



# What to Protect: Project Selection & Prioritization



**Greenbelt**  
Essex County's Land Trust



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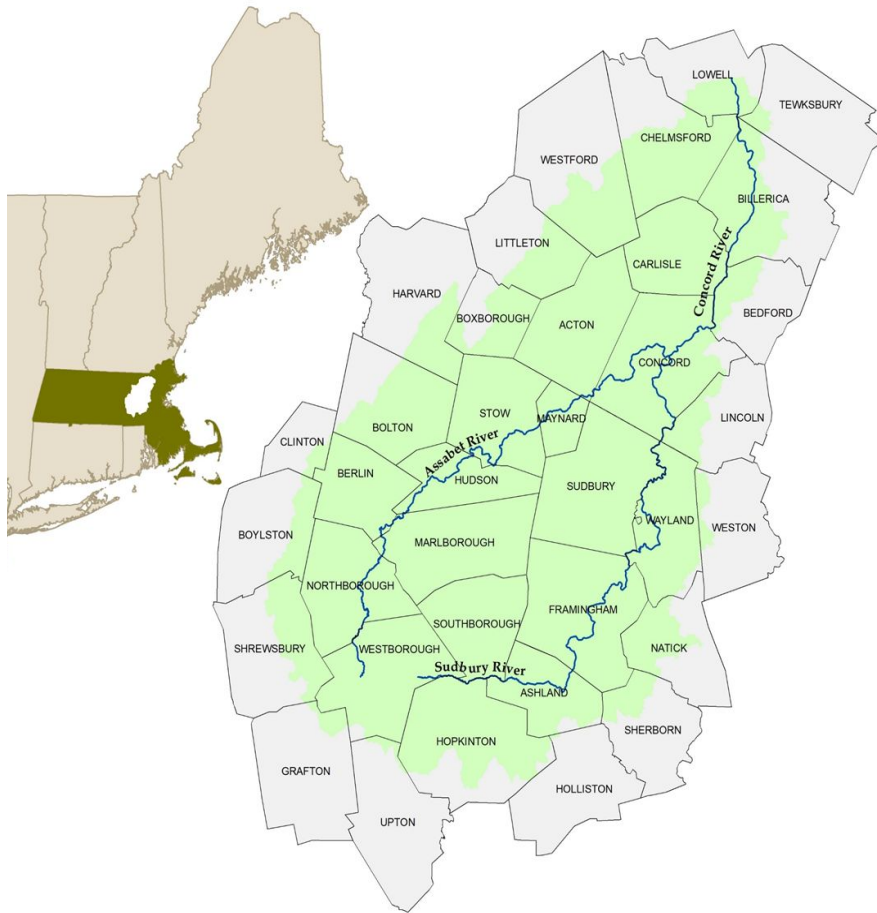




# About Greenbelt

- Serve the 34 cities and towns of Essex County
- In 62 years we've protected over 19,000 acres and nearly 50 public properties
- Protect land for habitat, agriculture, and scenic value





# About SVT

Protecting natural areas for wildlife and people in a 36-community region between Boston and Worcester, Massachusetts

70 years of land protection, stewardship and engagement

94 properties in 19 communities, 2480 acres

97 CRs in 23 communities, 3310 acres

# Connect Your Mission to Data

Identify data sources that are tied to core values such as protecting habitat, farmland, climate resilience, etc

Ask:

- What data is available?
- How the data was developed?
- What's the source?
- What scale should it be used at?
- How old is it?
- What questions is it looking to answer?



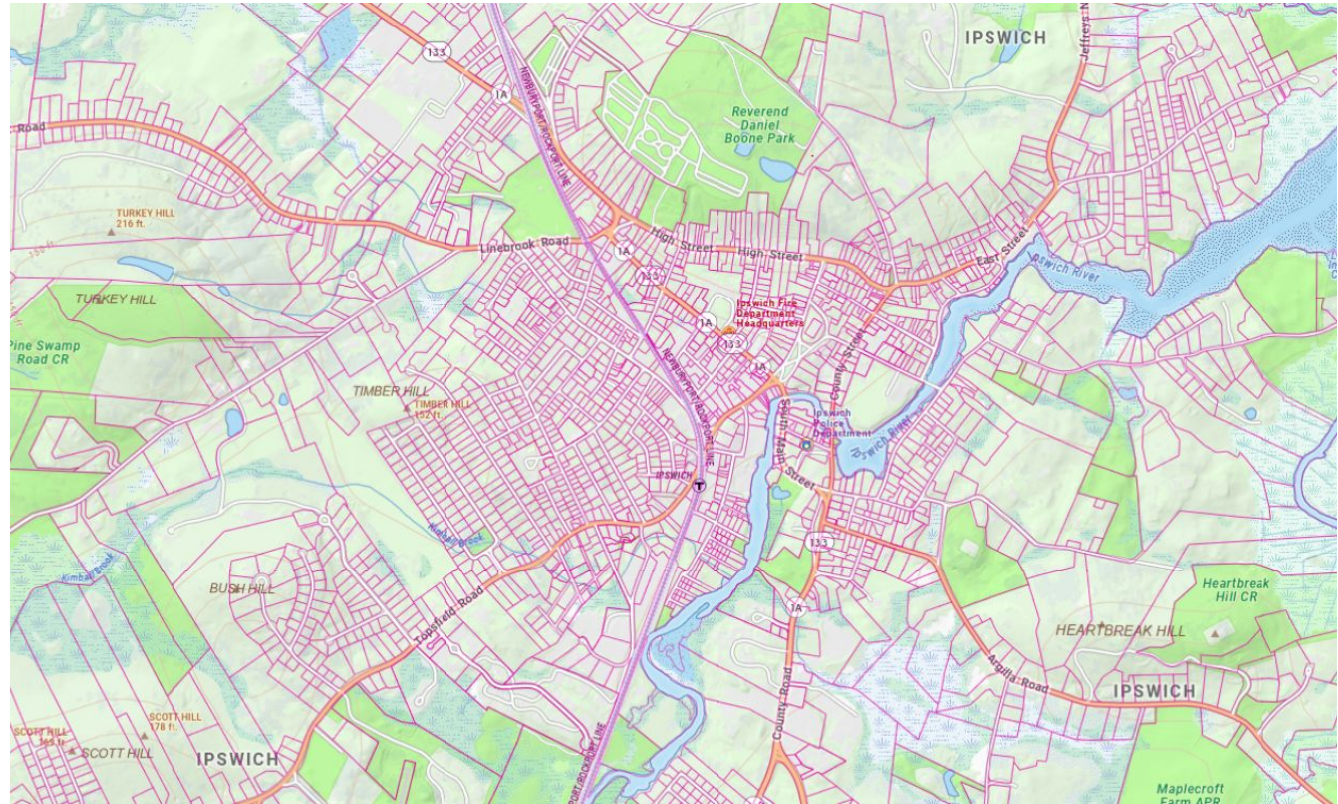


# Foundational Data Sets

## Property Tax Parcel Data (MassGIS):

Includes:

- Landowners
- Map/Parcel ID
- Recording Information
- Assessment & sale values
- Building type(s)
- Some easements & restrictions
- *Land use*



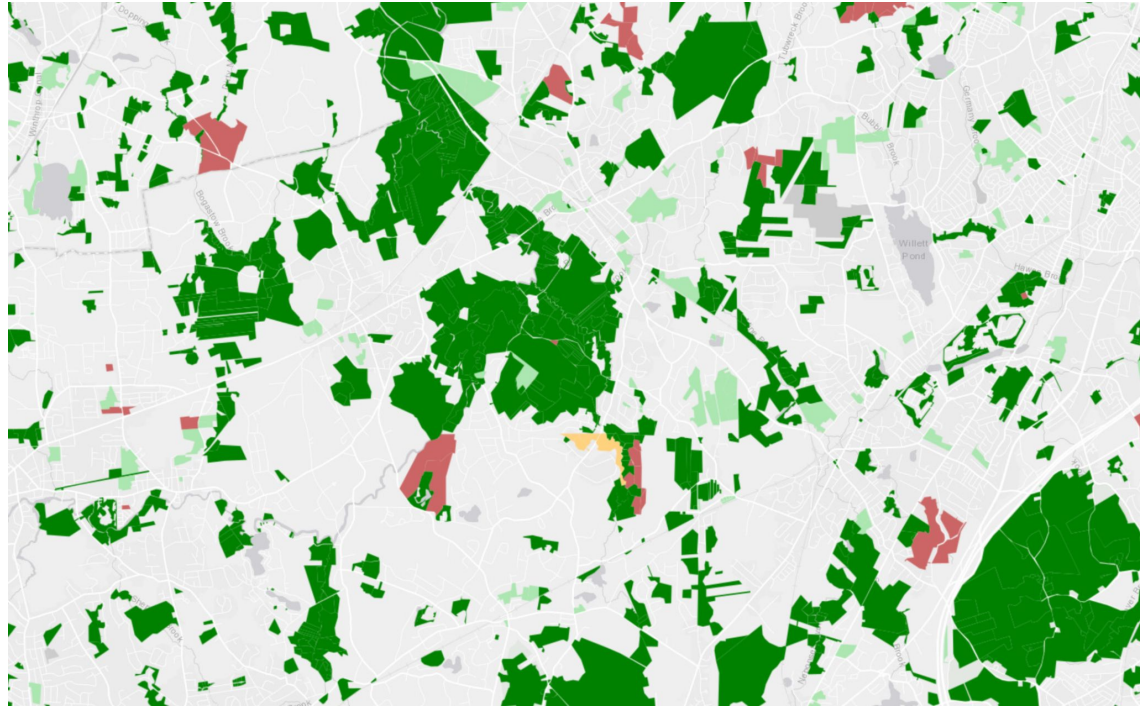
[Massachusetts Interactive Property Map](#)

# Foundational Data Sets

## [Protected & Recreational Open Space Layer](#) (MassGIS):

Includes:

- Open Space Protection Level
- Owner Type
- Manager
- Primary Purpose
- Public Access
- Organizations involved
- Funding
- Acreage
- Article 97 status
- Recording Information

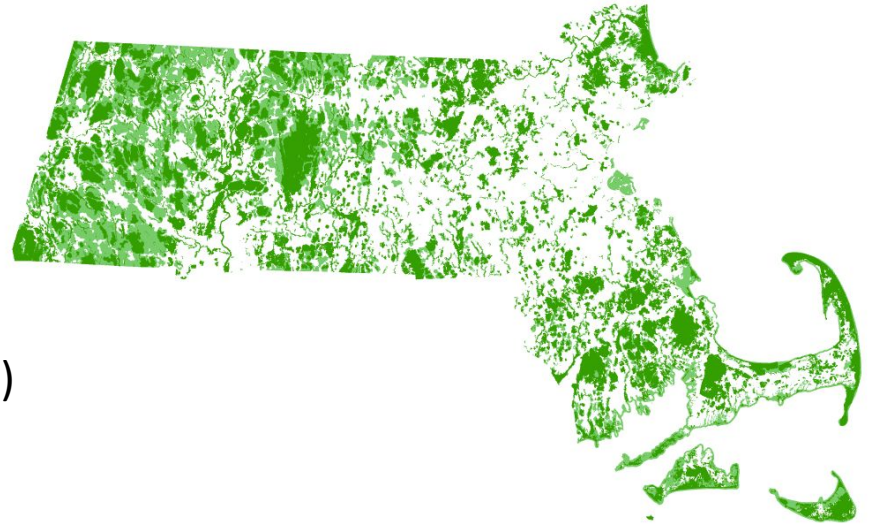




# Habitat Data

## MassGIS

- [BioMap](#) (MassWildlife & TNC)
- [Priority](#) & [Estimated](#) Habitat of Rare Species (NHESP)
- [Certified](#) & [Potential](#) Vernal Pools (NHESP)
- [Natural Communities](#), NHESP
- [Areas of Critical Environmental Concern](#) (DCR)
- [Wetlands](#) (DEP), [Hydrography](#)



## Other Sources

- [UMass Conservation Assessment & Prioritization System](#) (UMass CAPS)
- [Resilient Land](#), TNC
- [e-Bird](#) (Cornell Ornithology Lab)

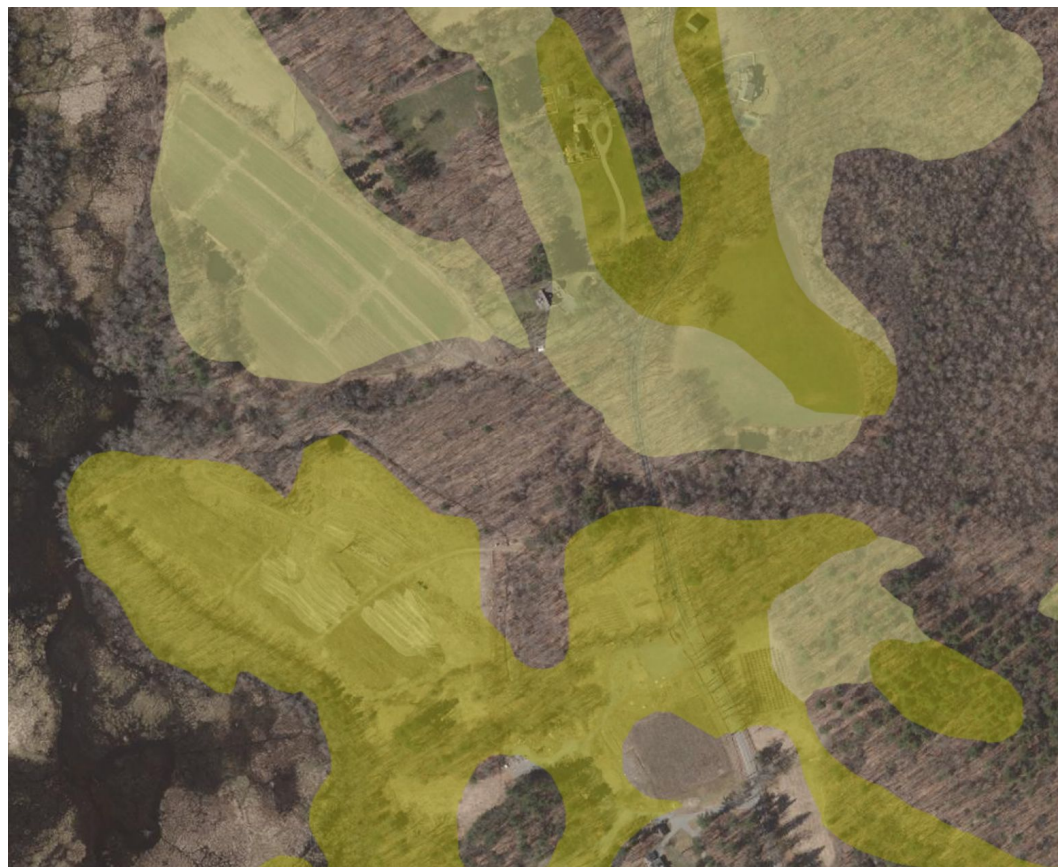
# Farm Data

## MassGIS

- [Farm Soils](#) (subset of NRCS soil data)
- [Parcel Data](#) (Land Use, Chp 61 status)
- [Land Cover/Land Use](#), NOAA/MassGIS
- [Farmers Markets](#), DER

## Other Sources

- [Farms Under Threat](#) (AFT), by permission





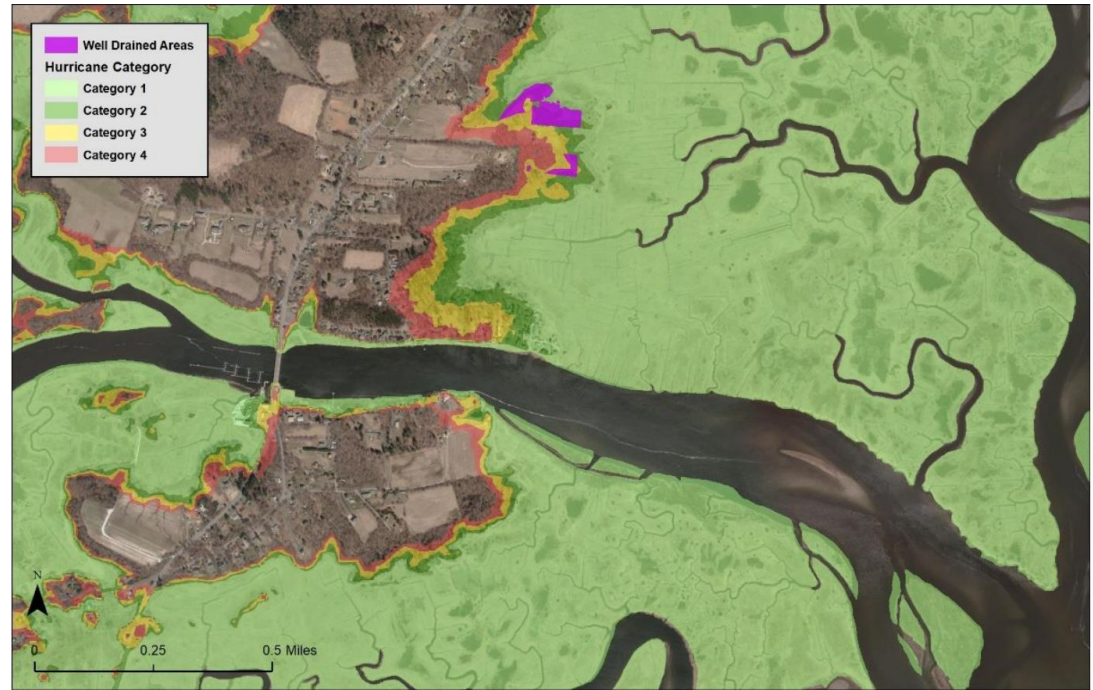
# Climate Data

## MassGIS

- [Sea Level Rise](#) (NOAA)
- [Hurricane Surge Inundation Zones](#), Army Core
- [Mass Coast Risk Flood Model](#), Woods Hole Group
- [National Flood Hazard](#) (FEMA)
- [BioMap](#) (MassWildlife & TNC)

## Other Sources

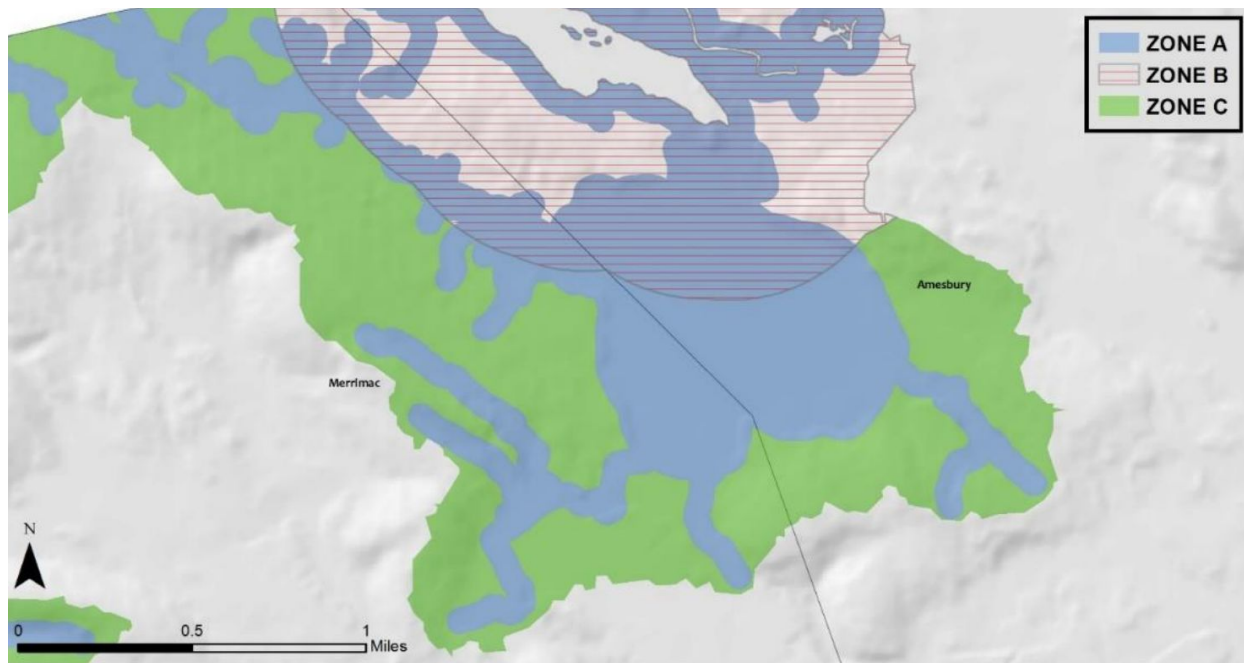
- [Sea Level Affecting Marshes Model](#) (SLAMM) (CZM)
- [Resilient Land](#), TNC



# Drinking Water

## MassGIS

- [Aquifers](#)
- [Wellhead Protection Areas](#) (DEP)
- [Public Water Supplies](#) (DEP)
- [Surface Water Supply Protection Areas](#) (DEP)





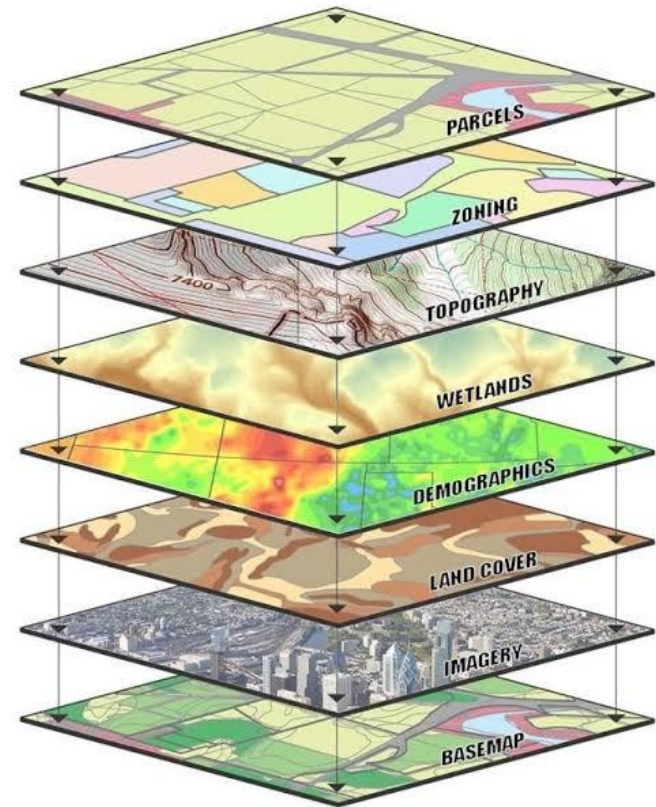
# MassMapper Demo

# TNC Resilient Land Mapping Tool Demo



# How does a prioritization work?

- What attributes are we interested in?
- What data is available?
- What is the best way to combine the data?



## Strengths:

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- Combine multiple data sources
- Help to focus amidst thousands of parcels
- Strengthen grant proposals
- Targets landowner outreach

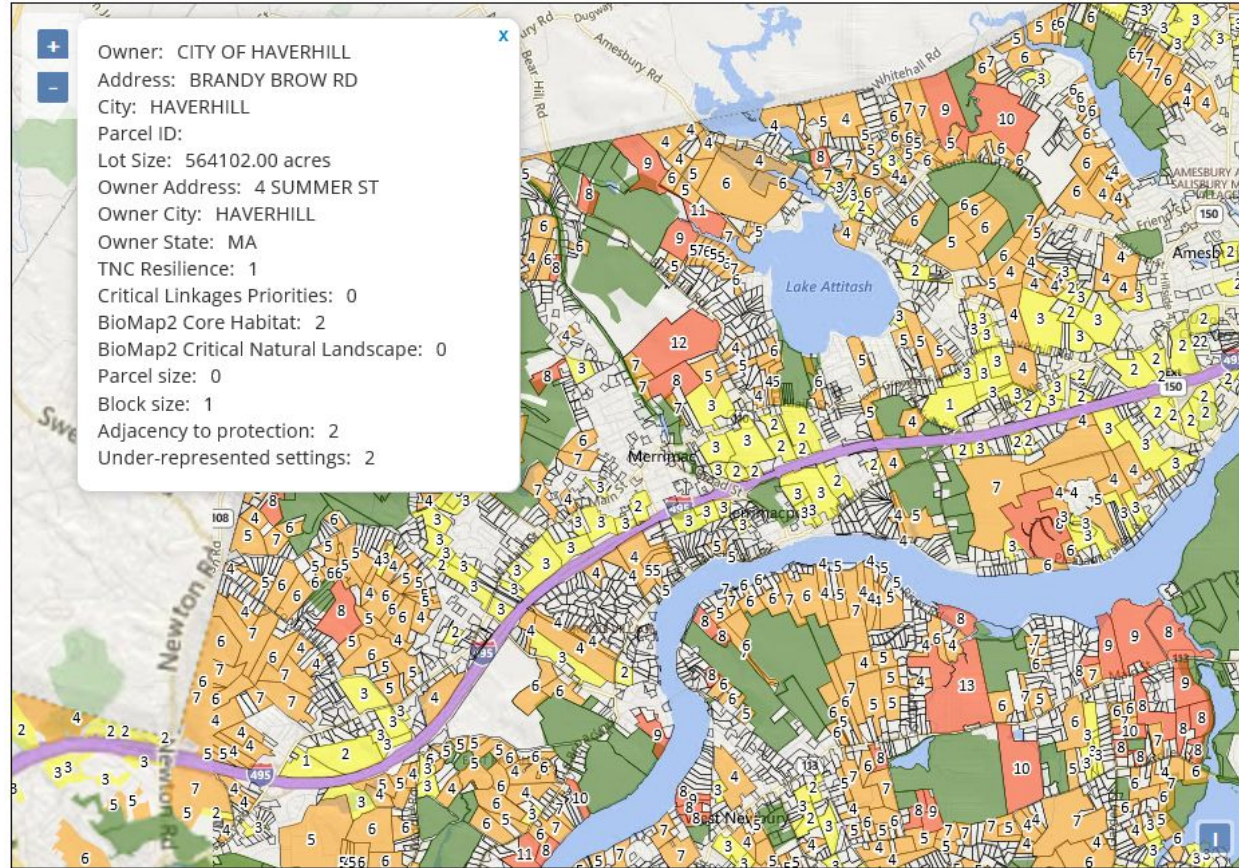
## Challenges:

- Data limitations – parcel data, data quality and availability
- Scale
- Hard to capture local knowledge
- Availability of methodology examples
- Difficult to incorporate factors such as development risk, landowner readiness, and local priorities



# MAPPR (Mass Audubon)

- Prioritization tool, accounting for habitat, climate and open space connectivity
- Parcel-based approach, incorporating multiple statewide conservation datasets



## Uses:

- Identify conservation opportunities
- Parcel-based analysis that can help users prioritize land within their town or region
- Connects regional datasets to the local level

# Greenbelt's Prioritization - Goals

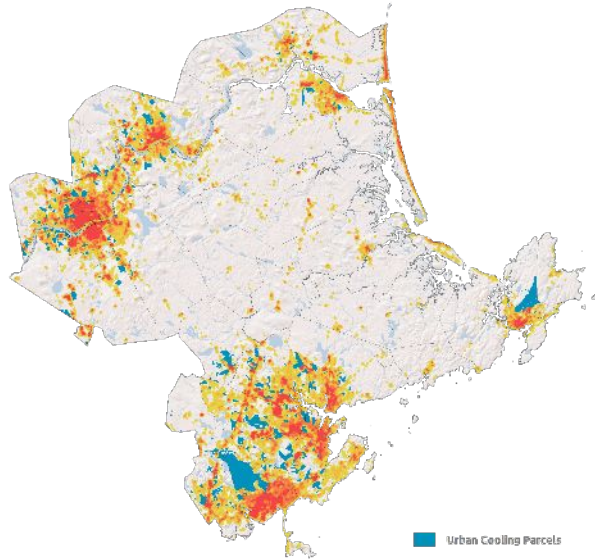
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- Identify parcels for protection of critical resources
- Results that allow for quick evaluation and comparison of parcels
- New focus areas: climate resilience & drinking water
- Integrate new data
- Relevant to partners

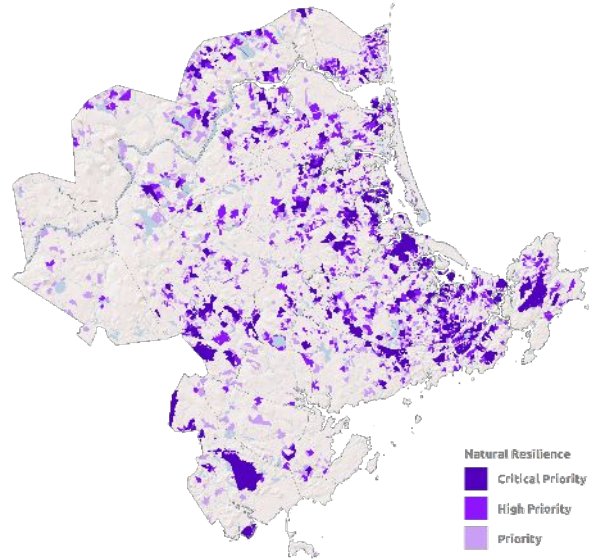




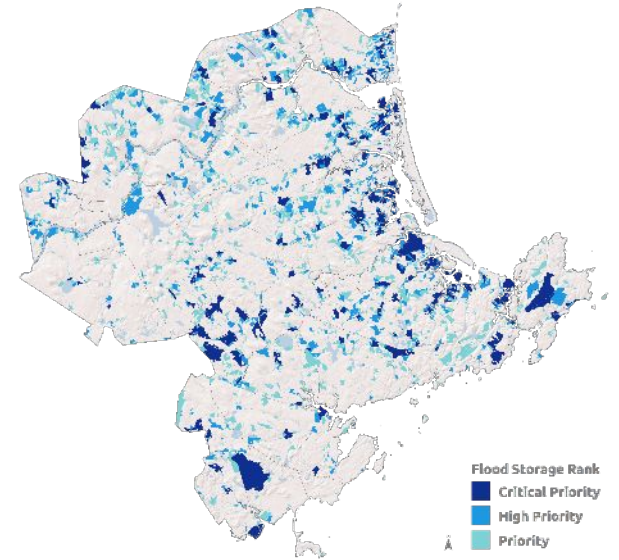
### Urban Cooling



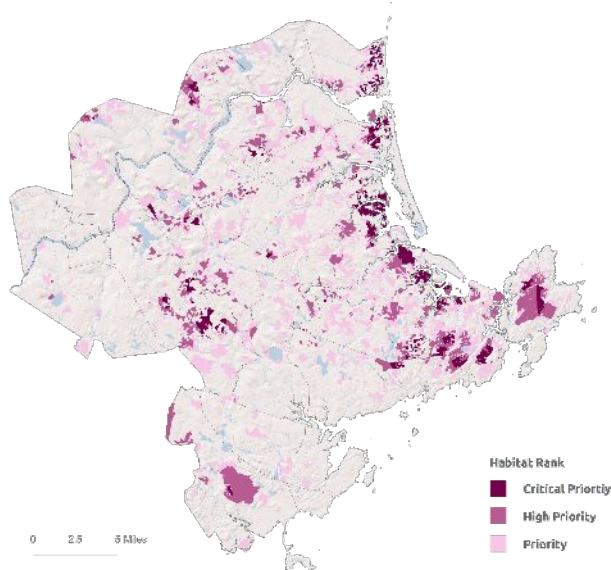
### Natural Resilience



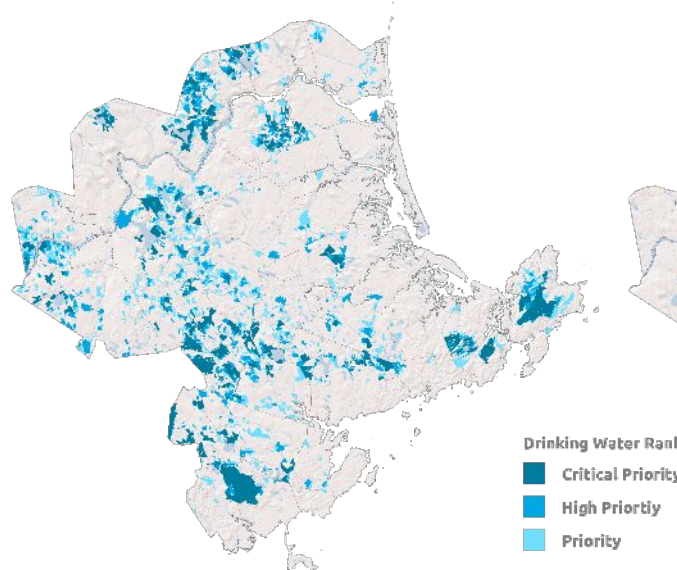
### Flood Mitigation



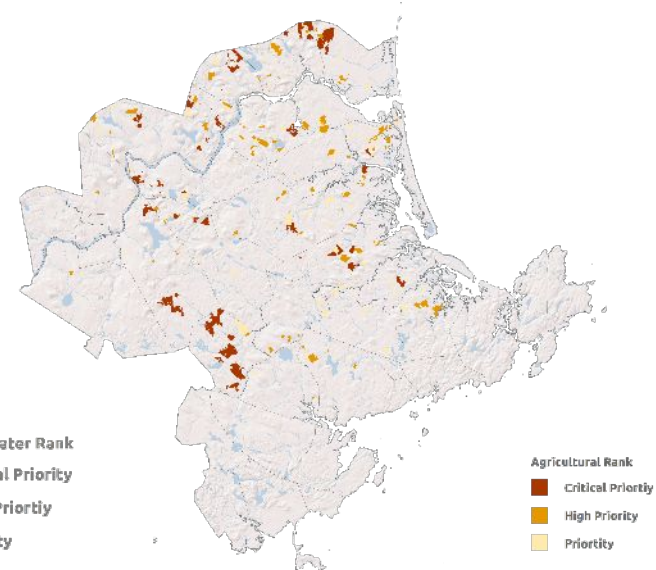
### Habitat



### Drinking Water



### Agriculture



# Project Example

## Lynnfield Woodlot





# Lynnfield Woodlot

**A conservation acquisition partnership:**

Lynnfield Center Water District

Town of Lynnfield

Ipswich River Watershed Association

Greenbelt

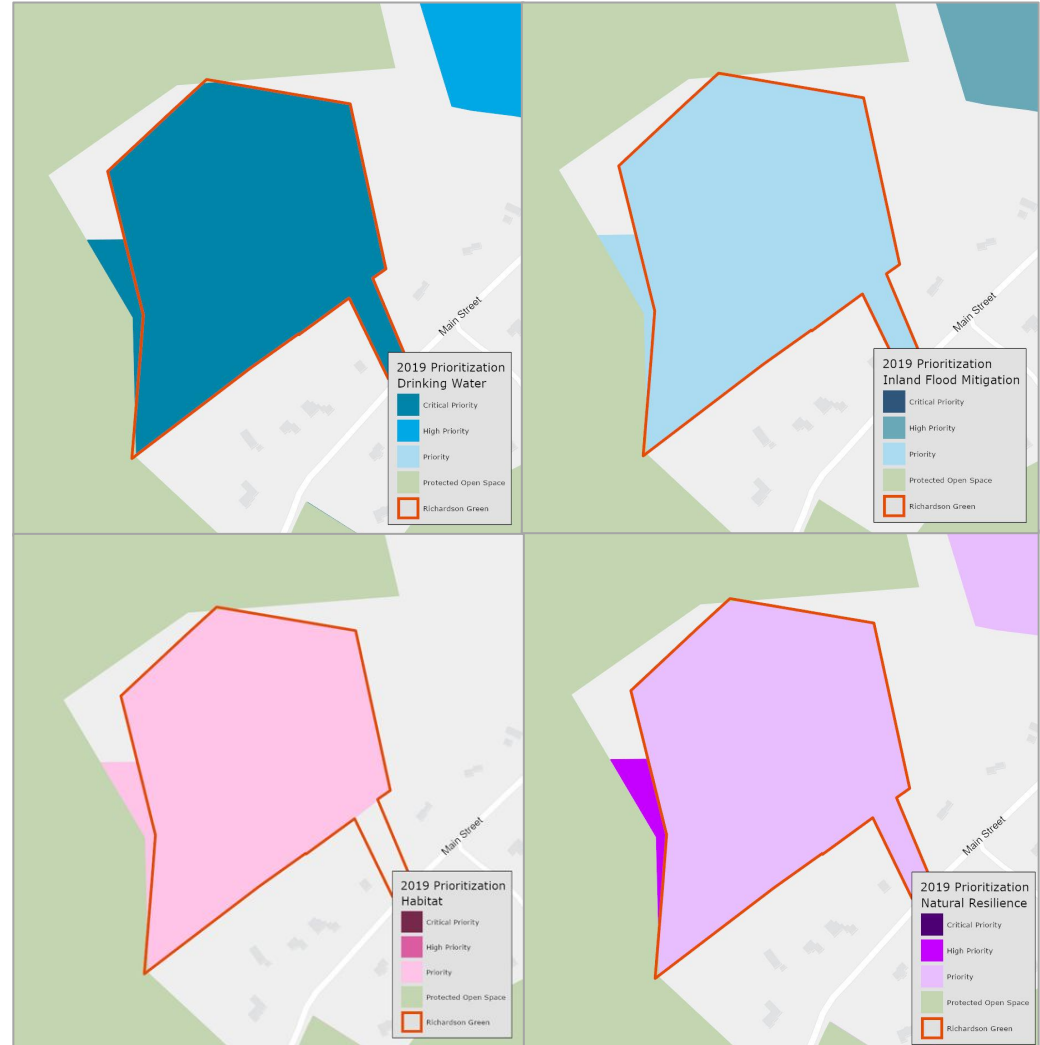
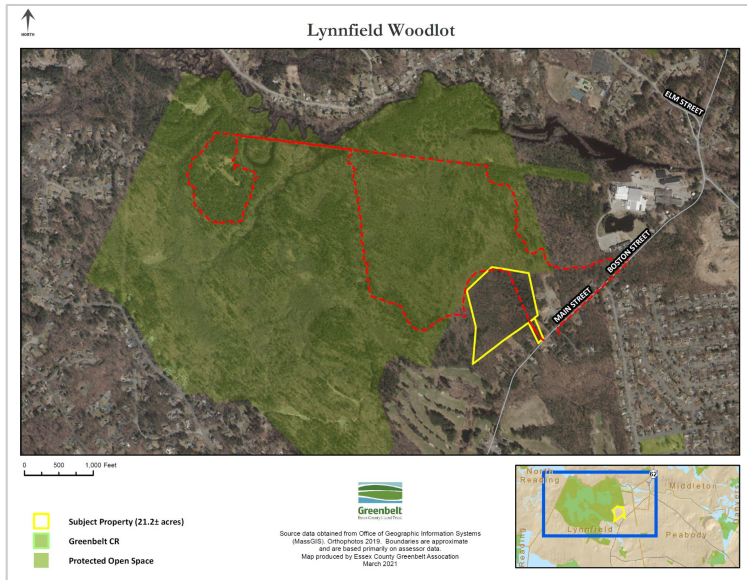




# Lynnfield Woodlot

## Why is it important?

- Drinking Water
- Natural Resilience
- Habitat
- Flood Protection
- Trails / Connectivity



# Lynnfield Woodlot

## High Natural Resource Values Attract Funding

- State Drinking Water Supply Grant
- Community Preservation Act
- Municipal Vulnerability Planning program
- State's LAND grant program
- Etc.

Purchase Price: \$2,710,000

### Funding Sources:

MVP Action Grant: \$1,638,750

Lynnfield Con Com: \$200,000

ARPA: \$571,250

Greenbelt: \$300,000



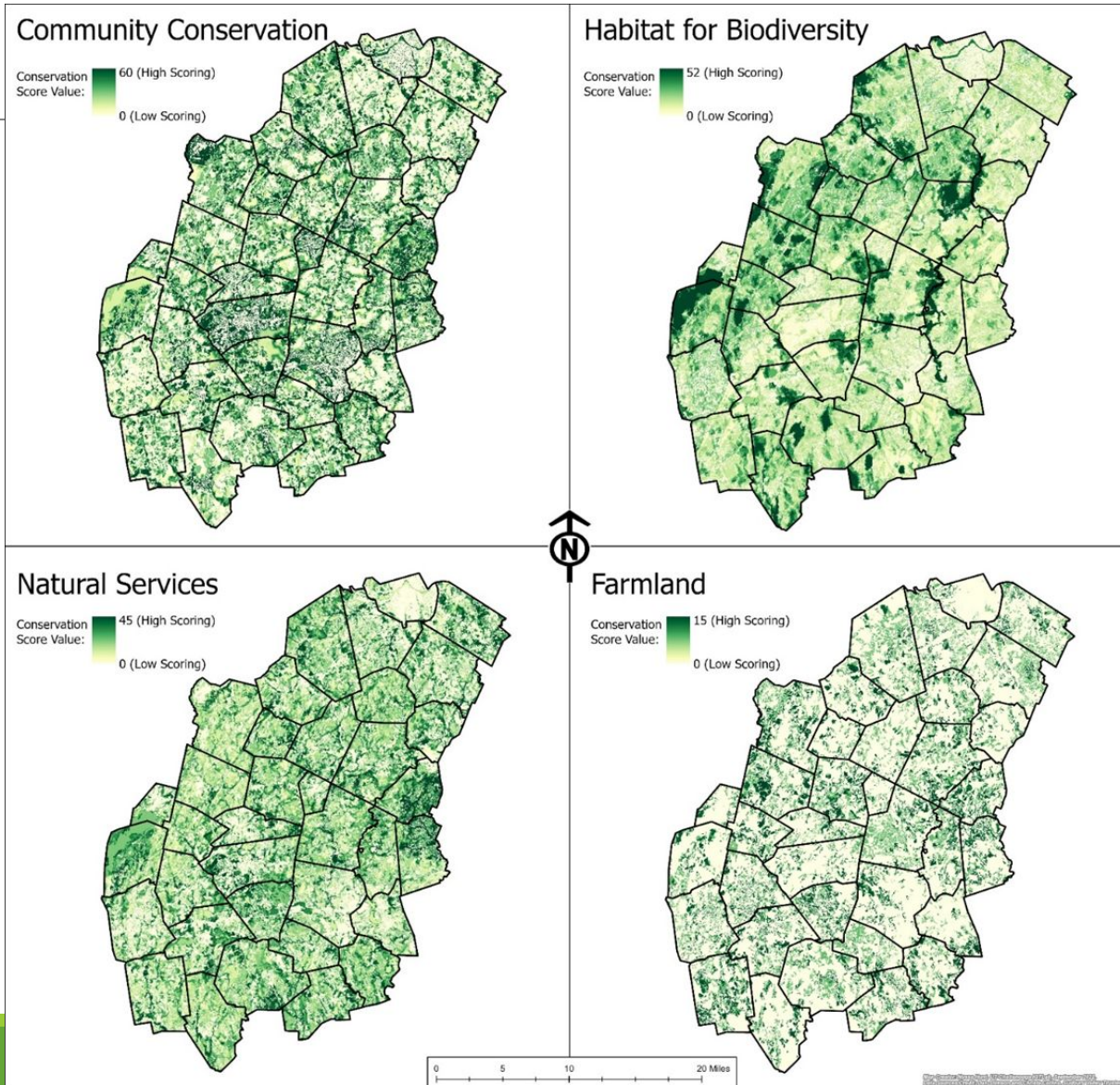
# Project Selection

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REVIEW



# Metrowest Conservation Alliance Regional Prioritization





# Project Evaluation Matrix

## ECOLOGICAL

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- Size
- Rare Species/Natural Community
- Contiguity w/Existing Conservation Land
- Conservation potential of Abutting Lands
- Natural Community Integrity/Quality
- Corridor
- Water Resources Protection
- Biodiversity Designation (BioMap, IBA, etc.)

Overall All Ecological Summary



# Project Evaluation Matrix

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## COMMUNITY

- Agriculture
- Scenic
- Public Water Supply
- Historic
- Recreation

Overall Community Values





# Project Evaluation Matrix

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## **STEWARDSHIP NEEDS/CHALLENGES**

- Historical/Current Land Use
- Surrounding Land Use
- Structures
- Trails - Existing and Potential
- Managing Public Access
- Habitat Types - Management Needs
- Invasive Species
- Encroachments



# Preparing for the Site Visit

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- Review legal documents: deeds, easements
- Maps, survey plans, aerial photos
- Checking GIS online information: wetlands and access, topography
- Who will be there
- Landowner permission

# At the Site Visit

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- ☐ Check Boundaries
  - ☐ Are they well marked? Monumentation
  - ☐ Are there any encroachments?
  - ☐ Residential proximity
  
- ☐ What are the habitat types? Forest? Field? Wetlands?
- ☐ Any safety concerns
- ☐ Invasive plants?
- ☐ Take photos
- ☐ Think about costs of stewardship



# Examples















# Summary

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- Reviewing GIS data allows you to get to know a property and helps connect your mission to a property (or not)
- Conservation prioritizations help connect strategic goals to planning decisions
- Tools to support project managers, grant applications, and direct organizational resources
- Site visits fill out the picture and add important on-the-ground information for a final decision and negotiation



# Questions?



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