Climate Action Planning

Historic New England

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Climate Action Goals (2050)

Historic New England is committed to addressing the global climate crisis through actions that reduce or eliminate greenhouse gas emissions, promote resiliency, engage our communities, and advance climate justice and energy equity by:

Enacting operational shifts that integrate climate action into the day-to-day operations of Historic New England.

- Achieving carbon neutrality for all Historic New England sites by 2050, continuously evaluating progress and adjusting actions to achieve success.

Managing our properties to meet our high preservations standards but also adapting those standards to ensure resilience in the face of weather extremes and sea level rise.

Engaging a broad and inclusive public through robust partnerships, programs, and activities that advance climate justice for all.

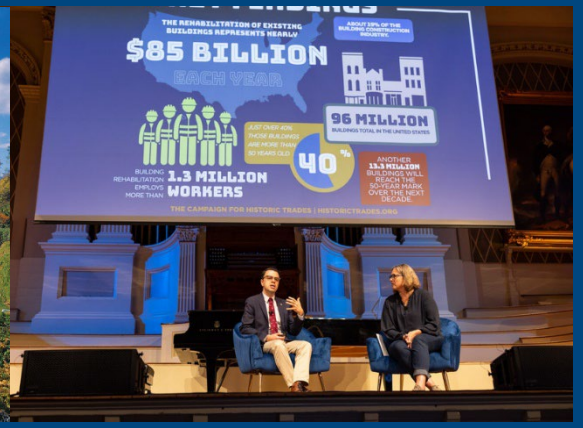
Historic New England

We save and share New England's past to engage and inform present and future generations.

Artifacts, Archives, and Stories

School and Youth Programs

Homes, Farms, and Landscapes



Community Engagement and Leadership

Preservation Services

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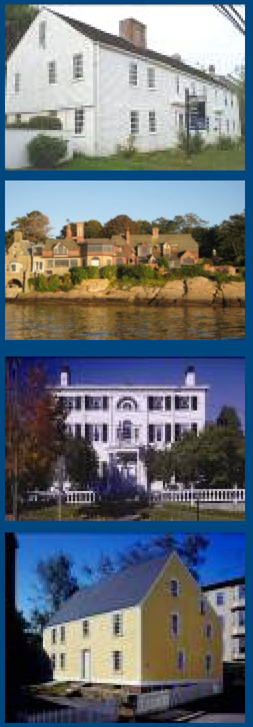
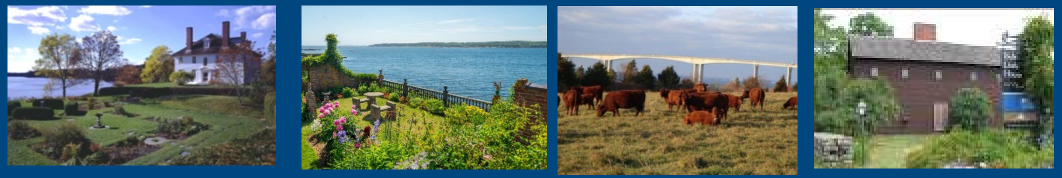
- 41 historic properties in 5 New England states including an eight-story collections storage facility
- 125,000 objects at the properties and in storage and 1.5 million items of archival material
- 120 easements held on private property protecting historic architectural and landscape features
- 167,657 visitors to the properties in 2022
  - includes guided tours, group tours, exhibitions, public programs, school programs, functions, community meetings, and landscapes visitors
- 31,550 students attend our programs from 168 communities
- More than 280 adult public programs attended by 56,706 participants

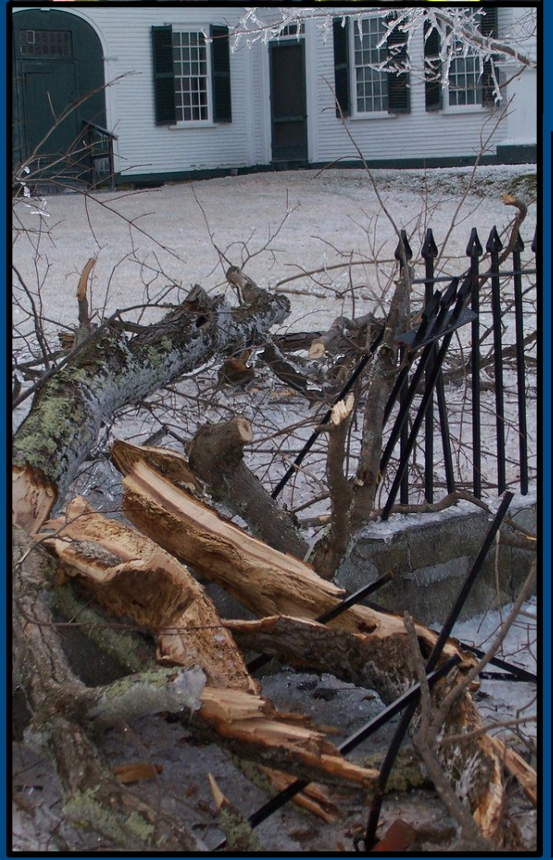


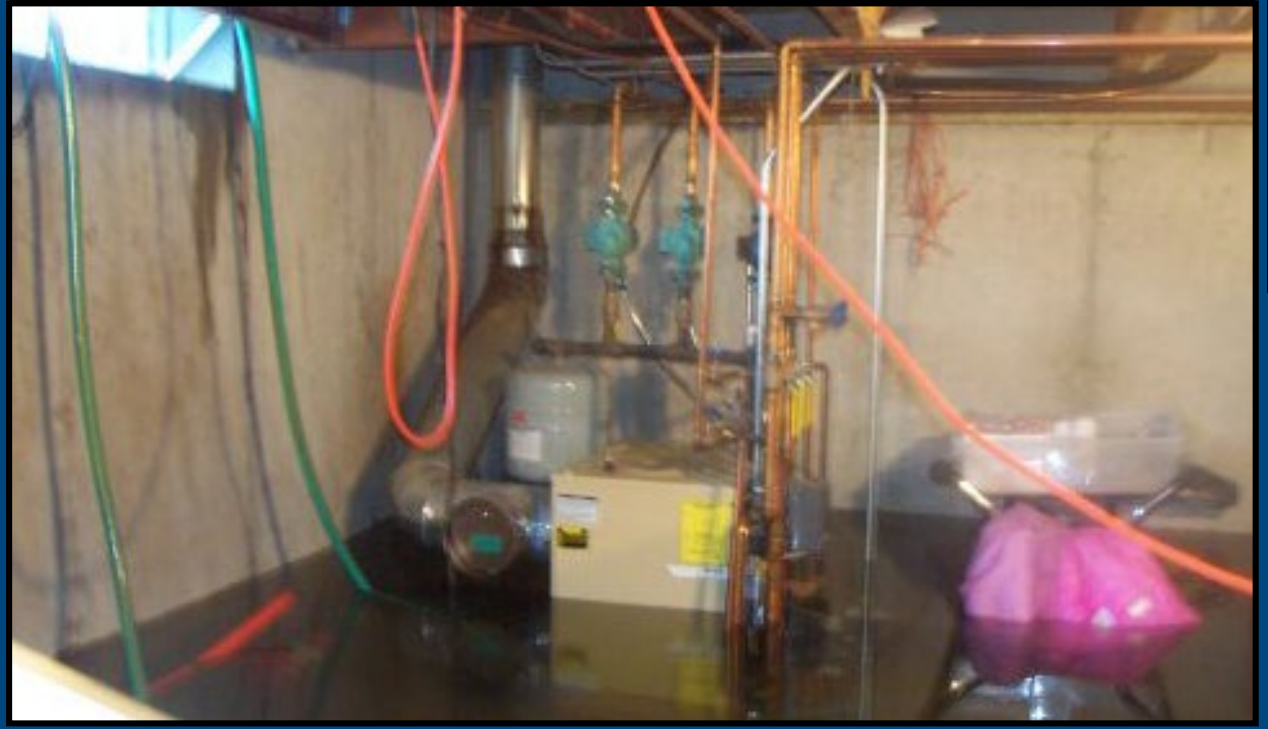





The Historic Property Collection

Cultural Resource Management





What is a Climate Action Plan?

- Mitigation
  - Action to reduce emissions that cause climate change
- Resiliency
  - Action to manage the risks of climate change impacts
- Climate Justice
  - Address equal benefits and burdens of climate change in a community, and share in the responsibility of it

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Mitigation

Greenhouse Gas Emissions Source Inventory (Abbreviated List)

Scope 1 (Direct Use)

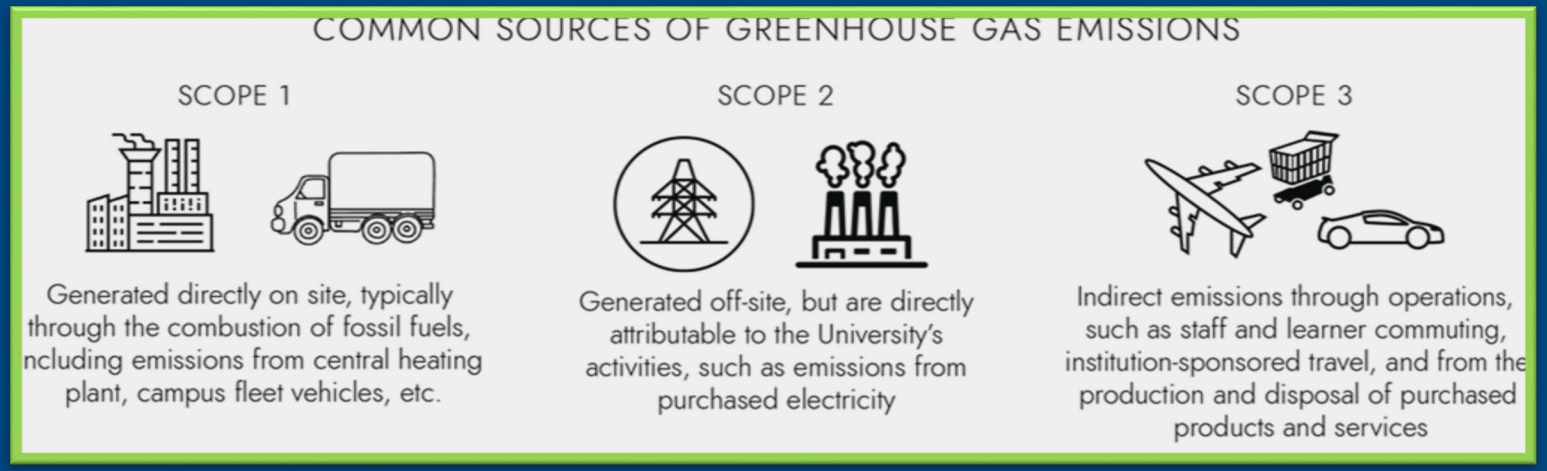
- Heating fuel oil and natural gas
  - 72 heating plants
    - office and tenant spaces
    - museum conditions and collections storage
    - greenhouse operations
- Gasoline use
  - fleet vehicles
  - landscape equipment (mowers, trimmers)
  - site vehicles – carts and tractors
  - site equipment – backup generators, portable generators, pumps
  - staff driving own vehicles for work purposes
  - traveling exhibitions
- Miscellaneous
  - plastic bottles sold at visitor centers
  - plastic bottles used for programs
  - waste production from festivals
  - office paper usage
  - membership mailings

Scope 2 (Energy Suppliers)

- 108 different utility accounts
- 30 different communities

Scope 3 (Indirect)

- Visitors driving to sites
- Commuting driving
- Conference attendance
- IT cloud-based server farms
- Collections loans



Mitigation Baseline

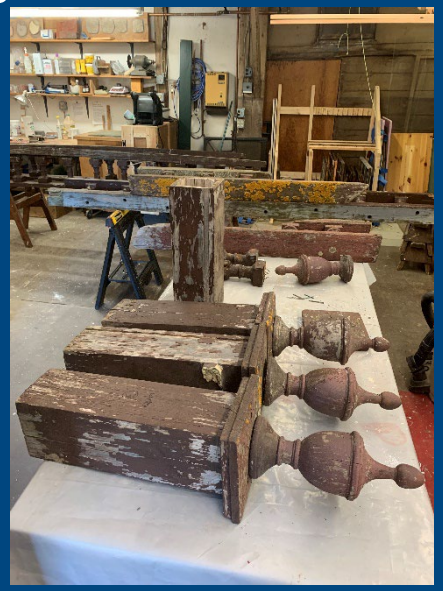
Scope of Buildings and Grounds

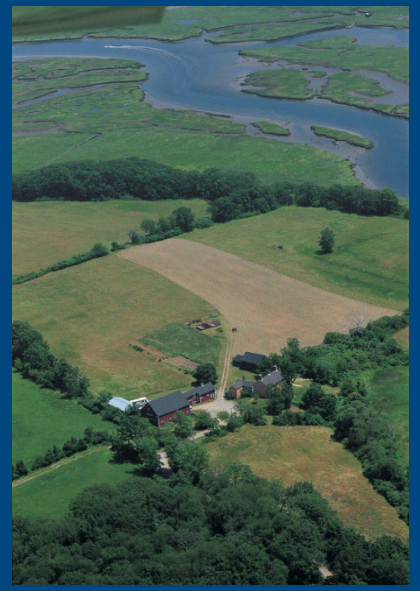
167 structures across 5 states

- 700,000 sf of interior space
- 4,000 windows
- 72 heating plants
- 108 different utility accounts

1,320 acres of land

- 730 acres of managed landscape
- 590 acres of meadows and woodland

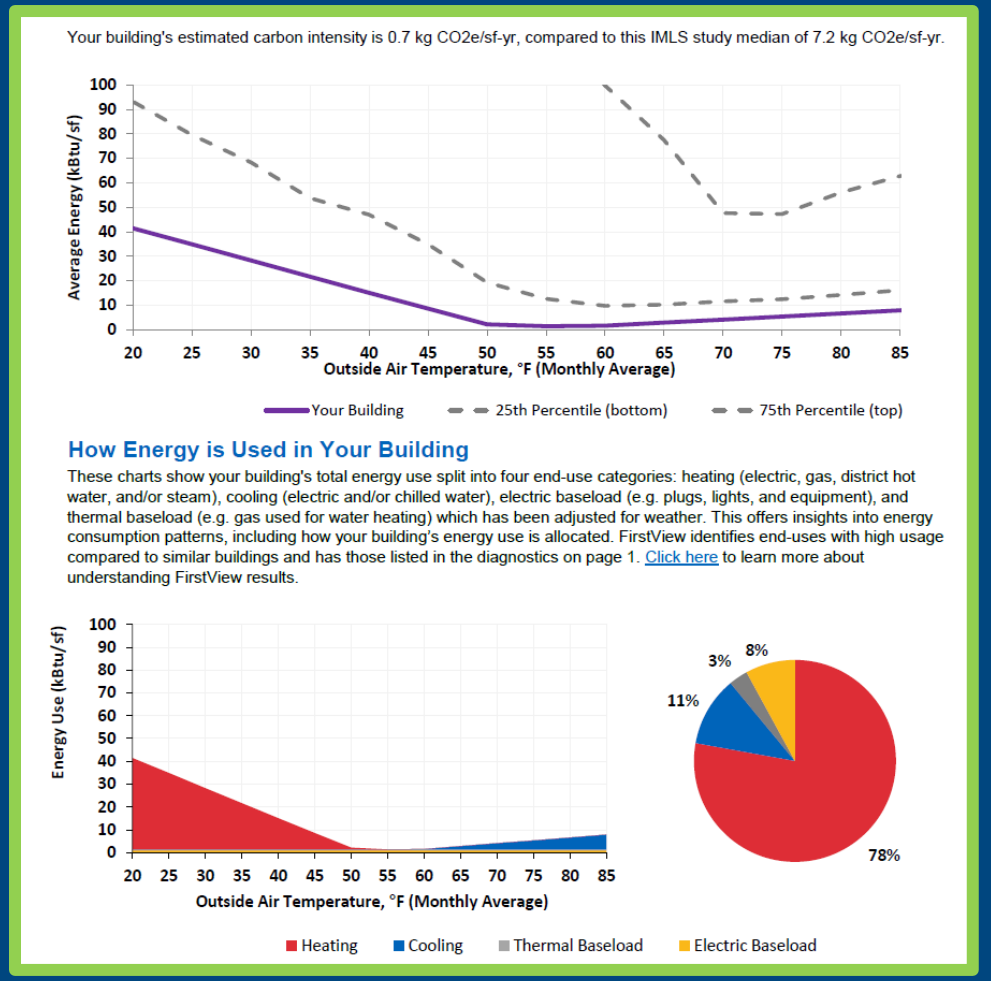




Mitigation to Date

Actions to reduce emissions that cause climate change (Abbreviated List)

- Preservation friendly weatherization
  - 2012 award winning Lyman Weatherization Project
- Existing energy audits/analysis
- *Culture Over Carbon* participation
- Converting landscape maintenance equipment to electric
- Use of local and traditional materials
- Adoption of remote work and tele-meetings
- Recycling throughout programs
- Email and E-bulletins favored over traditional mailings
- Entering utility information for all 108 providers into database system
- Review of fleet vehicle mileage and idling times for immediate recommendations



Above: Culture Over Carbon Initial Report

Lyman Estate Weatherization
Reduced Energy Usage 50%

- Resolve air leakage
  - No spray foam
  - Window conservation
  - Storm window analysis
- Conservative use of Insulation
  - Avoid the walls!
- HVAC and utility improvements
  - Be sensitive to material and appearances
- Lighting upgrades

- Measuring and Metrics throughout!






Mitigation Goals

Achieving carbon neutrality for all Historic New England sites by 2050, continuously evaluating progress and adjusting actions to achieve success.

- Complete a Carbon Neutral Plan (and subsequent implementation) for a single site
- Leverage transformative projects at two major energy users, Otis House and the collections storage facility, to meet Climate Action goals
- Begin assessment of museum environmental conditions and the strategies we use to control them.
- Review how office space is being used and heated post-COVID and look for ways to make more efficient.
- Work with Staff Advisory Group to identify and implement small scale improvements to resiliency and mitigation.
- Develop case studies and methodologies that illustrate actions one can take that blend preservation with mitigation.

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Resiliency Baseline

Risk and Vulnerability Assessments

- Biggest current risks to our sites
  - Inundation rains
  - Localized flooding
  - Extreme wind
  - Temperature extremes
  - Invasive species
    - Animals, bugs, and plants
- Assessing the risk
  - Lightning
  - Sea level rise

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Resiliency to Date

Action to manage the risks of climate change impacts (Abbreviated List)

- 3+ Decades of Emergency Preparedness and Response
- 2010-23 Storm Water Management Projects
- 2018 Maine Gutter Capacity Analysis Project
- 2019-20 Middlebury College cohort
- Ongoing work on deferred maintenance
- Land management initiatives
- Incorporated Climate Change into planning since 2009

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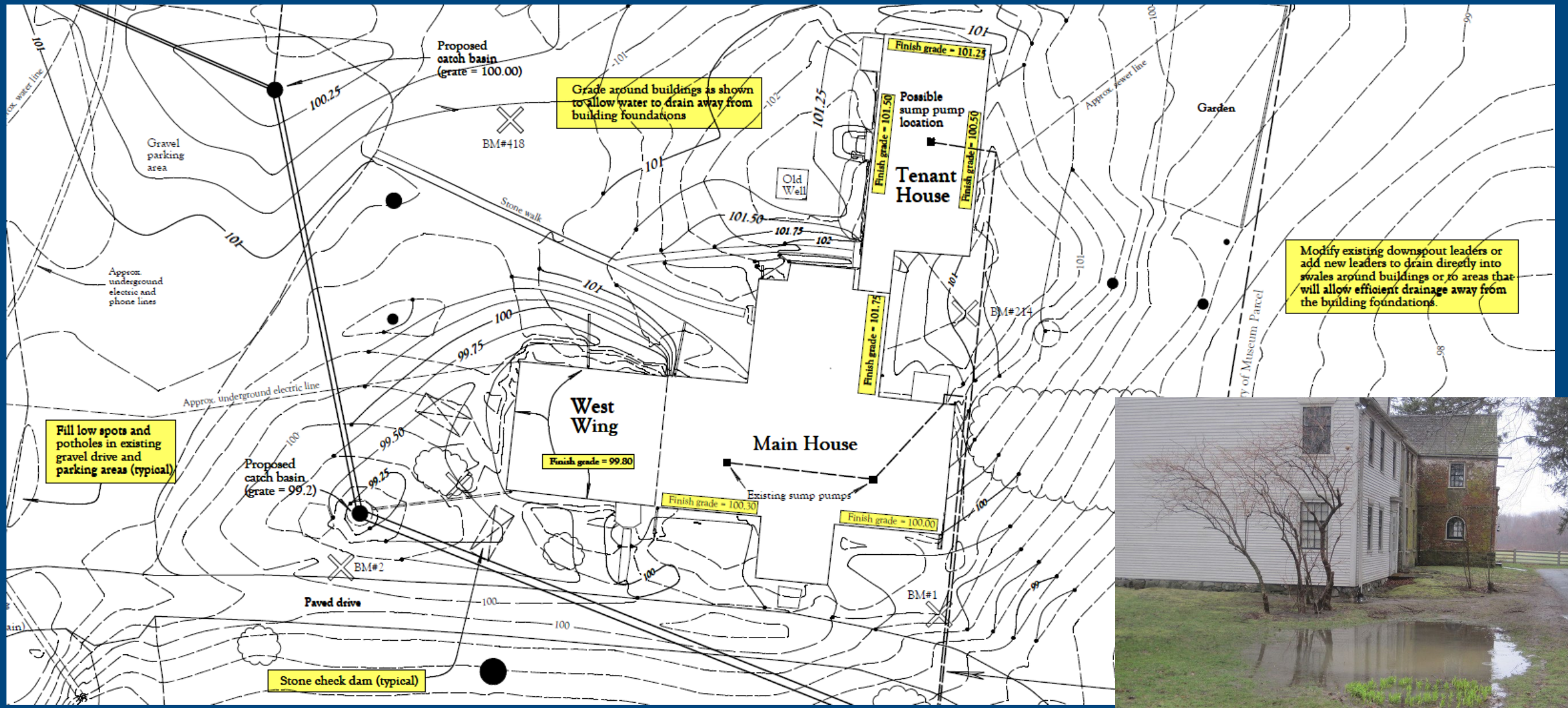
Storm Water Management



2018 Maine Gutter Capacity Analysis Project

Many thanks to the Maine Historic Preservation Commission, the National Park Service, and Margaret Gaertner, Historic Building Consultants

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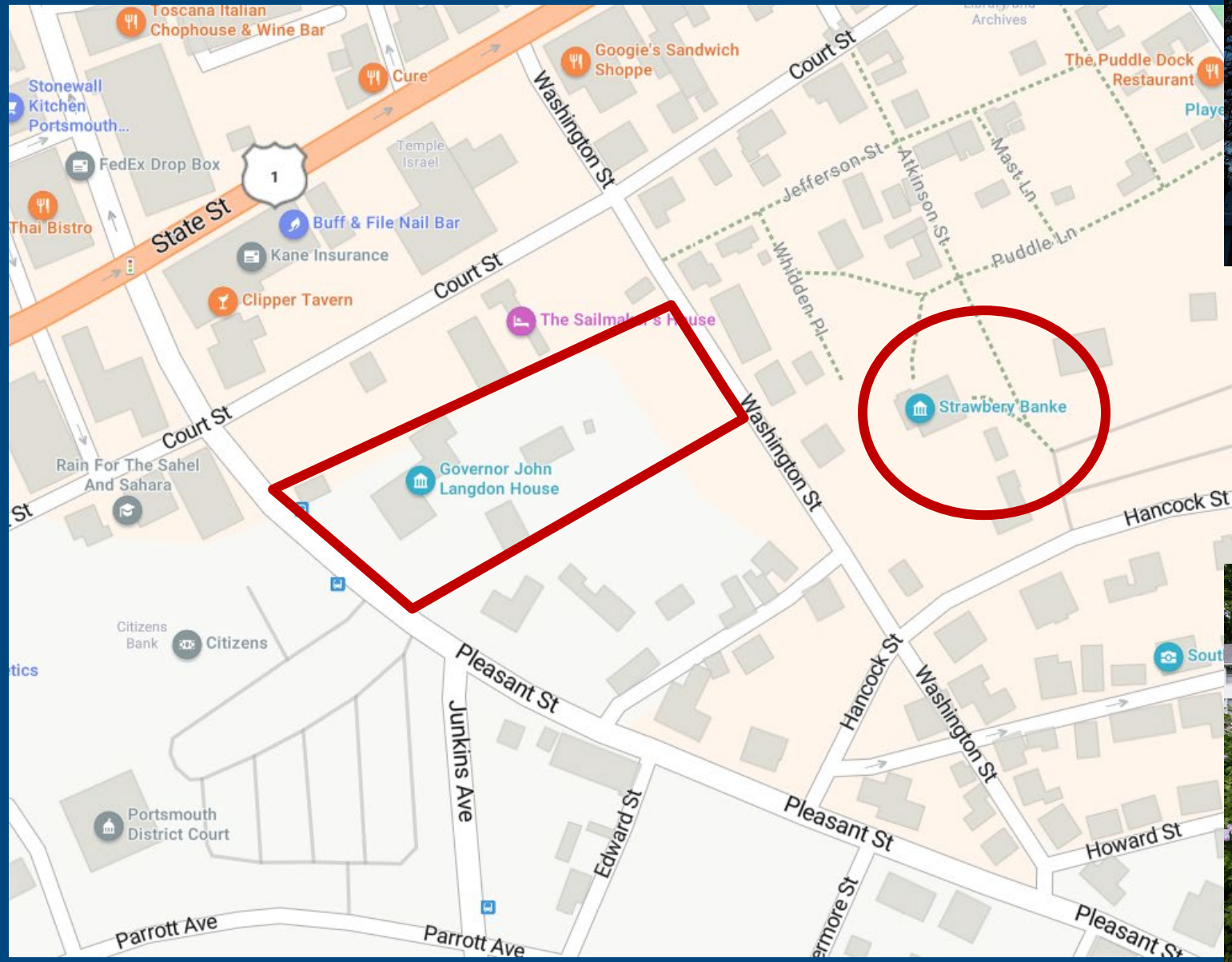
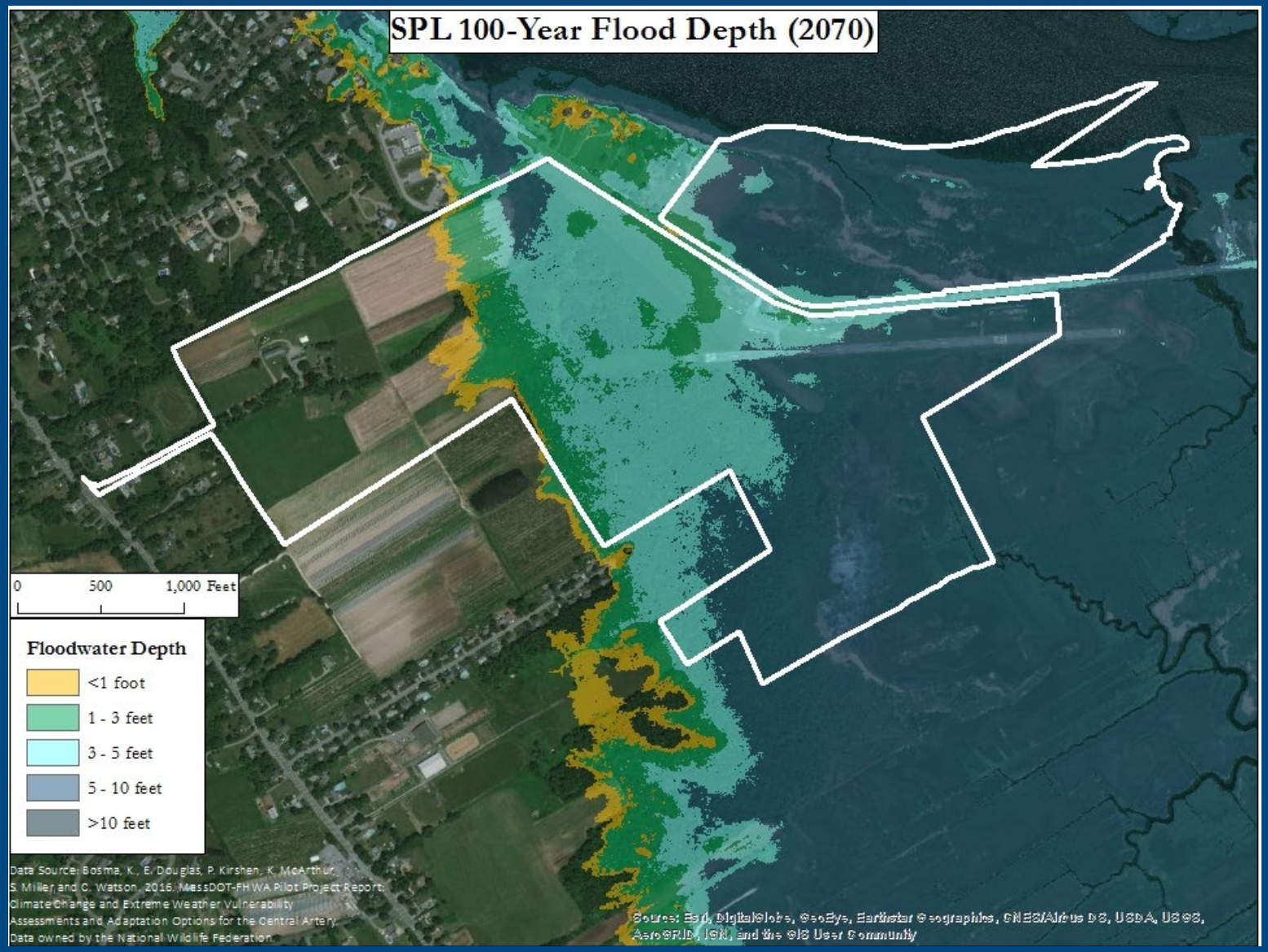
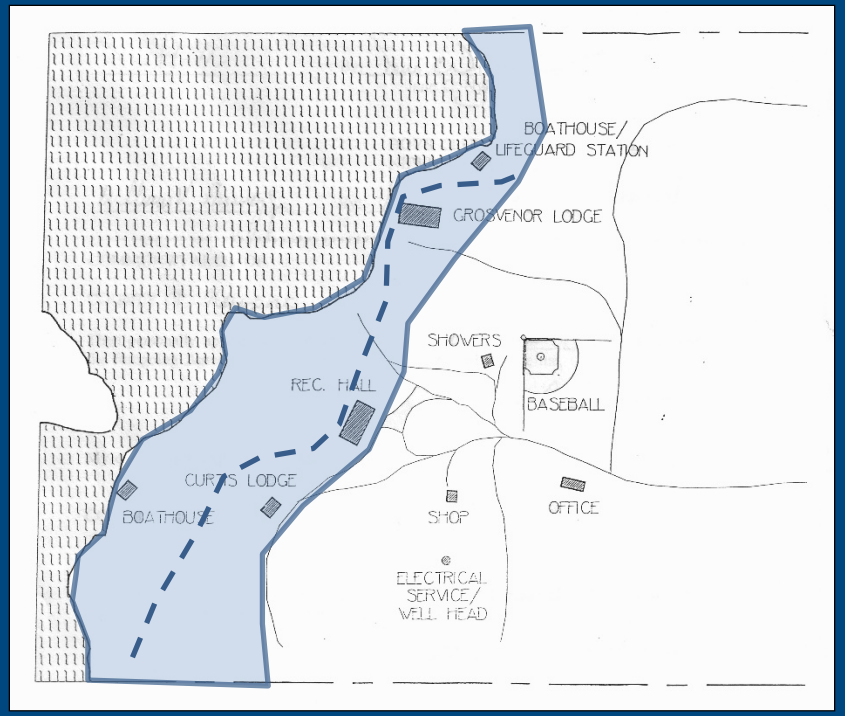
Sea Level Rise



Sea Level Rise





Resiliency Goals

Managing our properties to meet our high preservations standards but also adapting those standards to ensure resilience in the face of weather extremes and sea level rise.

- Respond both proactively and reactively to the deferred maintenance and capital improvement opportunities.
- Work with Staff Advisory Group to identify and implement small scale improvements to resiliency and mitigation.
- Prioritize planning for larger interventions for resiliency at high-risk sites and identify funding sources for improvements.
- Develop case studies and methodologies that blend preservation with resiliency.

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Climate Justice to Date

Address equal benefits and burdens of climate change in a community, and share in the responsibility for it

- Free landscape access for all
- Education programs and sharing
- Sustainable agriculture and landscape maintenance practices
- Land management to support native ecosystems
- Contribute to the urban canopy
- Support of local businesses and economies
- Donating surplus agricultural product to local food pantry (Casey Farm)
- Casey Farmer's Market supports SNAP

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Climate Justice Goals

Engaging a broad and inclusive public through robust partnerships, programs, and activities that advance climate justice for all.

- Recognize the Climate Justice work already occurring and begin development of new initiatives.
- Leverage the Staff Advisory Group to identify opportunities of new initiatives.
- Explore collaborations to both advance our own work and support the work of our partners and communities.
- Share our case studies and methodologies broadly with the public.

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Institutional Goals

Enacting operational shifts that integrate climate action into the day-to-day operations of Historic New England.

- Complete the Historic New England Climate Action Plan
- Board of Trustees endorses the Climate Action Plan
- Commit funding for permanent sustainability coordinator staff position
- Secure funding for implementation of a single-site plan for Carbon Neutrality

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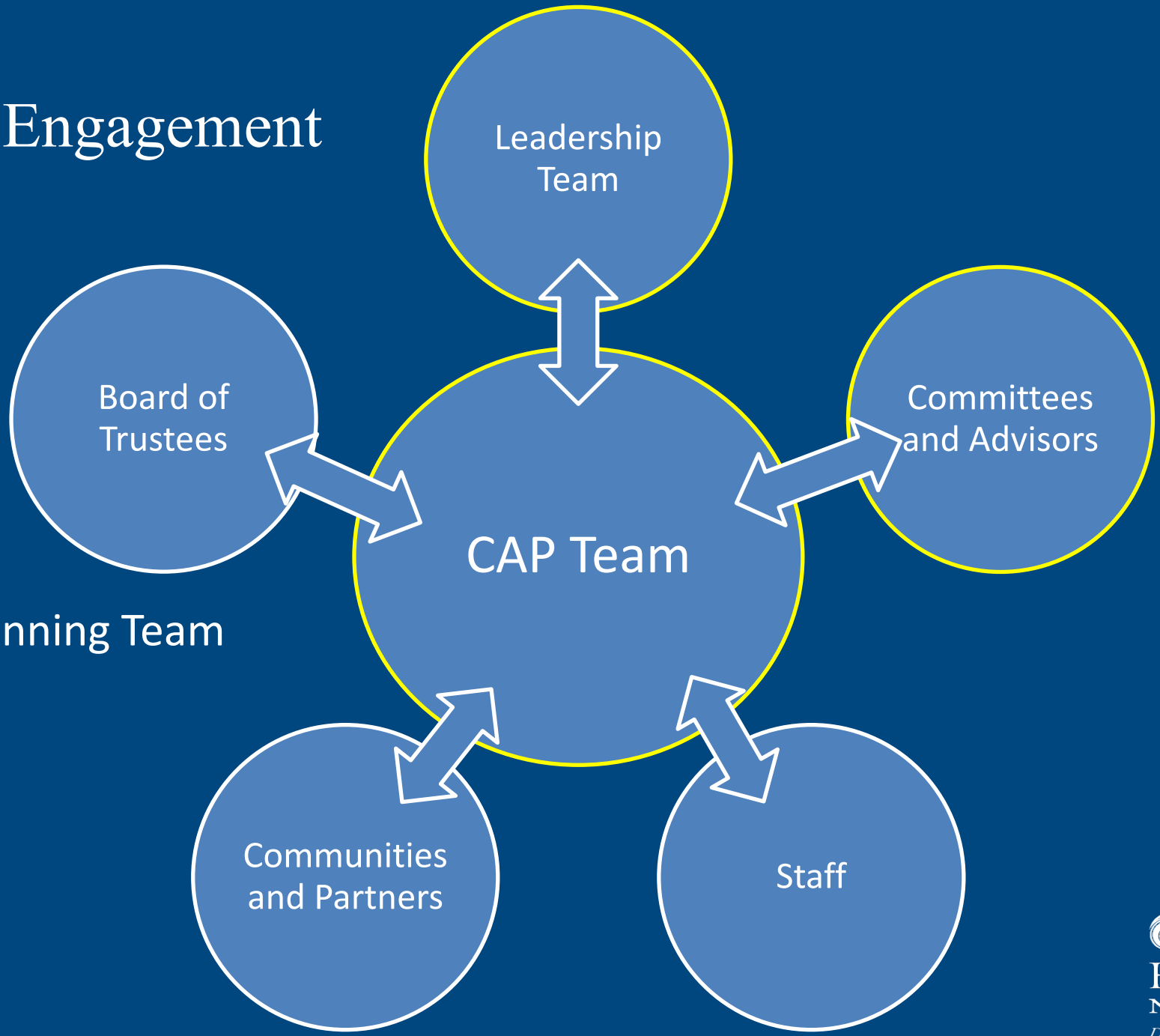
Institutional Engagement



Climate Action Planning Team

- Property Care

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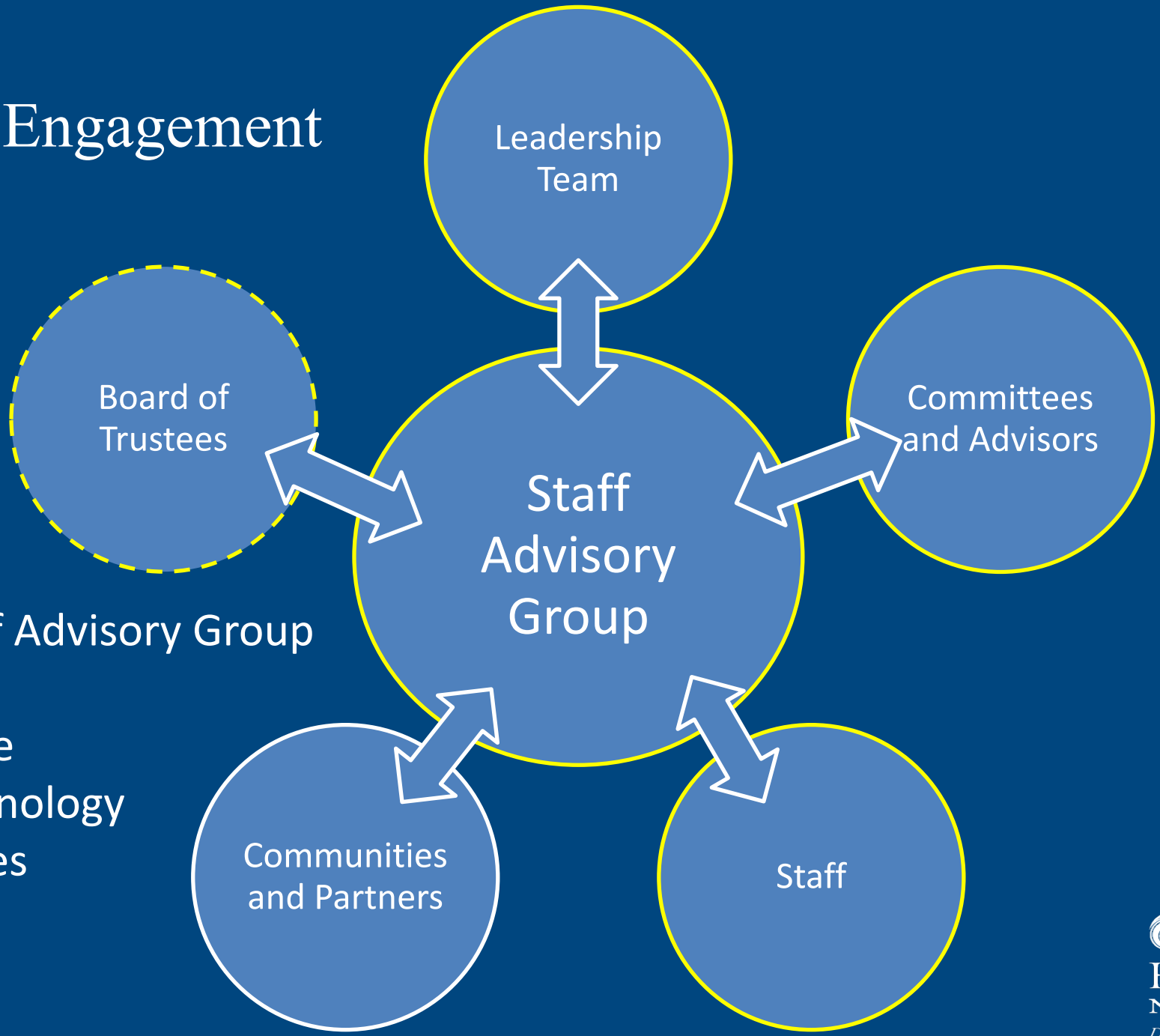
Institutional Engagement



Climate Action Staff Advisory Group

- Property Care
- Visitor Experience
- Information Technology
- Collection Services
- Development

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Boston Green Ribbon Commission Collaborative Climate Action Planning

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The Paul Revere Memorial Association

HUNTINGTON THEATRE COMPANY

SUFFOLK UNIVERSITY BOSTON

NEW ENGLAND HISTORIC GENEALOGICAL SOCIETY
AmericanAncestors.org

ISABELLA STEWART GARDNER MUSEUM

GOETHE INSTITUT

ZOO NEW ENGLAND
Franklin Park Zoo ♦ Stone Zoo

JOHN F. KENNEDY PRESIDENTIAL LIBRARY AND MUSEUM

Esplanade ASSOCIATION

mfa

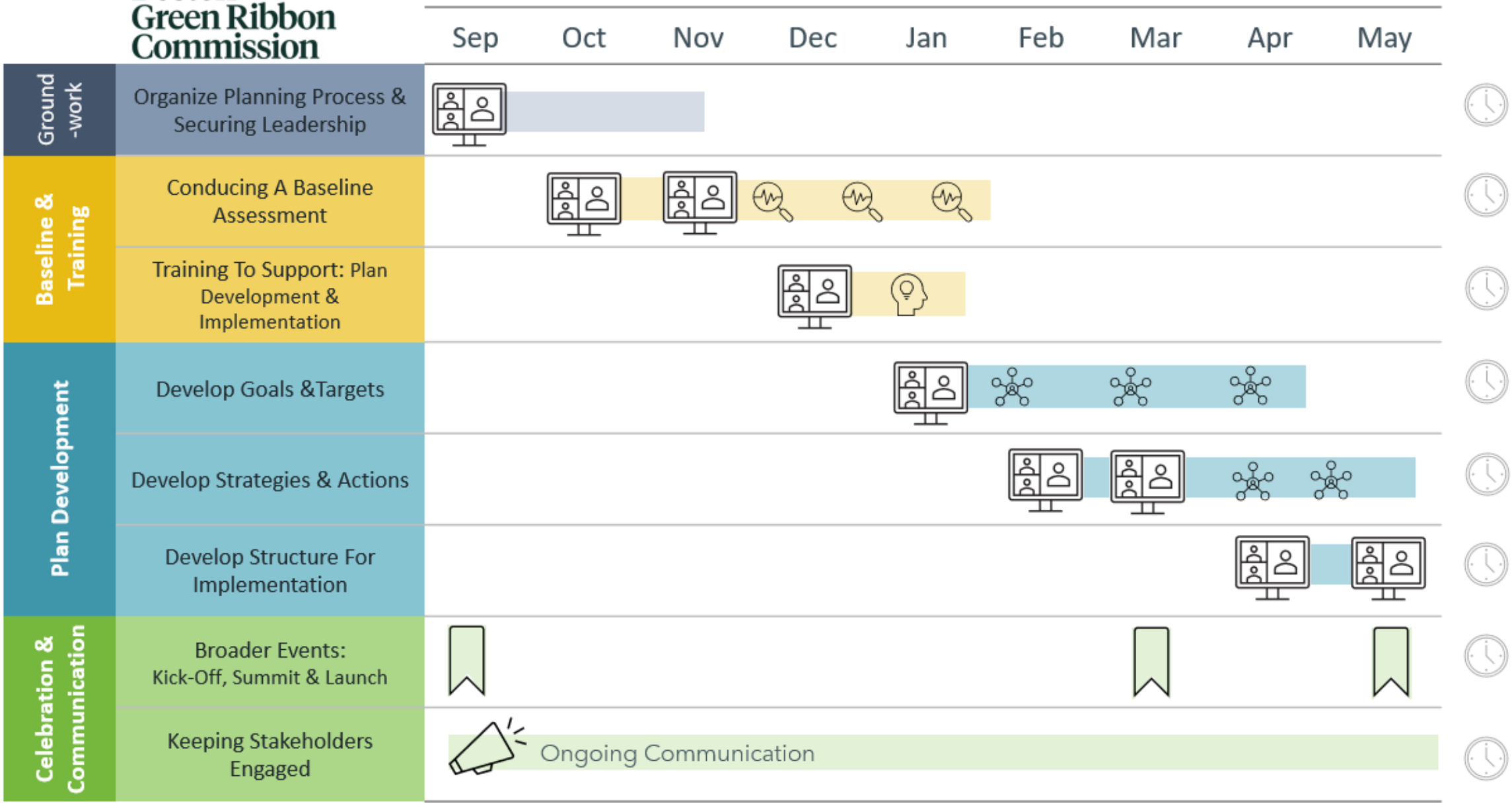
Museum of Science

RIVERSIDE 1869

Emerson COLLEGE

BOSTON GREEN RIBBON COMMISSION

Boston Green Ribbon Commission



COSTEP MA

Coordinated Statewide Emergency Preparedness

AN EMERGENCY MANAGEMENT PARTNER FOR CULTURAL RESOURCES

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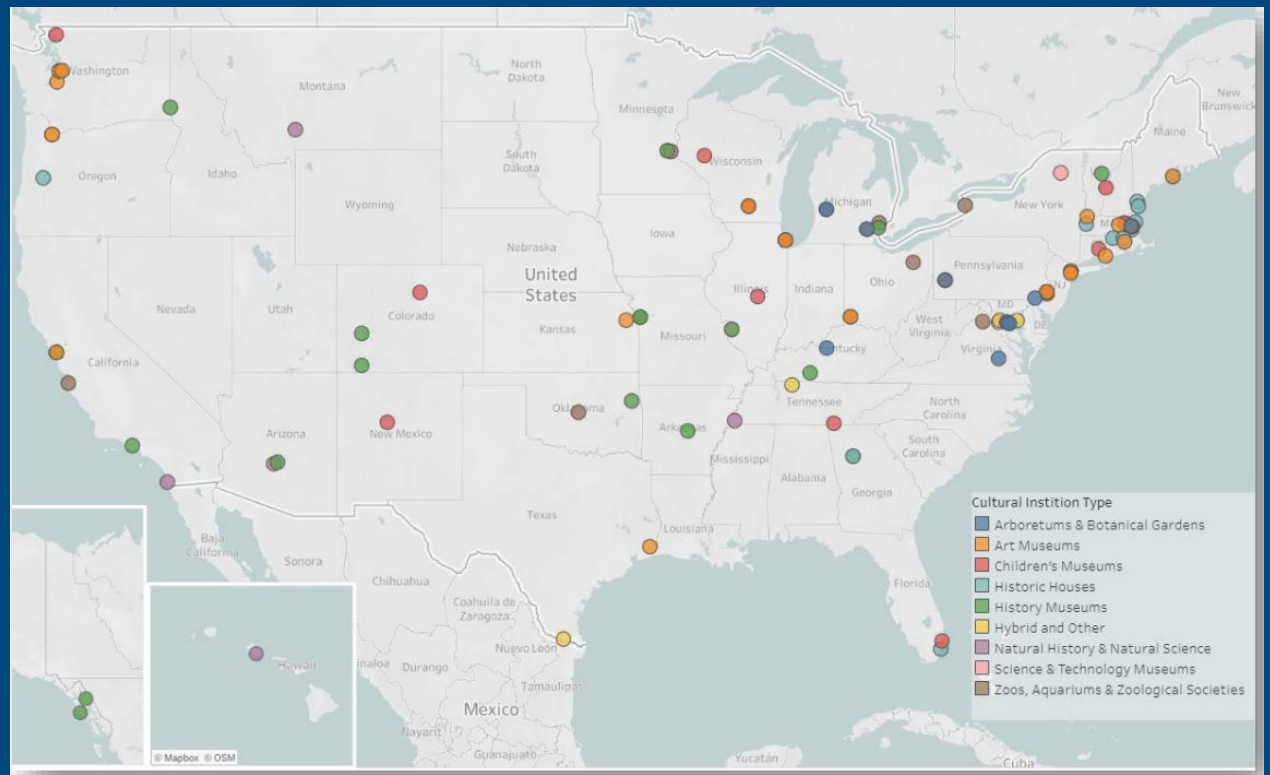
Culture over Carbon (2021)

- 130 museums across the nation participated.
- Collectively, the participating institutions use an estimated one billion kWh per year. That amount of energy is equivalent to 25% of the power produced at Hoover Dam.
- If the participating cultural institutions decreased their energy use by 20% the related annual carbon and other GHG emissions reductions would be like taking 10,000 cars off the road.



nbi new buildings institute · INSTITUTE of Museum and Library SERVICES · Environment & Culture Partners · nema

Now you too can participate in the Culture Inventory Project (CIP)

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The van Beuren Charitable Foundation

1772 Foundation

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The future?

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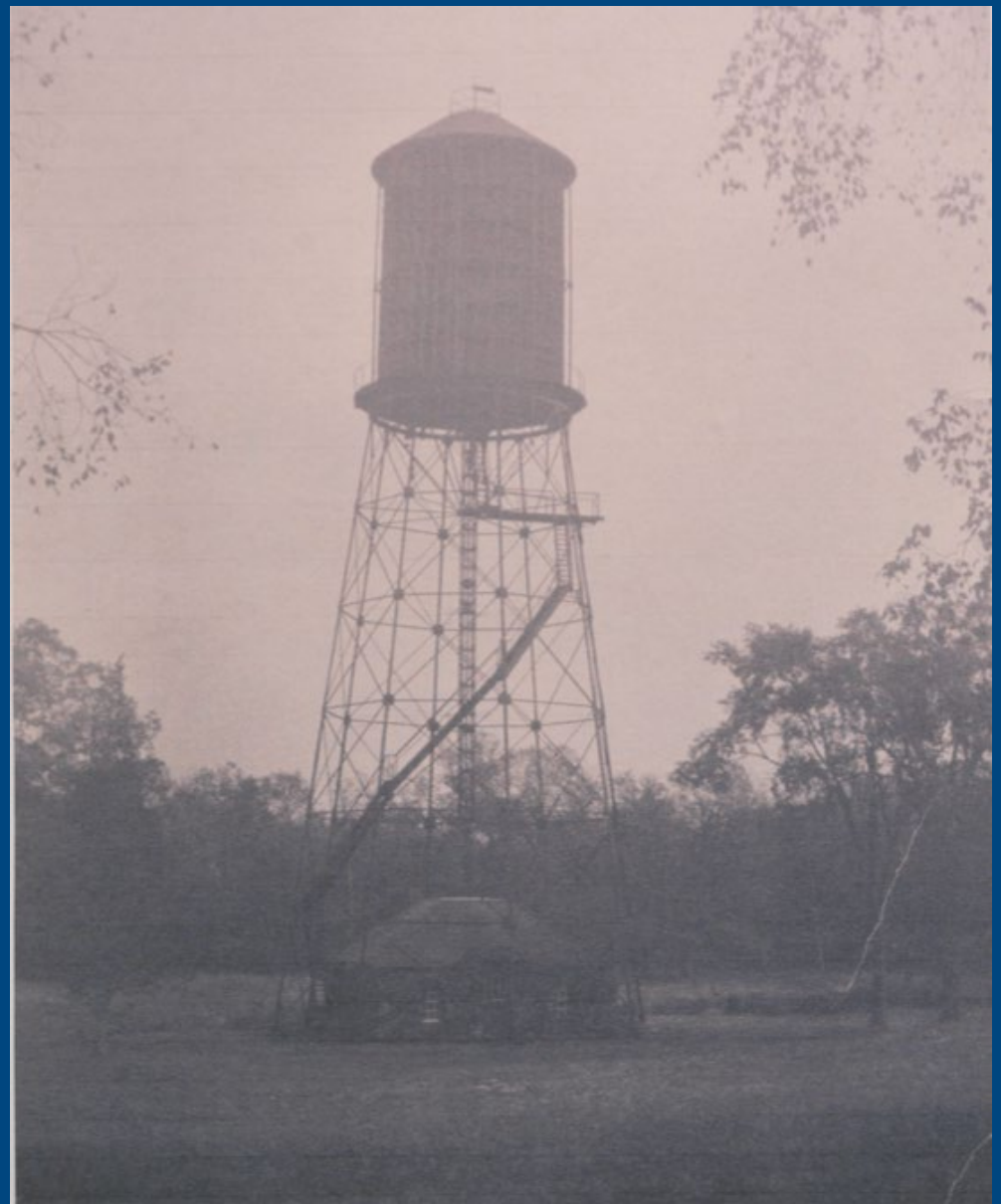
The future?



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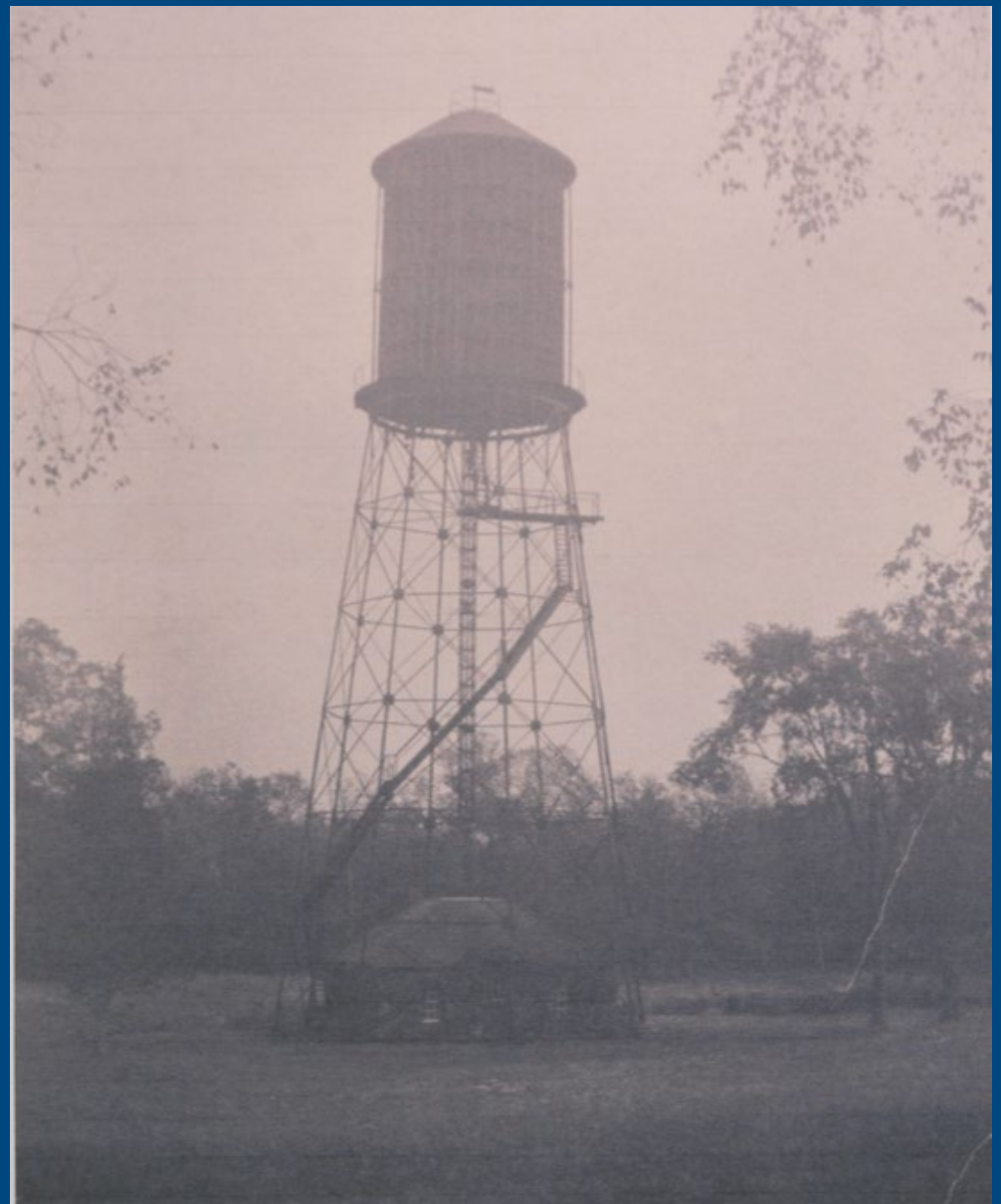
The future?



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Questions?

Many thanks to:

- Historic New England's Property Care staff, including most recently:
  - Christina Pokwatka
  - Marissa Mayo
  - Joie Grandbois, our new sustainability coordinator!
- Boston Green Ribbon Commission
- 1772 Foundation
- The van Beuren Foundation

Benjamin Haavik, Team Leader Property Care
bhaavik@HistoricNewEngland.org

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