



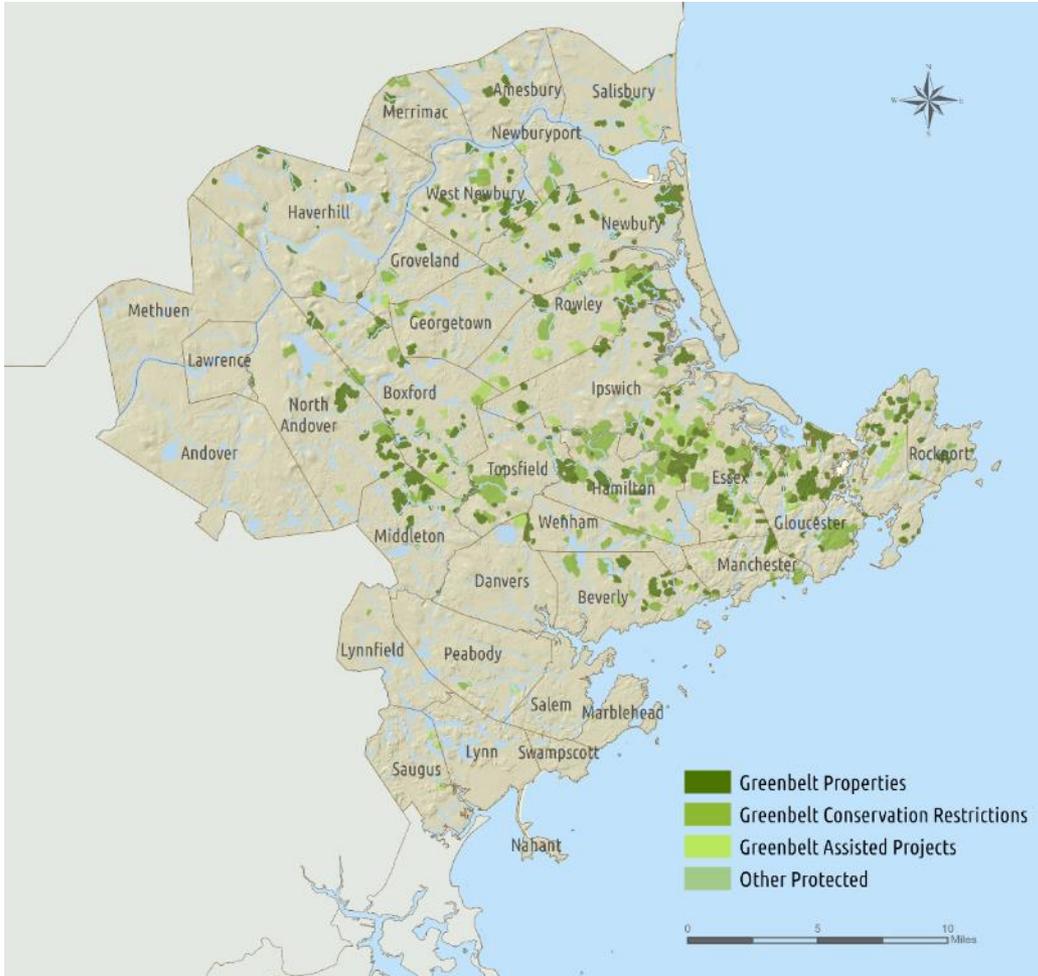
Greenbelt
Essex County's Land Trust

CLIMATE RESILIENCY PLANNING

INTEGRATING RESILIENCY INTO OPEN SPACE PLANNING

Housekeeping

- All attendees are muted
- Can minimize speaker video, or click & drag if it blocks the slides
- Click on Q&A to submit a question
- Q&A at end - but don't wait to type your question!
- Technical issues? Submit your question through the Q&A and host will respond in writing
- Scheduled until 1:00pm
- Webinar is being recorded. A link and slides will be available afterwards on ecga.org/CoastalResilience.



About Us

- Serve the 34 cities and towns of Essex County
- In our almost 60 year history we've protected nearly 18,000 acres
- Protect land for habitat, agriculture, and scenic value

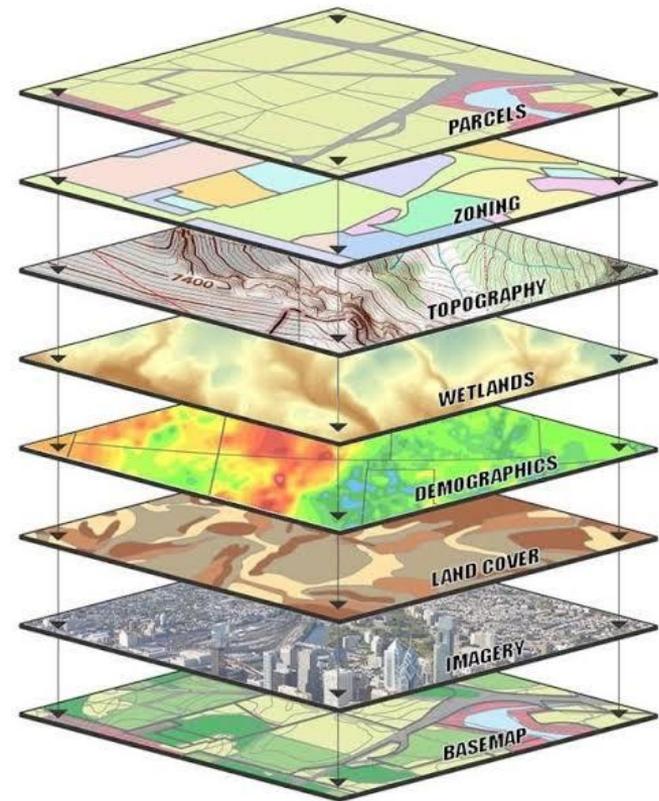
Project Goals

- Identify most important parcels for protection of critical resources
- New focus areas: climate & drinking water
- Integrate newly available data
- Relevant to municipalities & partners



How does a prioritization work?

- What parcels are we interested in?
- What resources do we want to protect?
- What data is available?
- How do we combine the data?



Process

- Staff committee
- Develop methods
- Advisory panel
- CZM Coastal Resiliency Grant

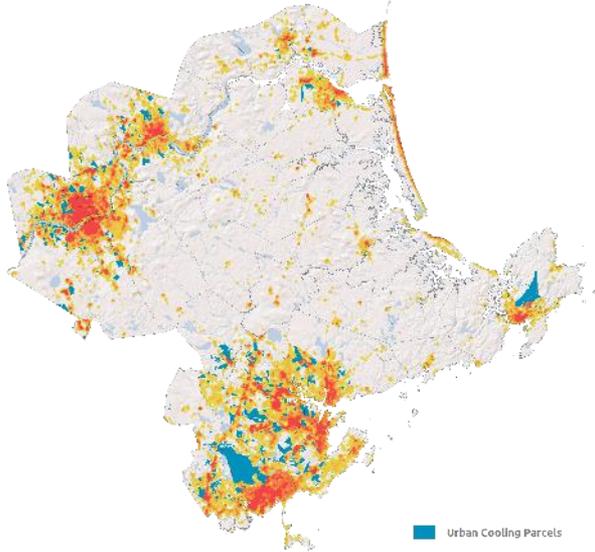


Advisory Panel:

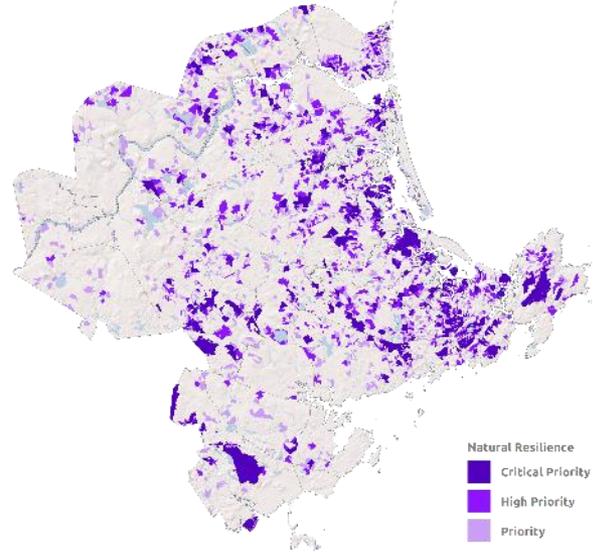
- Jessica Deitrich, The Nature Conservancy
- Andy Finton, The Nature Conservancy
- Tim Simmons, Restoration Ecologist, Retired
- Dr. Marcos Luna, Salem State University
- Dr. Stephen Young, Salem State University
- Dr. Barbara Parmenter, Tufts, Retired
- Wayne Castonguay, Ipswich River Watershed
- Julie Wood, Charles River Watershed Assoc.
- Noah Kellerman, Alprilla Farm
- Jae Silverman, Land for Good
- Nathan L'Etoile, American Farmland Trust



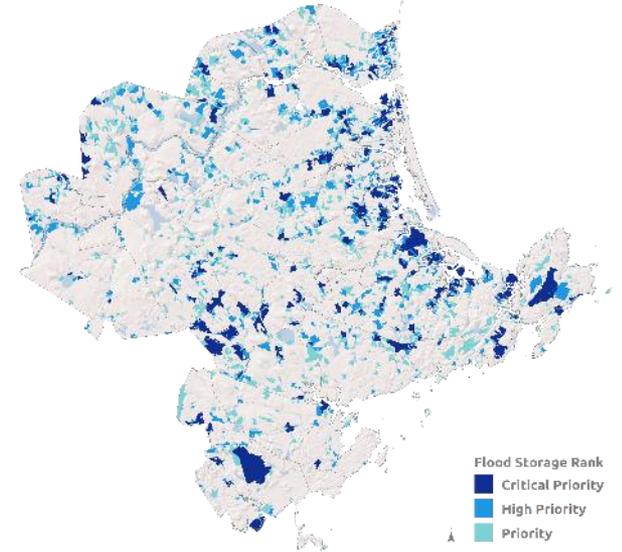
Urban Cooling



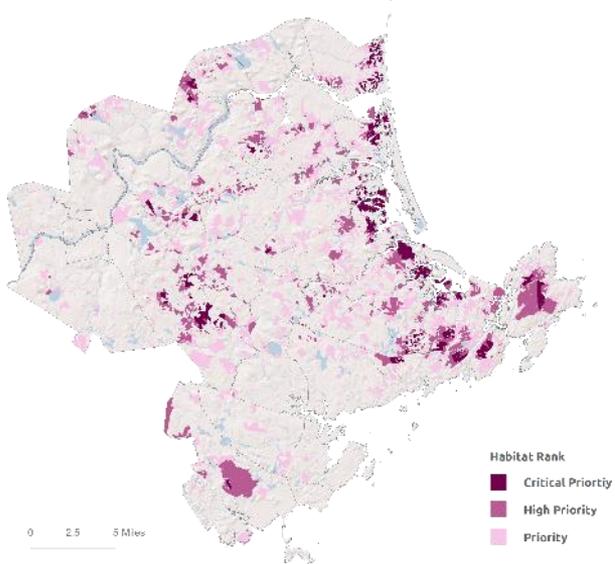
Natural Resilience



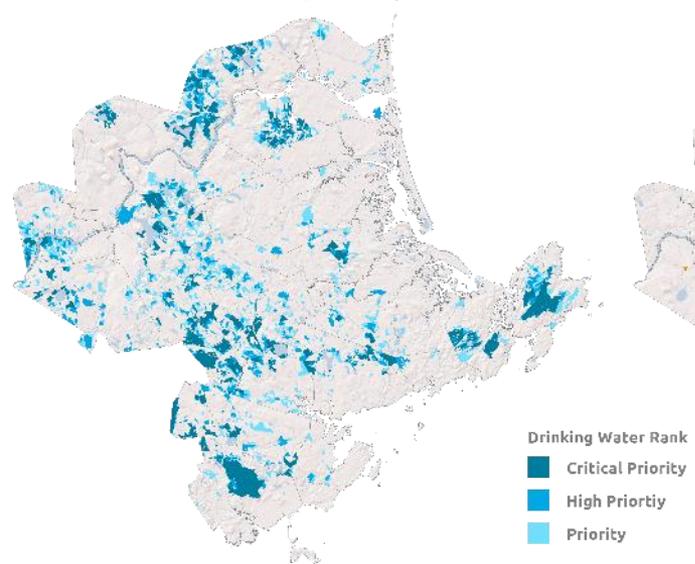
Flood Mitigation



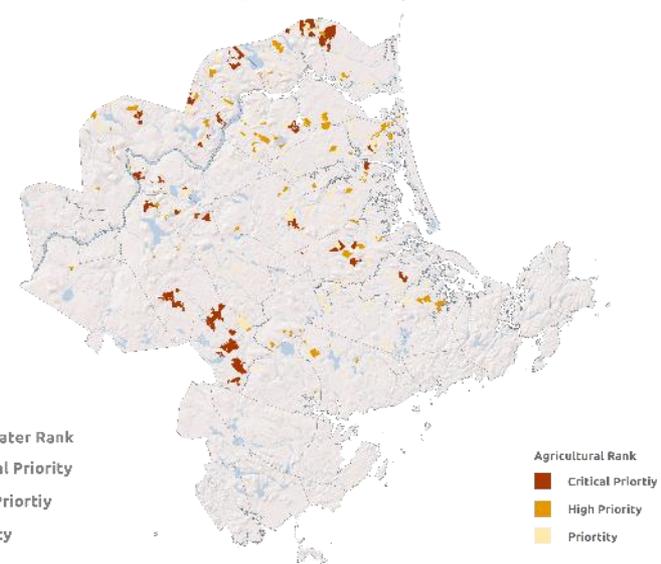
Habitat



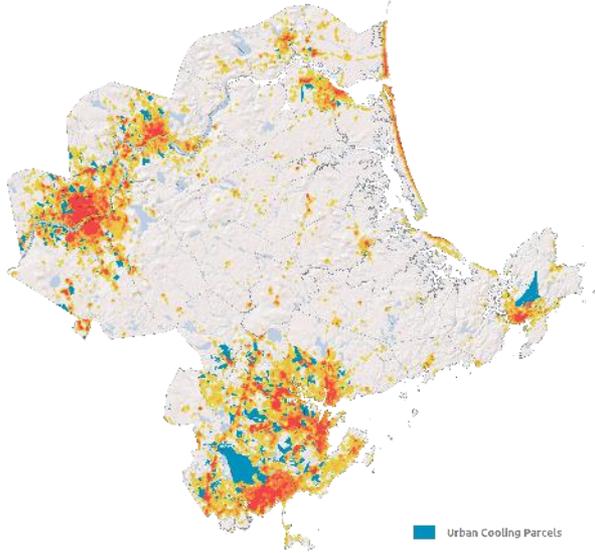
Drinking Water



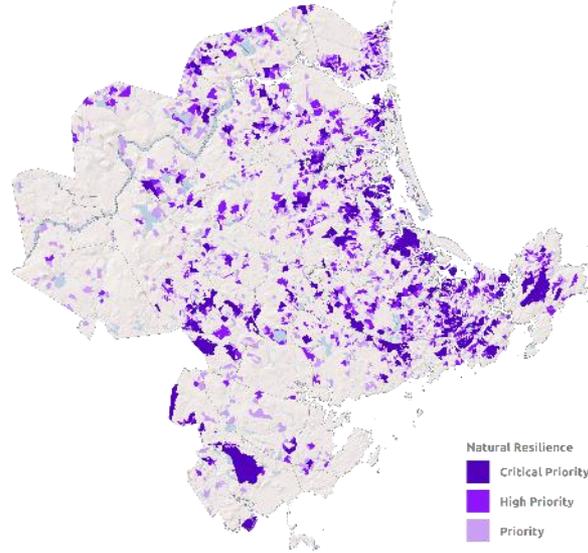
Agriculture



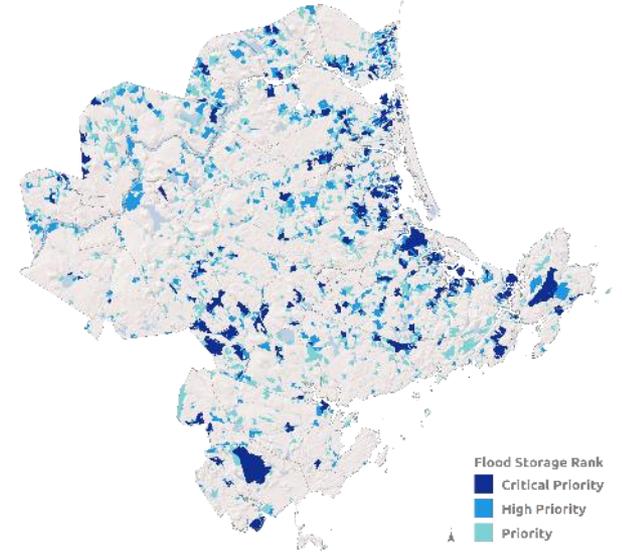
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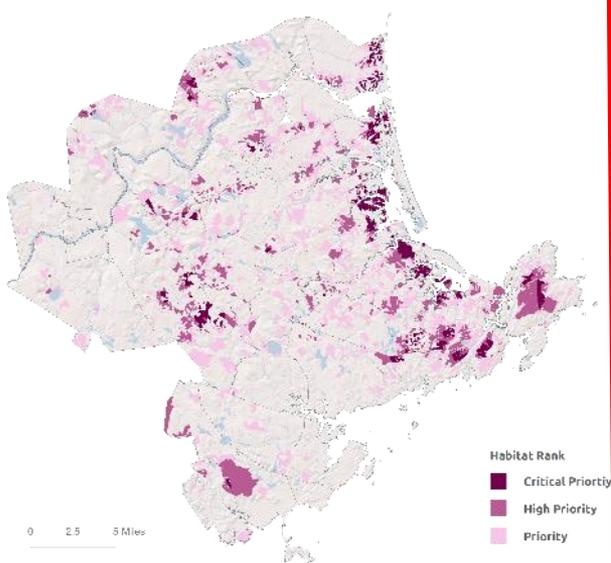
Natural Resilience



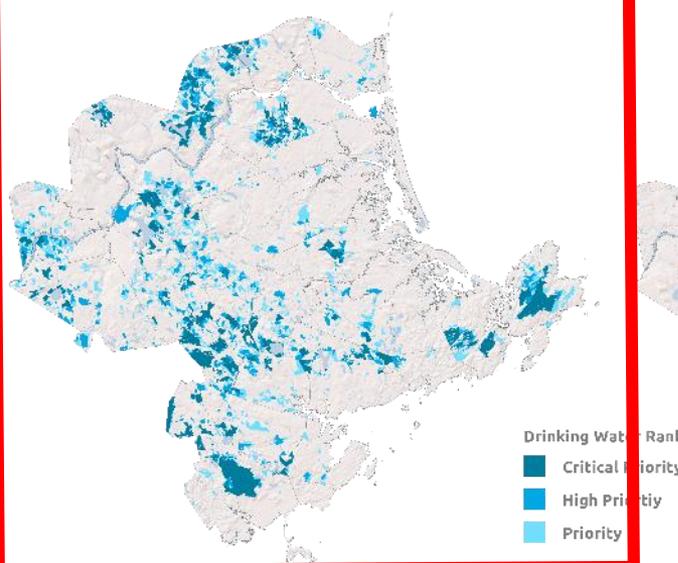
Flood Mitigation



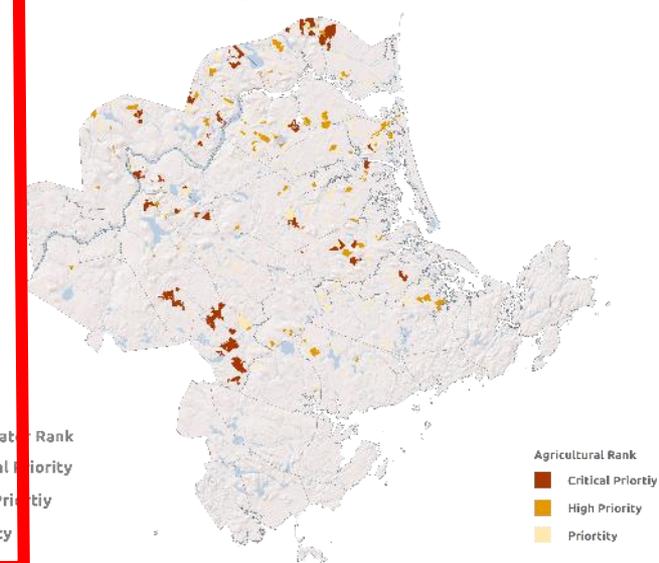
Habitat



Drinking Water



Agriculture



Analysis Data Inputs

Agriculture

- Actively farmed land
- Chapter 61 status
- NRCS Farm Soils
- Roads
- Structures and buildings

Natural Resilience

- The Nature Conservancy's Natural Resilience Data
- The Nature Conservancy's Climate Corridors
- BioMap2
- Protected Open Space

Habitat

- The Nature Conservancy's Natural Resilience Data
- Conservation Assessment & Prioritization (UMass)
- Priority Habitats of Rare Species
- DFW Coldwater Fisheries

Drinking Water

- Wellhead Protection Areas
- Surface Water Supply Protection Areas
- Public water supplies
- Drinking water intakes
- Watershed boundaries

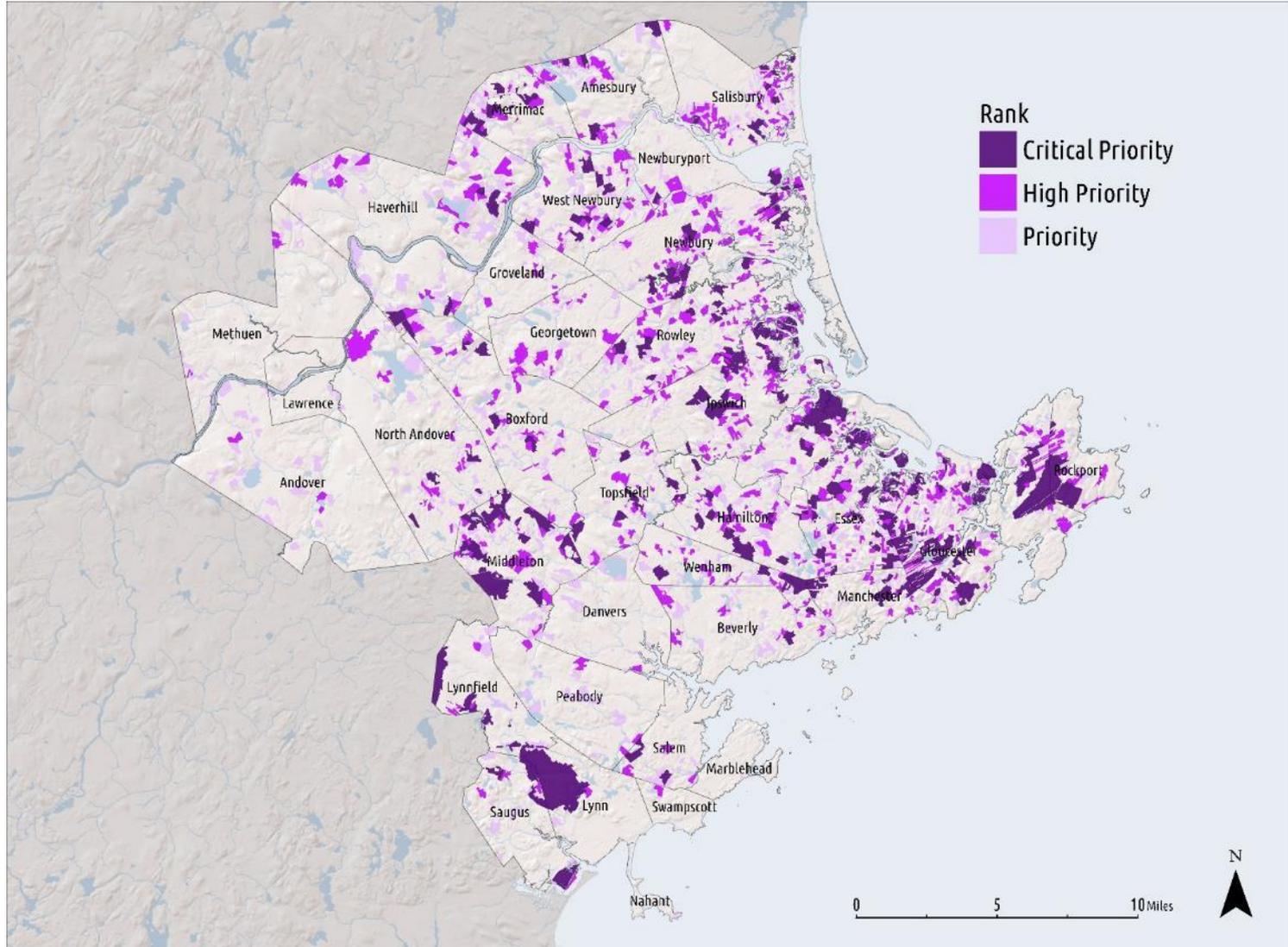
Flood Mitigation

- FEMA and Hurricane Surge Inundation Risk Zones
- Soil drainage classes
- Forest Cores
- 2016 Land Cover / Land Use
- Wetland resilience

Urban Cooling

- Landsat 8 Land Surface Temperature
- 2016 Land Cover / Land Use
- Environmental Justice Populations

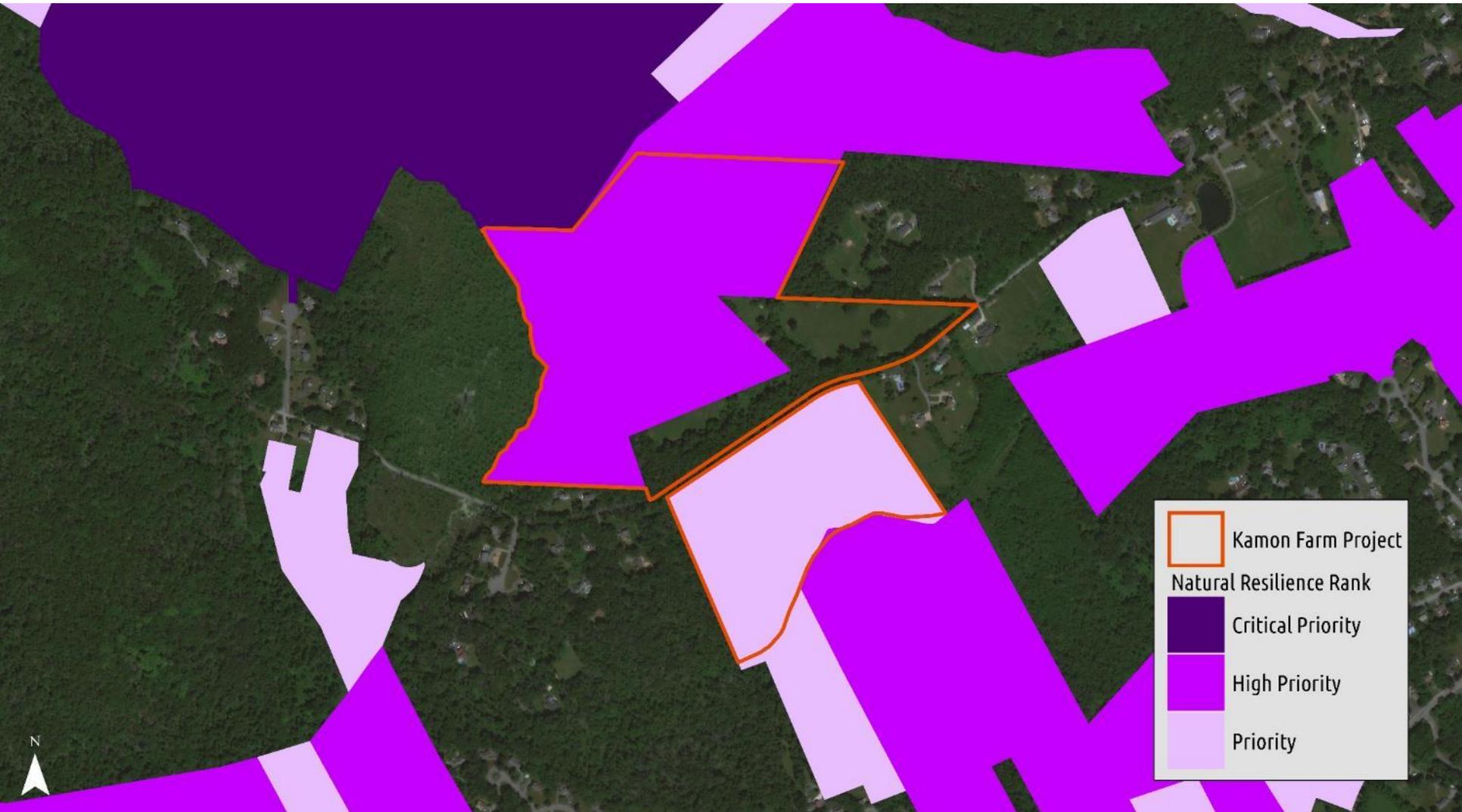
Natural Resiliency Results



Data and Methods: Natural Resilience



Data and Methods: Natural Resilience



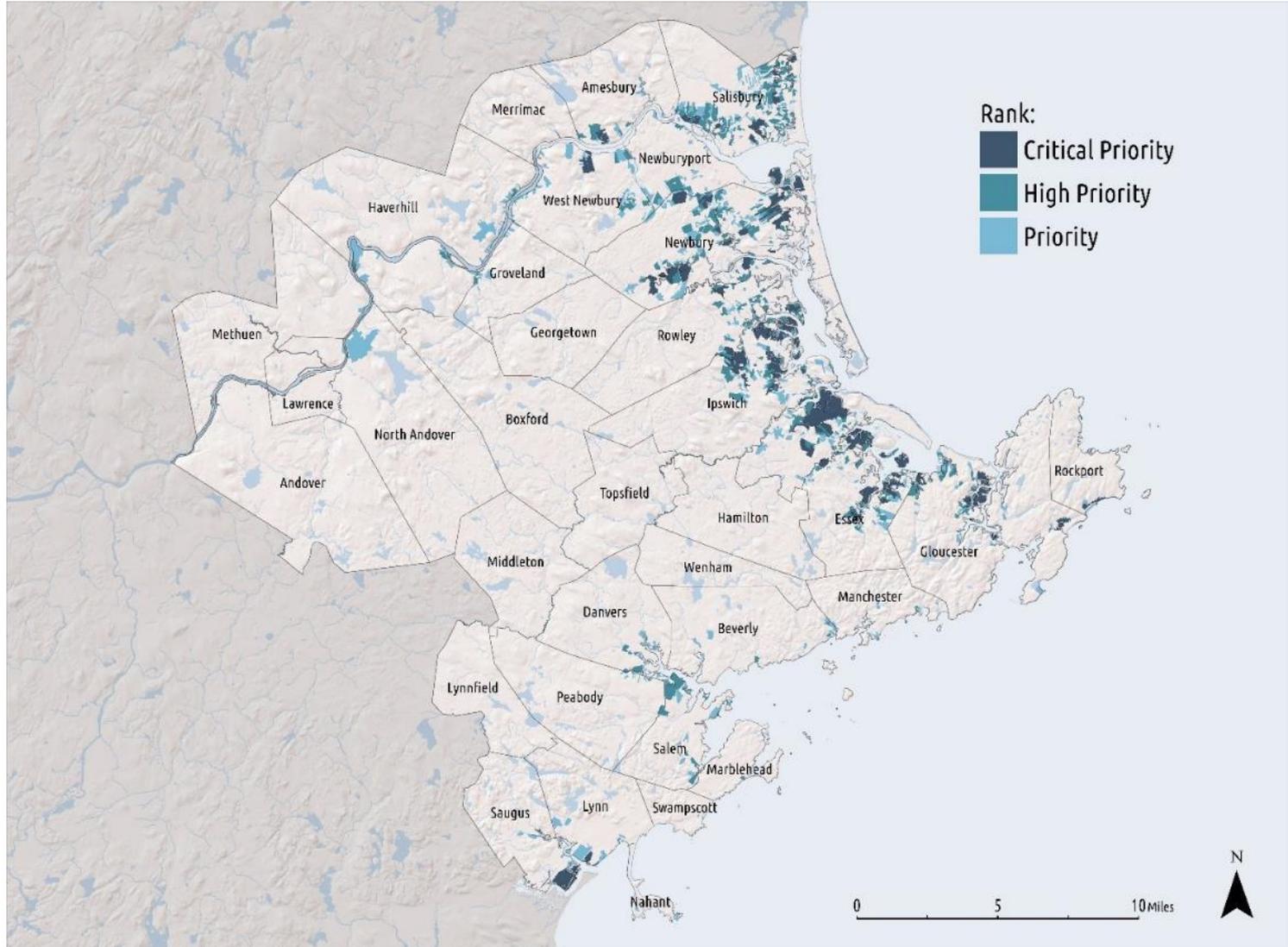
Data and Methods: Natural Resilience



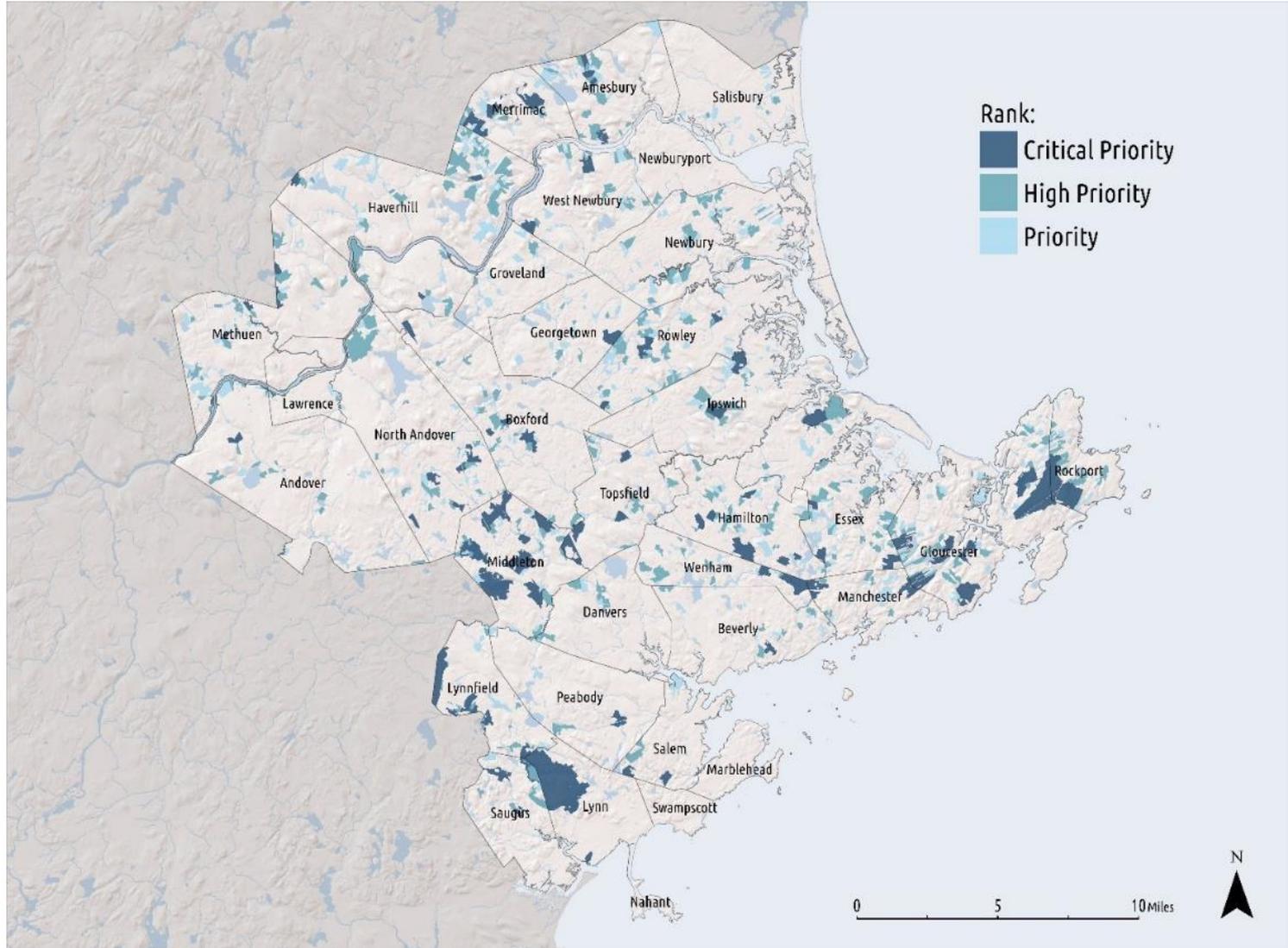
Data and Methods: Natural Resilience



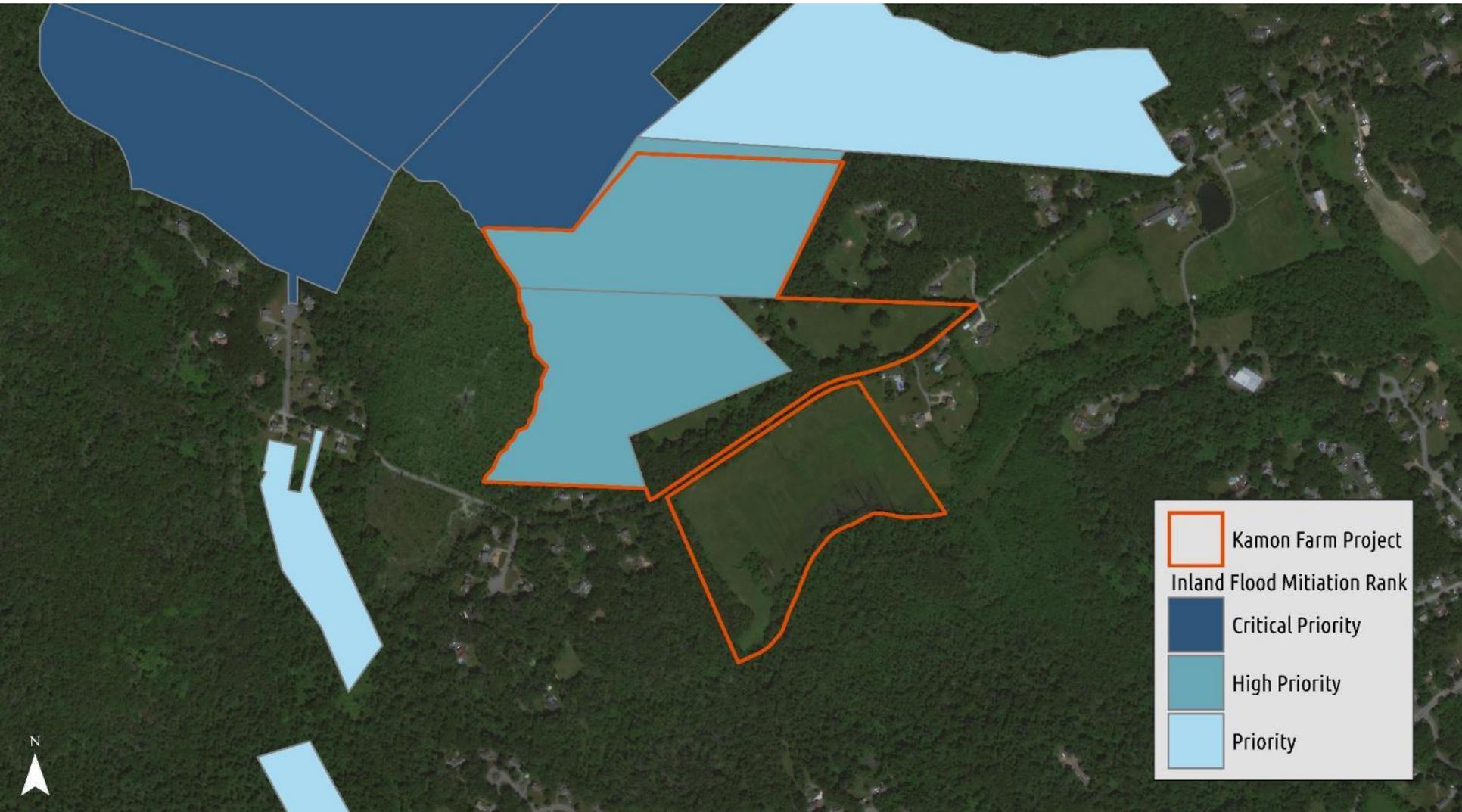
Coastal Flooding Results



Inland Flooding Results



Data and Methods: Inland Flood Mitigation



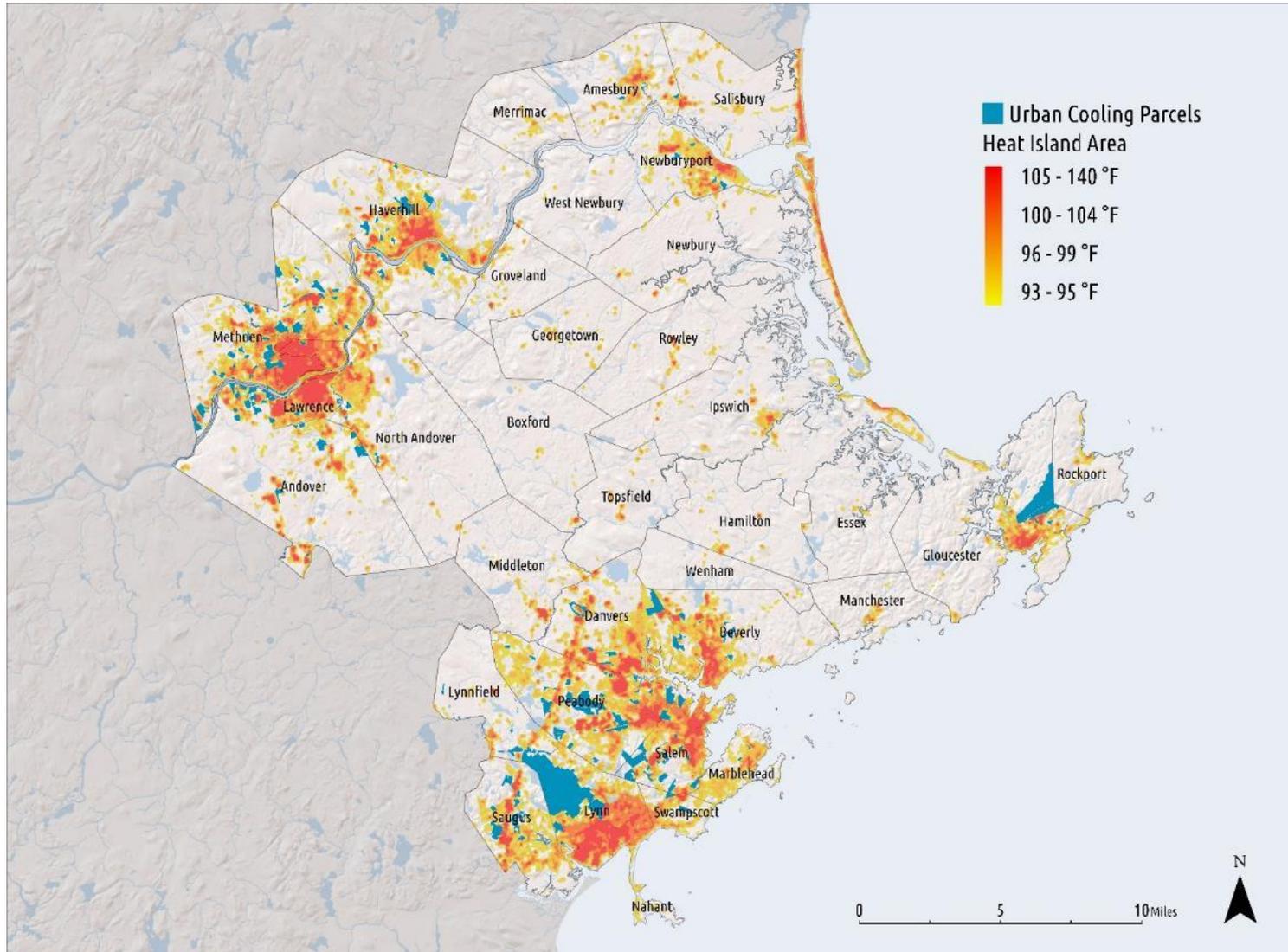
Data and Methods: Inland Flood Mitigation



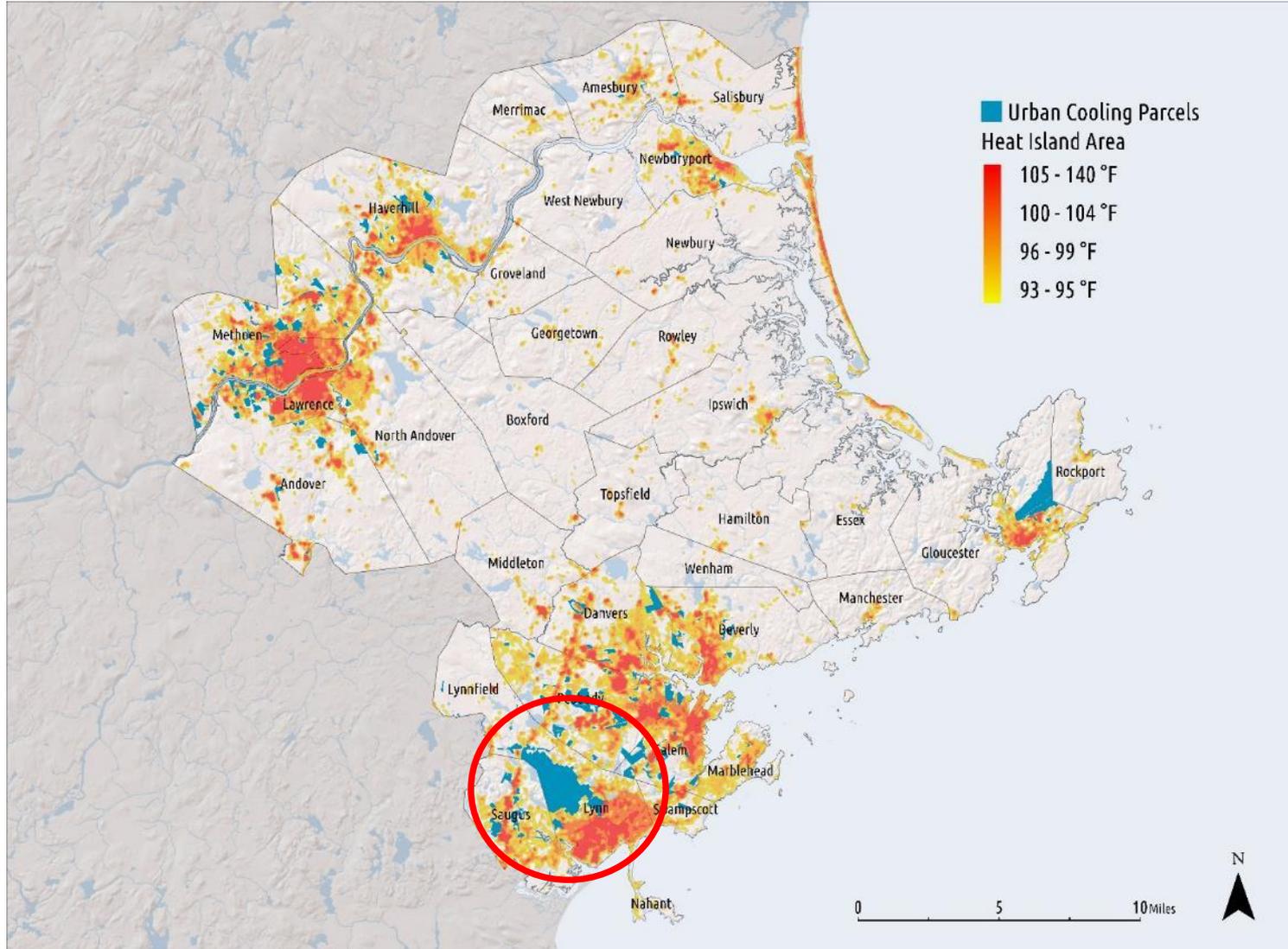
Data and Methods: Inland Flood Mitigation



Urban Cooling Results



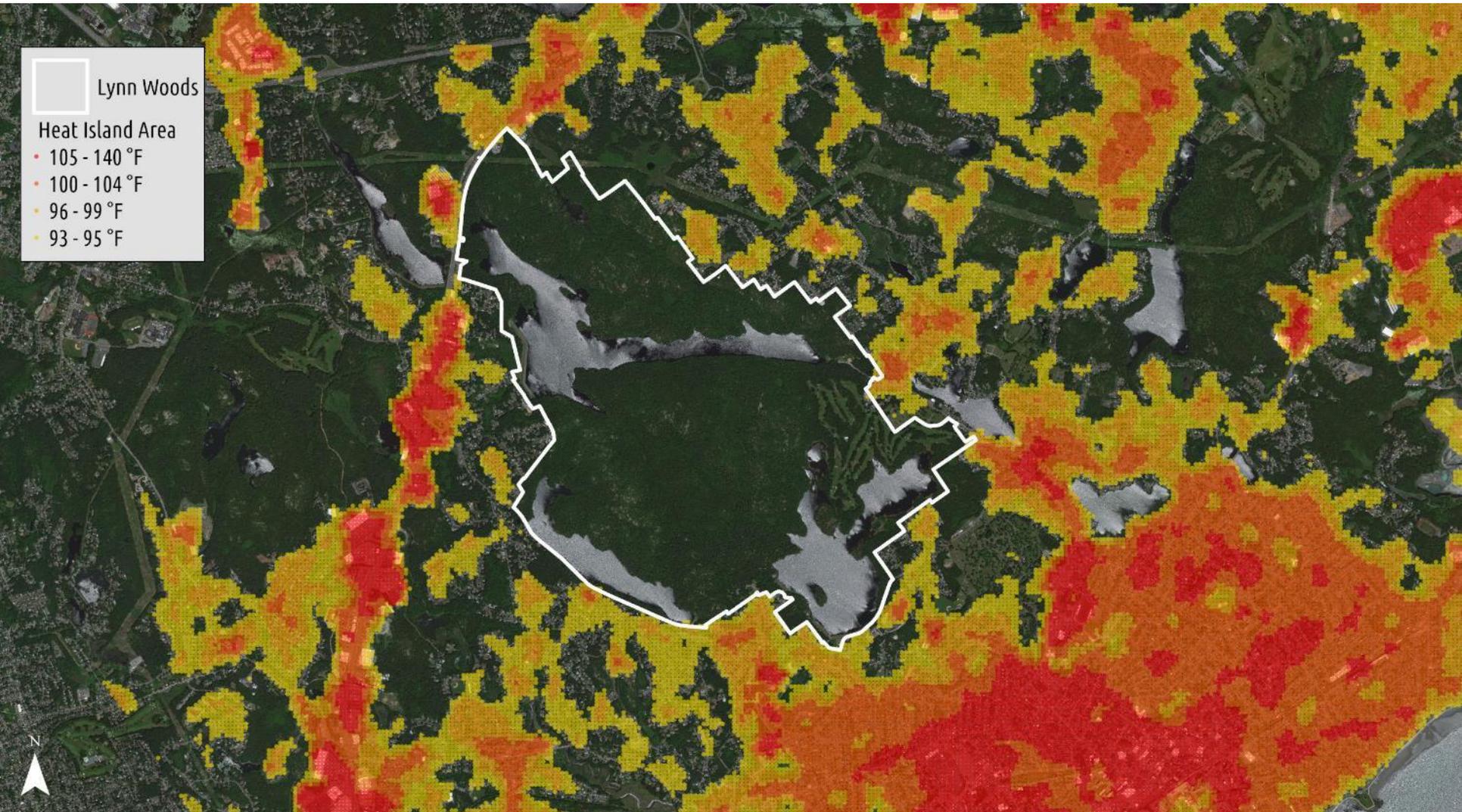
Urban Cooling Results



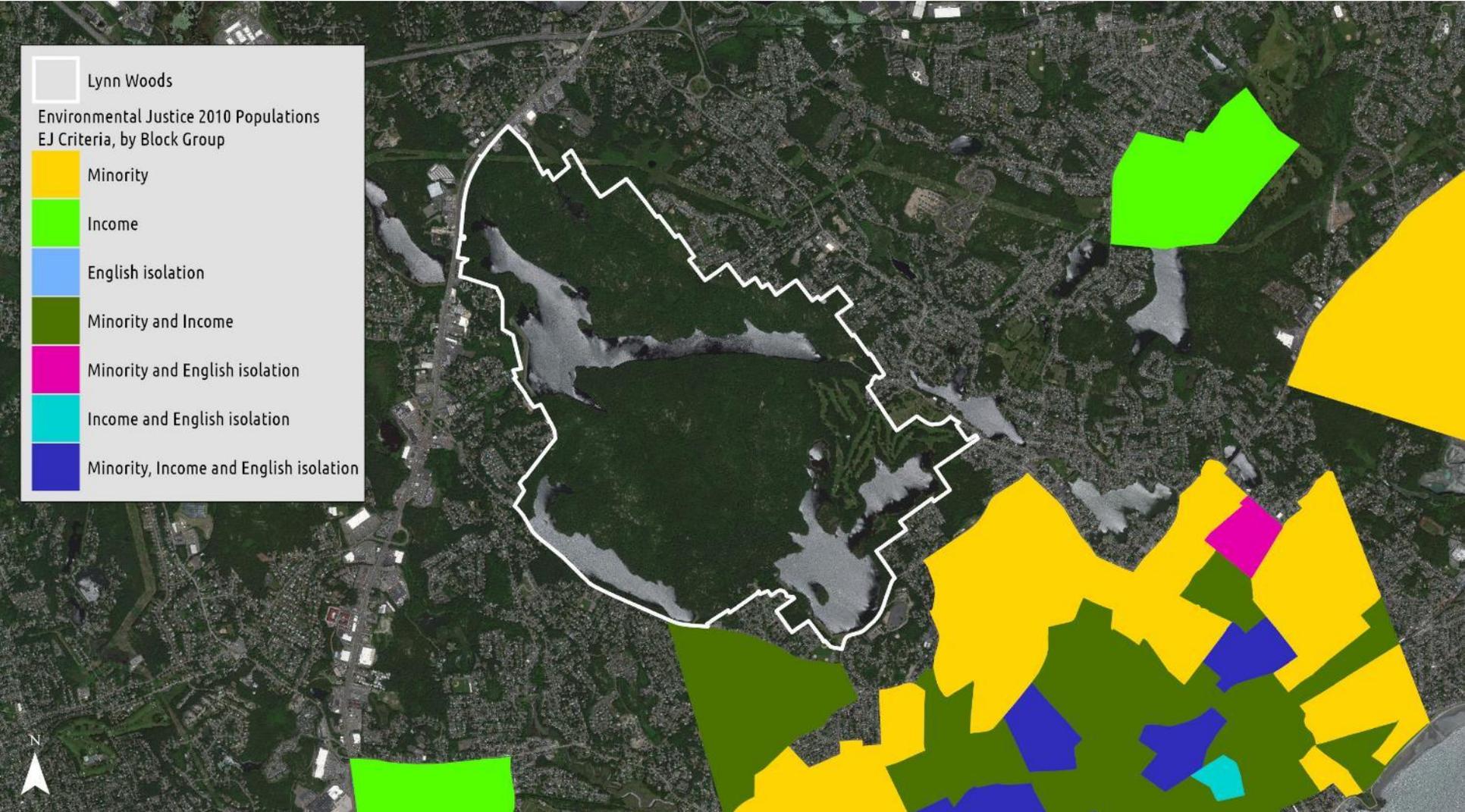
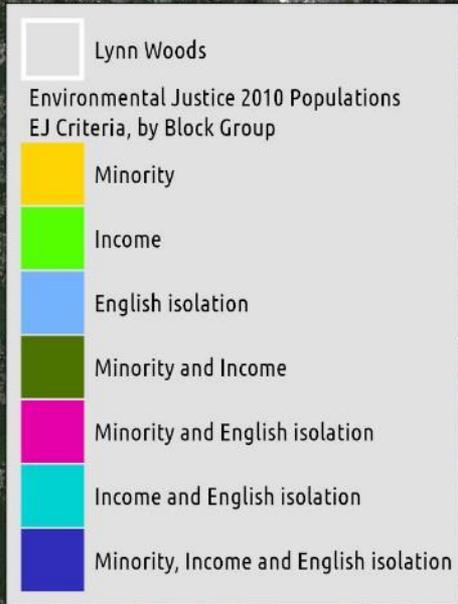
Data and Methods: Urban Cooling



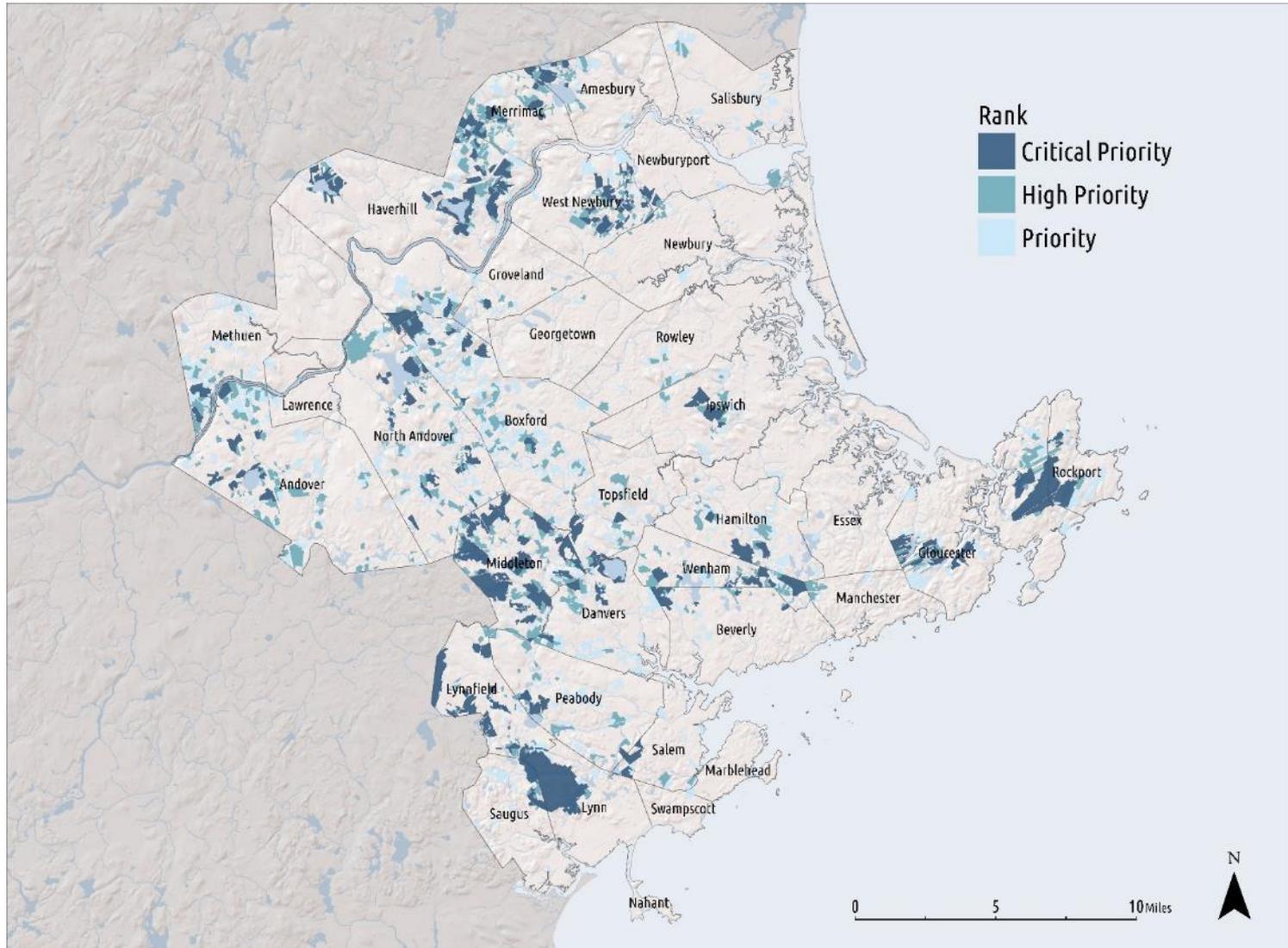
Data and Methods: Urban Cooling



Data and Methods: Urban Cooling



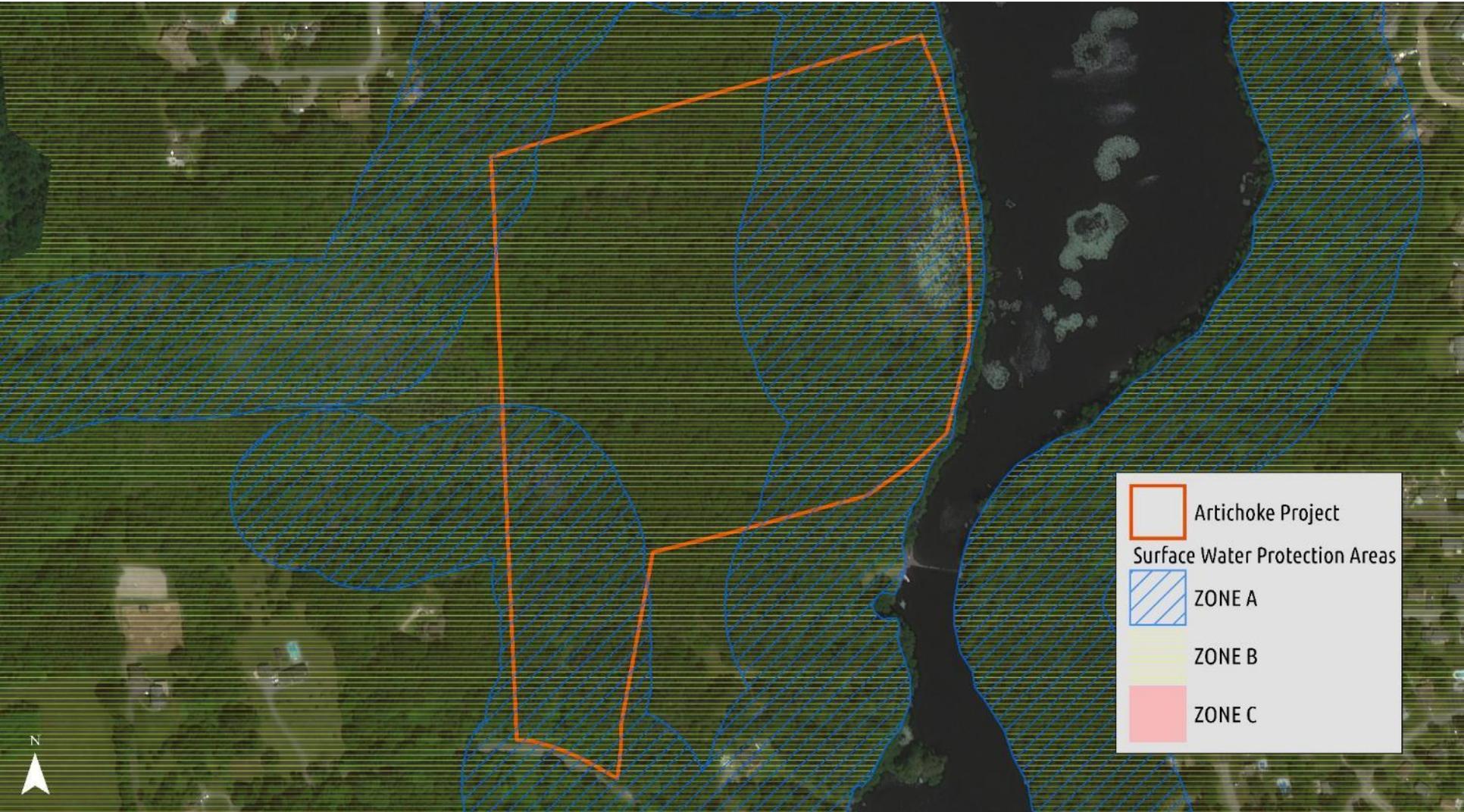
Drinking Water Results



Data and Methods: Drinking Water



Data and Methods: Drinking Water



Data and Methods: Drinking Water



Data and Methods: Drinking Water



Artichoke River Woods, West Newbury

A conservation acquisition partnership:

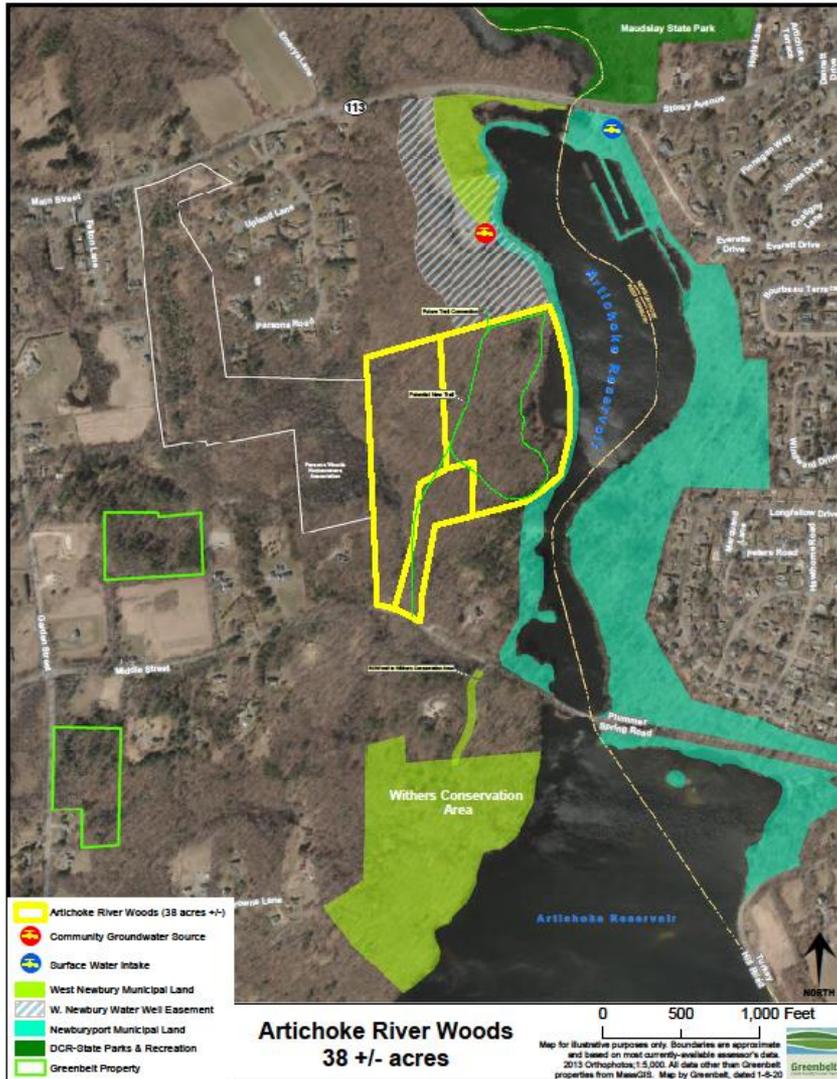
City of Newburyport

Town of West Newbury

Dept. of Conservation & Recreation

Division of Conservation Services

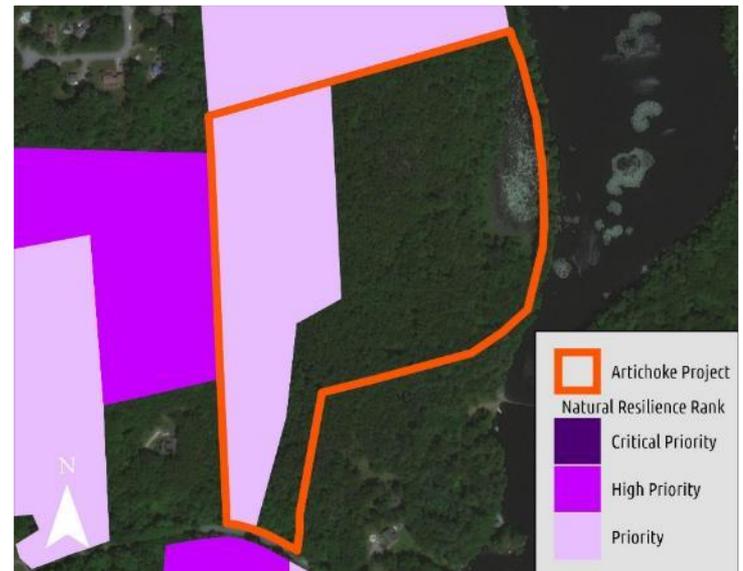
Greenbelt



Artichoke River Woods, West Newbury

Why is this important to preserve?

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



Artichoke River Woods, West Newbury

High Natural Resource Values Attract Funding

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

Purchase Price:	\$985,000
Transaction Costs:	\$30,000
Parking & Signs:	\$7,500
TOTAL:	\$1,022,500

Funding Sources:

Drinking Water Supply Grant:	\$300,000
Newburyport CPA:	\$225,000
W. Newbury CPA:	\$175,000
DCR:	\$175,000
Greenbelt:	\$147,500



Beaver dam and pond on Artichoke River Woods

How can Greenbelt help?

- Facilitate conservation projects
 - Assist with grant applications
 - Create project maps
 - Public outreach
 - Other project support
- Educational opportunities
- Support local open space planning
- Conservation technical assistance
- Provide prioritization maps for open space planning and MVP



Questions?



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ecga.org/CoastalResilience