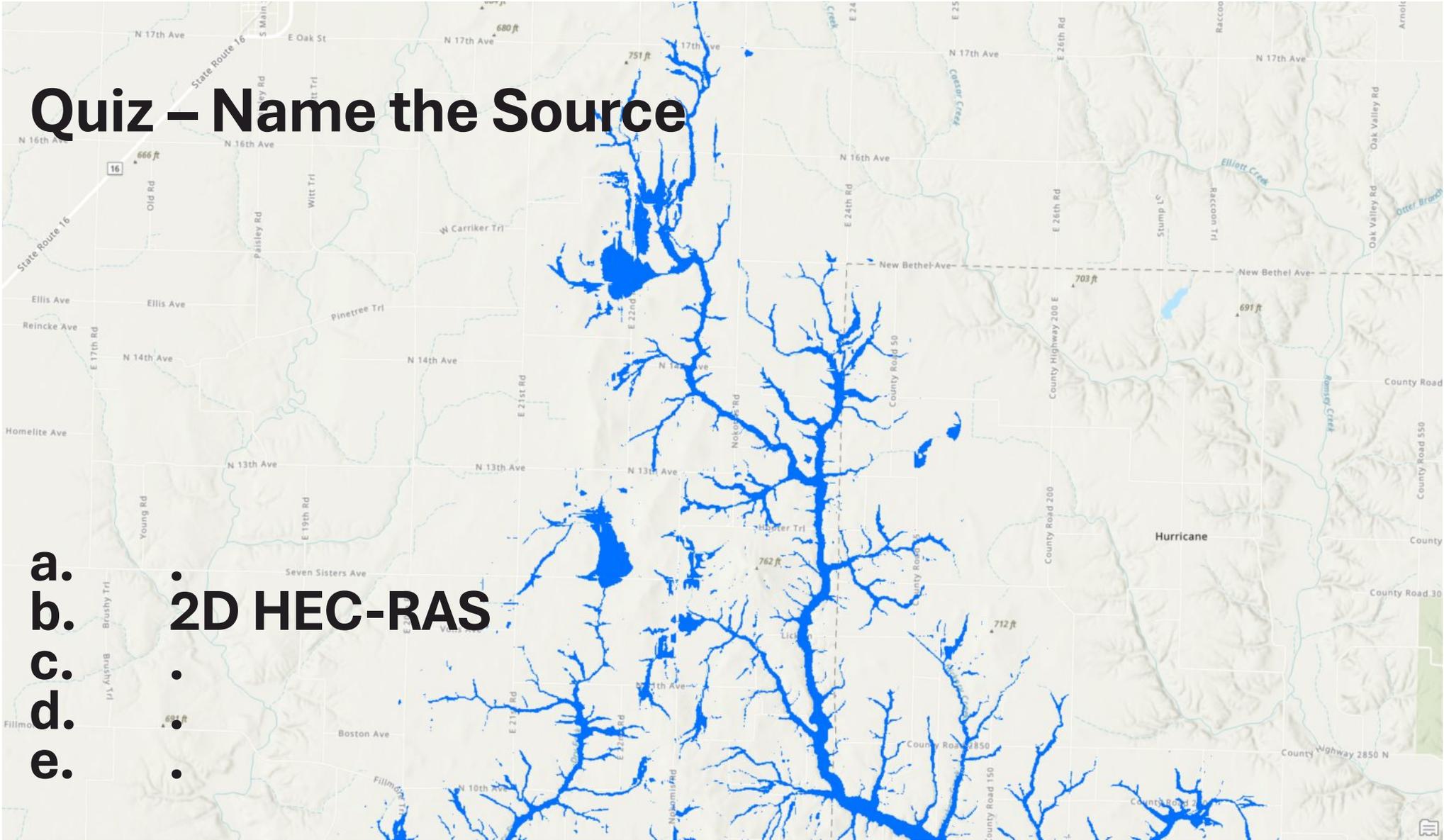


# Quiz – Name the Source

2D HEC-RAS

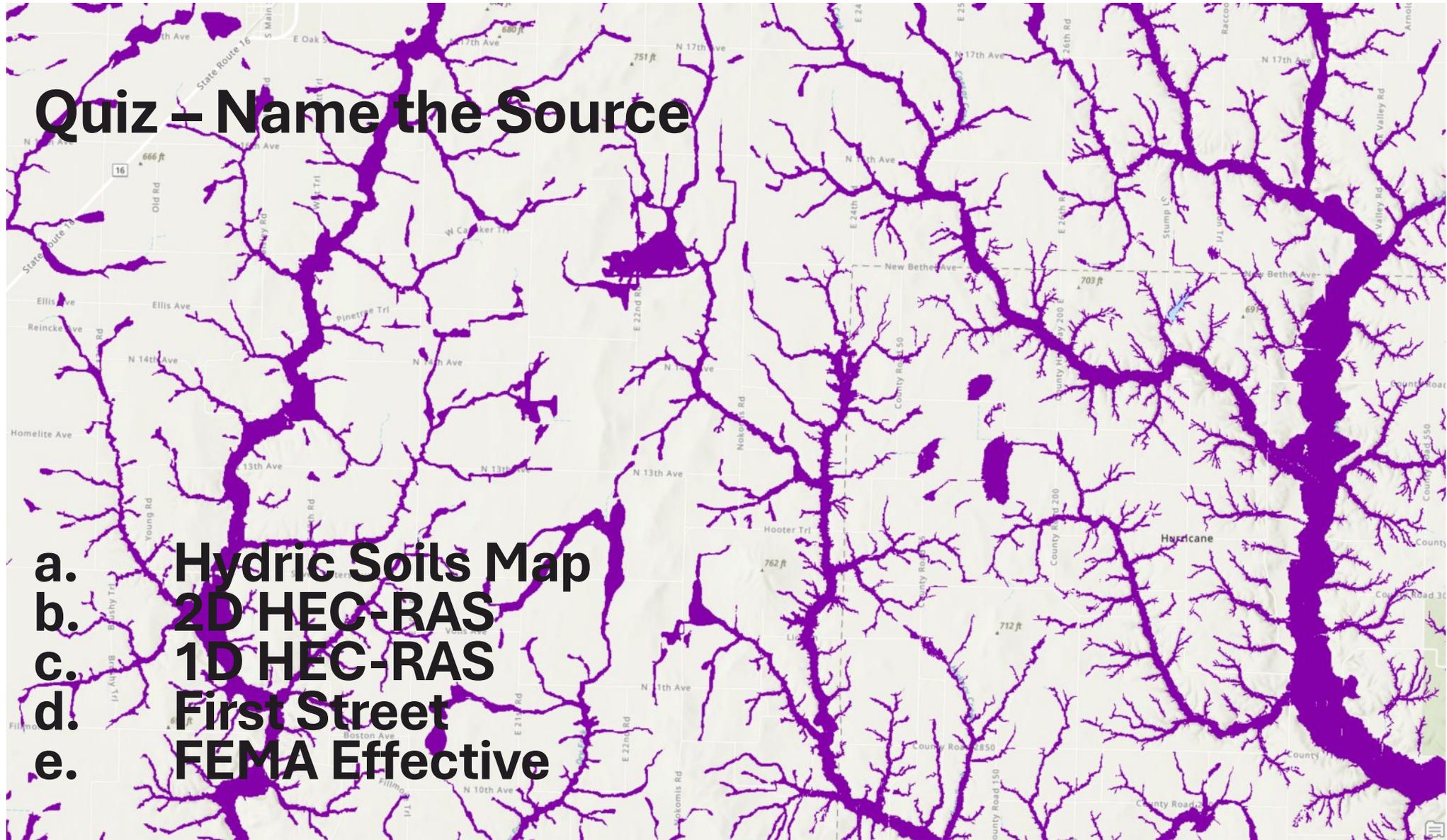
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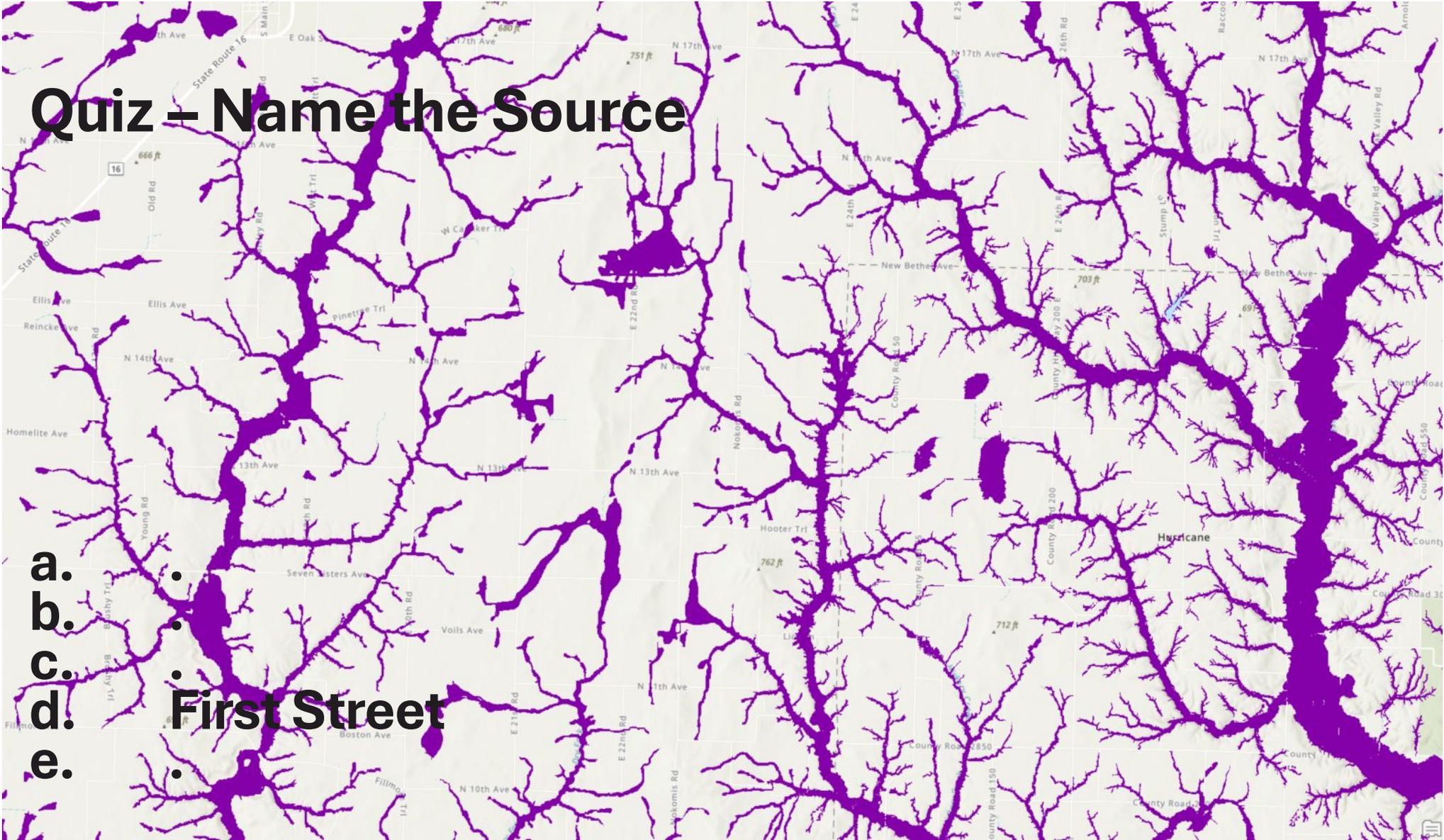
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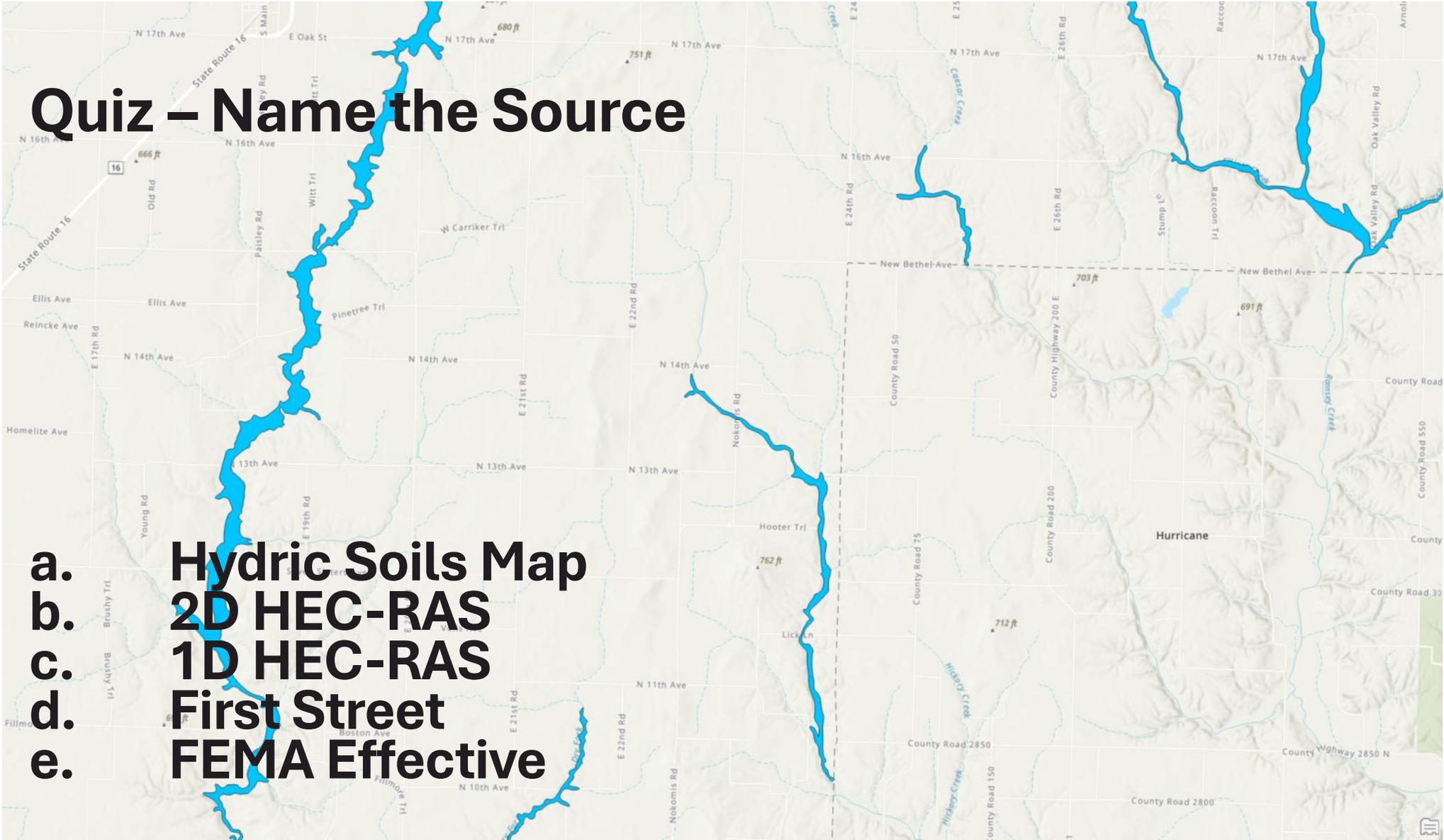
# Quiz – Name the Source

- a.
- b.
- c.
- d.  **First Street**
- e.



# Quiz – Name the Source

- a. Hydric Soils Map
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- c. 1D HEC-RAS
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# Quiz – Name the Source

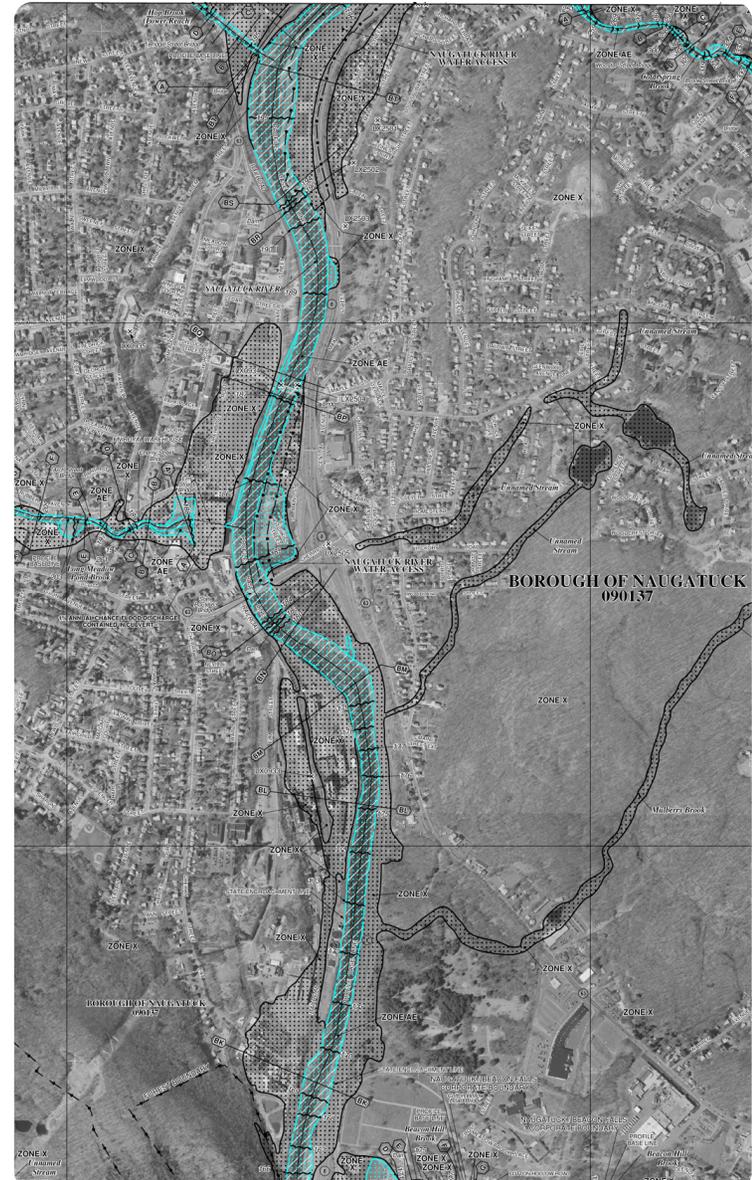
- a. ●
- b. ●
- c. ●
- d. ●
- e. ●

**FEMA Effective**



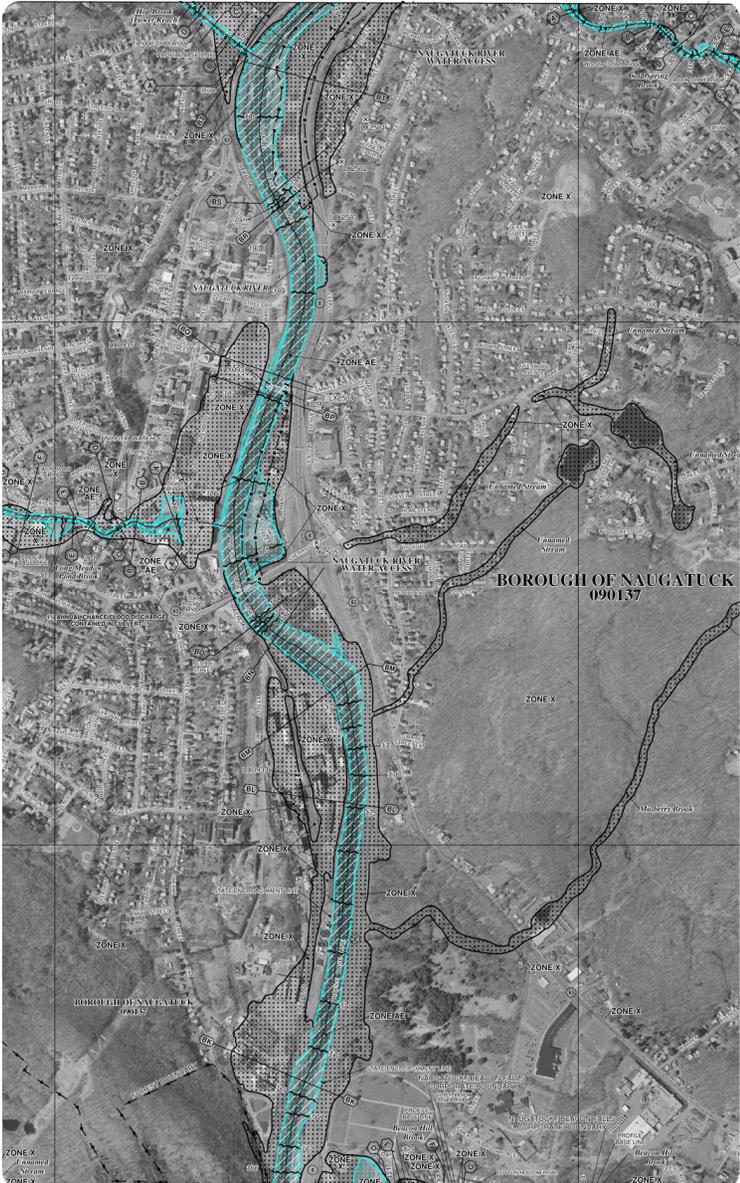
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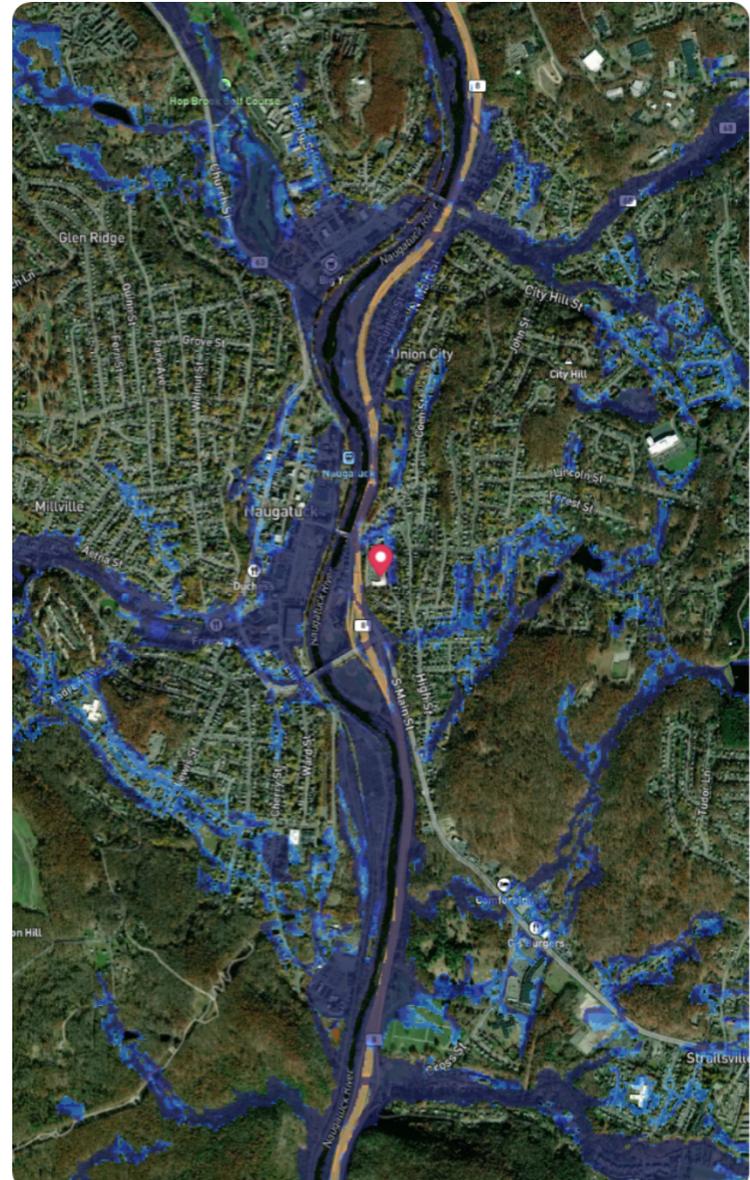
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- a. .
- b. .
- c. .
- d. .
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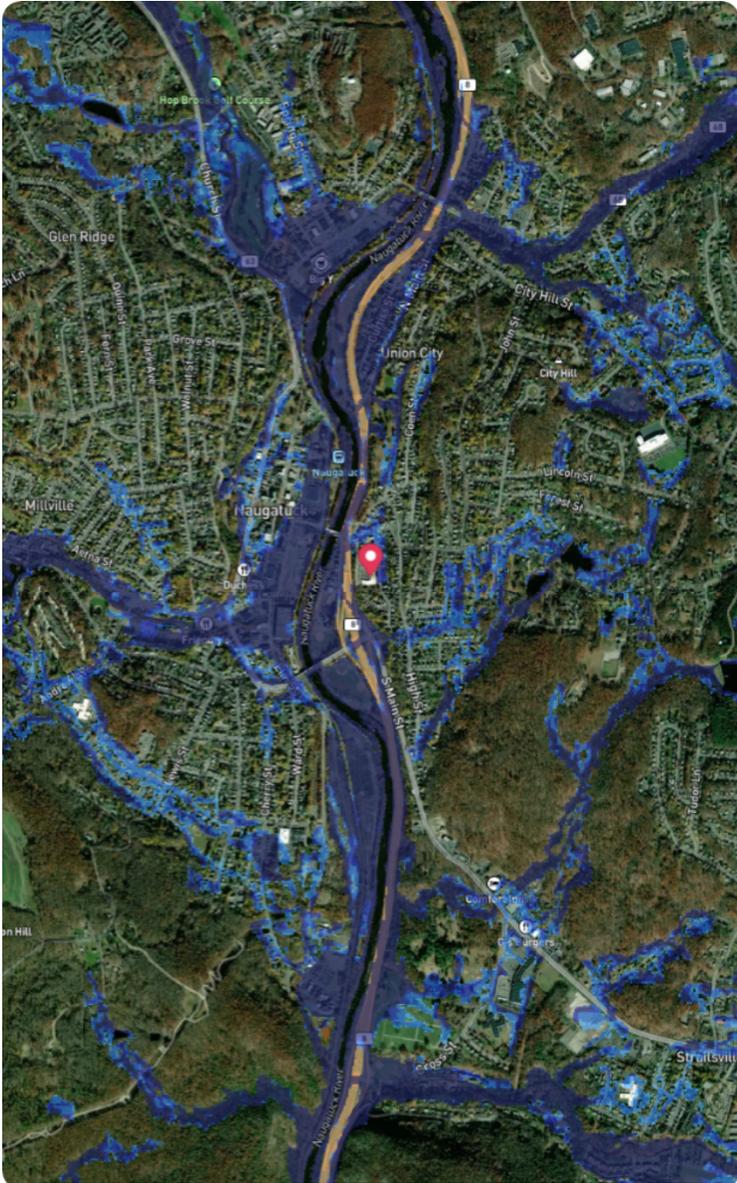
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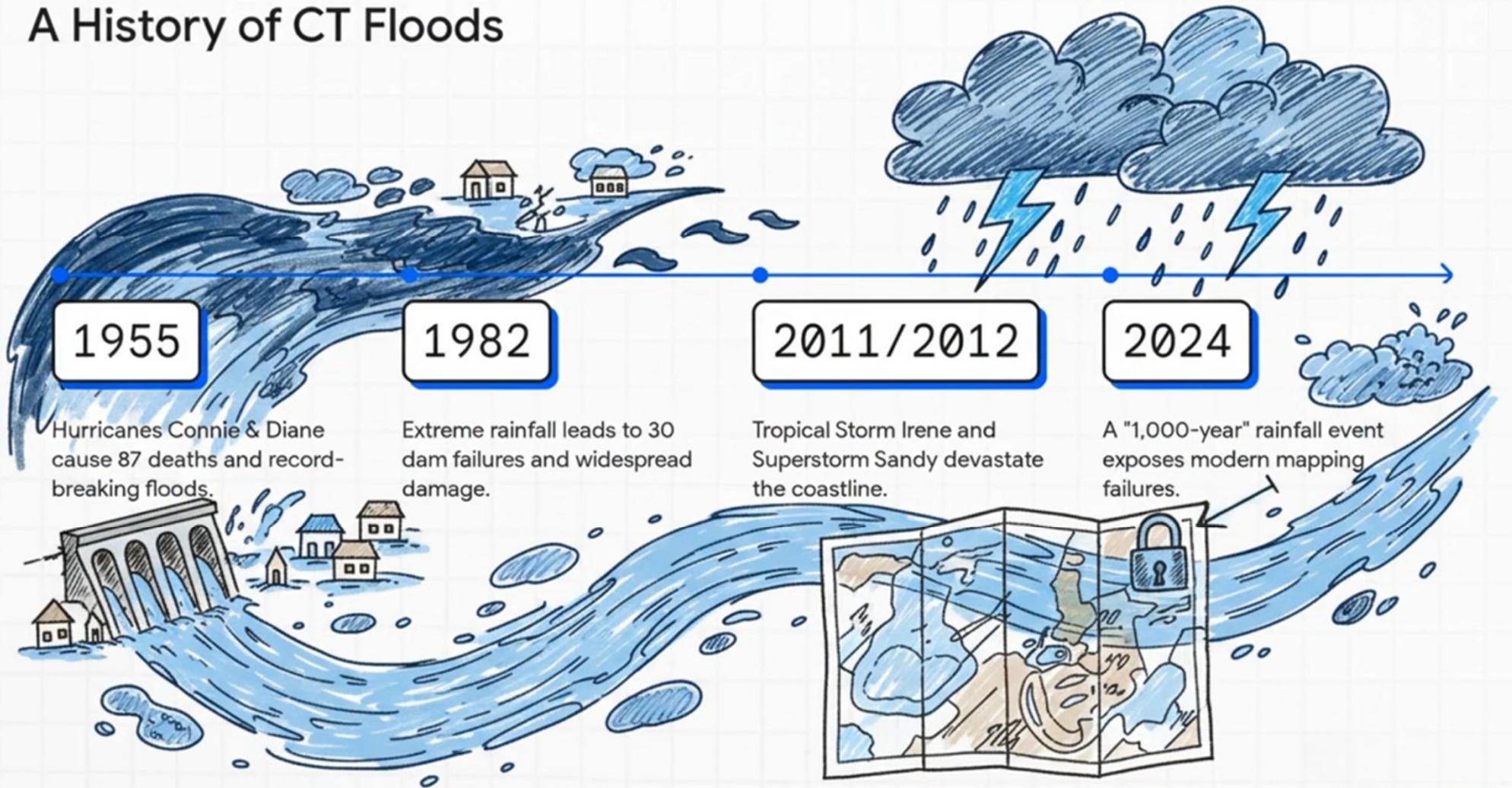


# Quiz – Name the Source

- a. .
- b. .
- c. .
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- e. .



# A History of CT Floods





Why are the maps we  
trust failing us?

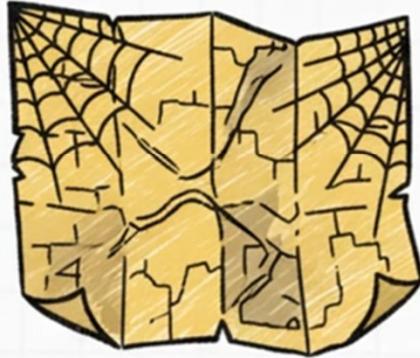
# FEMA Flood Insurance Rate Maps (FIRMs)

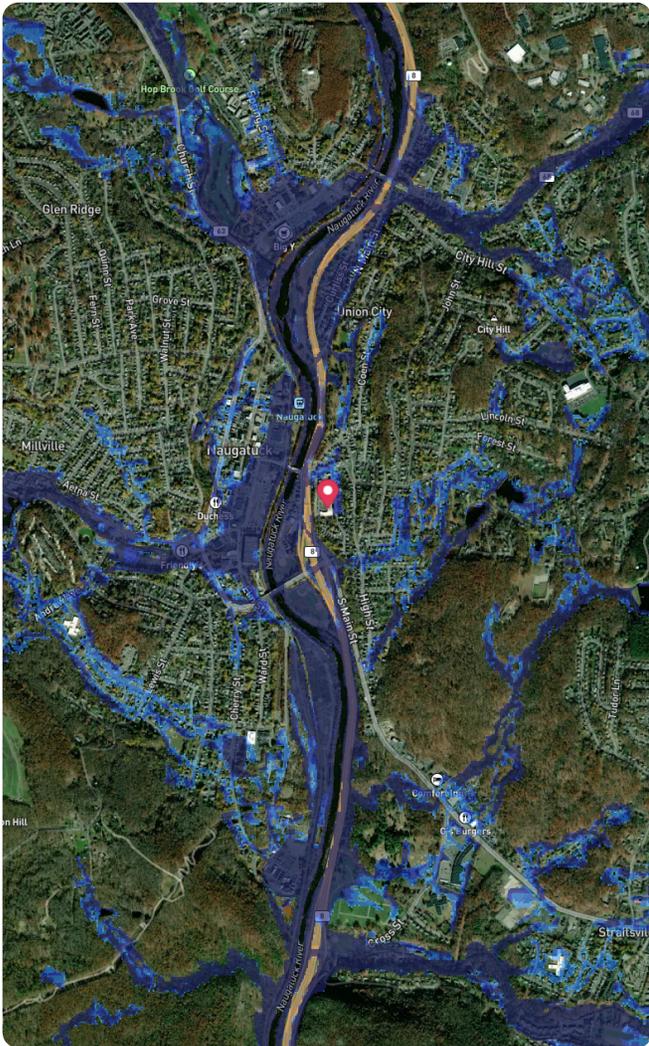
The official maps used for insurance and building regulations; the legal "gold standard".





# FEMA Map Limitations

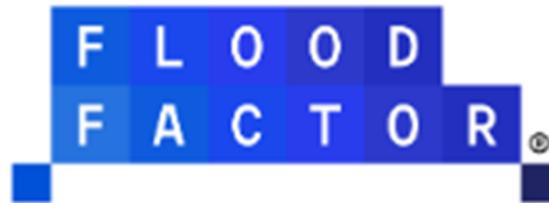




# Rise of Third-Party Mapping Tools

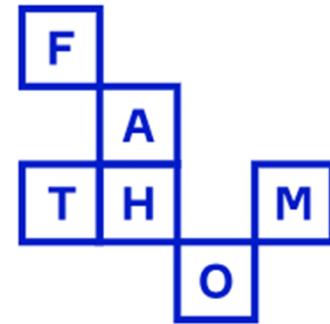
## First Street Overview

First Street offers national-scale flood risk data with consistent methodology, parcel-level insights, and climate projections, now accessible via Connecticut's Insurance Department website for free public use.



## Fathom Capabilities

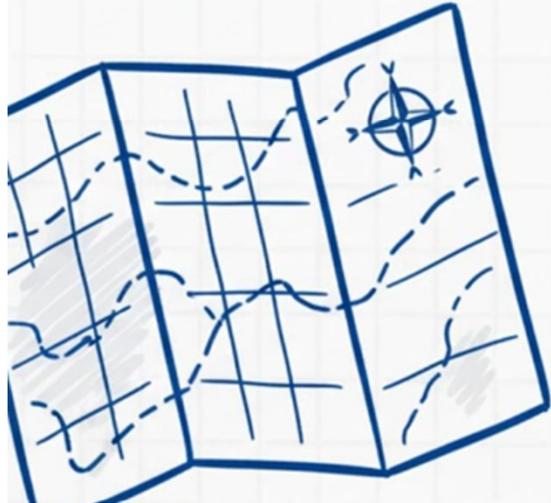
Fathom provides advanced commercial flood modeling with 1-3 meter resolution, 2D hydraulics, and scenario testing, useful for detailed local studies and potential state-funded mapping projects.



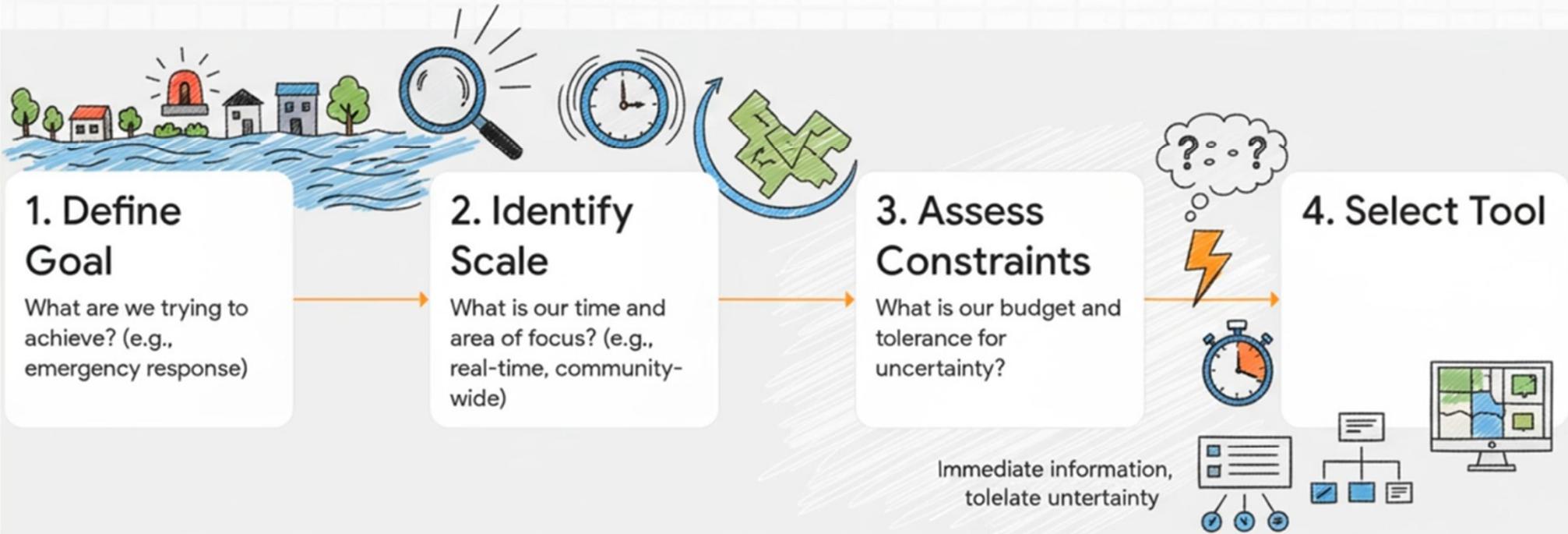
<https://portal.ct.gov/cid/resource-library/free-climate-risk-mapping-tool>



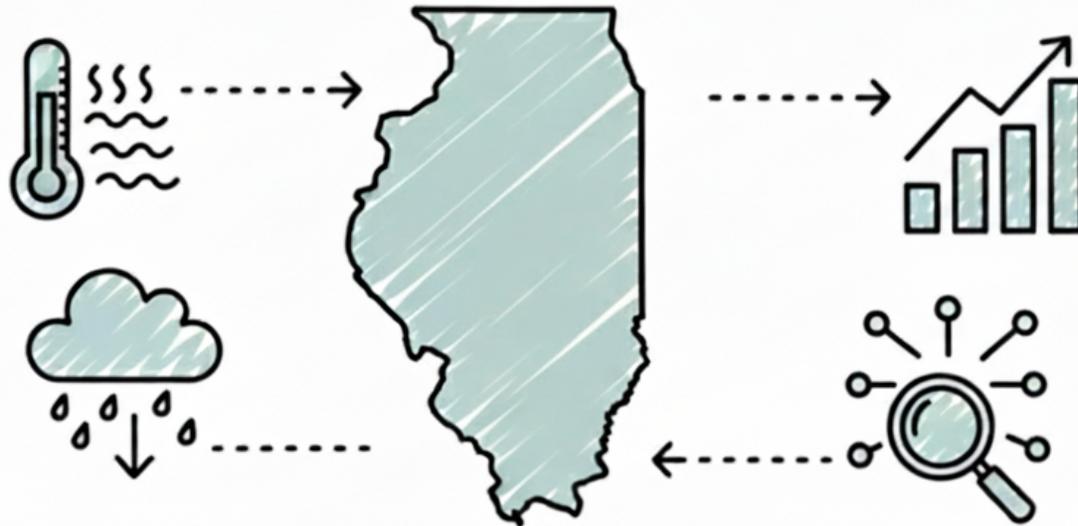
In a changing climate,  
can we ever rely on just  
**one map?**



# Decision Process



# The Illinois Example



# The Three Paths



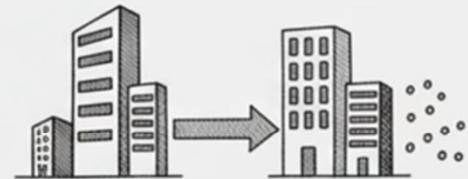
## Build In-House

Build new statewide models ourselves.



## Use FEMA Maps

Lean entirely on FEMA's existing maps.



## License Data

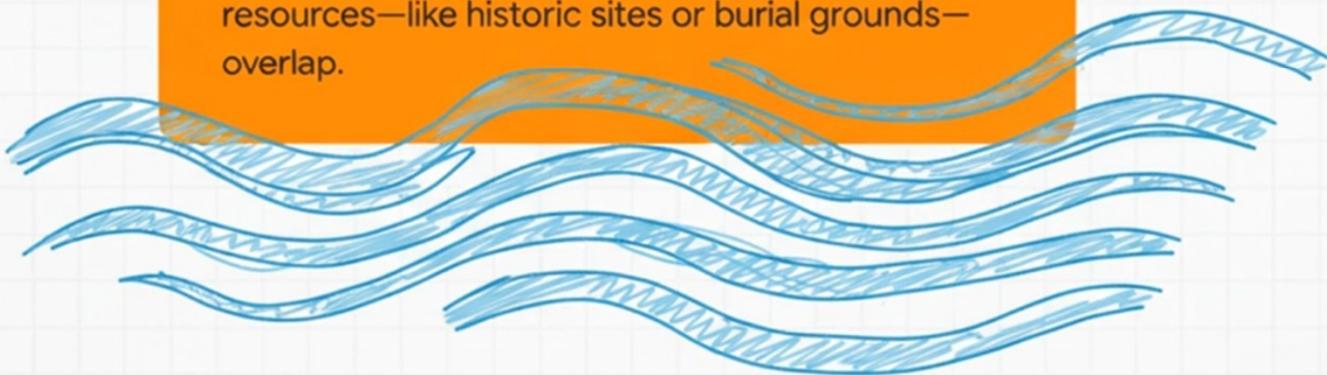
License a third-party dataset.





## Cultural Heritage

Using data to screen where flood risk and cultural resources—like historic sites or burial grounds—overlap.





# Flood Risk Governance Framework



## Authority – Who’s “official”?

FEMA maps, as adopted by communities, remain the regulatory baseline. The state may use multiple datasets, clearly labeled as regulatory vs informational/planning.



## Standards – What do we trust and act on?

Regulatory use meets or exceeds FEMA Guidelines & Standards. Data must be explainable, reproducible, and undergo formal review. If we can’t explain it, preserve it, and re-run it, we don’t use it for binding decisions.



## Proprietary Data vs Public Accountability

Proprietary data (e.g., First Street) is used for screening and planning, not as the sole basis for regulatory decisions. Must include public-facing methods and periodic comparison to FEMA/state models.



## Ownership, Maintenance, Access

The state is steward of a single statewide flood risk repository, responsible for long-term hosting, discoverability, version control, and integration of all state-funded products.



## Equity & Consistency

Maintain a statewide baseline flood risk layer for all communities. Target state funds to high-risk, under-resourced, and socially vulnerable areas, and require enhancements to feed back into the repository.



## Public Review & Appeal

Regulatory maps use the NFIP/FEMA appeal process with state support. State informational products have a defined feedback process, clear review timelines, and a plain-language explainer for users.

**Any Questions?**

**THANK YOU!**



**ILLINOIS**

Illinois State Water Survey

**PRAIRIE RESEARCH INSTITUTE**

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<https://www.isws.illinois.edu/champ>