

PRESERVATION PRIORITY

Sustainability and Climate Action

PRESERVATION PRIORITIES TASK FORCE



National Trust for
Historic Preservation®

PRESERVATION PRIORITIES

This publication is one of four Issue Briefs created by the Preservation Priorities Task Force, a partnership of the National Trust for Historic Preservation and the National Preservation Partners Network. Formed in 2020, this two-year project brings together preservation advocates from across the country to help statewide and local organizations address four significant, interrelated issues facing the preservation movement:

- Affordable housing and density
- Diversity, inclusion, and racial justice
- Preservation trades and workforce development
- Sustainability and climate action

These challenges are not new. Preservation organizations have grappled with them for years and many are making great strides. Yet the magnitude and complexity of these issues can prove daunting for organizations working on their own. Effective messaging, innovative policies, compelling case studies, and best practices can be hard to find. There is an urgent need for coordinated and collaborative action across the preservation movement.

Not intended as comprehensive studies, the four Issue Briefs are designed to build mutual understanding of these topics, spark conversation, and inspire action at the local and state levels. Preservation organizations and advocates are encouraged to use the Issue Briefs in any number of ways—as guides for discussions with community leaders and stakeholders, background for outreach to potential partners, support materials for fundraising efforts, and more.

The Issue Briefs also provide a foundation for the next phase of this initiative: developing practical tools for use by preservation organizations, advocates, and practitioners across the country. For more information and to learn how you can participate in this effort, visit preservationpriorities.org.

INTRODUCTION: FROM BELIEFS TO ACTION

In 2007, Richard Moe, President of the National Trust for Historic Preservation at the time, gave an important speech at the National Building Museum. As part of his remarks accepting the museum's Vincent Scully Prize, he made a strong case for preservation's important role in advancing sustainability and combating climate change:

“Any solution to climate change must address the need to reduce emissions by being smarter about how we use our buildings and wiser about land use. I am not so naïve as to believe that preservation represents the way out of this environmental crisis. But I do believe that historic preservation can be—and must be—a key component of any effort to promote sustainable development.”¹

Since that speech was delivered, the climate crisis has accelerated and deepened. Rising sea levels, stronger hurricanes, unprecedented flooding, and more frequent wildfires are putting people, places, and communities at risk, including many cultural sites and historic districts.² Over 60 percent of Americans report that they are experiencing climate impacts in their communities. Two-thirds support increased federal action to address this critical issue.³

In 2020 at the National Trust's annual conference, PastForward, more than 500 preservationists gathered for a virtual Town Hall on preservation and climate change. Participants watched video commentaries from preservationists across the country, learned about climate impacts from the coastlines of Nantucket to the foothills of Los

Angeles, and heard how tribal nations on Long Island and in South Dakota are responding to a changing landscape. A poll taken during the Town Hall found that almost all participants agreed that “historic preservation can play an important role in mitigating the severity of climate change and adapting to its impacts.” But what does that important role look like? What actions can preservationists take to meaningfully address such a complex, global issue?

In considering preservation's role in a warming world, it is important to distinguish between two related but distinct categories of climate action: mitigation and adaptation. According to the National Aeronautics and Space Administration (NASA), climate mitigation includes “measures to reduce the amount and speed of future climate change by reducing emissions of heat-trapping gases or removing carbon dioxide from the atmosphere.”⁴

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Buildings generate 39 percent of annual carbon emissions worldwide—more than industry or transportation. There are approximately 125 million buildings in the U.S. About 50 million are at least 50 years old. As stewards and experts on older buildings, preservationists are well positioned to help reduce carbon emissions and mitigate climate change through building conservation, reuse, and retrofitting.⁵

Actions to reduce carbon emissions will help slow and reduce the impacts of climate change, but adaptation to the impacts of climate change is also necessary. NASA defines adaptation as “adjusting to actual or expected future climate with the goal of reducing vulnerability to the harmful effects of climate change.” Whether it is increasingly frequent hurricanes, regular “100-year” floods,⁶ or fire seasons that start early and burn late, the impact and cost of climate change grow every year. When climate disasters strike, preservationists are often on the front lines as communities react and recover.

Preservationists are accustomed to acting in a crisis, and climate change is the biggest crisis we will ever face. As writer and climate activist Bill McKibben told attendees at the 2009 National Preservation Conference in Nashville, “climate change is the ultimate change of context.” This Issue Brief focuses on some of the climate challenges facing the preservation community and points to opportunities for climate action by preservation advocates, agencies, and organizations.

Sustainability and climate action in practice

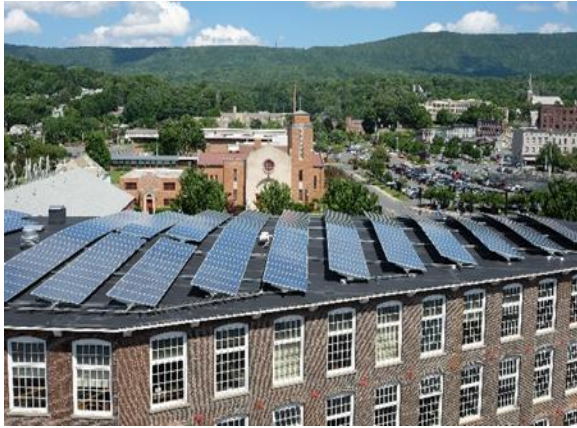
The 2015 Paris Agreement calls for dramatic reductions in carbon emissions, with the goal of “holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.” To limit temperature increases to no more than 1.5°C, net carbon emissions from building construction and operations must decline rapidly, dropping to zero by 2050. This will require greater energy efficiency measures, as

well as electrification of all building systems (tied to an energy grid powered by renewable sources) and increased use of on-site and community solar power.

While the scope of change needed to eliminate carbon emissions from buildings may seem overwhelming, transformation is already underway. More than 470 mayors have committed to climate action by joining the Climate Mayors coalition. Dozens of California cities are moving to prohibit gas hookups to new buildings. Denver voters recently approved a \$40 million sales tax increase to fund climate action goals, including electrification of all buildings citywide by 2040. The Biden administration is proposing significant investments in renewable energy and building efficiency.

As the transformation of our buildings and energy infrastructure accelerates, preservationists must position older buildings as assets for climate mitigation and counter the common perception that they are leaky energy hogs.

A range of preservation efforts have focused on sustainability and climate action in recent years, from groundbreaking Preservation Green Lab research to the annual Keeping History Above Water conferences and the international advocacy of the Climate Heritage Network. Yet many outside the field still perceive preservation as out of step with climate goals, as seen in a 2020 New York Times op-ed criticizing preservationists for making it difficult to install solar panels in historic districts.⁷ Although preservationists have promoted the use of solar panels and other sustainable rehabilitation practices for years, the coming wave of ambitious



Reusing and retrofitting older buildings reduces carbon emissions. Significant carbon emissions were avoided through the reuse of a large, vacant industrial complex to create Mass MoCA, a contemporary art center in North Adams, Massachusetts. Solar panels on the roof demonstrate how renewable energy technologies can fit well with historic structures. Photo: Jim Lindberg

climate policies will challenge the field to embrace more flexible and creative climate mitigation practices, from moving buildings to deconstruction and material salvaging.

Across the country, preservationists are helping to design and implement recovery and adaptation responses that balance preserving history with safety, responsible planning, and economic sustainability. Vulnerable historic communities such as Nantucket, Massachusetts and Annapolis, Maryland are adopting new preservation practices in response to rising sea levels and more frequent flooding. States from Connecticut to California are developing cultural heritage adaptation plans.⁸

As Hurricane Katrina, the Camp Fire in California, and other climate-related disasters have shown, communities of color are often hit hardest by the impacts of climate change, compounding issues of inequity and lack of opportunity.

Preservationists must advocate for equitable resilience strategies that protect not only buildings, but more importantly, the people who live and work in them.

As retreat and relocation increasingly become the only viable options for some especially vulnerable communities, preservationists will be challenged to accept the loss of treasured places. Perhaps one of the most difficult issues related to climate change will be how to document, memorialize, and say goodbye to historic sites, neighborhoods, and communities.

CHALLENGES AND OPPORTUNITIES

While not a comprehensive list, below are four areas of preservation practice where there is strong potential for collaborative action and the development of practical resources to assist preservationists across the country in their efforts to address climate change.

Misperceptions about preservation and climate change

Preservation is easily lost in larger conversations about climate change. When it does come up, many outside the field have misperceptions: they may believe that older buildings are not energy efficient, that older windows cannot be repaired, or that landmarks commissions rarely approve solar panels. These common sticking points can cause divisions and prevent alliances with partners in related fields such as planning, green building, community development, and environmental justice.

Preservationists need a set of simple, memorable messages to communicate more broadly about climate change and historic places.

Communication must also include listening and learning about the needs of the people who are most vulnerable to the impacts of climate change, including communities of color, older adults, people with disabilities, and those living in isolated rural areas.

Opportunities:

- Develop clear communication with the audience in mind, from climate experts and policy makers to residents, Main Street groups, community development leaders, and other partners.
- Highlight the economic impacts of inaction, including issues of climate justice and the need for more equitable mitigation and adaptation strategies to support vulnerable communities.
- Create a national database and map of climate change threats to cultural resources, borrowing from the example of the National Trust UK's maps of climate change threats.
- Use data and specific examples to create easily understood stories and graphics explaining how saving old buildings reduces carbon emissions from construction and avoids the need to consume resources and manufacture new materials.
- Translate technical, industry-specific information related to climate adaptation and make it more understandable and useful for building owners, tenants, community members, and local boards and officials.

- Use documentation and storytelling to engage communities in preserving intangible heritage and preparing for loss when the physical preservation of historic and culturally significant places is no longer realistic or feasible.

Need to better align preservation standards and guidelines with climate action

The urgent need to mitigate and adapt to climate change requires that, to every extent possible, preservation standards and guidelines be linked with sustainability and climate action goals. The most common guidance used by preservationists at all levels is the Secretary of the Interior's Standards for the Treatment of Historic Properties (the "Standards").

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Are the Standards effectively guiding efforts to reduce carbon emissions and increase the climate resilience of historic sites, neighborhoods and districts, Main Streets, and cultural and natural landscapes? Should the Standards and the decision-making framework they offer not only allow, but specifically encourage low carbon and

climate resilient treatments for historic properties?

Should new treatments for relocation and deconstruction be added to the current list of four treatments described in the Standards (Preservation, Rehabilitation, Restoration, and Reconstruction)? How can preservation standards and guidelines more effectively address the connections between climate change and issues of equity, racial justice, and economic development?

Opportunities:

- Work with the National Park Service, National Trust, National Preservation Partners Network, National Conference of State Historic Preservation Officers, National Alliance of Preservation Commissions, National Preservation Institute, and Main Street America to support development of a process to review, update, and interpret the Standards. Involve state and local preservation organizations, Main Street programs, and local historic preservation commissions to pilot new approaches.
 - Survey building owners and community members to better understand how the Standards are working and how they might be updated to address climate, equity, environmental justice, and economic impacts.
 - Share accessible, jargon-free information on applying the Standards for state and local government staff to use in working with property owners, community organizations, and other stakeholders.
- Add guidance to the Standards for climate impacts beyond flooding, such as increased wildfire risk.
 - Offer training for those working in compliance at every level to ensure that staff receive up-to-date guidance on sustainable practices, climate justice, disaster planning, and climate adaptation.
 - Assist FEMA in updating their 2005 guide, Integrating Historic Property and Cultural Resource Considerations into Hazard Mitigation, and the 2008 National Flood Insurance Program publication, Floodplain Management Bulletin—Historic Structures.

Implications of climate change for preservation policy

Effectively addressing climate change will require significant shifts in public policy, including many that could impact preservation. For example, more robust federal action on climate change may lead to landscape-altering investments in renewable energy infrastructure and market-changing carbon policies that could significantly affect the work of preservation.

At the local level, the need for affordable housing and calls for greater density may overwhelm attempts by preservationists to make a climate mitigation case for building conservation and reuse. Yet preservationists share many goals with climate activists and policy makers, such as making buildings more energy efficient, conserving building materials, and planning for future floods, fires, and sea level rise. To influence climate policy, preservationists will need to step outside the confines of our field, explain the

importance of preservation, and be ready to offer new policy ideas and solutions.

Opportunities:

- Engage proactively to help shape climate policies at all levels, from building electrification to changes in flood insurance policies, and offer creative ideas and solutions.
- Rather than seeking exceptions from energy efficiency requirements and flood management policies, position and showcase older buildings as models of sustainable and resilient design, capable of meeting the highest standards.
- Promote building conservation and reuse policies—such as landmark and conservation districts, rehabilitation tax incentives, and adaptive reuse ordinances—to local leaders as key climate mitigation and adaptation strategies.
- Center equity and climate justice in policy advocacy efforts to address the inequitable and dangerous climate impacts faced by under-resourced communities.
- Expand and promote building materials conservation policies, such as more stringent demolition review, higher tipping fees, and deconstruction requirements.
- Look for policies that require minimal legislative action, create incentives for property adaptation, or can be implemented administratively.

- Partner with practitioners in community and economic development, planning, energy, and environmental conservation to build political support and secure funding for larger-scale initiatives.
- Develop accessible and equitable incentives to encourage residential and commercial property owners to make their older buildings more energy efficient and to assist with climate adaptation.
- Incorporate energy efficiency into historic rehabilitation tax incentives at the federal and state levels.

Need for accessible case studies and examples

For preservationists seeking to take action on climate change, the unprecedented scale and scope of the issue can make it difficult to know how and where to start. In addition, there are two distinct action categories, and it may not be clear which is more important: mitigation or adaptation? In many places, both are urgently needed. As preservationists tackle these major new challenges, many are seeking examples from other communities.

Although numerous historic climate mitigation and adaptation projects have been completed and documented as case studies, most examples are not well-known, even within the preservation community. The lack of a central repository of common methods for documenting and measuring outcomes makes it difficult to



Preservationists are helping to design and implement innovative solutions to make historic sites and communities more resilient to the impacts of climate change. The rendering above illustrates how landscaping can be used to protect historic structures from more frequent flooding, such as the Llambias House, a 1763 structure in the historic center of St. Augustine, FL. Preservationists are recognizing that in some cases more significant changes may be necessary, such as raising or moving historic buildings. Image: from the Resilient Heritage in the Nation's Oldest City report, courtesy City of St. Augustine.

compare techniques and approaches. In addition, the potential audience for case studies is as diverse as the disciplines involved: state and local government leaders, Main Street organizations, historic site managers, conservators, architects, planners, engineers, historians, preservation commissions, nonprofit organizations, and others.

As experts in historic buildings, adaptive reuse, and community and economic development, preservationists can drive community dialogue—especially at the local level—around preferred interventions and best practices. Case studies are vital in illustrating the potential for positive change and capturing the imagination of

stakeholders who may not describe themselves as preservationists.

Opportunities:

- Develop a template that state and local organizations can use to effectively communicate practical advice and provide examples of how to address climate change mitigation and adaptation at different scales.
- Solicit, compile, and share online case studies—both successes and cautionary tales—from preservationists and other key networks via a centralized site that is updated as tools evolve.

- Encourage contributions to case studies by non-preservation partners in fields such as economic development, disaster management, green building, and resilience planning.

CONCLUSION

The urgency of the climate crisis is becoming more apparent every day. Preservationists recognize the need to prepare for and adapt to current and future climate impacts. We believe that saving buildings can help reduce carbon emissions. We are ready to act. In coming months, working in partnership with other organizations and allies, the Sustainability and Climate Action Working Group will be developing new resources to help state and local preservation advocates lead stronger and more effective climate action in their communities.

ADDITIONAL RESOURCES

[The Greenest Building: Quantifying the Environmental Value of Building Reuse](#), National Trust Preservation Green Lab (2011). Through analysis of eight building types in four climate zones this research study found that it can take between 10 and 80 years to overcome the carbon debt that is incurred when an existing structure is replaced, even if the new building is highly energy efficient.

[Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings](#), National Park Service (2011). These guidelines recommend how to make historic buildings more sustainable in a manner that preserves their historic character and meets the Secretary of the Interior’s Standards for Rehabilitation.

[Weather It Together](#), City of Annapolis (2015). This model Cultural Resource Hazard Mitigation Plan was developed by the City of Annapolis in collaboration with FEMA, consultants, and community members. It highlights the city’s efforts to address the local impacts of climate change on cultural resources through proactive hazard mitigation planning. Interactive maps, participatory GIS, surveys, photo crowdsourcing, and other elements were incorporated to provide a platform for resident and stakeholder involvement.

[Guidelines on Flood Adaptation for Rehabilitating Historic Buildings](#), National Park Service (2019). These guidelines provide recommendations and examples about how to adapt historic buildings to be more resilient to flooding risk in a manner that preserves their historic character and meets the Secretary of the Interior’s Standards for Rehabilitation.

[Future of Our Pasts: Engaging Cultural Heritage in Climate Action](#), International Council on Monuments and Sites (2019). This report explains how cultural heritage relates to the goals of the Paris Agreement, “including heightening ambition to address climate change, mitigating greenhouse gases, enhancing adaptive capacity, and planning for loss and damage.”

NOTES

- 1 Richard Moe, “Sustainable Stewardship: Historic Preservation’s Essential Role in Fighting Climate Change,” Vincent Scully Prize speech at the National Building Museum, Washington, D.C., December 13, 2007.
- 2 Union of Concerned Scientists, National Landmarks at Risk: How Rising Seas, Floods, and Wildfires Are Threatening the United States’

Most Cherished Historic Sites, May 21, 2014,
<https://www.ucsusa.org/sites/default/files/2019-09/National-Landmarks-at-Risk-Full-Report.pdf>

- 3 “Two-Thirds of Americans Think Government Should Do More on Climate,” Pew Research Center, June 2020.
- 4 National Aeronautics and Space Administration (NASA) Global Climate Change,
<https://climate.nasa.gov/>
- 5 U.S. Energy Information Administration, Commercial Buildings Energy Consumption Survey (CBECS) (Washington, D.C.: U.S. Energy Information Administration, 2012); Residential Energy Consumption Survey (RECS) (Washington, D.C.: U.S. Energy Information Administration, 2015).
- 6 FEMA defines 100-year flood zones as areas where there is a one percent chance each year, over a 100-year period, that a property will be flooded. Over the course of a 30-year mortgage this translates to a 26 percent chance of property flooding due to an extreme storm event. From “The 100 Year Flood Myth,” Federal Emergency Management Agency,
<https://training.fema.gov/hiedu/docs/hazrm/handout%203-5.pdf>
- 7 Binyamin Appelbaum, “When Preservation Hurts Cities,” The New York Times, January 26, 2020,
<https://www.nytimes.com/2020/01/26/opinion/historic-preservation-solar-panels.html>
- 8 Historic Preservation and Resiliency Planning in Connecticut: Strengthening State and Local Plans in an Era of Climate Change, Connecticut State Historic Preservation Office, 2019.

COVER PHOTO

Flooding in the historic City Dock area of Annapolis, Maryland. Rising sea levels, greater storm surges, and more regular “100-year” floods are challenging preservation and community leaders across the country to develop solutions that balance safety, resilience, and the protection of historic sites and neighborhoods. Photo: Courtesy City of Annapolis.

About the Preservation Priorities Task Force

Established through a formal agreement between the National Trust for Historic Preservation and the National Preservation Partners Network, the task force includes four working groups, one for each issue, plus a steering committee and a communications subcommittee. To date, more than 50 preservation practitioners have joined working groups, representing 23 states and dozens of organizations. A full list of task force members is available at preservationpriorities.org.

What's coming next?

The working groups will spend the next year developing and sharing new resources to support efforts by preservation advocates related to each of the four issues. These resources may include key messages and talking points, policy examples, case studies, one-pagers, tip sheets, and webinars. This growing set of tools will be available at preservationpriorities.org.

Join us!

The more voices we have involved in this project, the better it will be. Please consider lending your valuable expertise and perspective. For instance, you can:

- Join a working group to help with the next phase
- Share a case study related to one of the priority issues
- Use an Issue Brief in your work and let us know how it goes
- Spread the word about this project within your networks

To get involved, please visit preservationpriorities.org or contact:

Rebecca Harris, National Preservation Partners Network, rharris@prespartners.org

James Lindberg, National Trust for Historic Preservation, jlindberg@savingplaces.org

We look forward to working with you!

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