



NORTHEAST SUMMIT ON CLIMATE ADAPTATION

FOR LIBRARY FACILITIES



Featuring...



**Sustainable
Libraries
Initiative**

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CT State Library
Preserving the Past. Informing the Future.



Massachusetts Libraries
BOARD OF LIBRARY COMMISSIONERS



NJ STATE LIBRARY
An affiliate of Thomas Edison State University

New York State
Library



Office of
Library & Information Services
State of Rhode Island



VERMONT
DEPARTMENT OF LIBRARIES



AGENDA

WEDNESDAY NOVEMBER 8, 2023

9:30AM - 12:30PM | VIRTUAL SUMMIT

9:40AM

Climate Adaptation for Library Facilities

- **Rebekkah Smith Aldrich, MLS, LEED AP**, *Executive Director*, Mid-Hudson Library System & *Co-Founder/Board President*,  **Sustainable Libraries Initiative**

10:45AM

Panel Discussion

- **Moderated by: Rebekkah Smith Aldrich, MLS, LEED AP**, *Executive Director*, Mid-Hudson Library System & *Co-Founder/Board President*, **Sustainable Libraries Initiative**

With...

- **Rachel Breen**, *Director*, Norwell Public Library, Massachusetts
- **Margaret Woodruff**, *Director*, Charlotte Public Library, Vermont

11:30AM

Sustainable Library Certification Program

- **Matthew Bollerman, MLS, CEO**, Hauppauge Public Library & *Co-Founder/Vice President*,  **Sustainable Libraries Initiative**

12:15PM

Resources & Next Steps



Rebekkah Smith Aldrich, MLS, LEED AP, cSBA

Executive Director, **Mid-Hudson Library System**

Co-Founder & Board President, **Sustainable Libraries Initiative**

Sustainability Columnist, **Library Journal**

Adjunct Professor, **LIU Palmer School of Library & Information Science**

Author:

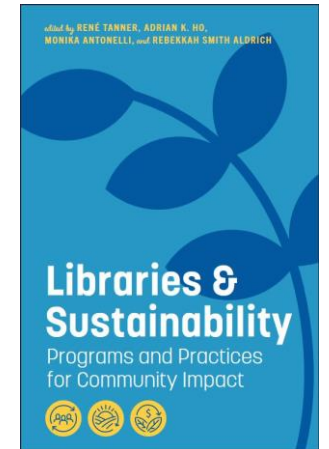
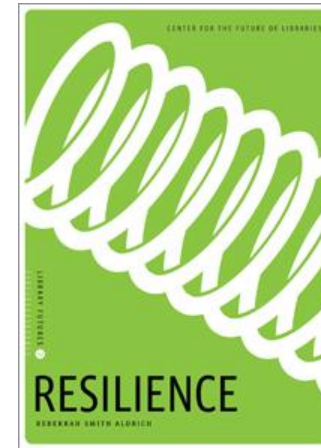
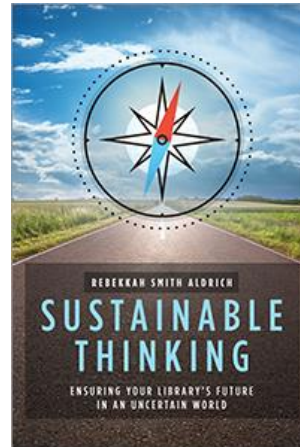
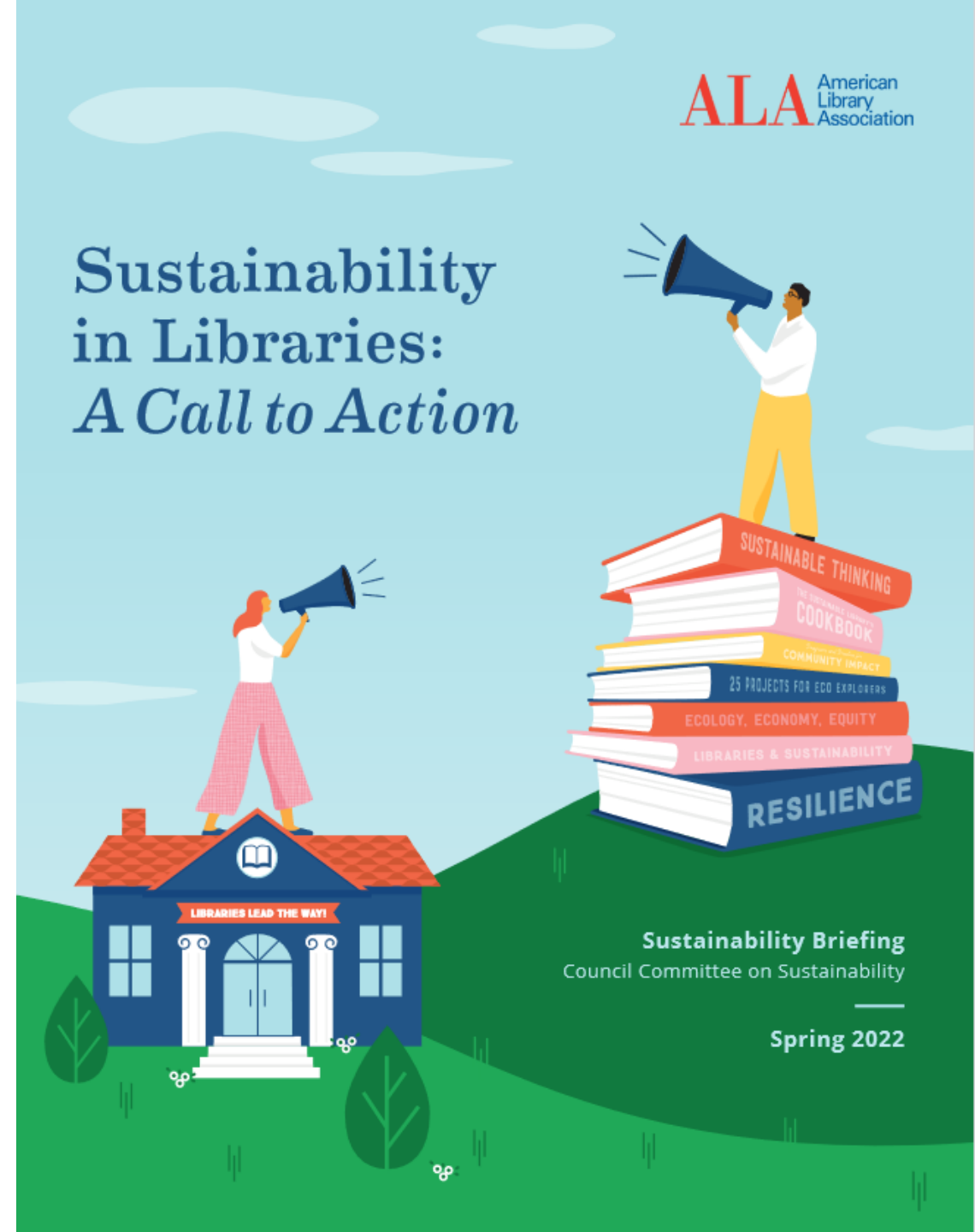




Image Source: National Centers for Environmental Information, NOAA

“**Climate change** is the single greatest threat to global health, a “**code red for humanity**,” and is this generation’s **grandest challenge.**”



ALA American Library Association

Sustainability in Libraries: *A Call to Action*



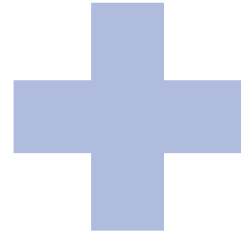
Sustainability Briefing
Council Committee on Sustainability
Spring 2022

A photograph of a dirt path winding through a dense forest. Sunlight filters through the trees, creating a dappled light effect on the path and foliage. The quote is overlaid in white text.

**"When we try to pick out
anything by itself, we find
it hitched to everything
else in the Universe."**

– John Muir

(Mitigation
+
Adaptation)



Climate
Justice

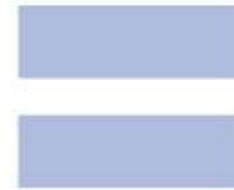


Climate
Action



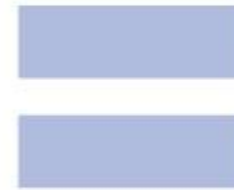
**Sustainable
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→ Reduce Greenhouse Gas Emissions



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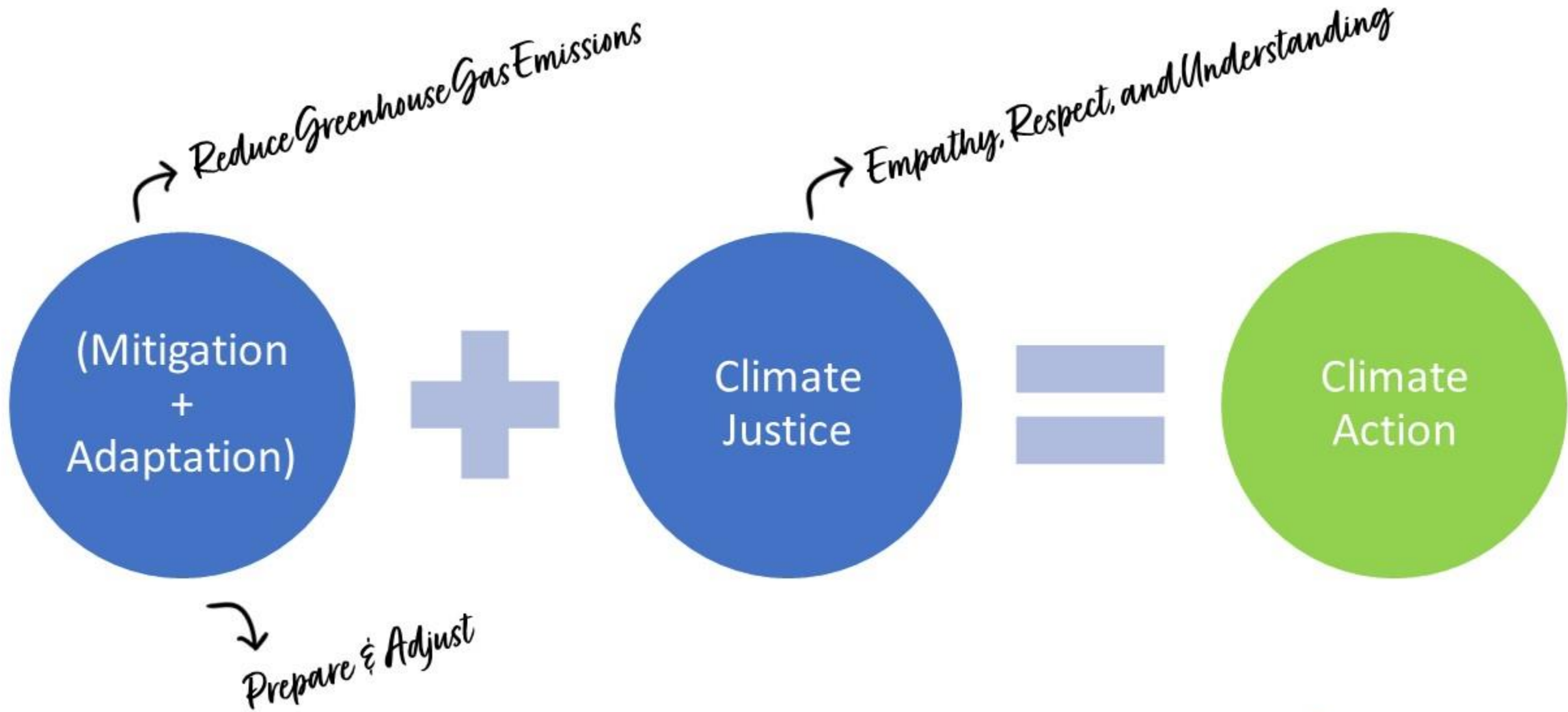
→ Reduce Greenhouse Gas Emissions



↘ Prepare & Adjust



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Adaptation)

↓
Prepare & Adjust



The National Risk Index, developed by FEMA, uses available data to predict a **baseline risk measurement** for each county and Census tract.

<https://hazards.fema.gov/nri/>

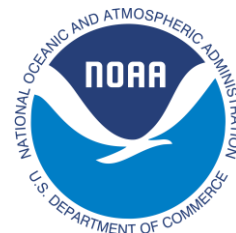
The Climate Explorer gives users a way to check how climate conditions in the United States are **projected to change** over the coming decades.



<https://crt-climate-explorer.nemac.org/>

Top Climate Hazards in the Northeast

- **Extreme Weather** (e.g. severe thunderstorms, severe snowstorms, ice storms, blizzards, hurricanes, and high winds)
- **More Intense and Extended Heat Waves**
- **Lower Air and Water Quality**
- **Changing Precipitation Patterns**
 - Flooding
 - Inland
 - Waterway
 - Coastal
 - Drought
- **Rising Sea Levels**



Aging Infrastructure

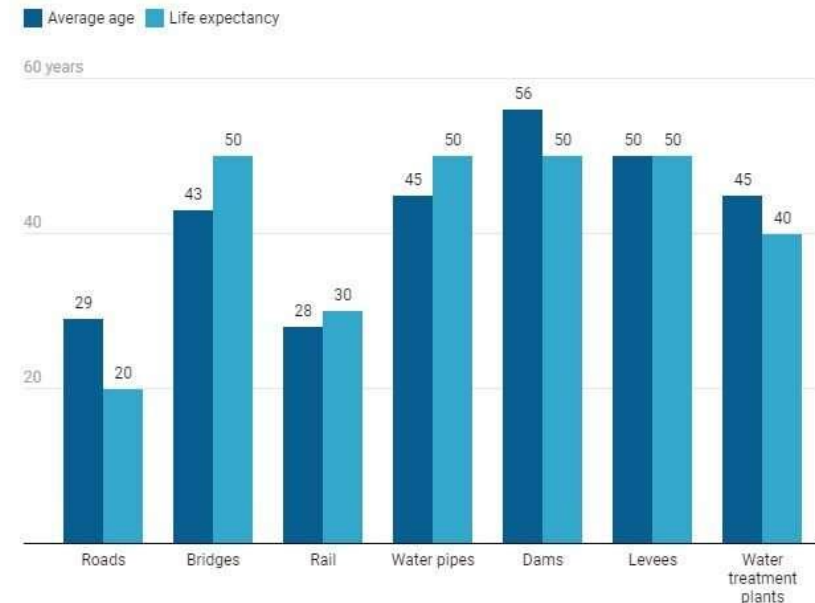
The Northeast has *the oldest industry and building inventory in the United States*, much of which was built along the coast and in estuaries—both of which are highly vulnerable to flooding.

See also:

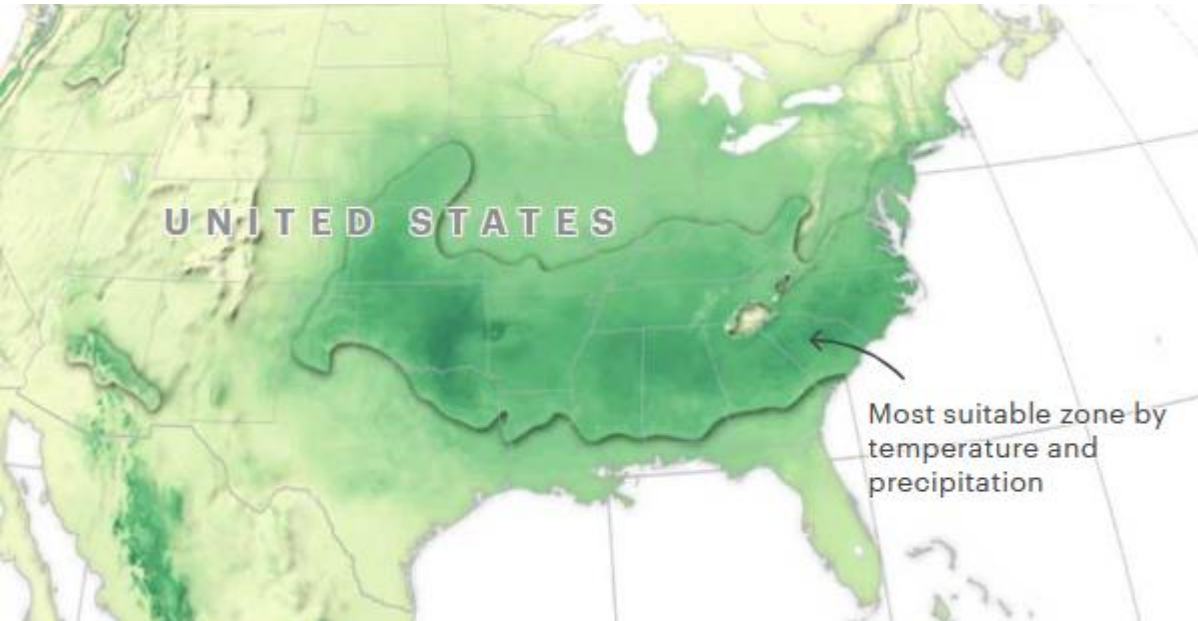
- Roads
- Bridges
- Railroad lines
- Water and Wastewater Pipelines
- Culverts
- Electrical Power Networks

Average age and life expectancy of US infrastructure

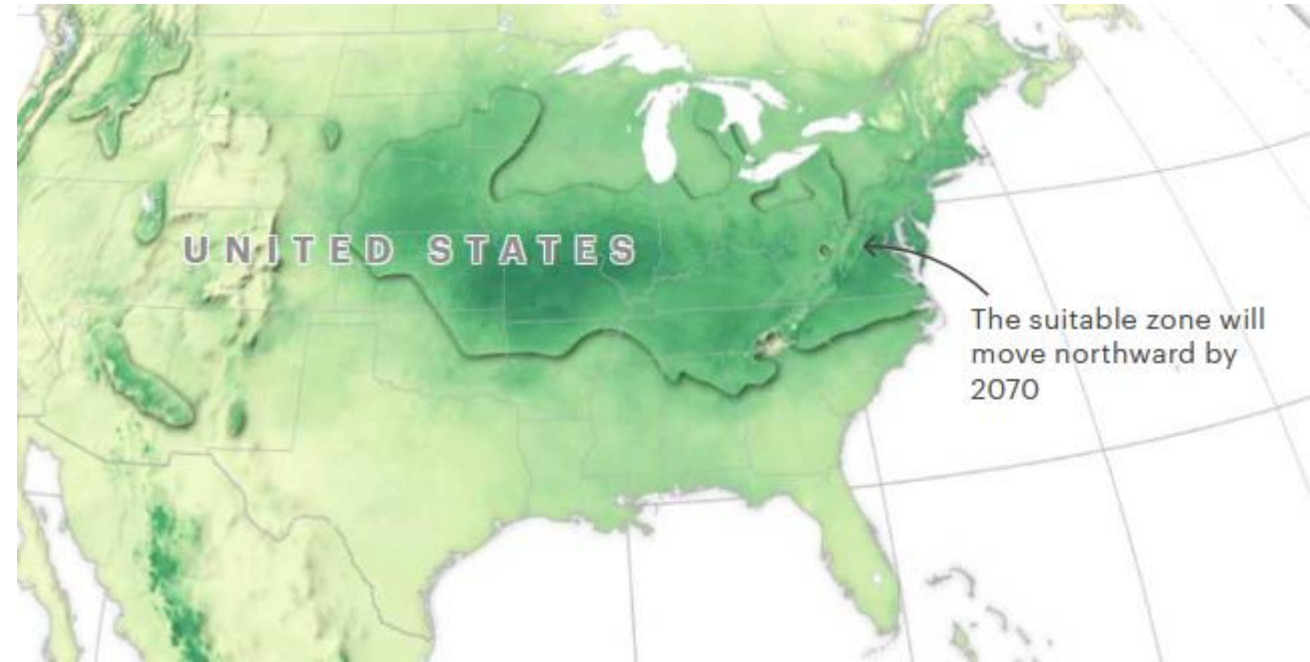
Across the U.S., the average age of roads, dams and water treatment plants is beyond the average life expectancy. Communities are experiencing the consequences.



Climate Havens



Today



2070



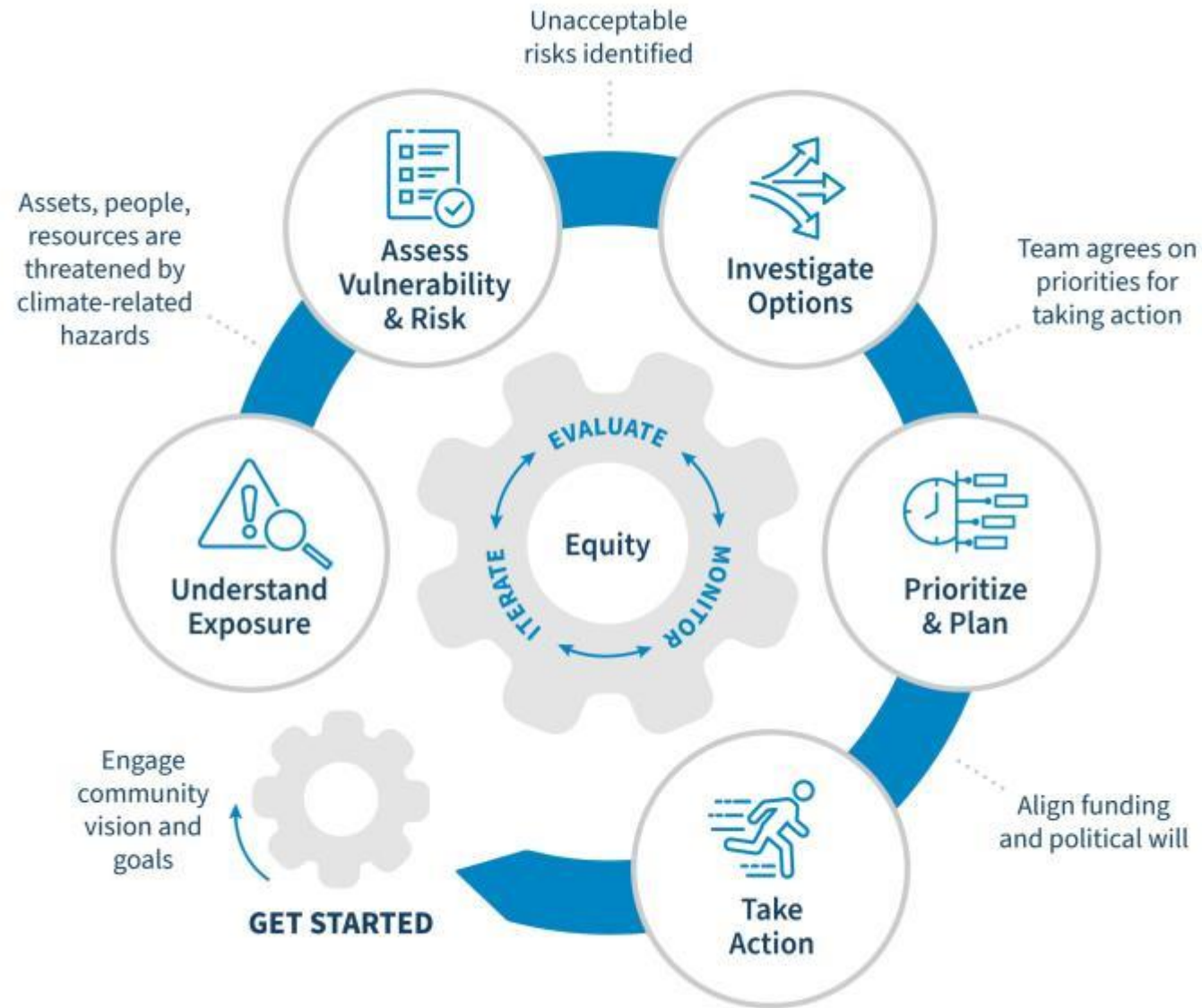
LIBRARIES SUFFER DAMAGES AFTER FLOODING



7:03
59°



The Steps to Resilience



Reduce Risk

1. Reduce Exposure

- Reduce the presence of assets in locations that could be adversely affected

2. Reduce Sensitivity

- Lower the degree to which a system is adversely affected

3. Increase Adaptive Capacity

- Raise the ability of natural systems to prepare for, adjust to, respond to, and recover from disruption

We live within an ecosystem.



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Triple Bottom Line Definition:

- Environmentally Sound
- Socially Equitable
- Economically Feasible

Buildings are also a system.



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Holistic Facility Rating Standards



Holistic Library Certification

Sustainable Library Certification Program

- Organizational Commitment
- Energy, Land, and Water Use
- Waste, Recycling, and Purchasing
- Partnerships
- Community Involvement
- Social Equity
- Community Resiliency
- Financial Sustainability
- Collections



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SCAN ME



Homework:

Your **board-approved facility plan** should prioritize climate change mitigation and adaptation actions right alongside accessibility and capacity issues.



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Concord Free





Public Library (MA)

Sustainability Plan



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BUILT ENVIRONMENT AND OPERATIONS

Goals	Strategies	Sustainable Concord Plan
1 GHG REDUCTION The Library has an implementation plan for its buildings to be carbon neutral in 2030.	1.1 Planning for net zero Develop a net-zero plan for existing buildings 1.2 Sustainable building principles Develop sustainable building principles for upgrades of all buildings 1.3 Sustainable operations guide Collaborate with the Town to create a sustainable operations and maintenance guide	BUILT ENVIRONMENT 
2 NATURAL RESOURCES The Library's landscape and grounds demonstrate resilience for the community.	2.1 Inventory practices Inventory current resilient landscaping practices of the Library 2.2 Sustainable landscape design Implement sustainable landscape design infrastructure and practices that support water conservation 2.3 Biodiversity Increase native biodiversity on Library grounds	NATURAL RESOURCES 
3 MATERIALS MANAGEMENT The Library's materials and resource system uses zero-waste principles.	3.1 Opportunities for zero waste Develop a zero-waste plan for operations 3.2 Evaluate waste stream Assess the current waste stream to better understand opportunities for waste reduction 3.3 Partnership with CPW Partner with Concord Public Works to demonstrate sustainable materials management	BUILT ENVIRONMENT 
4 MOBILITY The Library supports sustainable transportation options.	4.1 Commuting Understand transportation options for staff and commuting GHG emissions to and from the Library 4.2 Inter-building transportation Explore low-emissions transportation for inter-building Library collaboration 4.3 Low-emissions travel partnerships Create and promote partnerships with other Town institutions for low-emissions travel, including safe biking and pedestrian options	MOBILITY 

Adaptation Strategies



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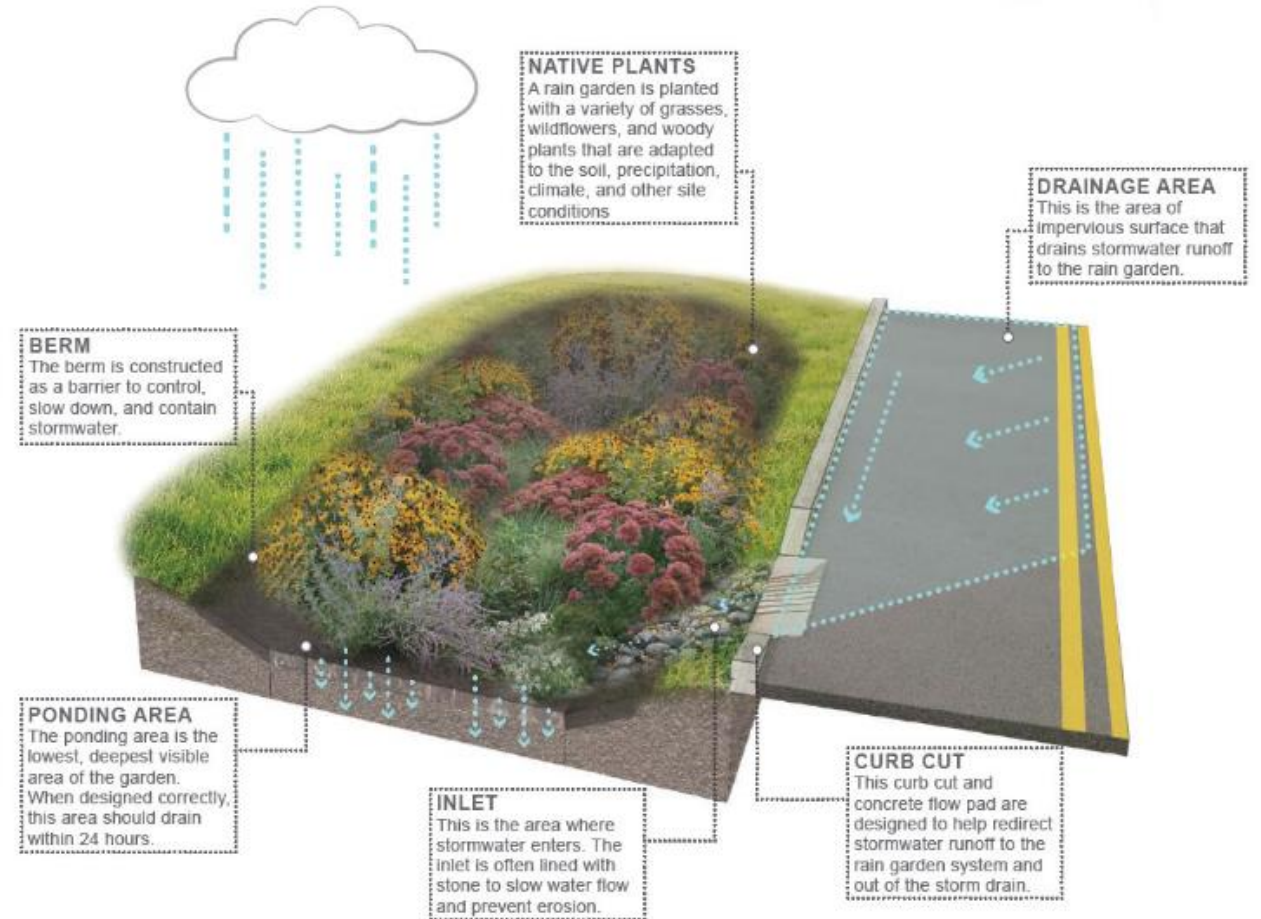
Flood Protection

- ✓ Avoid building in a floodplain unless you **elevate and reinforce** the facility
- ✓ **Elevate the HVAC equipment** if susceptible to flooding
- ✓ Install **check valves** in sewer traps to prevent flood water from backing up into the library
- ✓ Construct **barriers** to stop floodwater from entering the building
- ✓ **Seal walls in basements** with waterproofing compounds to avoid seepage



Green Infrastructure

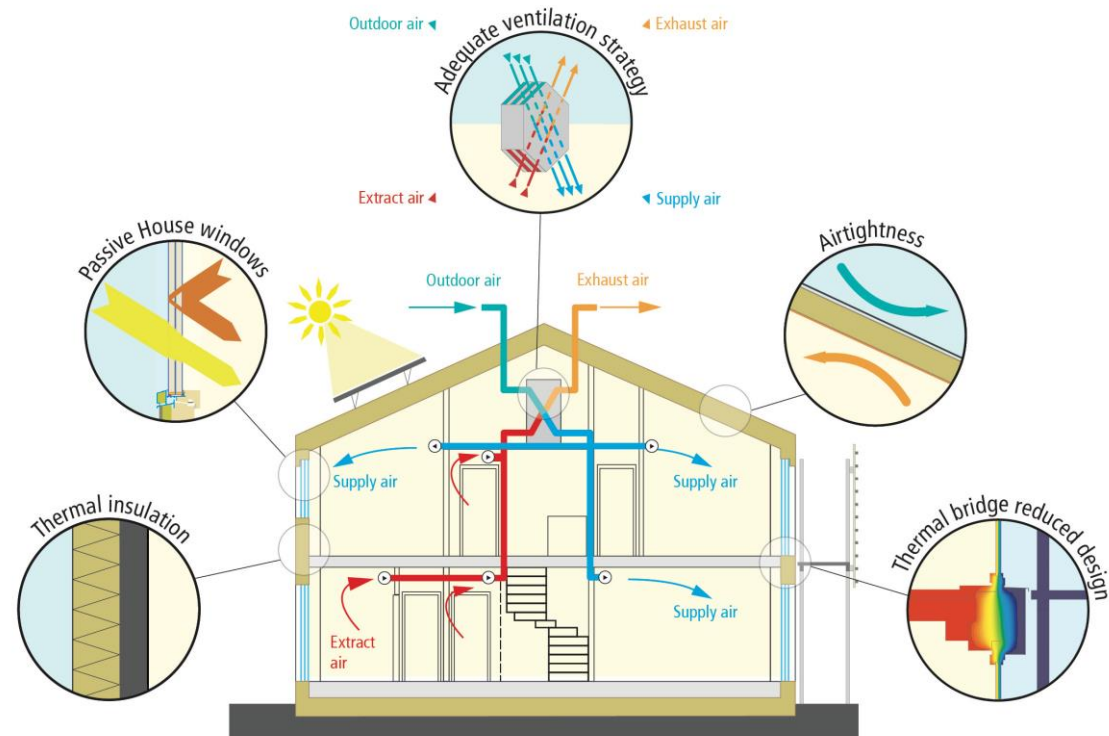
- Native Plants
- Stormwater Management
- Rain Gardens & Bioswales
- Permeable Pavement
- Protect Wetlands
- Trees, Trees, Trees



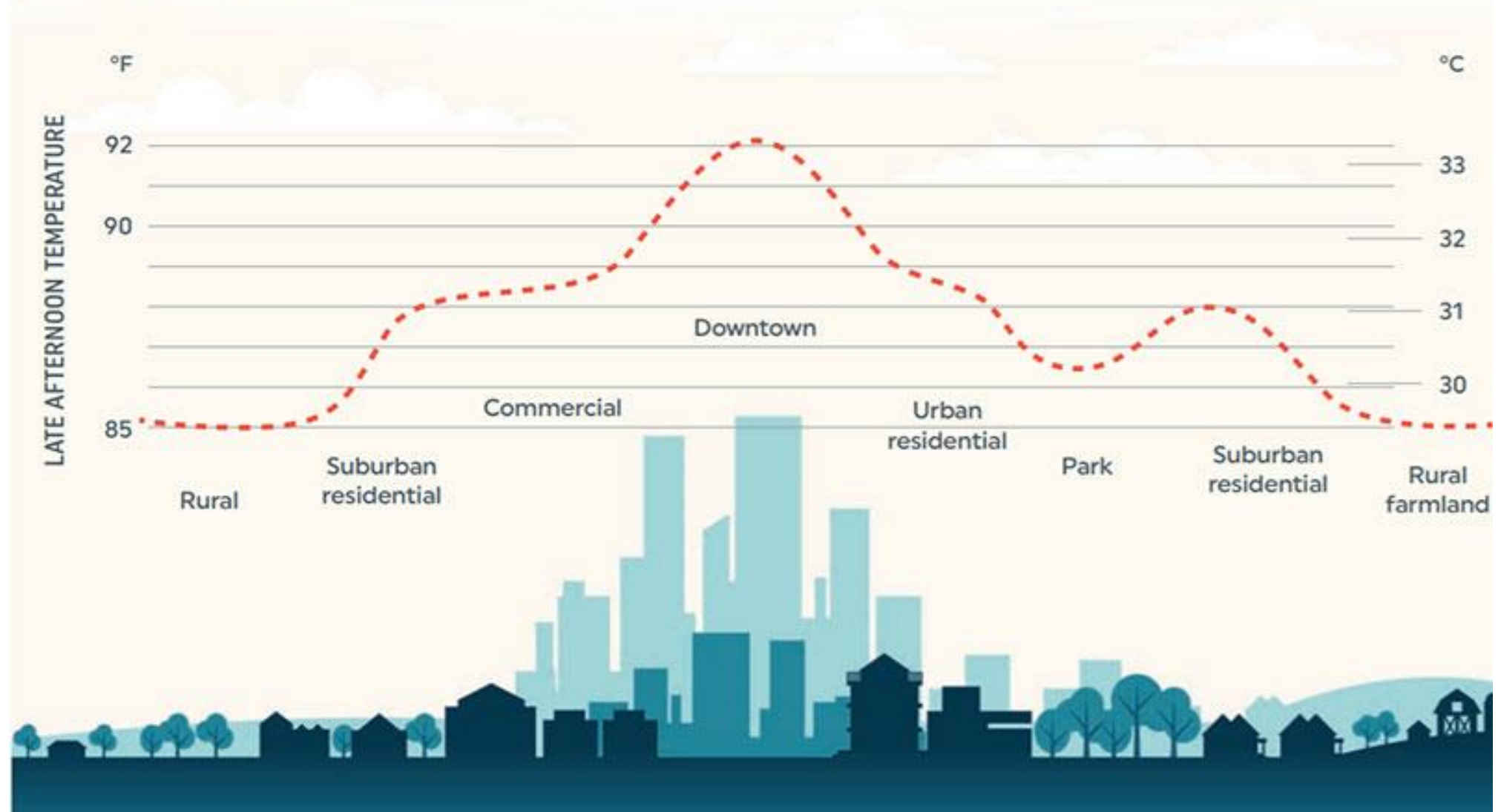
Building Envelope



Passive Design



URBAN HEAT ISLAND PROFILE

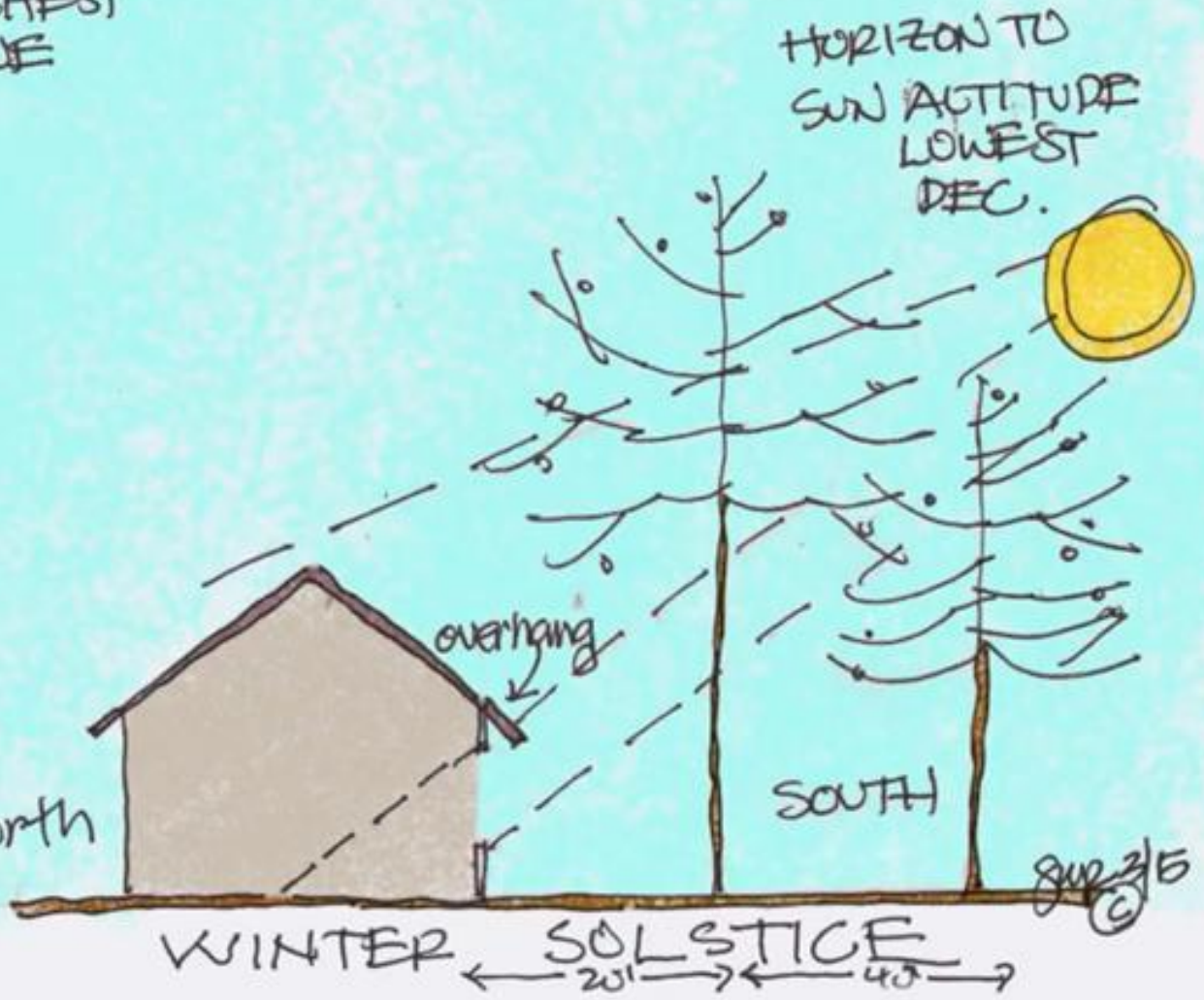
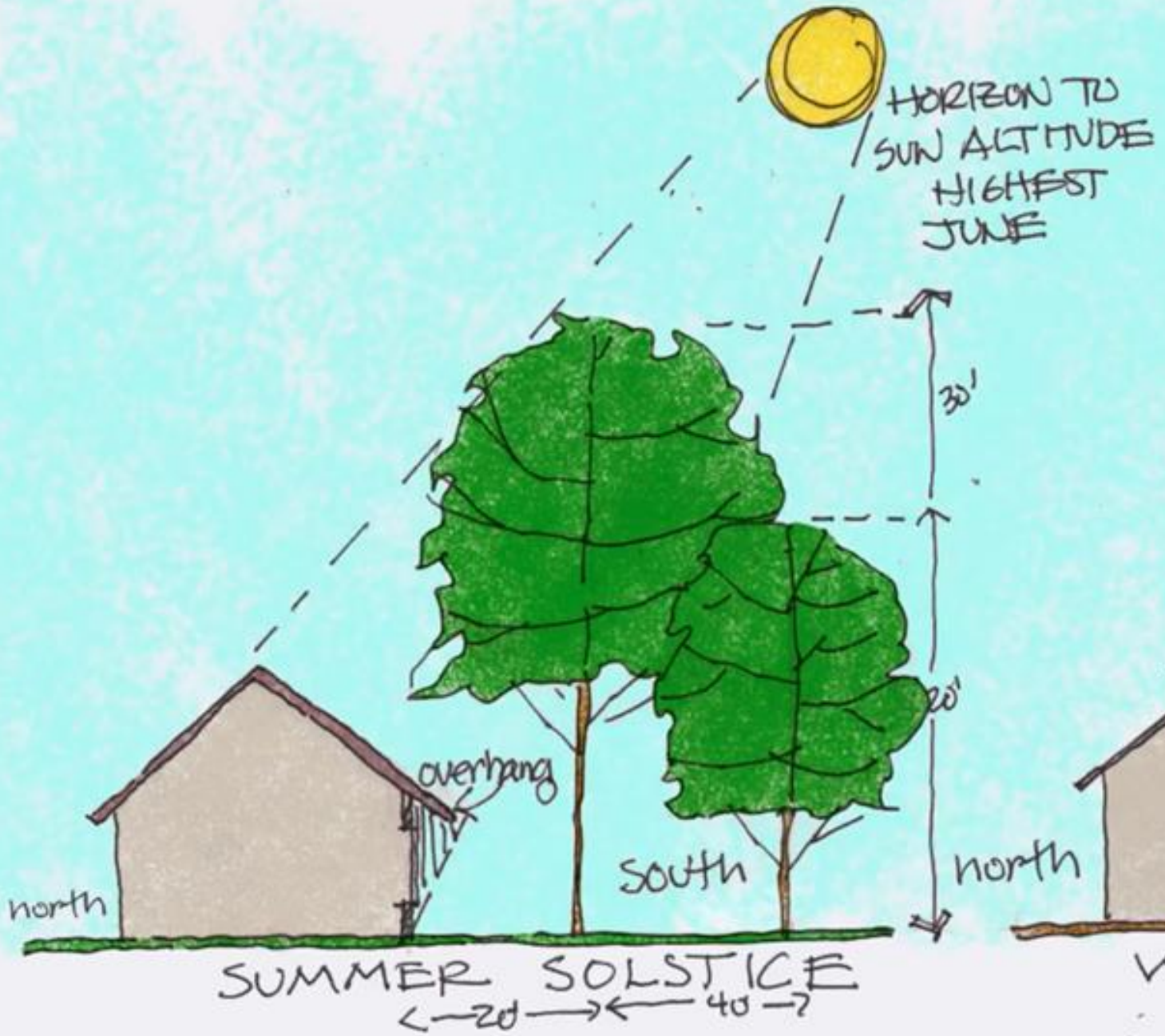


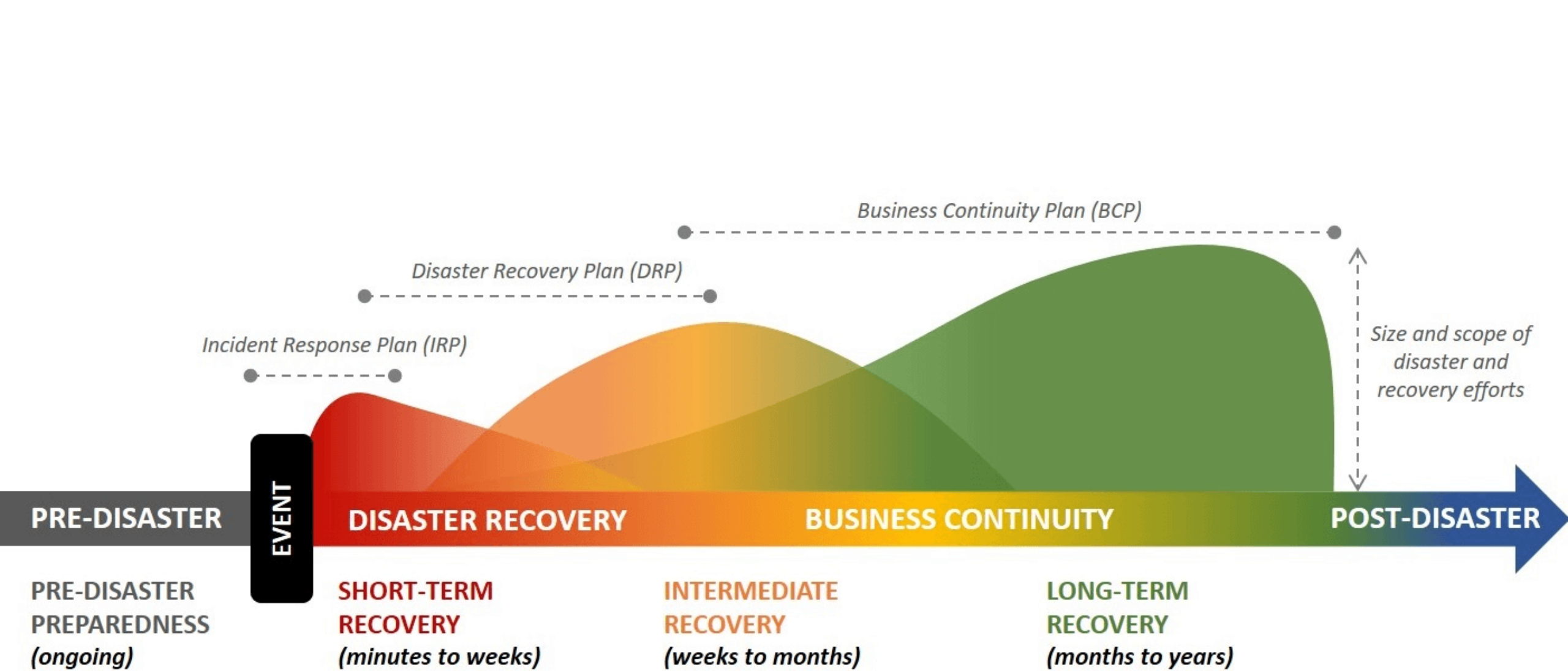
Keep Buildings Cool

- Operable Windows
- UV Blocking Glass
- Shade (e.g. porches, trees)
- High Thermal Mass Building Materials (stone, brick, concrete)
- “It depends...”
 - Light-Colored Roofs
 - Paints that Reflect Solar Radiation



Morton Memorial Library & Community House (Rhinecliff, NY) [1908]





Disaster Timeline, FEMA Disaster Recovery Framework

Refuge

Cooling

20-30% of households in the Northeast DO NOT have air conditioning.

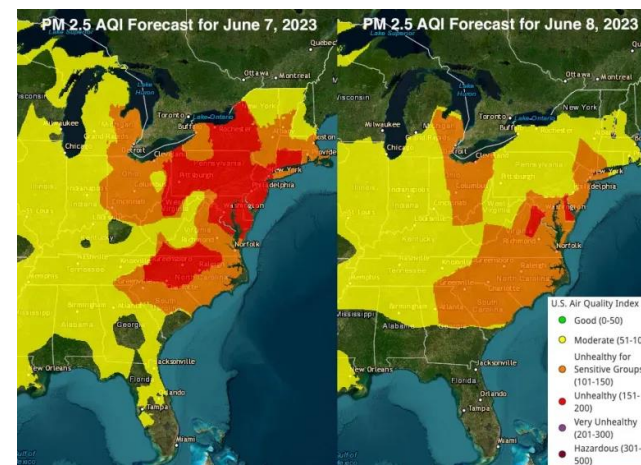
[2020 Residential Energy Consumption Survey](#) (RECS)

Warming

In 2023, heating aid applications increased by 15-20%. 20 million families are behind on payments to utilities.

National Energy Assistance Directors Association

Air Quality

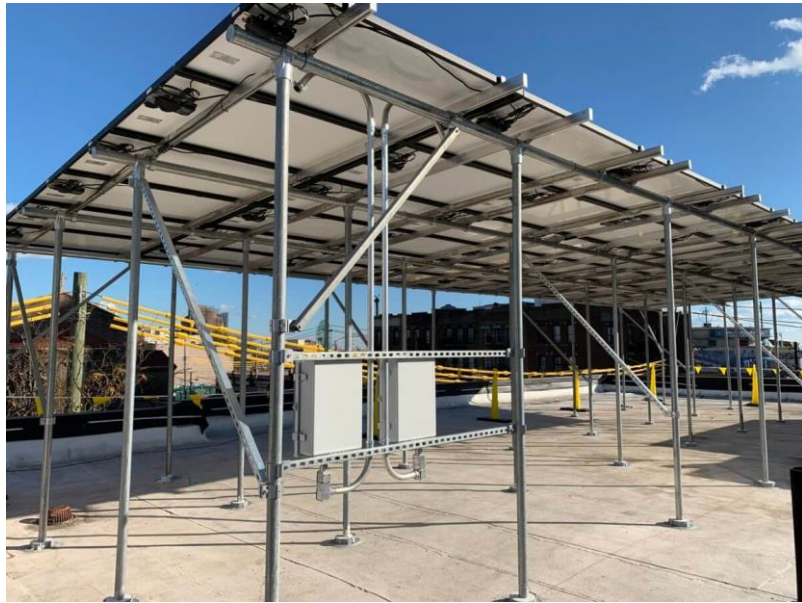


EPA Air Quality Index (AQI)



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Off the Grid = Solar + Storage



Brooklyn Public Library's Coney Island, Gerritsen Beach, Mill Basin, and Sheephead Bay branches all have solar + storage

Whole-Building Generator

A whole-building commercial generator **provides uninterrupted power during outages.**

Generators can run on gasoline, propane, natural gas, or **solar energy.**



Outdoor Spaces



Solar EV Charging



U.S. DEPARTMENT OF
ENERGY

Interior Design Considerations

Flexible Space

- Reconfigure in times of need
- Lighting
- Outlets (+more outlets!)



Storage

- Emergency Supplies
- Expanded Library of Things
- Folding Tables
- Pop-up Tents
- Portable Generators
- Portable Solar
- Power Strips
- Extension Cords
- Walkie-Talkies

The Resilient Design Principles

1. Resilience transcends scales.
2. **Resilient systems provide for basic human needs.**
3. **Diverse and redundant systems are inherently more resilient.**
4. **Simple, passive, and flexible systems are more resilient.**
5. **Durability strengthens resilience.**
6. Locally available, renewable, or reclaimed resources are more resilient.
7. **Resilience anticipates interruptions and a dynamic future.**
8. Find and promote resilience in nature.
9. Social equity and community contribute to resilience
10. Resilience is not absolute.





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Panel Discussion

- **Moderated by: Rebekkah Smith Aldrich, MLS, LEED AP, Executive Director, Mid-Hudson Library System & Co-Founder/Board President, Sustainable Libraries Initiative**

With...

- **Rachel Breen, Director, Norwell Public Library, Massachusetts**
- **Margaret Woodruff, Director, Charlotte Public Library, Vermont**



Tuesday, August 9 at 2pm



Charlie Cart
*Salsa
Stories*







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9:30AM - 12:30PM | VIRTUAL SUMMIT

Sustainable Library Certification Program

- **Matthew Bollerman, MLS, CEO, Hauppauge Public Library & Co-Founder/Vice President,**
 **Sustainable Libraries Initiative**
- **Rebekkah Smith Aldrich, MLS, LEED AP, Executive Director, Mid-Hudson Library System & Co-Founder/Board President,**
 **Sustainable Libraries Initiative**



**Sustainable
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Initiative**

Our Mission

Empowering library leaders to advance environmentally sound, socially equitable, and economically feasible practices to intentionally address climate change and co-create thriving communities.



Sustainability = Core Value





Triple Bottom Line Definition:

- Environmentally Sound
- Socially Equitable
- Economically Feasible



**EVERY
JOB
IS A
CLIMATE
JOB**

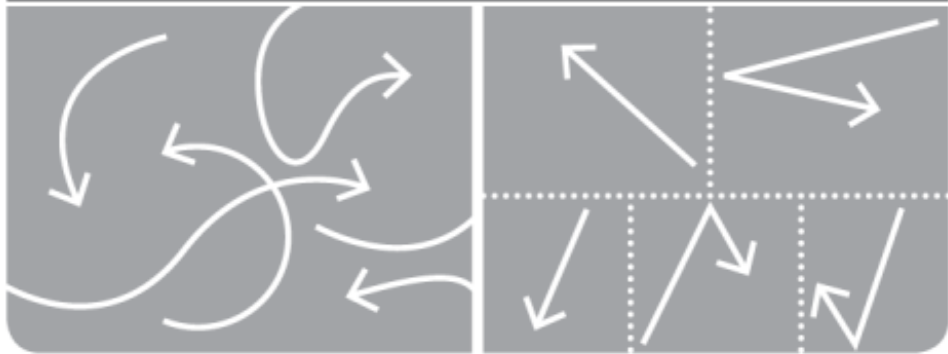
**PROJECT
DRAWDOWN.**



CENTER FOR THE FUTURE OF LIBRARIES

ALA American Library Association

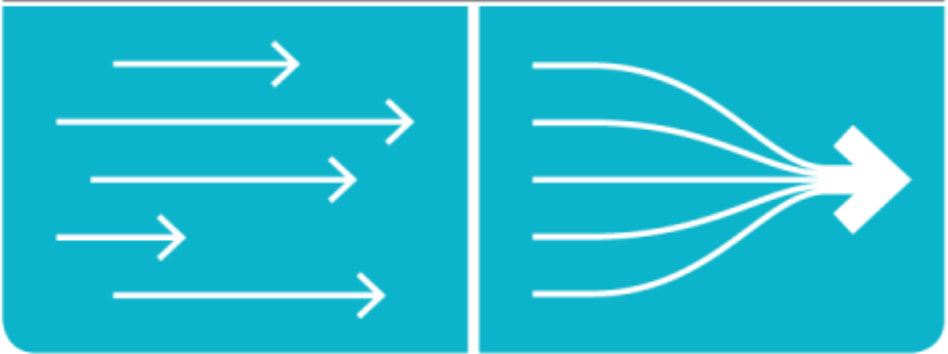
OLD / CURRENT BEHAVIOR



DISORDER & CONFUSION

ISOLATION

NEW BEHAVIOR



ALIGNMENT

COLLECTIVE IMPACT

Graphic: AllHandsRaised.org

Sustainable Libraries

- ✓ **Strong & Authentic Institutions** that live their values out loud
- ✓ Catalyst for **Social Cohesion & Civic Participation** in Communities
- ✓ Working on **Climate Mitigation** (reducing Greenhouse Gas Emissions (GhG))
- ✓ Active Participants in **Climate Adaptation** (strengthening community resilience)



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SUSTAINABLE LIBRARIES INITIATIVE



Read Map to

SUSTAINABILITY



Sustainable Library Certification Program



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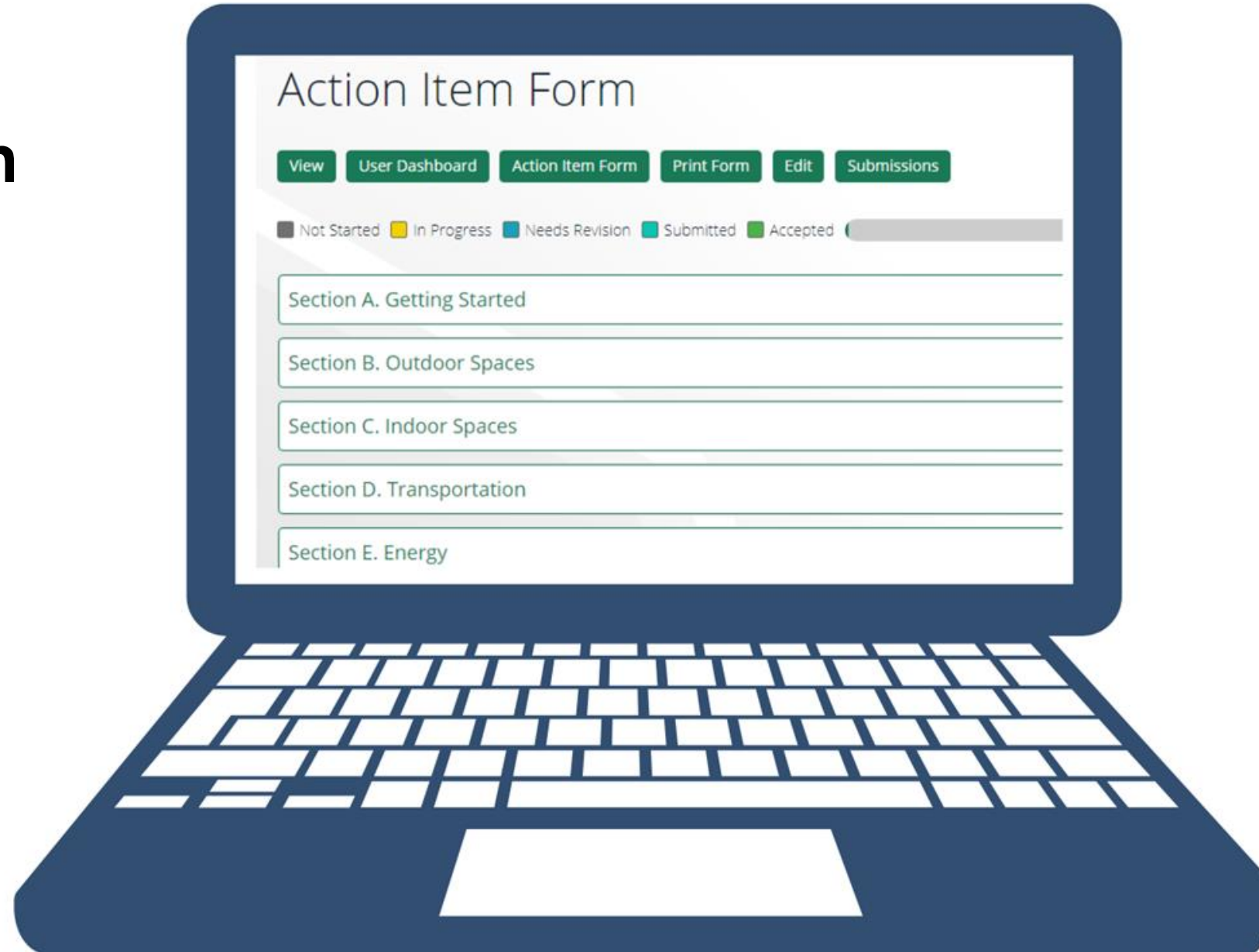
<https://sustainablelibrariesinitiative.org/>

Sustainable Library Certification Program

- Step-by-Step Format
- Guidance from a Mentor
- Built-in Resources
- Community of Practice



**Sustainable
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Sustainable Library Certification Program

Public & Academic Libraries

- Organizational Commitment
- Energy, Land, and Water Use
- Waste, Recycling & Purchasing
- Partnerships
- Community Involvement
- Social Equity
- Community Resiliency
- Financial Sustainability
- Collections

SCAN ME



School Librarians

- Partnerships & Community Involvement
- Leading Beyond the Library
- Social Equity & Resiliency
- Standards & Curriculum
- Collections



**Sustainable
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<https://sustainablelibrariesinitiative.org/>

Required Actions



Accepted

B.1: Site Management Plan (Library Systems)



Accepted

B.2: Assess for Light Pollution (Library Systems)



Accepted

B.3: Litter Free Outdoor Spaces (Library Systems)



Accepted

B.4: Invasive Plants (Library Systems)



Accepted

B.5: Native Plants (Library Systems)



Accepted

B.6: Planting Areas (Library Systems)



Accepted

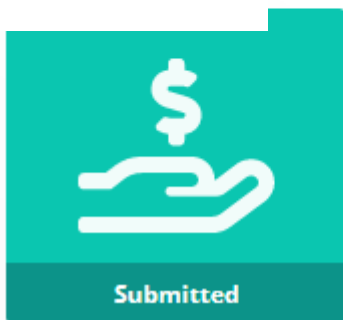
B.7: Chemical Pesticides (Library Systems)



Accepted

B.8: Herbicides (Library Systems)

J.1: Mission Statement / Policy / Board Resolution



Demonstrate, through a mission statement, policy, board resolution or long-range plan, commitment to addressing community resiliency.

Resources

- **Community Resilience Challenge, Transition United States**
- **Community Resilience, RAND Corporation**
- **Strategic Plan (2013-2017), Bellingham Public Library (page 7)**
- **Values Statement, West Vancouver Memorial Library**
- **Community Resilience and Public Libraries: Post Crisis Information and Connectivity, Shari R. Veil, MBA, Ph.D. & Bradley Wade Bishop, Ph.D., University of Kentucky**

Files

MHLS-Plan-of-Service-2022-2026.pdf

Notes

Through the current long-range plan the board has prioritized work in the area of community resiliency through The Library of Local Project. This project has resulted in five libraries being granted resources and support to be community resilience hubs and, in 2022, will add 11 more libraries to this project. We are truly committed to positioning libraries to be a catalyst for community resilience.

Benefits of Certification

- A Path Forward
- Reflective Process
- Step-by-Step Transformation
- Community of Practice
- Professional Development and Engagement
- Partnerships for Collective Impact
- Raise the Profile of the Library as a Recognized Leader on the topic of Climate Action and Community Resilience



It's a journey, not a destination.



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FREE DINNER FOR ALL

FRIDAY NOVEMBER 19TH, 2 PM AND 5 PM

Register online at:
<https://curtislibrary.libcal.com/event/8467234>

MAINE
SNAP-Ed
 Healthy Eating on a Budget

Merrymeeting Cleaners
at MCHPP

MCHPP
 Mid Coast Hunger Prevention Program

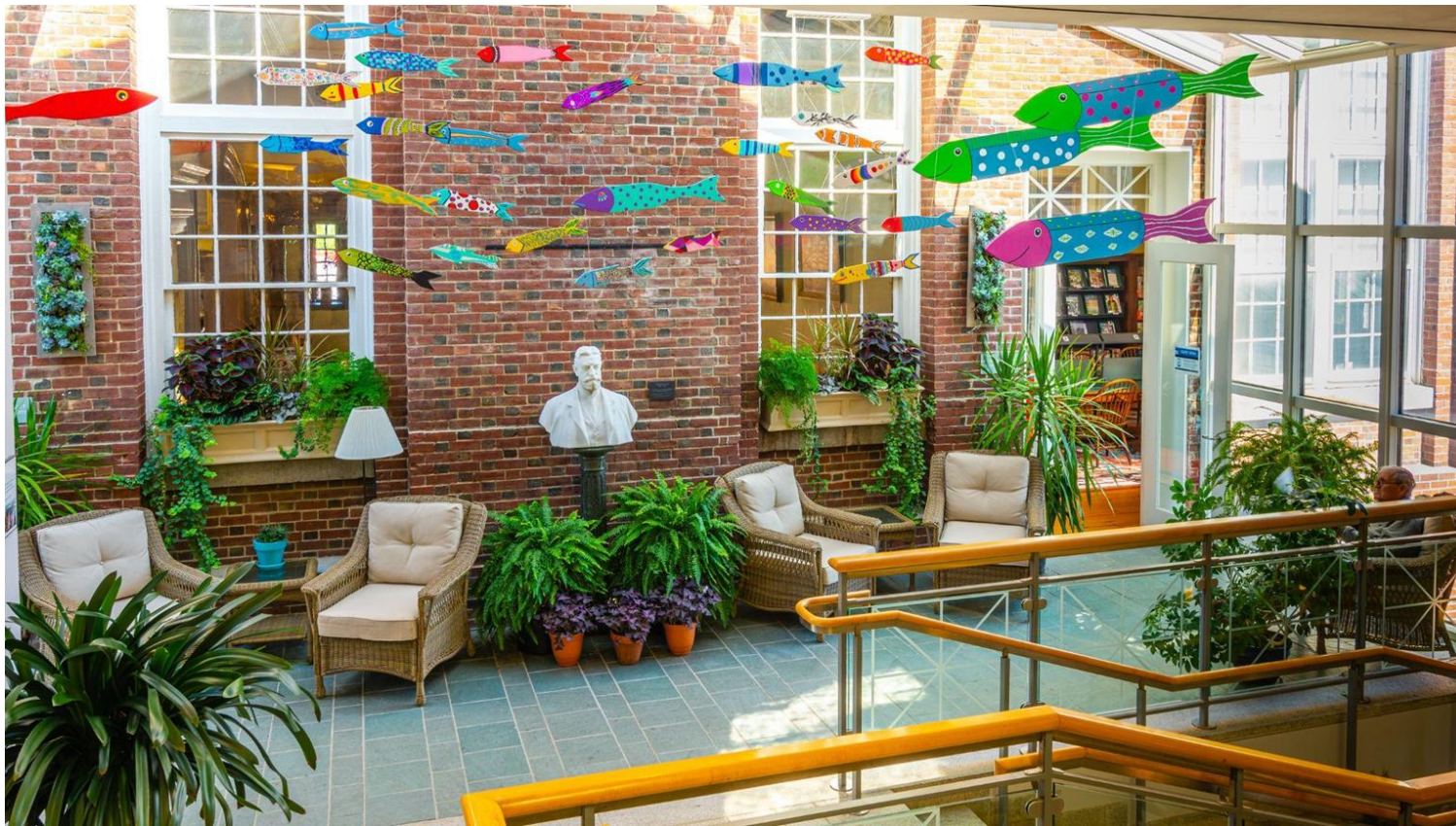
CURTIS MEMORIAL LIBRARY
A World of Possibility

JOIN US FOR SUPPER

Collect free groceries and make a unique meal with our community in a special two-part event.

On Friday afternoon at 2PM meet at Curtis Memorial Library to pick up your free cookbook and walk over with us to learn how the MCHPP Food Pantry works. Together we'll shop for food that meets our preferences and dietary needs. After making our selections we will deliver that food box back to your car at the Library. Later that evening login to a 5 PM zoom class to learn how to reduce food waste and cook a custom meal with nutrition educator Ally Messier.

WWW.CURTISLIBRARY.COM



KEY TO LIGHTING PRIORITY

- All Hours & Cleaning Crew
- Public Hours ONLY
- Night & Dark Days – ONLY IF NEEDED



 MAMAKATING
LIBRARY



<https://www.libraryoflocal.org/>

- Tool Lending
- Seed Library
- Special Collections
 - Food Security (Y1)
 - Climate Solutions (Y2)
- Programming
- Alignment with NYS Climate Smart Communities



FUTURE SUSTAINABILITY GOALS

- Continue to operate the building as sustainably as possible.
- Continue to educate our staff and patrons about green buildings and sustainability.
- Reduce waste by 5% each year.
- Decrease business travel by 15% by 2025.
- Increase green purchasing by 5% each year.
- Seek out additional community partnerships.
- Find new ways to bring library services out to the Longwood community.

Final Report | Longwood Public Library

Getting Started

At your library:

- Education for Key Stakeholders
- Understand: This is work. But not always “new” work.
- Form your 1st Generation Sustainability Team



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With the Certification Program:

- Contact the Sustainable Libraries Initiative
- Web Site Orientation
- Meet Your Mentor
- Staff Survey
- Form 2nd Generation Team
- Rank the Actions in each Section:
 - What have you already completed?
 - What is in progress?
 - What is brand new to your library that will require a strategy?
- Build Your Plan
- Come to the Monthly Meet-Ups

Growing Community of Practice

100+ libraries across the country are enrolled

- Access to the final presentations of certified libraries
- Sample policies
- Vendor list populated by libraries in the program
- Practical advice at monthly meet-ups
- Stories from the field in our monthly newsletter



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“You've got to think about **big things** while you're doing **small things**, so that all the small things **go in the right direction.**”

-Alvin Toffler , futurist



Sustainable Libraries Initiative

<https://sustainablelibrariesinitiative.org>



**20% discount
for MLA, NJLA,
and NYLA
Members**

Free

- Newsletter
- Mobile App
- Webinars
- Resources
- Facebook Page & Instagram

FREE FOR MLA, NJLA, NYLA MEMBERS

- Curated Resources
- Access to On Demand Training
- CO₂ Calculator
- Vendor and Program Ideas
- American Library Association - SLI eCourse

Sustainable Library Certification Program

- Online Dashboard to Track Action Items
- Example policies, program ideas, and more
- Assigned Mentor
- Meet Ups with Others in the Program