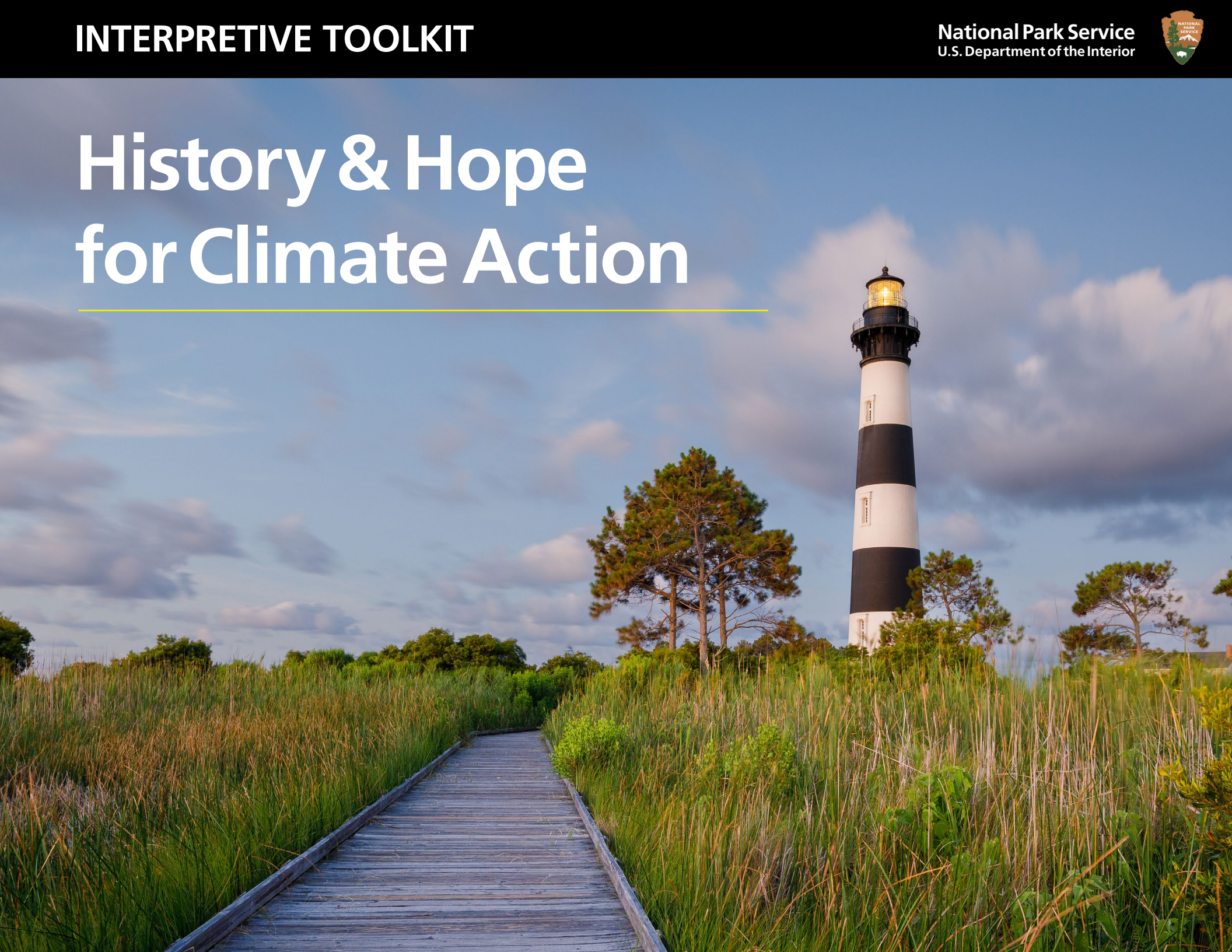




History & Hope for Climate Action



History & Hope emerged from a question:

How can we talk about the present and future of climate change at a site that has focused on interpreting the past?

This idea started at Rosie the Riveter/WWII Home Front National Historical Park, when we realized that even though we thought about climate change all the time, we didn't interpret it. Most climate interpretation we had seen focused on the science and impacts. That lens not only made it harder for cultural sites to interpret climate change but seemed to create an emotional distance between the topic and visitor. Climate change is a topic for all sites because it's a story about people. We had to find a way to connect history to climate, and we were certain other interpreters were facing this question too. This toolkit is the result of that search.

As interpreters, we had already experienced the power of stories to introduce people to new perspectives. We'd watched as people created meaningful connections from stories of the past to their lived experiences, and seen it reshape their understanding of the future. In this moment of climate

crisis, could stories be the catalyst for people to better understand their role in climate change and take action?

We know you already have the tools and skills to tell nuanced stories that create productive conversation. All across the country—from scenic glacial vistas to memory-laden battlefields—interpreters inspire and facilitate dialogue that helps visitors view the world and their role in it a little differently.

We hope this toolkit sparks fresh ideas and empowers you with new tools to address the increasingly urgent issue of the climate crisis and our collective capacity to do something about it.

Donna Graves
Public Historian

Elizabeth Villano
Climate Communication
Ranger, NPS Climate Change
Response Program

CONTENTS

Pages 2–14 are a quick overview of the toolkit. Start there!

OVERVIEW

- 2 Authors' Note
- 4 How to Use this Toolkit
- 5 Start with Stories
- 6 3-Step History & Hope Process
- 7 Example Story

- 8 **1** **LENSES**
HOW TO FRAME YOUR STORY

- 9 **2** **LESSONS LEARNED**
WHAT WE LEARN FROM YOUR STORY

- 10 **3** **ACTIONS**
COLLECTIVE AND EFFECTIVE CLIMATE ACTION

- 11 **FEATURED STORIES**
- 14 **YOU GOT THIS!**



DEEP DIVE

- 15 Explore more on each step
- 16 **Lenses**
- 37 **Lessons Learned**
- 45 **Actions**

APPENDIX

- 57 History & Hope Philosophy
- 61 Questions and Answers
- 71 Acknowledgments
- 73 Photo Credits
- 74 Notes

How to Use this Toolkit



This toolkit is full of ideas to help you incorporate climate change into your site stories.

Don't let the word "history" turn you away; this toolkit is designed for all sites to make climate change as relevant as possible. Find your connection in the following pages!

The Overview section briefly explores History & Hope's 3-step approach. It introduces each step and walks you through example stories.



The next part is a Deep Dive into each step. There, you'll find ideas that spark connections to your site, and more example stories. A [Q+A section](#) explores commonly asked questions, and the History & Hope Philosophy section dives into the research and ethos behind the toolkit.

You can find a Worksheet that helps you apply the toolkit at nps.gov/subjects/climatechange/historyhope.htm.

EXAMPLE STORY: Maggie L. Walker National Historic Site

HOW DOES A HISTORIC HOME CONNECT TO CLIMATE CHANGE?

1 Lens <ul style="list-style-type: none">• Mobilization• Creativity and Innovation✓ Path• Security and Safety• Indigenous Knowledge <p>As a civil rights leader, bank president, and newspaper publisher, Walker worked tirelessly to enhance the political and economic power of African Americans and women. She also transformed the way she powered her home from gas to electricity and traded in her horse and carriage for an electric automobile. Walker's home reflects the "hubs" of progress in changing technologies and how they have been fueled. Stories about these aspects of our daily lives are central to the history of climate change.</p>	2 Lesson Learned <ul style="list-style-type: none">✓ Emulate• Reveal Harms and Imagine Solutions• You Are! <p>Massive and rapid technology shifts aren't new. These shifts often start with early adoption, and then scale to societal levels. Can you even imagine having to get around in a horse and carriage? We're in a similar moment today. This time, the shift is to affordable, sustainable energy which will both help us combat climate change and give us cleaner air to breathe.</p>	3 Action <ul style="list-style-type: none">• Communicate• Climate Action Vision Diagram✓ UN's Sectoral Solution <p>Walker's home reflected her vision and was one way she worked to make the world a better place. Experts have laid out a roadmap for decarbonizing buildings, including our homes, through wind, solar, and other renewable energy sources. To honor Walker's legacy, we can work together to be sure everyone gets access to renewable energy at an affordable price.</p>
--	--	--



CREATING YOUR OWN 1-2-3
Notice that this 1-2-3 uses one bullet from each step to build the story. A more in-depth look at each step starts on [page 15](#).

Example stories demonstrate how our simple step-by-step approach works for a range of sites. See this example [on page 7](#).

Start with Stories



- **DO YOU ASK YOURSELF** how to talk about climate change at your site?
- **DO YOU LOOK** for ways to make climate change relevant to your visitors?
- **DO YOU WONDER** how to move people to climate action?

LET US HELP YOU put people and history at the center of the story.

The 3-Step History & Hope Process

To build your story, select one bullet from each column.
Learn more about each step in the Deep Dive section starting on [page 15](#).

1

Lenses

Frame your site's story using a question below.

- **Mobilization**
How have people worked together for change?
- **Creativity and Innovation**
How do we tap into these qualities to create change?
- **Path**
How did we get to this moment of climate change?
- **Security and Safety**
How do we identify and address perceived threats?
- **Indigenous Knowledge**
How do we act on place-based wisdom?

2

Lessons Learned

What the story teaches us about ourselves and a climate future.

- **Emulate**
What positive lessons can the past teach us?
- **Reveal Harms and Imagine Solutions**
What aspects of the past do we not want to replicate?
- **Yes And**
How do we embrace the complexities of history?

3

Actions

Move visitors to effective and collective climate action.

- **Communicate**
How do we share our climate concerns?
- **Climate Action Venn Diagram**
How can people find their own climate superpowers?
- **UN's Sectoral Solution**
What do climate experts say about decarbonization?

EXAMPLE STORY: Maggie L. Walker National Historic Site

HOW DOES A HISTORIC HOME CONNECT TO CLIMATE CHANGE?

1

Lens

- Mobilization
- Creativity and Innovation
- ✓ Path
- Security and Safety
- Indigenous Knowledge

As a civil rights leader, bank president, and newspaper publisher, Walker worked tirelessly to enhance the political and economic power of African Americans and women. She also transformed the way she powered her home from gas to electricity and traded in her horse and carriage for an electric automobile. Walker's home reflects the path of progress in changing technologies and how they have been fueled. Stories about these aspects of our daily lives are central to the history of climate change.

2

Lesson Learned

- ✓ Emulate
- Reveal Harms and Imagine Solutions
- Yes And

Massive and rapid technology shifts aren't new. These shifts often start with early adopters, and then scale to societal levels. Can you even imagine having to get around in a horse and carriage? We're in a similar moment today. This time, the shift is to affordable, sustainable energy which will both help us combat climate change and give us cleaner air to breathe.

3

Action

- Communicate
- Climate Action Venn Diagram
- ✓ UN's Sectoral Solution

Walker's home reflected her vision and was one way she worked to make the world a better place. Experts have laid out a roadmap for decarbonizing buildings, including our homes, through wind, solar, and other renewable energy sources. To honor Walker's legacy, we can work together to be sure everyone gets access to renewable energy at an affordable price.



CREATING YOUR OWN 1-2-3

Notice that this 1-2-3 uses one bullet from each step to build the story. A more in-depth look at each step starts on [page 15](#).

1 LENSES: How to Frame Your Story

Think of an important story from your site that addresses one of the Lenses' questions. Some stories may address multiple Lenses, but try to just focus on one at first.

Ranger Note:

Your story in Step 1 doesn't have to relate to climate change yet—you'll get to that in Step 2.

- **MOBILIZATION**

How have people worked together for change?

Encourage conversations about past movements that were successful in creating change. We know that collective action against the climate crisis is needed now. [For more, see page 18.](#)

- **CREATIVITY AND INNOVATION**

How do we tap into these qualities when we need to change?

Consider how we will adapt to shifting climatic conditions by drawing inspiration from times when people adapted to change with creativity and innovation. [For more, see page 22.](#)

- **PATH**

How did we get to this moment of climate change?

This Lens helps us connect past decisions about how society has used resources over time. Choices that paved the way for systems like industrialization and extraction had unintended consequences that we are now experiencing as the climate crisis. [For more, see page 25.](#)

- **SECURITY AND SAFETY**

How do we identify and address perceived threats?

This Lens supports conversations about how we have addressed past threats, both large and small. It can highlight the potential dangers and benefits found when we have faced threats and give us the opportunity to reflect on the current and future threat of climate change. [For more, see page 29.](#)

- **INDIGENOUS KNOWLEDGE**

How do we act on place-based wisdom for living sustainably?

Draw upon techniques of living harmoniously with our environment. Indigenous Knowledge is built on experience and data collected by many generations to chart a more sustainable relationship with the land. [For more, see page 32.](#)

Explore what we can learn from your story, and how it relates to climate change.

- **EMULATE**

What positive lessons can the past teach us?

Past innovations, movements, and successes remind us that change has happened before and can happen again. These stories inspire us forward. [For more, see page 39.](#)

- **REVEAL HARMS AND IMAGINE SOLUTIONS**

What aspects of the past do we not want to replicate?

Some stories contain deep harms that still have effects on people and places today. Learning about these stories calls on us to correct past wrongs. [For more, see page 41.](#)

- **YES AND**

How do we embrace the complexities of history?

History is often a complex blend of lessons. This nuanced view lets us emulate the stories' positive attributes while learning from and correcting harms. [For more, see page 43.](#)



You'll find that some of your Lessons Learned bring up "difficult" histories. Don't avoid them—they are often crucial parts of the history that created climate change. For more on this, see [the Q+A section on page 61.](#)

We've identified three approaches that can help visitors find their own path to collective and effective climate action.

- **COMMUNICATE**

How do we share our climate concerns?

A highly effective climate action is communicating concern about climate change with your communities and civic leaders.¹ This helps normalize concern for the climate. [For more, see page 47.](#)

- **CLIMATE ACTION VENN DIAGRAM**

How can people find their own climate superpowers?

Developed by climate activist and marine biologist Dr. Ayana Elizabeth Johnson, the Climate Action Venn Diagram guides people to find their own personalized climate action.² [For more, see page 49.](#)

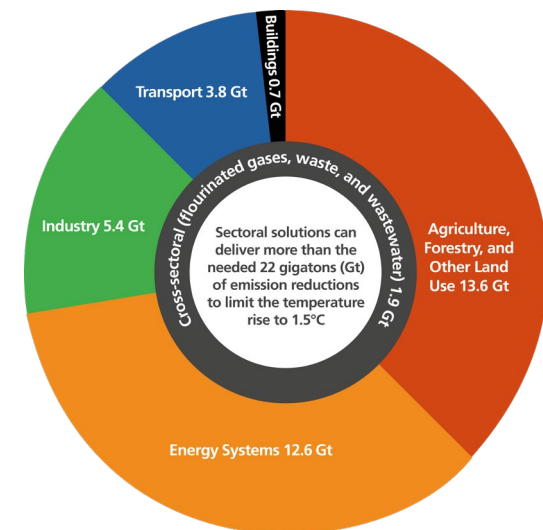
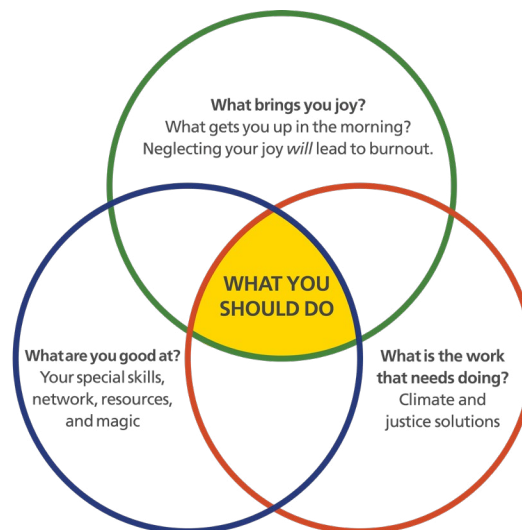
- **UN'S SECTORAL SOLUTION**

What do climate experts say about decarbonization?

It's not too late to do something about climate change! Explore the types of actions that experts at the United Nations say are the most effective in decarbonizing.³ [For more, see page 51.](#)

LEFT: This Climate Action Venn Diagram was created by Dr. Ayana Elizabeth Johnson to help people find their own unique climate action.

RIGHT: To avoid catastrophic climate change, we need to slash global emissions. Experts at the UN laid out a roadmap to do that by targeting six key sectors.



FEATURED STORY **ROSIE THE RIVETER /WWII HOME FRONT NATIONAL HISTORICAL PARK**

People have joined together to make big changes in the past—just as we can now to change the course of the climate crisis.*

1

Lens

- Mobilization

Rosie the Riveter/WWII Home Front National Historical Park tells the story of how the US mobilized around a common cause during World War II (WWII). In just a few years individuals, communities, businesses, and government all transformed to win the war against fascism. It was a remarkable time, but not everyone was included. For example, over 120,000 Japanese Americans were wrongfully incarcerated.

2

Lesson Learned

- Yes And

We can use WWII “total mobilization” as a hopeful precedent for tackling large problems quickly as we envision our approach to mobilizing around climate. We know people can do it; we’ve done it before! How can we learn from this example of mobilization by emulating its achievements while correcting its wrongs? Interpreters at the park asked people which cause they wanted people to mobilize around next, and tabulated their responses; climate change was the most common.

3

Action

- Communicate

Seeing how many other people are concerned about climate change lets people know they’re not alone. Continue to share this concern with friends, family, and civic leaders!



* You'll see this story again in Step 1 when we explore the Mobilization Lens starting on [page 18](#).

FEATURED STORY **FORT POINT NATIONAL HISTORIC SITE**

Climate change is already threatening our sense of security. Stories about sites with themes of protection help visitors think about safety from both personal and societal perspectives.*



1

Lens

- Security and Safety

Fort Point National Historic Site was designed at the peak of the Gold Rush in 1853 to protect the San Francisco Bay Area from potential attacks. This significant federal investment highlights the value the government placed on safeguarding commercial and military assets.

2

Lesson Learned

- Yes And

Physical structures are investments of labor, time, and materials that can demonstrate what we consider important. They can also help us consider what society traditionally safeguards, while envisioning a world where other valued aspects, such as biodiversity and clean air, are included. Reflecting on what we treasure and protect can help us shape a climate future that better integrates shared values. Recognizing the intersections of climate change with almost every aspect of our lives is a crucial first step in addressing it and can lead to actionable steps that align with our priorities.

3

Action

- Climate Action Venn Diagram

Thinking about what we value can guide us in identifying our own climate actions. Regardless of our passions, skills, or social positions, there are ways for each of us to contribute to the effort. The Climate Action Venn Diagram offers three simple questions to help individuals see their role:

- *What brings you joy?*
- *What are you good at?*
- *What needs doing?*

* You'll see this story again in Step 3 when we explore the Climate Action Venn Diagram starting on [page 49](#).

FEATURED STORY CUYAHOGA VALLEY NATIONAL PARK

Places where people are enhancing nature’s resilience are important and hopeful tools in the face of a changing climate.*



1

Lens

- Creativity and Innovation

Before the establishment of Cuyahoga Valley National Park in Ohio, the Beaver Marsh wetland had been drained and converted to industrial use. After cleaning up the waste, the National Park Service was deliberating over what to do with the land when beavers began to return and re-engineer the landscape. Today, it’s once again a thriving wetland and continues to be preserved.

2

Lesson Learned

- Emulate

This story can serve as a reminder that land can be restored. In an increasingly developed landscape where land conservation is crucial, adopting this mindset can aid in restoring more land to mitigate the effects of climate change.

3

Action

- UN’s Sectoral Solution

Among the best ways to protect ourselves from oncoming climate impacts are nature-based solutions like ecological buffer zones. These can look like protecting or establishing wetlands that decrease flooding risk, or building parks in urban areas to counter heat-island effects from too much pavement reflecting the sun and making it hotter. Research what type of climate impact is most likely to affect your area and community. Chances are, there are already people who are working to implement nature-based solutions to counter it.

* You’ll see this story again in Step 3 when we explore the UN’s Sectoral Solution Action starting on [page 51](#).

You got this!

Parks can help people learn about climate change. They can also help people care and feel empowered to act.

WE DON'T KNOW THE END of the climate story—but we can transform the outcome by working together. The NPS is uniquely positioned to help millions of people see that we can change the outcome of the climate crisis. There are many ways we can do so, but only if people can see and believe in a path forward.

To best fulfill our mission, it's time we leverage the unique powers we hold as an agency. The mission of the NPS is to protect and steward these significant places and the stories they hold. One of the most needed steps we can take to uphold our responsibility to future generations is to encourage action to mitigate and adapt to climate change.

Your park interpretive programs can highlight sources of information, partnerships, and positive steps to address and adapt to climate change.

Parks don't simply preserve natural environments and the human past; they reframe those resources over time so visitors can understand who we were as a nation and consider who we want to become. Interpretation with hope can serve as a counter to the helplessness that can arise over concerns around climate change. Park stories can illustrate how we addressed challenges of the past and give hope and tools for those we face now. That understanding sparks conversations and deepens our convictions about what kind of future we want to create and allows us to grow together as a nation.

Considering stories of the past can guide us in changing the future.

An underwater scene featuring a diver in the upper left corner, partially obscured by the dark background. The diver is wearing a wetsuit and fins. The background is filled with various types of seaweed and marine plants, creating a textured and somewhat chaotic appearance. The overall lighting is dim, with a dark blue and black color palette.

Deep Dive

Learn more *about each step*

1

Lenses

The human mind is a story processor, not a logic processor. —Jonathan Haidt⁴

Connect a story from your park to one of the five people-centered Lenses. This includes addressing both past triumphs and mistakes.

Humans are hardwired to listen to stories and translate them into a moral compass and roadmap for society. Author Jay Bhalla writes, “Like our language instinct, a story drive—an inborn hunger for story hearing and story making—emerges untutored universally in healthy children.”⁵ As interpreters, we can employ these human characteristics to confront the biggest challenges of our day. This approach aligns with a growing body of work that points to creative use of narratives to confront the immense and interdisciplinary issue of climate change.

History & Hope offers several Lenses to help translate that potential into action. If the story you select in Step One: Lenses doesn’t seem closely related to climate change—that’s OK and normal for the History & Hope process! You will begin to discover opportunities to make that connection in Step Two.

Stories at your park may fit more than one Lens, and you may also find that combining different Lenses gives your story more depth. This creates more room in your interpretation to make stronger climate change connections.

Once you select a Lens, follow the prompts on the Worksheet to boost your accuracy and account for blind spots (we all have them!). The NPS is dedicated to Telling All Americans’ Stories⁶ so that we’re honest, inclusive, and accurate. Exploring our biases boosts our accuracy and reflects the NPS Foundations of Interpretation’s competency on Self-Awareness and Bias.⁷

1 LENSES: How to Frame Your Story

Think of an important story from your site that addresses one of the Lenses' questions. Some stories may address multiple Lenses, but try to just focus on one at first.

Ranger Note:

Your story in Step 1 doesn't have to relate to climate change yet—you'll get to that in Step 2.

- **MOBILIZATION**

How have people worked together for change?

Encourage conversations about past movements that were successful in creating change. We know that collective action against the climate crisis is needed now. [For more, see page 18.](#)

- **CREATIVITY AND INNOVATION**

How do we tap into these qualities when we need to change?

Consider how we will adapt to shifting climatic conditions by drawing inspiration from times when people adapted to change with creativity and innovation. [For more, see page 22.](#)

- **PATH**

How did we get to this moment of climate change?

This Lens helps us connect past decisions about how society has used resources over time. Choices that paved the way for systems like industrialization and extraction had unintended consequences that we are now experiencing as the climate crisis. [For more, see page 25.](#)

- **SECURITY AND SAFETY**

How do we identify and address perceived threats?

This Lens supports conversations about how we have addressed past threats, both large and small. It can highlight the potential dangers and benefits found when we have faced threats and give us the opportunity to reflect on the current and future threat of climate change. [For more, see page 29.](#)

- **INDIGENOUS KNOWLEDGE**

How do we act on place-based wisdom for living sustainably?

Draw upon techniques of living harmoniously with our environment. Indigenous Knowledge is built on experience and data collected by many generations to chart a more sustainable relationship with the land. [For more, see page 32.](#)



How have people worked together to create change?

Essential Questions

- What makes social values change?
- How do we decide which social causes to mobilize around?
- Whose responsibility is it to ensure we have a better future? How do we make it happen?

The Mobilization Lens supports interpretation of how people rallied to movements in the past and how that can inspire us to mobilize against climate change *now*. Climate change feels too enormous to take on by yourself; this can make people feel paralyzed and hopeless. We don't know the end of the climate change story, but we can shape it by acting together today.

Studies have shown that framing climate change through collective action is a hopeful and empowering way to communicate with the public.⁸ Mobilization stories allow you to showcase times when people have achieved collective goals in a way that inspires hope. Leaders often get the most credit for important social changes, but our interpretation can highlight the fact that movements—like the

ones we need for the climate crisis—are built through the actions of thousands, or even millions, of people. The Mobilization Lens supports interpretation of how people rallied to movements in the past and how that can inspire us to mobilize against climate change now.

Some stories of past mobilization are for causes that the NPS does not support, or, more generally, causes that are not aligned with contemporary values. For example, sites associated with the Civil War, American Indian Wars, or other instances of social mobilization against a vulnerable community should use caution when considering a mobilization narrative. That said, we can often still learn from these stories if we are careful in how we present them.*

* For more on this topic see: Kate Yoder, "War of Words." Grist, December 5, 2018. grist.org/climate/the-war-on-climate-the-climate-fight-are-we-approaching-the-problem-all-wrong/

MOBILIZATION DURING PERIODS OF WAR

Although not all wars seem justifiable in hindsight, battle sites provide places of reflection on how societies decide to mobilize against a threat, and the sacrifices people accept to do so. They also allow us to critically examine the reasons people are motivated to action, and help visitors find their own foundations for mobilizing around climate change. Some wars lend themselves more clearly to conversations around mobilization than others; for example, World War II feels easier to discuss than the American Indian Wars. However, both can allow space for nuance and reflection when done with sensitivity.

THE POWER OF THE NPS MISSION STATEMENT

Our legal purpose is to “preserve unimpaired the natural and cultural resources and values of the National Park System for... this and future generations.”⁹ It’s an example of mobilization at a national level, uniting people and places around the country to address complex conservation issues. Yet the history of the creation of parks is interwoven with the displacement of Indigenous Peoples and other marginalized communities. Considering this legacy of both preservation and exclusion is crucial when thinking about preserving biocultural resources to buffer the effects of climate change. When we talk about mobilizing to protect land, we can point to ways the NPS protected swaths of terrestrial and marine space. This type of large-scale conservation will be vital in helping the environment be as resilient

as possible in a changing climate, a goal enshrined in the UN’s 30x30 initiative to preserve 30% of the Earth’s land and water by 2030.¹⁰ However, it’s important that future endeavors include the perspectives of Indigenous Peoples.

STORIES OF AN INDIVIDUAL PARK’S FOUNDING BY LOCAL RESIDENTS OR POLITICAL LEADERS

To fully understand a park’s roots, you have to dig deeply into the site’s narrative. A park may appear to have been founded by a few influential people; however, there often was a movement of people inspiring them to act. At times these movements also excluded groups of people. Stories like these can help us talk about connections between individual and collective actions around climate change and the care we must take to ensure that we include as many people as possible.

STORIES OF LARGER SOCIAL AND ENVIRONMENTAL MOVEMENTS THAT CREATED RESULTS

Successful mobilization can have local, national, and global results. The results can range from legislation that helped protect places or people’s rights, to widespread shifts in public perceptions about an issue, and more. Stories like these can showcase how individuals work within a larger movement to create change. Providing examples of how people organized in the past may be instructive today for climate action.

CAUSES CHAMPIONED BY PROMINENT FIGURES

Many sites interpret well-known figures who were active at or around their site. These individuals often dedicated much of their lives to promoting causes they cared deeply about. The successes and failures of these causes can help us think and talk about what will be effective in mobilizing around climate change. Sometimes, prominent figures from previous eras held views rooted in societal norms of their time, which may not correspond with present-day values. While we can still analyze these figures and acknowledge their contributions to a cause’s success, it’s also important to recognize the biases they held that resulted in the exclusion or harm of marginalized communities. To delve further into this topic, see [the Q+A section](#).

STORIES OF INJUSTICE AND COURSE CORRECTION

Many national parks include narratives of injustice and the fights to correct it. These stories highlight times when people have fought against injustices, such as campaigns to end slavery, struggles for women’s suffrage, or fights for workers’ rights. The idea of correcting a past wrong can support conversations about climate justice today. When you showcase instances when a past wrong has been corrected, it demonstrates that changing course is possible.

EXAMPLE STORY: MOBILIZATION

ROSIE THE RIVETER/WWII HOME FRONT NATIONAL HISTORICAL PARK

This 1-2-3 explores how people have joined together to effectively make big changes, but these mobilizations are more complex than they are commonly portrayed or perceived. Examining a more complete story of how change happens can help us understand how to mobilize around creating a better climate future.

1

Lens

✓ **Mobilization**

- Creativity and Innovation
- Path
- Security and Safety
- Indigenous Knowledge

Rosie the Riveter/WWII Home Front National Historical Park tells the story of how the US mobilized around a common cause during WWII. In just a few years individuals, communities, businesses, and government all transformed to win the war against fascism. It was a remarkable time, but not everyone was included. For example, over 120,000 Japanese Americans were wrongfully incarcerated.

2

Lesson Learned

- Emulate
- Reveal Harms and Imagine Solutions
- ✓ **Yes And**

We can use WWII “total mobilization” as a hopeful precedent for tackling large problems quickly as we envision our approach to mobilizing around climate. We know people can do it; we’ve done it before! How can we learn from this example of mobilization by emulating its achievements while correcting its wrongs? Interpreters at the park asked people which cause they wanted people to mobilize around next, and tabulated their responses; climate change was the most common.

3

Action

- ✓ **Communicate**
- Climate Action Venn Diagram
- UN’s Sectoral Solution

Seeing how many other people are concerned about climate change lets people know they’re not alone. Continue to share this concern with friends, family, and civic leaders!



What issues do you want our country to mobilize around next?

Staff at Rosie the Riveter/WWII Home Front National Historical Park used visitor voices to build a History & Hope-inspired interpretive product. Hundreds of visitors answered the following question posted on a whiteboard:

During WWII, the country mobilized around a common cause. What cause do you want to mobilize around next?

Every response was recorded and tallied. The larger words in the word cloud to the right are the most popular responses. Staff created an exhibit that drew parallels between issues visitors proposed we mobilize around today and social movements from the post-war period.

What did mobilization look like in July, 1968?

The first Special Olympics competition was held in Chicago, IL for young people with intellectual disabilities. The goal was to focus on their abilities, not disabilities, an early stirring of a global movement. The disability movement started in the 1960's, encouraged by the successes of the civil rights movement.



What issue do you want our country to mobilize around NEXT?



July, 2019

Hundreds of park visitors were asked the question: "During WWII, the country mobilized around a common cause. What cause do you want the country to mobilize around now?"

Every response was recorded and tallied. The larger, more green words in the world cloud to the left were the most popular responses for that month.

These views in no way represent the National Park Service or staff.

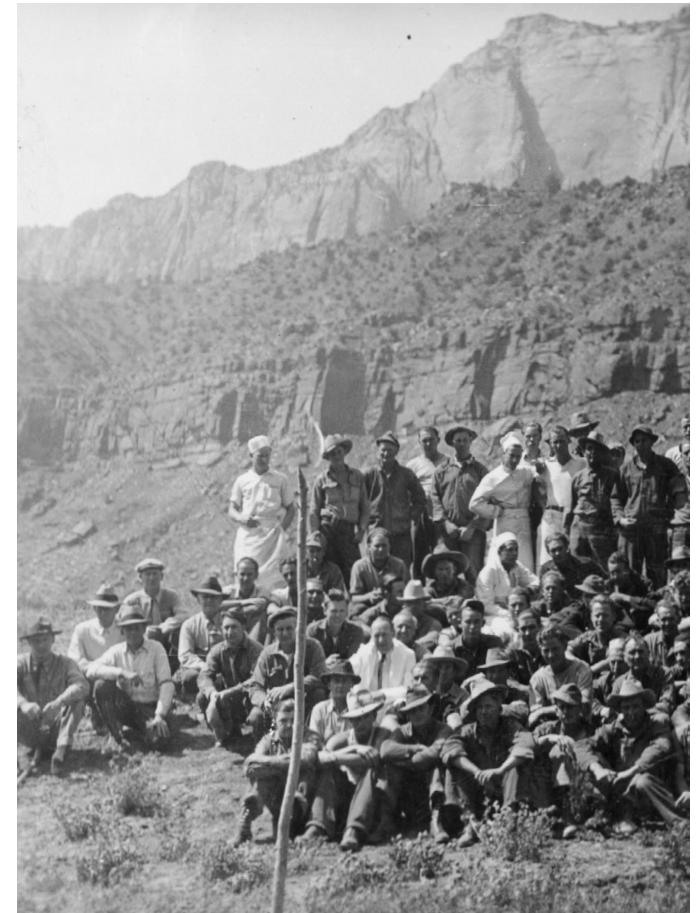
This exhibit is an example of what a History & Hope inspired mobilization product could look like.

How do we tap into creativity and innovation when change is needed?

Essential Questions

- What does it take to imagine a better future?
- How do we cultivate the adaptability and creativity needed to address future challenges?

The human ability to create and adapt is one of our fundamental characteristics as a species. Stories of innovation, resilience, and persistence allow us to consider how we can adjust to shifting challenges and conditions of climate change. Stories of creativity and innovation support conversations about how we can imagine and create new approaches to build the just and sustainable future we need. They allow us to recognize that adapting to rapidly changing circumstances can occur even as we have feelings of fear or despair. Even when stories illustrate innovations with unintended consequences we now see as detrimental, they can underscore the power of imagination and thinking big.



The CCC was a pioneering initiative that tackled multiple social problems simultaneously during the Great Depression. An example story can be found [on page 24](#) or at nps.gov/articles/000/resilience-in-a-time-of-change.htm.

SOCIAL MOVEMENTS ASSOCIATED WITH YOUR PARK

The people who built social movements often showed creativity, adaptability, resilience, and hope as they mobilized. The causes they fought for usually required imagining a vastly different world than the one they lived in. This may be anything from fighting for local issues to larger social change, such as battles for labor or civil rights. These examples can counter defeatist attitudes about climate change by showcasing stories of sustained courage that successfully reimagined the world. This pairs well with the Mobilization Lens, but stories told through the Creativity and Innovation Lens are more from the perspective of human ingenuity and perseverance in bringing about change.

ARTS AND CULTURAL EXPRESSION

Stories of creativity and innovation are illustrated in a variety of NPS sites that have histories involving the arts and other expressions of culture. These include parks that specifically celebrate art and artists. These and other parks hold stories of arts and culture that can help us reflect on their critical role in our capacity to cope with challenges and change. As we think about how to stay hopeful in a world that is changing rapidly because of the climate crisis, we can use art to be inspired and inspire others, deepen understanding, and find expression.

THE CIVILIAN CONSERVATION CORPS

Many parks contain elements that were created in the 1930s by the Civilian Conservation Corps (CCC). The CCC illustrates creativity and innovation in the face of the Great Depression's enormous challenges. The program showed that a creative approach to the critical issue of unemployment could address immediate needs while creating long-term benefits. However, it primarily served young, White men, meaning women and people of color mostly were left out of the income and stability this program created.¹¹ Large-scale programs like the CCC had numerous benefits that can be relevant to thinking about climate actions today. They allow us to consider how climate actions can address many issues at once. As we look at large-scale mobilization on climate, we can learn from best practices of the CCC, while ensuring that no one is left behind.

INNOVATIONS THAT CHANGED THE WORLD

Many of our parks were founded to tell the story of technological changes and innovations that stretched the imagination. In some cases, these innovations had a direct impact on the modern climate story, like the transition towards fossil fuels. Even innovations that don't have direct climate impacts can illustrate how rapidly and willingly people and society can change when presented with urgency and a clear vision of a better future.

ABILITY TO RAPIDLY CHANGE

How communities and industries have shifted in response to changing circumstances and/or technologies is a prominent story in many parks. Social innovations can take on remarkable speed after the groundwork has been laid; examples include how quickly society took to recycling, or the speed with which gay marriage gained widespread public acceptance. Likewise, adoption of technological innovations can reach a tipping point if enough resources have been devoted to testing and proving new concepts. This fundamental quality of human society can help us face and address the consequences of climate change.

MITIGATION OR ADAPTATION PROJECTS

Interpreting NPS initiatives to face climate change can show examples of creativity and innovation in the modern day. This includes anything from installing solar panels to the rehabilitation of wetlands that buffer sea level rise. These actions allow you to highlight how parks walk the talk and demonstrate how we are rising to address the climate crisis.

EXAMPLE STORY: CREATIVITY AND INNOVATION

ZION NATIONAL PARK

Examples of complex problems being tackled with a multidisciplinary solution can help us think expansively about addressing climate change.

1

Lens

- Mobilization
- ✓ Creativity and Innovation
- Path
- Security and Safety
- Indigenous Knowledge

Workers in the Civilian Conservation Corps (CCC) left an indelible mark on Zion National Park in Utah, and many other parks, between 1933 and 1942. Designed to uplift unemployed men during the Great Depression, the CCC provided economic, social, and learning opportunities for workers and advanced conservation and building projects across the country. However, the program also reflected discriminatory social practices of the time; initially, it excluded women and people of color. Eventually White women worked in a smaller emergency relief program, and men of color worked in largely segregated CCC units. To champion this story as solely a successful mobilization is to endorse the dominant, incomplete narrative.

2

Lesson Learned

- Emulate
- Reveal Harms and Imagine Solutions
- ✓ Yes And

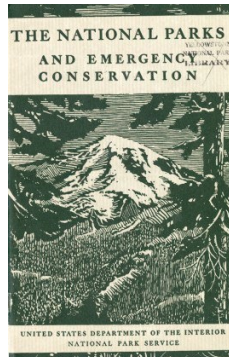
We have a lot to learn from the CCC, especially how large and outside-the-box it was...and how it blindly replicated wider patterns of discrimination until it deliberately made efforts to be more inclusive. For future climate actions, we can learn from this innovative approach!

3

Action

- ✓ Communicate
- Climate Action Venn Diagram
- UN's Sectoral Solution

You can ask visitors to talk to their friends, families, and civic leaders about ways we can create innovative, inclusive solutions that tackle many connected problems around climate justice together, instead of in silos.





How did we get to this moment of climate change?

Essential Questions

- How does society know when we've made the right choices?
- How do we define progress? Who defines it?
- What does progress mean when it comes at the expense of people, animals, and places?

The Path Lens allows us to look at past decisions about how to use resources and create systems that have shaped societies over time. When progress is defined primarily as continual growth and economic profit, these decisions have also led to overconsumption, biodiversity loss, and an imbalance in the capacity of the Earth's resources to regenerate. Past decisions help us see this pattern and underscore how fossil fuels came to form such a central aspect of modern life over the last 200 years. Path stories connect past decisions to present consequences; they aren't designed to identify historic villains, but to enable people to consider intended and unintended consequences.

Stories seen through a Path Lens can also point to times when people chose to exert force over nature and other people. Narratives about enslavement, colonization, extractive industries, overhunting, and more can help people consider the balance between profit, people, and the planet. By

starting to understand how the pendulum moves between prioritizing profit and sustainability, we can think about where that pendulum sits currently for the climate crisis and decide where we want it to be in the future.

The Path Lens helps support conversations about climate justice today, as the consequences of these stories do not impact everyone equally. Societal decision-making often reflects and reinforces imbalances and inequities. We all contribute to climate change to different degrees and its impacts will affect everyone. However, its earliest and most damaging effects usually fall on the most vulnerable groups who have been subject historically to marginalization and discrimination. Globally, climate change is affecting communities that have had the least role in creating the problem, which is unjust. For more on this, see [the Q+A section](#).

THE PROGRESSION OF HISTORICAL FUEL TRANSITIONS

We can trace a path from human and animal-derived energy, to waterpower, to coal, to natural gas and oil, and to the development of renewable energy today. Thousands of historic sites across the nation, as well as the NPS's own historic structures and administrative facilities, reflect this narrative, which has a direct connection to climate change. Exploring shifts in how we have powered society over time allows us to contemplate transitions we must make now and in the future. While use of technologies like solar, wind, and geothermal is increasing, we must reduce our greenhouse gas (GHG) emissions even more quickly to ensure a livable future. For that, we need the imagination and resources to envision and create a new path independent of fossil fuels.

THE SEPARATION OF PEOPLE FROM "NATURE"*

Newer Western ways of thinking prioritize short-term desires, profits, and needs over the well-being of the environment, and disregard the interconnectedness of people and "nature." When Western society distances itself from "nature," it allows us to continue extracting and developing lands in unsustainable ways and culminates in overuse and overconsumption.

The establishment of national parks reflects this worldview separating people from the environment. Parks are established based on a perspective that people should only be visitors to these places, not permanent residents. This approach resulted in the forced removal of people with ancestral connection to places that became national parks, and their forced disconnection with the land and other critical resources.

CHANGING LAND MANAGEMENT FOR PARK VISITATION

Throughout the history of parks, the NPS has constructed parameters for how visitors should interact with "nature." At times, especially in earlier days, management prioritized recreation over ecosystem health. For example, rangers fed bears to give visitors a show, stocked lakes with invasive fish to please anglers, killed apex predators, and engineered rivers to stay away from favored trails. As we've sought to course correct, we've taken actions like creating trails that avoid sensitive habitats, instilling leave-no-trace values, and restoring habitat back to its original state. At the heart of these changes is a shift in what it means to visit a park. By making explicit the ways in which the NPS has recognized our own complicated relationship to land management and

usage, you can help visitors think more deeply about their own relationship with "nature." This can provide an interpretive entry point for exploring how people relate with the environment as the climate changes.

CONNECTING WITH LOCAL WISDOM FOR SUSTAINABILITY

Local knowledge—whether about plants and foodways, or what changes in weather mean—has been passed down over generations by many communities and can help us chart a different path forward. For example, consider an older relative who shows you how to mend your clothes, or builders who learn from materials and techniques that have been used to harmonize with the regional climate. Another example can be found in longstanding patterns of farming or water use. Many small-scale farmers use established knowledge of soil, water, weather, and more that allows for long-term health of crops and animals. Because recent industrial-scale agriculture and food practices in much of the world have contributed to climate change, understanding more sustainable strategies is important moving forward. Local wisdom offers a different path from the past that can help us create a more sustainable future.

* When the terms "nature," "wilderness," or similar words are used in quotes, it's to draw attention to the idea that many cultures view these terms as misconceptions. The terms may perpetuate the idea that people have not and do not belong in these places. However, this disregards the reality that many Indigenous People have stewarded and lived in these places for millennia, and sustain these connections today.

MODIFICATIONS OF LAND TO INCREASE MOBILITY

Whether for trade, urban expansion, or tourism, the building of roads, railroads, and airports—as well as new technologies that foster mass consumption, increased globalization, and ever-increasing use of fossil fuels—all drive climate change.

INCREASING ACCESS TO NATIONAL PARKS

The dominant car culture created over the course of the 20th century, which was consciously exploited by early NPS leaders and culminated in the creation of the Interstate Highway System, also brings many visitors to parks. These measures were taken with good intentions and allow more people to experience parks. But these efforts are worth examining now as we see their effects on the landscape and their impact on climate change. Travel to and from national parks contributes to climate change as we burn fossil fuels to undertake these journeys. More on this can be found in [the Q+A Section](#).

UNSUSTAINABLE DEVELOPMENT OF THE LAND

Your site, or the area around it, may reflect aspects of industries such as large-scale agriculture, logging, mining, overhunting, overfishing, etc. These endeavors have provided jobs and expanded economies but have also exacted long-term costs

on the land and contributed to climate change. Pointing to this path of development is not meant to demonize the people doing the work, but to give ourselves space to pause and reflect on how past decisions about land use have culminated in this moment of climate change.

CHANGING IDEAS OF PROFIT

Along the path of development, societies have wrestled with how much emphasis to place on growth and profit, and what (and who) can be seen as expendable to achieve it. Animals, minerals, and ecosystems have all been considered “natural resources” worth sacrificing to create profit. And in the process, many costs to the environment have been left out of our economic calculations. People have also been viewed as expendable by being subjected to untenable working conditions—or, in the extreme, enslavement. These stories can support frank conversations about how we want to manage climate actions moving forward and consider underlying assumptions about what and who pays the price for profit. Valuing “nature” for market purposes, rather than for “ecosystem services” or for its intrinsic worth, is a major driver of biodiversity loss and climate change. Shifting the way decisions are made around “nature” could make a big difference in addressing both.¹²

STORIES OF CLIMATE INJUSTICE

Among the consequences of Path stories are disparate burdens from industrial and toxic activities of the past. These are often found in urban settings but can also be illustrated by unequal effects of rural, industrial agriculture or water distribution in areas around many national parks. Environmental injustices like these are often exacerbated by climate change. They also point to an ongoing view of some people and places as expendable in pursuit of progress, a perspective reflected today when environmental movements accept that certain people or places can be sacrificed. For more on this, see [the Q+A Section](#).

EXAMPLE STORY: PATH

PULLMAN NATIONAL HISTORICAL PARK

Sites across the country showcase the decisions we've made over time about industrialization and development. Progress is often associated with unintended consequences, from environmental injustices to climate change.

1

Lens

- Mobilization
- Creativity and Innovation
- ✓ Path
- Security and Safety
- Indigenous Knowledge

Pullman National Historical Park in Illinois is associated with the expansion of the US railroad system, which encouraged westward migration and brought new levels of speed, connection, and infrastructure to American cities and towns. As the path of progress and urban development continued, places were often divided into those that were “more” and “less” desirable to live. Communities of color were often intentionally shunted into places that were then made to bear the environmental costs of progress—bad air quality, high noise levels, toxic soils, and more. The neighborhood of Pullman is now predominantly African American and low income and has health and economic disparities compared to wealthier nearby neighborhoods.

2

Lesson Learned

- Emulate
- ✓ Reveal Harms and Imagine Solutions
- Yes And

The monumental achievement of creating a rail network connecting the continent is a vivid illustration of imagination and commitment. These stories can leave us inspired but also aware that, sometimes, changes seen as progress can create unintended consequences. Climate change is a perfect example of an unintended consequence of progress for people and the planet.

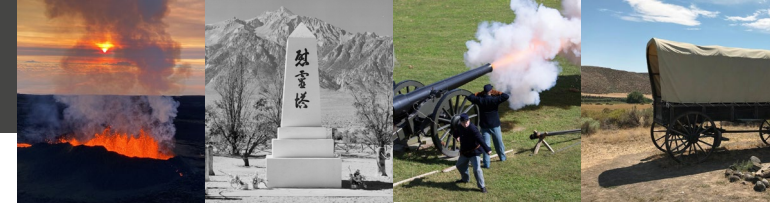
3

Action

- ✓ Communicate
- Climate Action Venn Diagram
- UN's Sectoral Solution

Pullman's story encourages us to dream big and reimagine society—but reminds us to keep in mind the people and places that so often get left out. We know the country is re-envisioning how we get energy in sustainable ways, including implementing technologies like solar and wind power. Talk to your family, friends, and other connections about how we can make these changes, while making sure that everyone gets access to them.





How do we identify and respond to perceived threats?

Essential Questions

- What happens when safety looks different for different people?
- Whose perspectives of safety do we adhere to?
- How do we ensure future needs don't get lost in addressing today's more immediate issues of safety or comfort?

This Lens supports conversations with visitors about how we face and address the threats of climate change, both as individuals and collectively. Many park sites—think forts, battlefields, and military structures—have obvious connections to this theme. But many other places hold histories that reflect how we've defined security and safety in the past. These can help us think about how we want to protect places and people in the future.

Conversations about safety and threats often bring up questions about power and who makes decisions for a community or society. Exploring whose voices were listened to most in moments of threat can help us

explore parallels today that connect climate threats with historical trends. Today, as in the past, the concerns of vulnerable communities about risks and threats are often disregarded. With climate risks, we can reflect on where resources tend to go—usually to more affluent neighborhoods with greater political influence rather than poor ones where people's voices aren't given the same level of attention.¹³ Visitors may recognize a variety of these issues in their own experiences. When discussing matters of personal and future safety, it's essential to approach the topic with tact and sensitivity.

THREATS OVER TIME

How we face threats—either perceived or real, now or in the past—can help us envision what our possible reactions will be to climate threats. By investigating ways we've responded to danger and threats in the past, we can decide how we want to emulate those responses, and how we want to course-correct past wrongs. Threats can include predators, colonizers, resource scarcity, and more.

MOVEMENT OF PEOPLE OVER TIME

Throughout time people have relocated in hopes of a better future. Examples include flight from war, religious persecution, or exploring for new resources based on need. You can also discuss this through the perspective of how established communities react and respond to newcomers. Climate change is already causing human migration, and more of us will face this prospect ourselves or will be compelled to accommodate climate migrants and refugees in our communities in the future. In the United States, even with potential adaptation measures, sea level rise has the potential to force millions of people to become climate refugees.¹⁴ Displacement due to climate events will significantly alter populations at the local, national, and global levels.

ENVIRONMENTAL DISASTERS

How people live with non-climate threats to their communities (volcanoes, earthquakes, etc.), and how they mobilize to face them, can show us how people might respond to climate change. The environmental threats you discuss at your site may not be related to climate change, but any natural threat helps prime us to think about how people have lived with uncertain environments.

PARKS WITH MILITARY ASSOCIATIONS

War is an extreme manifestation of how we face dire threats. Wars are often fought over values; who and what we decide to fight for reinforces our beliefs as a society. Conflicts have also been ignited over control of, or access to, resources. Conditions linked to climate change such as drought, extreme heat, and resource scarcity are already increasing conflicts similar to traditional wars.¹⁵

XENOPHOBIA IN TIMES OF UNCERTAINTY

Uncertain or unsafe times sometimes lead communities to scapegoat "other" groups of people perceived as being outsiders. An example of this is the treatment of Japanese Americans during WWII, which the US government acknowledged later was due to "race prejudice, war hysteria, and a failure of political leadership" rather than military necessity.¹⁶ Increased volatility of world systems and intensifying climate change will increase people's sense of threat at the same time as groups of people are forced to migrate. This clash can exacerbate underlying racism and xenophobia unless addressed.

EXAMPLE STORY: SECURITY AND SAFETY

FORT HUNT PARK on the GEORGE WASHINGTON MEMORIAL PARKWAY

Governments, institutions, and communities are faced with tough choices on how to respond when people are in distress. Climate change will exacerbate situations of harm for people across the world. What should we learn from the past about how to respond?

1

Lens

- Mobilization
- Creativity and Innovation
- Path
- ✓ Security and Safety
- Indigenous Knowledge

Fort Hunt Park was the WWII headquarters of a top-secret Military Intelligence Service program known as MIS-X, which helped American prisoners of war escape from German prison camps. Over 700 US servicemen taken prisoner in Europe successfully escaped captivity due to the work of MIS-X. This story shows the commitment, ingenuity, and success the government can demonstrate in order to help those in dire situations. However, while the officials chose to mobilize resources towards the security and safety of these servicemen, they simultaneously were putting the lives of innocent American citizens at risk through the incarceration of Japanese Americans.

2

Lesson Learned

- Emulate
- Reveal Harms and Imagine Solutions
- ✓ Yes And

When the government chooses to mobilize around people's safety, they can achieve great things! However, this type of mobilization has often been at the expense of some groups or ignored people who have already faced historic discrimination. When we mobilize around climate change, we may find the same pattern repeated unless we intentionally broaden our response.

3

Action

- ✓ Communicate
- Climate Action Venn Diagram
- UN's Sectoral Solution

As climate change becomes more extreme, it will put more people around the world in desperate circumstances and lead to more conflicts.¹⁵ Communicating our concern and commitment to helping people in distress is important, whether it is about people far away or in our own area. You could encourage visitors to talk to their civic and community leaders to find out about initiatives they can support or think about ones they can start!





How do we actualize place-based wisdom for living sustainably?

Essential Questions

- What is the relationship of humans to nature?
- What could a relationship between people and nature based on mutualism, rather than extraction, look like?
- What responsibility do humans have to the environment?

If climate change is the result of an unsustainable relationship to the world, Indigenous Knowledge* allows for interpretation and conversations about how ongoing knowledge rooted in the continuum across community, culture, and place can help us chart a more sustainable future.

Indigenous Knowledge is defined in a federal policy memorandum on fulfilling NPS trust responsibility to Indigenous Peoples as:

...a body of observations, oral and written knowledge, innovations, practices, and beliefs that promote sustainability and the responsible stewardship of cultural and natural resources through relationships between humans and their landscapes. Indigenous Peoples have developed their knowledge systems over millennia and continue to do so based on evidence acquired through direct contact with the environment, long-term experiences, extensive observations, lessons, and skills.¹⁷

Indigenous Knowledge is often practiced through cultural expression, such as coppicing, pruning, burning plant matter, and other management techniques. Practices like these apply deep knowledge to ecosystem health in a mutualistic and place-based relationship between people and the land.

People can take too much and exceed the capacity of plants to share again. That's the voice of hard experience that resonates in the teachings of 'never take more than half.' And yet, they also teach that we can take too little. If we allow traditions to die, relationships to fade, the land will suffer. These laws are the product of hard experience, of past mistakes.¹⁸

Robin Wall Kimmerer

Botanist and enrolled member of the Citizen Potawatomi Nation

* This document uses the phrase Indigenous Knowledge, the term preferred by the NPS, but recognizes that a variety of terms, including Traditional Ecological Knowledge, Indigenous Traditional Ecological Knowledge, Native Science, and related terms, are preferred by different Tribes and Indigenous Peoples. Indigenous Knowledge is more than simply a Lens; for Indigenous Peoples, it's a way of life and framework for understanding human relations to the non-human world. This knowledge is found throughout the world.

The following section is aimed primarily at non-Indigenous NPS interpreters.

Understanding and incorporating Indigenous Knowledge is important but can only happen through respectful collaborative working partnerships with Indigenous People(s).

A 2022 federal guidance document states that “Indigenous Knowledge cannot be separated from the people inextricably connected to that knowledge.”¹⁹ Native communities and Elders should be recognized as primary holders of Indigenous Knowledge. Due to forced removal of Indigenous Peoples by the US government, this knowledge may have been adapted or otherwise modified, or may be in the process of being restored, based on how communities were moved, separated, or forced from traditional homelands.

Interpreting Indigenous forms of traditional knowledge should be grounded in the relationships established between your site and the ancestral people of the land. When seeking to incorporate Indigenous Knowledge into your interpretation, it’s crucial to foster a robust relationship that adheres to park protocols for engagement with the Indigenous People(s) of the respective area. By doing so, you will develop a better understanding and appreciation of the Indigenous relationship and connection with your site. Through building this relationship, you can

honor that knowledge and convey the most accurate and respectful information to the public.

If your park does not have a strong relationship with the Indigenous People(s) of the land, don’t presume to speak for them. A good initial step is reaching out to your supervisor, park superintendent, or regional and local tribal liaison to see where the relationship stands now and discuss appropriate next steps.

If you do have a strong relationship, be sure to create your programming in conjunction with Indigenous People(s) themselves—through mutual collaboration and partnership. Your interpretation will be stronger if Indigenous Knowledge holders can speak for themselves and assist with forming and driving the narrative for interpretive products. This may be most readily done through nonpersonal media such as film, exhibits, web content, social media, and publications that can be reviewed and edited.

The following section is aimed primarily at non-Indigenous NPS interpreters.

If your park doesn't have a strong connection to the Indigenous People(s) associated with it, but you still want to incorporate Indigenous Knowledge into your programming, there are some general conversations you can engage with. However, with any of these broad statements, be very careful not to lump all Indigenous cultures and practices together as a singular entity.

Wilderness is a colonial, Western European ideal. What people call "wild," we [Indigenous people] have called "home" for thousands of years. And there is literally no word that I can find when I talk with Indigenous tribes around the states that has an equivalent of the word "wild"....

Charles F. Sams III,
19th National Park Service Director,
Cayuse and Walla Walla, and an enrolled
member of the Confederated Tribes of the
Umatilla Indian Reservation ²⁰

1. IDENTIFYING THE VARYING PERCEPTIONS OF "WILDERNESS" CAN BE A WAY TO INVITE THINKING ABOUT LAND MANAGEMENT FROM INDIGENOUS PERSPECTIVES.

Where most colonizers have thought of "wilderness" as untouched by people, many Indigenous Peoples have known it as a garden, carefully tended for generations. When we address things like the 1964 Wilderness Act,²¹ we can understand the misconceptions and erasure of Indigenous Peoples that goes into some cultural definitions of "wilderness." The common perception of separation between people and the land has contributed to our current moment of climate crisis. For more, see the section on "wilderness" thinking on the next page.

2. IF REGIONAL EXAMPLES OF INDIGENOUS STEWARDSHIP MANAGEMENT ARE WELL-SOURCED AND APPLY TO THE LANDSCAPE OF YOUR SITE, YOU CAN TALK ABOUT STEWARDSHIP USING A BROAD LENS.

For example, when talking about modern-day wildfires and fire suppression, you can bring in fire management practiced by Indigenous Peoples throughout the West that reinvigorates landscapes and manages fuel loads. Be sure to have strong sources to cite, including partnerships with land managers and Indigenous Peoples, literature, etc.

3. ACKNOWLEDGE AND ADDRESS THE EFFICACY OF INDIGENOUS LAND MANAGEMENT.

Indigenous land management is a source for greater understanding of how we can nurture biodiversity, which provides greater resilience against extreme conditions caused by climate change. One study of terrestrial vertebrates in Brazil, Australia, and Canada found places managed or co-managed by Indigenous Peoples had equal or more species richness for some taxonomic groups than protected areas managed by non-Indigenous governments.²² The 2022 IPBES report states, "in many regions... the lands of indigenous peoples are becoming islands of biological and cultural diversity surrounded by areas in which nature has further deteriorated."²³ The Indigenous Knowledge and Traditional Ecological Knowledge subject site on NPS.gov provides more information on the many benefits of Indigenous Knowledge.²⁴

* When the terms "nature," "wilderness," or similar words are used in quotes, it's to draw attention to the idea that many cultures view these terms as misconceptions. The terms may perpetuate the idea that people have not and do not belong in these places. However, this disregards the reality that many Indigenous People have stewarded and lived in these places for millennia, and sustain these connections today.

Indigenous Knowledge is more than simply a “Lens” or “Story” for Indigenous People. It’s a way of life and framework for understanding human relations to the non-human world. In this toolkit, we use it as a Lens in order to encourage climate interpreters to incorporate Indigenous Knowledge into their thinking about climate change.

“WILDERNESS” THINKING*

A popular notion persists that primeval forces are solely responsible for creating the “untouched landscapes” protected across the National Park System and that the protection of this “wilderness” mandates that people should be only transient visitors to these areas. We encourage you to think about the concept of “wilderness” critically, as it often disregards the existence, sovereignty, and longstanding land management of many Indigenous Peoples. The creation of national parks was interwoven with the unjust removal of people with an ancestral connection to these places. Interpretation can help explore and contrast the ways people have thought of land. Some cultures view it as remote, untamed places to visit. Others view it as a home to tend and steward. Some view it as a place to have an

extractive relationship, as opposed to others who perceive their relationship as mutually sustaining. Unpacking the thinking behind our relationship with the land is crucial to envisioning a healthier environment moving forward.† This is related to the Path Lens, but using the Indigenous Knowledge Lens can shed light on how relations differ.

CULTURE AND TRADITIONAL WAYS OF TENDING LANDSCAPES, WATERSCAPES AND SKYSCAPES

In many cultures, people’s interactions with landscapes, waterscapes, and skies are inseparable from what they eat, the language they speak, how they navigate using the skies, how they foster the transfer of knowledge to the next generation, how they see the world, and who they are. In these cultures, how people tend the land and waters is woven into traditions, cultural practices, and community values. Where those practices reinforce sustainability, there is wisdom (and joy!) that is crucial to living in a post-carbon world.

LAND AND WATER MANAGEMENT TECHNIQUES

Coppicing, pruning, or the use of fire are tools that support healthy landscapes. Many of these techniques are practices developed and passed down by Indigenous Peoples since time immemorial. People who later came to the United States—by choice or by force—also brought plants, animals, and land management strategies with them. Because settler colonialism shaped all of the United States, land management is incredibly complex. Exploring what practices have worked and the context around who is still practicing them (when, where, and why) helps us understand how we’ve arrived at this current moment in the climate emergency. Understanding healthy land management techniques helps us remember that people don’t have to make the environment worse. We can also work to make it better and healthier.

* Because concepts of “wilderness” existed long before the Wilderness Act, and federal wilderness has now existed for several decades, contemporary interpretation of this topic will navigate complex, challenging, and evolving ideas and issues. To help support thoughtful stewardship and interpretation of federal wilderness, the NPS created the Wilderness Interpretation and Education Strategy ([nps.gov/subjects/wilderness/upload/NPS-W-I-E-Strategy_508.pdf](https://www.nps.gov/subjects/wilderness/upload/NPS-W-I-E-Strategy_508.pdf)). For those within the Department of the Interior, you can also look at Diversity, Equity, and Inclusion in Wilderness (doimspp.sharepoint.com/sites/nps-wild-stewardship/SitePages/Diversity,-Equity,-and-Inclusion-in-Wilderness.aspx).

† Note: For a web article that explores the story of “wilderness” thinking in national parks, see [nps.gov/articles/000/theodore-roosevelt-climate-change.htm](https://www.nps.gov/articles/000/theodore-roosevelt-climate-change.htm).

EXAMPLE STORY: INDIGENOUS KNOWLEDGE

WESTERN ARCTIC NATIONAL PARKLANDS

The Western approach of relating to ecosystems and “nature” is vastly different than an Indigenous viewpoint. Examining this difference can help us think about why we got to this moment of climate change, and how to respond.

1

Lens

- Mobilization
- Creativity and Innovation
- Path
- Security and Safety
- ✓ Indigenous Knowledge

The Iñupiat people of Northwestern Alaska have a deep, longstanding relationship with caribou. For thousands of years, caribou hunting has been a central activity for survival and culture. The Iñupiat rely on their deep knowledge of caribou behavior, migration patterns, and habitat to sustainably harvest animals. Caribou populations have been declining since the mid-2000s. To honor their ongoing relationship with the caribou and protect their ancestral home and way of life, Iñupiat are strong advocates for the protection of caribou and the continuation of caribou hunting. They are advocates for conservation and sustainable management, which is challenged by intensified climate change and increased recreational usages. Iñupiat people are the first to self-regulate their hunts in order to sustain the herd.

2

Lesson Learned

- ✓ Emulate
- Reveal Harms and Imagine Solutions
- Yes And

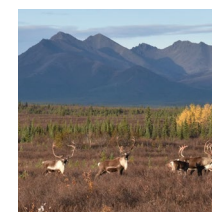
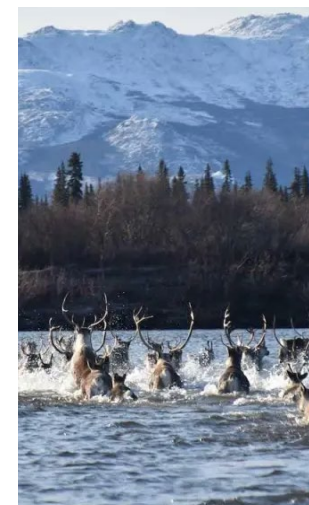
The relationship between the Iñupiat and the land challenges typical Western views that people are separate from the environment. This Western viewpoint disregards the interconnectedness many Indigenous cultures know we have to the environment. Learning this can give visitors inspiration to shift their own relationships with the environment into one of mutual support rather than exploitation.

3

Action

- Communicate
- ✓ Climate Action Venn Diagram
- UN's Sectoral Solution

Understanding our individual inspirations and identities can guide us in shifting our relationship with the environment toward being mutually beneficial, rather than viewing it as a set of resources that we simply take. One approach is to examine how our identity relates to our environment in order to find our own unique place in taking climate action. To do this, we can use the [Climate Action Venn Diagram](#).



2

Lessons Learned

Those who cannot remember the past are condemned to repeat it. —George Santayana²⁵

The stories we tell contain lessons. In this section, we invite you to look at your park story and ask what you and visitors can learn from it. These lessons are then applied towards creating a just climate future.

People who worked for change often suffered defeats that left them demoralized, wondering whether their actions would succeed. Successful movements were driven by people like us, who imagined a better world and pursued solutions to make it happen. The inventors of the automobile did so while living in a world without them, just as the people who discovered electricity did so by gaslight. The world we're living in now will be changed by people who envision a different future, and act to make it happen. For climate action to be effective, we can emulate these same traits by learning from the past through different lenses.

But how do we think about the Lessons Learned from what is considered “hard” history? “Hard” histories, which range from slavery to sexism and beyond, hold important lessons about power structures that have determined how and why climate change disproportionately affects certain groups of people. Calling something a “hard” history invites us to reflect; who are we saying it's hard for? An example of “hard” history could be the Oregon Trail's impacts on Indigenous People, including violence, displacement,

land dispossession, and cultural stripping. A sugarcoated version of that history would be “hard” to hear if your ancestors were directly affected by westward migration and your story isn't accurately being told.

Revealing the power structures behind historic wrongs will be news to some visitors, and an important first step in understanding how power dynamics play out in the climate crisis. For others, especially those in vulnerable communities, this is an experience that they live daily—but it may be the first time they hear a ranger in a national park acknowledge this.

Even in our spare time, people seek out “hard stories”—think about what your favorite TV show would be without a good conflict! Importantly, these “hard” histories shouldn't be avoided. They can teach us how to respond to hard times ahead caused by climate change.

Explore what we can learn from your story, and how it relates to climate change.

- **EMULATE**

What positive lessons can the past teach us?

Past innovations, movements, and successes remind us that change has happened before and can happen again. These stories inspire us forward. [For more, see page 39.](#)

- **REVEAL HARMS AND IMAGINE SOLUTIONS**

What aspects of the past do we not want to replicate?

Some stories contain deep harms that still have effects on people and places today. Learning about these stories calls on us to correct past wrongs. [For more, see page 41.](#)

- **YES AND**

How do we embrace the complexities of history?

History is often a complex blend of lessons. This nuanced view lets us emulate the stories' positive attributes while learning from and correcting harms. [For more, see page 43.](#)



You'll find that some of your Lessons Learned bring up "difficult" histories. Don't avoid them—they are often crucial parts of the history that created climate change. For more on this, see [the Q+A section on page 61.](#)

What positive lessons can we learn from the past?

Some stories showcase individuals and groups that created innovations that shaped society, and/or fought for a better world that included changes like expanded rights, a stronger democracy, or a new way of life. The Emulate approach invites you and visitors to identify what traits were needed to create a successful resolution and are worthy of adopting ourselves.

Where in the story were people dissatisfied with the world they lived in? How did they create a better one? When did people make a hard or unpopular decision to solve a tough problem? When did they demonstrate the ability to imagine a better world, despite living within the limits of their time? When did they demonstrate courage to fight for what they believed in? These questions subvert the idea that history is made up of events that people experienced passively and allow us to consider what it would take to create change to confront the climate crisis now.



Throughout the NPS, histories of LGBTQIA+ activism and resistance showed how people advocated for their civil rights and fought to create a better world. These stories can inspire us to approach seemingly insurmountable challenges, like climate change.

EXAMPLE STORY: EMULATE

BOSTON AFRICAN AMERICAN NATIONAL HISTORIC SITE

Throughout history, people have fought for and won systemic changes that initially appeared insurmountable. Identify and learn from what was needed to create change so we can better understand what we need to reach our climate goals today.

1

Lens

✓ **Mobilization**

- Creativity and Innovation
- Path
- Security and Safety
- Indigenous Knowledge

Boston African American National Historic Site in Massachusetts interprets the continuous activism by free and enslaved people of African descent and their allies. After Massachusetts abolished slavery in 1783, a free Black community flourished and became a hub of activism for abolition and civil rights.

2

Lesson Learned

✓ **Emulate**

- Reveal Harms and Imagine Solutions
- Yes And

Bostonians fighting for abolition and civil rights lived and persevered with an unshakable belief that the world could change for the better.* You can ask visitors how we can gain inspiration from the tactics of abolitionists and civil rights activists of the past in our struggles today against climate change and for climate justice.

3

Action

- Communicate
- Climate Action Venn Diagram
- ✓ **UN's Sectoral Solution**

The park highlights the work of the City of Boston, which has developed "Climate Ready Boston,"²⁶ an initiative to prepare for the impacts of climate change while incorporating principles of climate justice.



* Note: this 1-2-3 is a fully developed web article and can be found online at nps.gov/boaf/learn/climate-change.htm.

What aspects of the past do we want to avoid repeating?

Some stories require that we acknowledge past and present wrongs like systemic racism, sexism, overconsumption, and other systems that cause harm. The Reveal Harms and Imagine Solutions approach encourages us to learn from our mistakes and imagine another way forward.

Recognizing underlying power imbalances helps to ensure these systems are addressed when thinking about climate solutions. We can use imagination and courage to envision and fight for a system that corrects these issues and promotes climate justice. For more on why the National Park Service is committed to telling complete stories, see [the Q+A Section](#).



The National Park Service preserves numerous sites related to enslavement, the Civil War, and racism. Exploring histories of oppression and discrimination reveals the heightened vulnerability that African Americans and other marginalized groups face in the present, which will be magnified in an uncertain climate future. Using this Lesson Learned can transform challenging histories into powerful gateways for deeper public understanding of current struggles for climate justice.

EXAMPLE STORY: REVEAL HARMS AND IMAGINE SOLUTIONS

WHITMAN MISSION NATIONAL HISTORIC SITE

Understanding historic power structures can help us understand why vulnerable communities will face the impacts of climate change more intensely in a climate uncertain future. This also helps us understand how to focus climate actions to be equitable, and whose voices need to be included in the conversation.



1

Lens

- Mobilization
- Creativity and Innovation
- Path
- ✓ Security and Safety
- Indigenous Knowledge

Whitman Mission National Historic Site in Washington explores how the same story can be told from different perspectives. The version the park told for many years centered on Protestants who came to establish a Christian Mission and were killed by the Cayuse. The other version describes how the Cayuse people were infected with deadly diseases brought by outsiders. As loved ones and the Cayuse way of life were under attack, people tried to make their community safer. Both stories show people pursuing safety, even though they're from two vastly different perspectives.

2

Lesson Learned

- Emulate
- ✓ Reveal Harms and Imagine Solutions
- Yes And

This story is interesting to investigate from two angles: how people pursued their ideas of safety, and how we continue to talk about it generations later. When only the missionary perspective of the story was told, that elevated their perspective of safety over that of the Cayuse people. The park now tells a more balanced story through collaboration with the Confederated Tribes of the Umatilla Indian Reservation. By more fully exploring complex narratives, we can find and shape messages that align with our values and goals for how to keep everyone safe in the future. One of the main threats of the future will be climate change. Whose safety will get prioritized? We can look back at answers history gives us to ensure patterns of discrimination don't get repeated.

3

Action

- Communicate
- ✓ Climate Action Venn Diagram
- UN's Sectoral Solution

Personal identifies have always been wrapped up in how we confront threats of security and safety. Similarly, our own personal stories can guide us in contributing to meaningful climate action. When sharing the climate narrative today, we should consider the goals and viewpoints we want to emphasize. You can help visitors find how their own stories lend themselves to climate action by using the [Climate Action Venn Diagram](#).

How do we embrace history's complexities?

Some stories celebrate past triumphs while also considering related shortcomings and harms. When we reflect on history, we often find complex situations that hold elements to Emulate, as well as aspects where it's best to Reveal Harms and Imagine Solutions. The Yes And approach gives us permission to learn from examples of historic vision, scope, and execution while also avoiding past mistakes. It gives us permission to learn from the good, the bad, the ugly, and everything in between.

This approach can be particularly relevant for historic figures. In the early history of the NPS, there were many people who contributed to the creation and protection of national parks, while at the same time holding views considered offensive today. By interpreting these figures with a Yes And approach, we can acknowledge and uplift the many ways in which they positively contributed to society. We can also acknowledge the harms they perpetuated and take care not to repeat them.



There are many examples of complicated historical figures throughout our nation's history, like Theodore Roosevelt and John Muir, shown above. Examining them with a "Yes And" approach helps us understand both the harms they perpetuated and celebrate their victories we appreciate.

* Note: A fully developed web article that addresses the complexities of complicated historic figures using the Yes And approach can be found at: nps.gov/articles/000/theodore-roosevelt-climate-change.htm

EXAMPLE STORY: YES AND MUIR WOODS NATIONAL MONUMENT

History is often not “good” or “bad,” but a complex blend between the two. How can we learn from this complexity to better understand the nuances of future climate mobilization?

1

Lens

✓ Mobilization

- Creativity and Innovation
- Path
- Security and Safety
- Indigenous Knowledge

Muir Woods National Monument in California tells the history of how the redwood forest was saved from being logged.* The story was originally framed as a small cast of influential men who preserved it; however, the narrative was broadened to include the entire effort as well as racism that excluded people of color from the movement to save it.

2

Lesson Learned

- Emulate
- Reveal Harms and Imagine Solutions
- ✓ Yes And

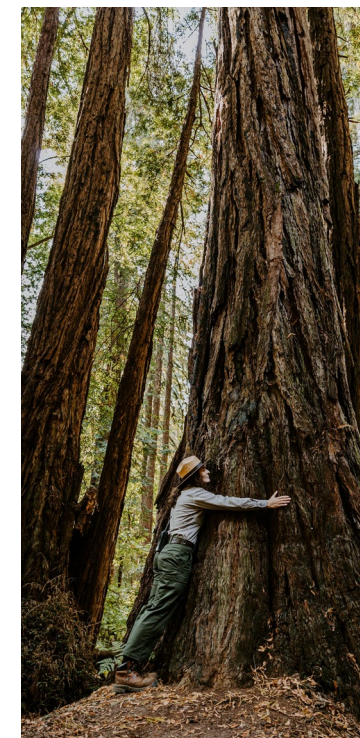
The people who preserved Muir Woods achieved success through a myriad of approaches. While we can emulate many of their creative techniques, we can also acknowledge how their perspective on conservation was limited by excluding people from participating in the movement. We can uplift the incredible accomplishment that saved Muir Woods, account for the barriers that people overcame, and emulate the ways in which they succeeded. We can also reflect on how to learn from their mistakes to ensure we don't repeat them going forward.

3

Action

- Communicate
- ✓ Climate Action Venn Diagram
- UN's Sectoral Solution

Multiple actors worked together to successfully protect Muir Woods. No matter who you are, there's a role for you to play. Find it by using the [Climate Action Venn Diagram!](#)



* Note: this 1-2-3 is a fully developed web article and can be found online at nps.gov/articles/000/a-climate-resilient-future-for-muir-woods.htm

3

Actions

Hope is not a lottery ticket you can sit on the sofa and clutch, feeling lucky. It is an axe you break down doors with in an emergency. Hope should shove you out the door...

—Rebecca Solnit²⁷

In the History & Hope process, ending with an action step is crucial.

The name of this toolkit is History & Hope. So where does the hope come in? People often think of hope as a passive state of being. You can feel hopeful that something will happen, and it may or may not occur. It can be hard to remain hopeful that climate action matching the scale of the crisis and creating a just world will happen. That can be especially hard when we subscribe to the “lottery ticket” definition of hope.

Our model of hope is a force that “shove(s) you out the door” to fight for the world you believe in. Hope both enables and is reinforced by action. In this toolkit, we use “hope” as an active word, one that reframes what is possible and gives us the energy to fight for the places, people, and species that we love and care for. It’s common for people to feel fear and despair as they face the reality of climate change, but we can reduce both the effects of the climate crisis as well as our despair through taking action.

As we discussed in Step 2: Lesson Learned, history is a source of hope when we focus on the movements, shifts in consciousness, and heroic people from our past who created enormous changes, even when participants

were unsure of the outcome of their struggles. It also helps us establish a hopeful vision to correct away from past harms. This point in your 1-2-3 brings it all together. Why did you tell that story? What lesson was learned from it? What are you going to do, and ask visitors to do, with this information to create a better world?

In the History & Hope process, ending with an action step is crucial. A lack of hope or feelings of despair arise when people don’t think anything is possible, or when they think nothing meaningful is being done. That perspective may blind us to all the climate actions that are happening today, ignoring the people and communities around the country and world who are already rising to the challenge and doing something about it. By demonstrating action, and giving people ideas about how to act themselves, we give visitors hope and ensure that, together, we can create a better future.

To find your climate action, we’ve outlined three approaches to choose from. Try different ones to see which fits best.

We've identified three approaches that can help visitors find their own path to collective and effective climate action.

- **COMMUNICATE**

How do we share our climate concerns?

A highly effective climate action is communicating concern about climate change with your communities and civic leaders.¹ This helps normalize concern for the climate. [For more, see page 47.](#)

- **CLIMATE ACTION VENN DIAGRAM**

How can people find their own climate superpowers?

Developed by climate activist and marine biologist Dr. Ayana Elizabeth Johnson, the Climate Action Venn Diagram guides people to find their own personalized climate action.² [For more, see page 49.](#)

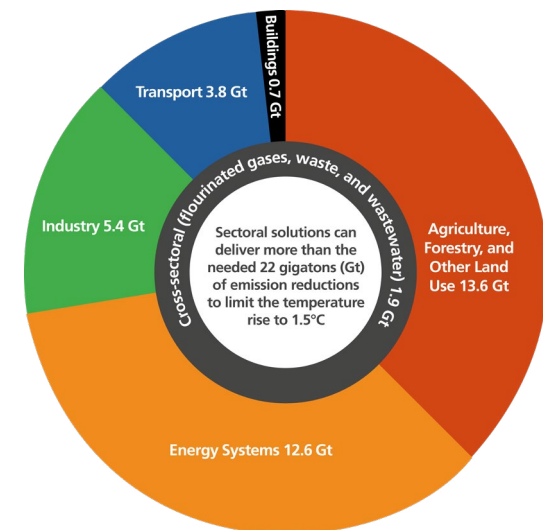
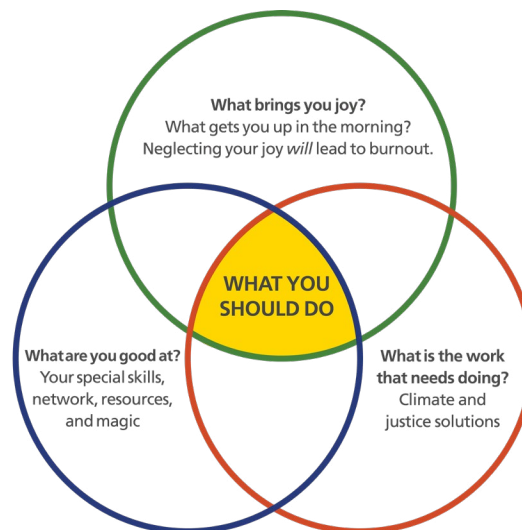
- **UN'S SECTORAL SOLUTION**

What do climate experts say about decarbonization?

It's not too late to do something about climate change! Explore the types of actions that experts at the United Nations say are the most effective in decarbonizing.³ [For more, see page 51.](#)

LEFT: This Climate Action Venn Diagram was created by Dr. Ayana Elizabeth Johnson to help people find their own unique climate action.

RIGHT: To avoid catastrophic climate change, we need to slash global emissions. Experts at the UN laid out a roadmap to do that by targeting six key sectors.



How do we share our climate concerns?

Scientist and climate communicator Katharine Hayhoe titled her 2018 TED Talk, “The most important thing you can do to fight climate change: Talk about it.”¹ This simple act can reinforce that we’re not alone in this fight. People are social beings who respond to group norms. The more we talk about the climate crisis, the more we can reshape social norms away from avoiding a topic that may feel unsolvable to considering the issues and actions we can take together.

The Yale Center for Climate Change Communication says, “Individuals, communities, and societies come to understand, care, and act on climate change through their communication with other people.”²⁸ The National Network of Ocean and Climate Interpretation (NNOCCI) uses social science research to establish best practices for climate change communication. They list “Talk About It: empower(ing) others to raise the topic of climate change in more settings” to be an effective action to offer to visitors.²⁹

Talking to each other also helps create a social mandate for climate change action from businesses, government, and policymakers. By encouraging people to talk with their friends, families, and civic leaders about the world they value and want to see, you can break down communication silos, normalize climate discourse, and inspire action.



A majority of Americans care about climate change, but don’t hear others talking about it. We have an incredible opportunity and reach to elevate the importance of climate change.

EXAMPLE STORY: COMMUNICATE

NATCHEZ TRACE PARKWAY

How can we share our values and convictions in a way that changes people's hearts and minds? Exploring these questions can help us explore how to effectively communicate the path forward for mobilizing around climate change.

1

Lens

✓ Mobilization

- Creativity and Innovation
- Path
- Security and Safety
- Indigenous Knowledge

Roane Fleming Byrnes is known as the Queen of the Natchez Trace for the work she did in the 1930s and 1940s to turn the Natchez Trace into a national park, mobilizing her community to fight alongside her in innovative ways.

2

Lesson Learned

✓ Emulate

- Reveal Harms and Imagine Solutions
- Yes And

Byrnes believed in her cause and got creative to fight for it! She didn't accept limitations on the world she wanted to see. We can embody this spirit and drive in our own climate fight.

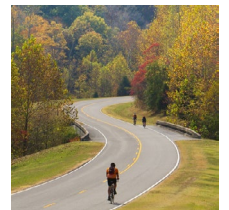
3

Action

✓ Communicate

- Climate Action Venn Diagram
- UN's Sectoral Solution

Climate change can feel challenging in that it makes you feel like it's individually your fault, but also that there's nothing you as an individual can do about it. Both these ideas are mistaken. Byrnes' story reminds us that when we are creative with our reach and power, we can achieve more than we imagine. She excelled at coalition building and talked about her vision for a Parkway to anyone who would listen. How can you bring your community together and inspire them to work together to mobilize around climate change?



How can people find their own path to climate action?

Often when a visitor asks, “What can I do?” they’re asking you to give them one simple action they can take. While visitors may be hoping for a silver-bullet solution, this approach misses the opportunity to help them apply their own talents and passions to the climate crisis. Dr. Ayana Elizabeth Johnson developed a Climate Action Venn Diagram to help people find their role in defining their climate actions.²

It involves asking these questions:

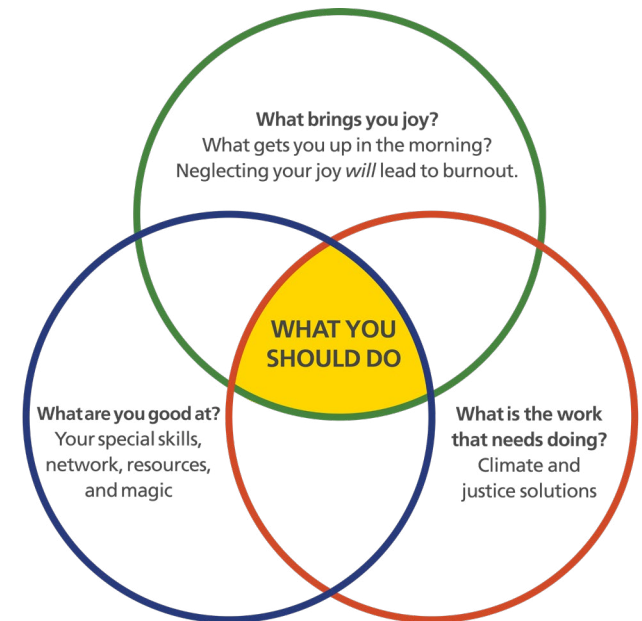
1. What brings you joy?
2. What are you good at?
3. What work needs doing?

Visitors struggle most with the question “What work needs doing?” since there is a wide range of action to choose from. The Climate Action Venn Diagram pairs well with the UN’s Sectoral Solution framework, because it can help visitors discern what actions are more and less effective. Consider having a list or activity that helps people think and talk about specific community level actions that reduce fossil fuel dependence.

There are many ways to showcase completed Climate Action Venn Diagrams. They could be displayed in an unstaffed pop-up that invites interaction and feedback from other visitors, or you

could suggest visitors take them home as continued inspiration. You could also post a sign suggesting they share them on social media platforms. They can also be embedded in webpages, social media posts, and more.

The Climate Action Venn Diagram asks us a question we might not think is associated with climate action: What brings you joy? The fight against climate change is a long haul—you can consider it a marathon. It’s unlikely that any one interaction with a ranger is going to convince someone to become a climate action marathoner. It’s more likely you’ll inspire someone to take one or two climate actions—the equivalent of a quick climate jog. If you encourage someone to take climate action that brings them joy, it’s far more likely the jog could turn into a run and could one day turn into a marathon. That goes for you too—as people passionate about the climate movement, we are at high risk for burnout. By identifying climate actions that bring us joy, we make sure that we’re in it not just for a marathon, but an ultra-marathon and beyond.



The Climate Action Venn Diagram helps visitors find their own climate superpower. Learn more at ayanaelizabeth.com/climatevenn.

EXAMPLE STORY: CLIMATE ACTION VENN DIAGRAM

FORT POINT NATIONAL HISTORIC SITE

This 1-2-3 helps visitors consider what safety looks like from personal and societal perspectives. This builds towards an action of considering how almost every issue is connected to climate change. While this is about Fort Point, it can relate to any site with elements of protection and safety.

1

Lens

- Mobilization
- Creativity and Innovation
- Path
- ✓ Security and Safety
- Indigenous Knowledge

Fort Point National Historic Site was designed at the peak of the Gold Rush in 1853 to protect the San Francisco Bay Area from potential attacks. This significant federal investment highlights the value the government placed on safeguarding commercial and military assets.

2

Lesson Learned

- Emulate
- Reveal Harms and Imagine Solutions
- ✓ Yes And

Physical structures are investments of time and resources and can demonstrate how we allocate resources into what we consider important. This encourages us to consider what society traditionally safeguards, while envisioning a world where other valued aspects, such as biodiversity and clean air, are included. These reflections can help us shape a climate future that integrates diverse values. Recognizing the intersections of climate change with almost every aspect of our lives is a crucial first step in addressing it and can lead to actionable steps that align with our priorities.

3

Action

- Communicate
- ✓ Climate Action Venn Diagram
- UN's Sectoral Solution

Thinking about what we value can guide us in identifying our own climate actions. Regardless of our passions, skills, or social positions, there are ways for each of us to contribute to the effort. The Climate Action Venn Diagram offers three simple questions to help individuals see their role:

- *What brings you joy?*
- *What are you good at?*
- *What needs doing?*

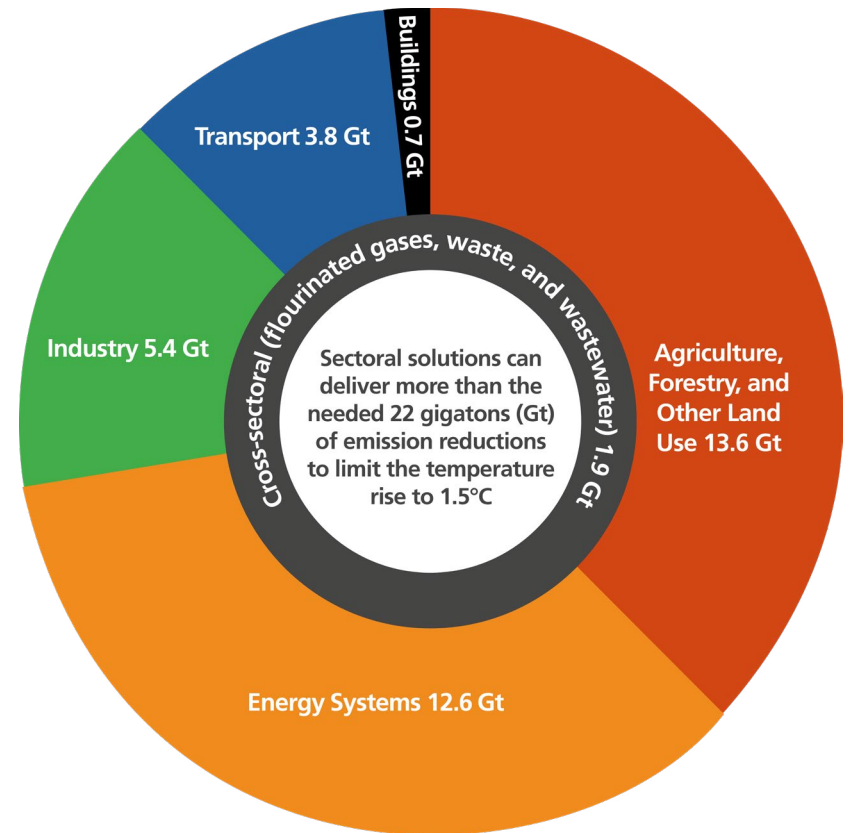


What do climate experts say about decarbonization?

The UN Environment Programme’s Sectoral Solution identifies key sectors where actions can cut carbon emissions to limit global temperature rise to 1.5°C. In 2024, it laid out a roadmap to reduce emissions of CO₂ equivalent by 22 gigatons to achieve that goal and minimize the effects of climate change.³ It focuses on key areas for climate action, which we have aligned with the actions list on the next page. While the UN roadmap highlights government, private, and public actions, we focus on those that ensure community-level action and get to the roots of the issue.* This action also counters the defeatist narrative people sometimes accept that there’s nothing that can be done. The UN has created a roadmap for us!

Ranger note:

While it’s great to use examples of local, existing organizations that are already taking climate action, be sure that anything you highlight meets government ethics regulations about not appearing to favor any one organization. For more on this, see [the Q+A section](#).



Climate experts have put together a path forward for the decarbonization needed. Learn more at unep.org/interactive/sectoral-solution-climate-change/

* Unless otherwise noted, data on GHG emissions referenced reflects annual GHG percentages in the US and is from: “Sources of Greenhouse Gas Emissions.” US Environmental Protection Agency, August 5, 2022. epa.gov/ghgemissions/sources-greenhouse-gas-emissions.

ENERGY

Electricity for industry and our daily lives accounted for 25% of US GHG emissions. Encourage visitors to push for and support policies for renewable energy and energy efficiency in their community and workplace. Ask them to work towards ensuring equitable access to renewable energy for all community members, regardless of income or socioeconomic status, such as initiatives that provide affordable solar panels, community solar projects, and energy assistance programs for low-income households.

AGRICULTURE, FORESTRY, AND OTHER LAND USES

Combined, this sector is responsible for 22% of global GHGs. Food waste comprises of 22–24% of materials that end up in landfills, where it then decomposes and releases methane gas.³⁰ Unsustainable agricultural practices both contribute to and are susceptible to climate change. We can implement community-wide food waste reduction and composting programs, and support or create surplus food rescue programs that transfer healthful, uneaten food to services that can distribute it to those in need. We can also promote and support climate-smart and sustainable agricultural practices.

TRANSPORT

Transportation of people and goods accounts for 28% of US emissions. Have visitors focus on advocating for improved public transportation systems, including zero-carbon bus or rail transit, bike lanes, and pedestrian infrastructure. By prioritizing accessible and efficient transportation options, communities can reduce reliance on private cars and promote climate-friendly modes of travel. Other ideas include embracing video conferencing for meetings.

NATURE-BASED SOLUTIONS*

The world can reduce emissions by 7.3 gigatons annually if it halts deforestation, ecosystem degradation, and restores ecosystems,³ something many park sites are already doing. The global “30 by 30” campaign is aimed at safeguarding 30% of the world’s lands and waters by 2030,¹⁰ and is guided in the US by the America the Beautiful initiative.³¹ Interpreters can encourage visitors to support policies against deforestation and for nature restoration, which among their many benefits can contribute to decarbonization. Support tree planting initiatives and urban greening projects to increase green spaces, improve air quality, and enhance biodiversity. Collaborate with local organizations and volunteers to protect existing parks, green corridors, wetlands, or other natural places for adaptation and resilience.

BUILDINGS

Buildings in the US are responsible for nearly 40% of our GHG emissions.³² Encourage visitors to support carbon-neutral building standards and certifications that promote energy-efficient designs, sustainable materials, renewable energy integration in new construction, and retrofitting older buildings. Promote the installation of heat pumps, solar cells, and other efficiency and electrification technology in homes, business, and communities through social campaigns and government initiatives.

INDUSTRY

Globally, industrial production makes up over 20% of GHG emissions.³ Ask visitors to advocate for and support policies that improve energy efficiency of operations to identify cost-effective, high-impact reductions. Rather than continue a “take, make, use, and trash” pattern, support companies that are reducing GHG emissions in their product life cycle—from raw material extraction, production, use, and disposal. Even better, advocate for policies that make manufacturers responsible for the disposal of their products.

* The UN Sectoral Solution nestles Nature-Based solutions under Agriculture, Forestry, and Other Land Uses. However, because it is so pertinent for land management agencies, we pulled it out separately to highlight it.

EXAMPLE STORY: UN'S SECTORAL SOLUTION

CUYAHOGA VALLEY NATIONAL PARK

The approach in this 1-2-3 examines how people can enhance nature's resilience in the face of a changing climate. Sites across the country are already employing innovative and creative programs that are doing this. This framework can be applied to any adaptation and mitigation programs at your site.

1

Lens

- Mobilization
- ✓ Creativity and Innovation
- Path
- Security and Safety
- Indigenous Knowledge

Before the establishment of Cuyahoga Valley National Park in Ohio, the Beaver Marsh wetland had been drained and converted to industrial use. After cleaning up the waste, the National Park Service was deliberating over what to do with the land when beavers began to return and re-engineer the landscape. Today, it's once again a thriving wetland and continues to be preserved.

2

Lesson Learned

- ✓ Emulate
- Reveal Harms and Imagine Solutions
- Yes And

This story can serve as a reminder that land can be restored. In an increasingly developed landscape where land conservation is crucial, adopting this mindset can aid in restoring more land to mitigate the effects of climate change.

3

Action

- Communicate
- Climate Action Venn Diagram
- ✓ UN's Sectoral Solution

Among the best ways to protect ourselves from oncoming climate impacts are nature-based solutions like ecological buffer zones. These can look like protecting or establishing wetlands that decrease flooding risk, or building parks in urban areas to counter heat-island effects from too much pavement reflecting the sun and making it hotter. Research what type of climate impact is most likely to affect your area and community. Chances are, there are already people who are working to implement nature-based solutions to counter it.



Effective and collective climate action requires special considerations.

We know park visitors are hungry for conversation about climate action. Research shows that visitors think that climate change and climate actions are important topics for parks to address.³³ The question about how to take climate action has been a concern for quite some time. In a 2023 study, the majority of people who self-identified as alarmed or concerned about climate change overwhelmingly responded that if they had one question to ask a climate scientist, it would be about climate action.³⁴

“We don’t need a handful of people doing zero waste perfectly. We need millions of people doing it imperfectly.”³⁵

Anne-Marie Bonneau
Zero-waste Chef

Climate change is much bigger than any one person, and so is effective climate action. While visitors may look to you as an authority on climate action, you don’t have to feel as if you have all the answers. We can play a vital part in helping visitors find their role, strengths, passions, or other unique ways to contribute to the movement to address climate change.

It’s important to remember that there’s no silver bullet or one-size-fits-all solution. Climate change is such a large interdisciplinary issue that there are many actions we can take. Some of these actions are more and some are less effective. **We define effective climate action as collective steps that move us away from a fossil fuel-based economy and make it easier for everyone to take the low-carbon option.**

The central goal of climate action is not to simply minimize your own personal carbon footprint, or shame others into feeling guilt about their everyday activities that emit carbon. None of us chose to live in a system driven by fossil fuels. We were born into it. The goal of climate action is to maximize your

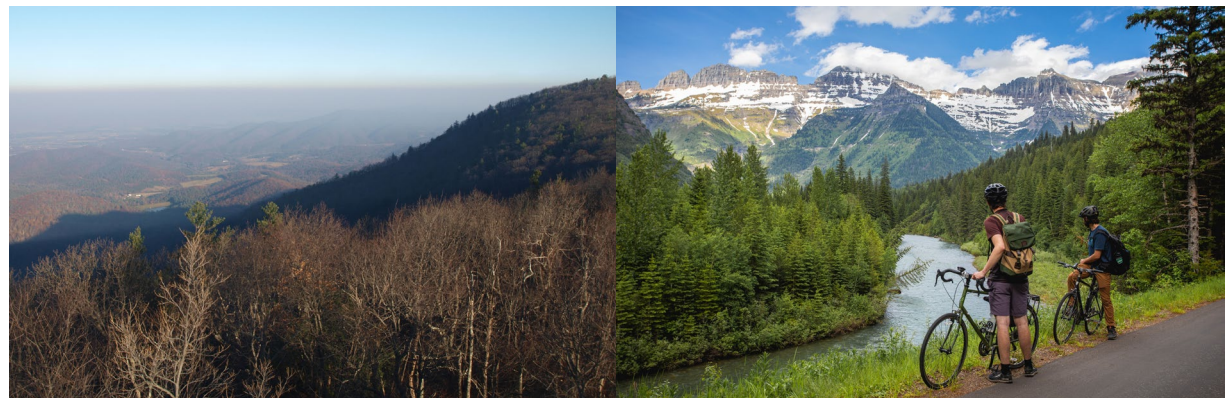
impact by working with others to target the root of the problem. For more on this, see “If I’m prioritizing collective actions, what role do individual actions play?” and “What about actions that may not directly lead to emitting fewer GHGs but still boost feelings of stewardship and action, like a beach clean-up?” in [the Q+A Section](#).

To reinforce why individual actions aren’t enough, consider this situation. Someone is so deeply concerned about their own carbon footprint that they decide to never use anything artificial again and live off the grid in a forest. Even if this one person stops emitting GHGs, the climate crisis will continue and worsen. That person would have a far greater impact on fighting climate change if instead they joined a movement of people who were working together to change the systems that are actively perpetuating the climate crisis. The faster we can move towards a carbon-free world together, the more we can avoid the worst impacts of the climate crisis.

Many climate actions have co-benefits that can increase and further incentivize buy-in from others.

Here are just a few examples of climate co-benefits:

- **ENERGY SECURITY:**
Increasing use of renewable energy sources can lead to more energy security as we rely less on foreign oil. Self-reliance produces more jobs, economic stability, and resilience in the US.³⁶
- **AIR QUALITY:**
Burning fossil fuels causes poor air quality, which causes respiratory health issues. The UN estimates that 7 million premature deaths per year are linked to poor air quality.³⁷
- **BIODIVERSITY:**
In addition to being important carbon sinks,³⁸ actions that protect or restore ecosystems can increase the biodiversity of an area and support numerous species.³⁹ Reports have shown the inextricable links between the biodiversity crisis and climate crisis.⁴⁰
- **HEALTHIER LIFESTYLES:**
Actions that encourage active transportation like walking or biking reduce use of fossil fuels, decrease traffic-related pollution, and increase people's physical activity levels.⁴¹ This can lead to benefits like increased mental and physical health.⁴²



Left: Poor air quality doesn't just change people's experiences at parks, but can have lifelong health effects. Right: Active transport gets people outdoors connecting with nature, and can have positive health impacts.

A dark, atmospheric photograph of ancient cliff dwellings. The scene is dimly lit, showing the intricate textures of the rock walls and the simple, rectangular structures of the buildings. A wooden ladder leans against one of the structures on the left. The overall mood is mysterious and historical.

Appendix

Philosophy, Q+A, Citations, and more

History & Hope's Goal

This toolkit helps you encourage the public to understand climate change through a perspective that includes climate justice and expands beyond scientific data and explanations of climate change's physical impacts. Earth has warmed approximately 1.1°C (2°F) since the 19th century, and scientists tell us it will continue to get hotter and more unstable until we stop burning oil, gas, and coal.⁴³ We know that a rapid transition away from fossil fuels and the GHGs they emit is our critical challenge. The goal of this toolkit is to help visitors understand the climate crisis more deeply and inspire them to action that is just and sustainable.

Who Should Use History & Hope

History & Hope is a tool for anyone who wants to communicate about climate change to the public. While the word "history" is in the title, it is not just for history-based sites. People working at "nature" based sites can also expand their climate narratives and tell people-based stories. People working at "cultural" sites can connect the stories they already tell to the climate crisis. Human interaction with the environment is embedded in all national parks.

This toolkit was designed primarily with NPS interpreters in mind but has been field-tested across a range of positions. As such, History & Hope can inform the work of NPS employees at all levels. The fundamental structure and methodology of History & Hope can be integrated into all types of interpretation and sites, but may have to be modified to make it work in your particular situation.

Why We Need an Expanded Approach to Interpreting Climate Change

*I don't even call it "climate change."
I call it "the everything change."
—Margaret Atwood⁴⁴*

By some accounts, almost 98% of news about the environment is negative, which can leave people feeling defeated and hopeless.⁴⁵ Even among people who care deeply, there is often skepticism that we can ensure a better future. Interpretation using scientific research to focus on the current or potential impacts of climate change can reinforce that kind of defeatism. Pessimism can serve as a roadblock to move people into climate action. Research shows that positive emotions, such as hopefulness, reinforce people's engagement with the climate crisis.⁴⁶

Science is fundamental to understanding the problem, but we need more than science to support people in building a sustainable future. Existing climate interpretation generally relies almost exclusively on scientific and technical language to point out the physical impacts of climate change in individual national parks. Sharing the scientific and place-based impacts of climate change is an important component of climate interpretation, but it's hard for visitors to make a personal, sustained connection to places that may be far outside of their daily lives. Melting glaciers are important, but easy to forget back home.

While it may be tempting to solely approach climate interpretation from a scientific perspective, it's not facts alone that change people's minds. Andrew J. Hoffman, author of *How Culture Shapes the Climate Change Debate*, shares that:

Increased knowledge tends to strengthen our position on climate change, regardless of what that position is... when belief or disbelief in climate change becomes connected to our cultural identity, contrary scientific evidence can actually make us more resolute in resisting conclusions that are at variance with our cultural beliefs.⁴⁷

Scientific data about climate change can feel abstract or overwhelming. It can also ignore the role of emotions in how we respond to the climate crisis. Research shows emotions are powerful drivers in our relationship with climate science and potential solutions.⁴⁶ We know our science-based communication doesn't reach everyone. If we rely only on data, we miss crucial opportunities to deeply engage with visitors. We already help people understand the what of climate change. We are in unique position to also help them understand the why, how, and who. This is where human-centered stories add power.

Social scientists tell us that compelling narratives for social transformation are ones that reflect communal values and allow people to see themselves in the story.⁴⁸ To fully understand and imagine meaningful solutions to climate change, people need opportunities to understand how and by whom it was caused. To feel hopeful, we need to know that we can all take meaningful action. Our national parks provide a perfect opportunity to do just that.

The History & Hope toolkit centers reducing GHG emissions in the climate actions we propose for visitors. Although GHGs discharged by burning fossil fuels is

the immediate driver of climate change, interpretation at parks can and should convey the understanding that the roots of the climate crisis don't lie solely in the history of coal, oil, and gas. Rather, it has deeper origins in societal values and actions deeply embedded in dominant Western culture, which are also contained in the histories of our sites. For instance, economic systems that prioritize growth and profit create a culture of "convenience" and overconsumption that ignores the finite nature of the environment on which we depend. Similarly, a worldview that positions humans as exceptional beings results in the extraction and exploitation of Earth's animals, plants, soil, and water, treating them solely as "resources" for human use. In fact, the roots of climate change are intertwined with other crises we face, including biodiversity loss, racial and gender injustice, economic exploitation, and more.⁴⁹ These themes are all reflected in the stories we can tell at national parks.

History's Role in Climate Interpretation

History is not a "single and unchanging 'accurate' story ... [but] an ongoing discovery process in which narratives change over time as generations develop new questions

and concerns, and multiple perspectives are explored."⁵⁰ Over time people have developed many ways of understanding the world and our place in it. Stories from the past play a central role in how we do this.

Climate change is a new threat that challenges not just the continuity of systems we rely on, but all these hard-won understandings of the world. The future promises to be very different from what we've known. Nonetheless, looking backward can provide ideas on how to face the current challenge. Historical achievements and innovations illustrate the resilience, adaptability, and creativity that inspire us to take on and solve large complex issues. Using stories that sustain hope can inspire action to address climate change at a scale required to stimulate meaningful change.

Thoughtfully constructed narratives can shape people's attitudes about climate change and can move people to action. While History & Hope relies on achievements of the past to inspire us to look forward, it does not avoid the complexities of history. Aspects of history that are more difficult and even painful to interpret are crucial for understanding our current moment. For an in-depth discussion on why we must include all aspects of history, [see our Q+A section](#).

The Role of Hope

One researcher defined hope as “fearing the worst but yearning for better.”⁵¹ Other scholars distinguish between “constructive hope,” or hope based in seeing increased collective awareness and action, and “false hope,” believing that someone else will take care of a problem.⁵² For the sake of this toolkit, we’ll define hope as constructive—the idea that change is possible, but requires you to actively work for an outcome.

In order to take action, hope needs to be linked with agency—the belief that one has the ability to act effectively. Recent social science research on climate change communication has explored fruitful intersections between storytelling, hope, and agency. Hopeful messages were found to increase people’s interest in climate action.⁵³ In fact, messages centering hope were found to bridge political divides in climate change and engage audiences who may otherwise dismiss the issue for ideological reasons.⁴⁶

While common wisdom has assumed that our beliefs drive our actions, studies by psychologists and neuroscientists have found the opposite effect: that actions can build and shape our beliefs. This framing supports the idea that we should move from an issue-based approach to climate change

interpretation to one that is action-based. Stories about people taking action in the past can increase hope and agency for taking climate action today.⁴⁵

“Throughout the arc of history, hope and belief against the odds accomplished far more in motivating to action than did data and models.”

— Andrew Hoffman⁴⁷

Addressing Climate Justice

Climate Justice is important to address because the causes of the climate crisis and its outsized harm to specific groups are all interconnected.

Climate Justice is defined as:

*The disproportionate impacts of climate change on low-income communities and communities of color around the world, the people and places least responsible for the problem. It seeks solutions that address the root causes of climate change and in doing so, simultaneously address a broad range of social, racial, and environmental injustices.*⁵⁴

Marginalized groups that experience climate injustice include people who have been discriminated against due to race/ethnicity, gender, sexual orientation, income, age, physical/mental ability, and more. Vulnerable and marginalized communities are

shaped by long periods of discriminatory policies and practices. While some laws that perpetuate discrimination have been repealed, inequities persist. Notable disparities in health, exposure to crime, disruptions to cultural practices, income, food insecurity, economic opportunity, wealth, and education remain.⁵⁵

TIP: When speaking about the impacts of climate change on low-income people and communities of color, don’t simply use passive language such as “they are being disproportionately affected.” It’s important that we use the active voice and provide origin stories that point to the responsible parties and deliberate decisions made over time that have led to this reality. This is where your History & Hope story can illuminate the origins of climate injustices rooted in racism, poverty, and other systems that abuse power. When addressing climate injustices, work to include the many ways people who have been most harmed are rising to the challenge and implementing solutions. This can help mitigate any tendency toward victim blaming that may arise.

To forge an equitable, sustainable future, it’s important to be inclusive and address the interconnection between

climate and human rights. The NPS plays a critical role in strengthening these connections. Additionally, failing to incorporate marginalized voices may abet the systems that caused both climate change and its disparities. Using stories, interpreters can deepen visitor understanding of environmental justice and inspire climate action. For more on this topic, [see our Q+A section](#).

Climate Advocacy in the NPS

The National Park Service is nonpartisan, but it is an advocacy organization—we share messages that help us fulfill our mission statement to preserve public lands. These can range from “don’t touch the artifacts” to “leave no trace.” Equally important to preserving park resources are messages about mobilizing around the climate crisis. Because climate change is such a complex, interdisciplinary issue, interpreters need to be sure they are employing the right communication tools at the right time. Some circumstances (like safety messages) may call for only delivering the facts or rules; other situations call for asking visitors open-ended questions so they can engage more deeply. This toolkit prioritizes the latter.

TIP Avoid asking visitors questions about climate that have a single correct answer. For example, you won’t see questions in this toolkit like: What do you think this valley will look like in 100 years? This type of question could have a wrong answer—someone could say lush and green whereas the science supports that it will more likely be barren and dry.

QUESTIONS AND ANSWERS

Below, you'll find a list of the questions and answers in this section. Click on any question to jump to that section of the appendix.

Climate Basics

- [Where can I learn about climate science and communication?](#)
- [Is talking about climate change political?](#)
- [How do I interact with climate change deniers and doubters?](#)

Climate Action

- [If I'm prioritizing collective actions, what role do individual actions play?](#)
- [What about actions that may not directly lead to emitting fewer GHGs but still boost feelings of stewardship and action, like a beach clean-up?](#)
- [Am I allowed to highlight one organization as an example of a climate action?](#)
- [How do partner organizations fit with History & Hope interpretations?](#)
- [What is the role of the NPS in elevating racially diverse and youth voices?](#)

Climate Change and "Hard Histories"

- [Talking about "controversial" history can increase discomfort quickly for some visitors. Why not just focus on the inspirational parts? Why is it important to check my story for biases?](#)
- [The stories we talk about in my park tend to reflect dominant power structures. How can I expand these to make my stories more inclusive and accurate?](#)
- [Why talk about climate justice?](#)
- [I'm concerned about using terms that may be accurate but could be polarizing, like "climate justice" and "systematic oppression." Do I need to use them?](#)

Climate Change and the NPS

- [Where do I address the impacts of climate change at my park?](#)
- [The NPS is a science-based organization. Are you suggesting we don't use science?](#)
- [How do I link History & Hope to NPS education programs?](#)
- [Interpreting climate change isn't a stated purpose in my park's enabling legislation. Can I still talk about it?](#)
- [Can we examine the NPS's role in exacerbating climate change, including carbon emissions from tourism travel?](#)

QUESTIONS AND ANSWERS

Is talking about climate change political?

Talking about climate change is not inherently political, even if it sometimes feels that way. Conversations around how to interpret the nature of ongoing change—and how to respond—often become politicized. But the scientific consensus around the reality and causality of climate change is unequivocal.

As such we have a mandate to talk about climate change with visitors, which stems directly from our mission to ensure that our parks remain unimpaired for future generations. Because climate change challenges this mandate to protect resources, it's vital for you to address it as a park management issue. This is similar to when we speak about topics such as overcrowding, bison management, or other important resource protection issues.

The National Park Service is no stranger to interpreting topics that could be seen as politically controversial. A good example is the many sites and interpreters around the country who follow the consensus of historians that slavery was the primary cause of the Civil War, as opposed to a "states' rights" explanation.

Several guiding documents affirm this directive. The 1998 NPS Omnibus

Management Act (Public Law 105-391) states that we must take measures to ensure "the full and proper utilization of the results of scientific study for park management decisions,"⁵⁶ and the NPS Centennial Act (Public Law 114- 289) ensures that we engage with interpretation that is "inclusive ... and reflects current scientific and academic research."⁵⁷ These mandates extend to using climate projections to discuss implications for parks and conveying relevant information to visitors.

Where can I learn about climate science and communication?

You do not have to be an expert on climate science to interpret climate change. In fact, several of the creators of this toolkit don't think of themselves as "climate interpreters," but as place-based storytellers. Don't let the feeling stop you from interpreting this crucial topic.

This toolkit does not go in depth on climate science, but relevant climate science can be part of the development of your interpretive program. To learn about climate dynamics and local impacts, we recommend viewing the US Geological Survey's Managing for Change micro-learning

series,⁵⁸ reading the most recent NOAA (National Oceanic and Atmospheric Administration) State Climate Summary,⁵⁹ or the US Global Change Research Program's 5th National Climate Assessment.⁶⁰ Most relevant of all, NPS scientists have published research on specific impacts of climate change on national parks.⁶¹

The Yale Program on Climate Change Communication and the National Network of Oceanic and Climate Change Interpretation (NNOCCI) are great sources for information about climate change communication. The Yale Program has conducted extensive research on "public climate change knowledge, attitudes, policy preferences, and behavior, and the underlying psychological, cultural, and political factors that influence them."⁶² NNOCCI has many materials to help you learn about climate change and effective means of climate change communication through social science-tested approaches.⁶³ If you are interested in learning more about NNOCCI, they offer a free online training course.⁶⁴ Another source of inspiration and ideas is the Mobilizing Museums for Climate Action toolbox.⁶⁵

Where do I address the impacts of climate change at my park?

It's essential for visitors to understand that climate change is already here, already harming many of the places we care for, and cannot be entirely reversed. While the History & Hope toolkit doesn't focus on the impacts of climate change, they are an important part of your site story.

You can use this information but place it within the frameworks discussed above to weave a story around it. For example, when you tell visitors that glaciers are melting, that's true and compelling data. However, if you then weave melting glaciers into a larger story about people overcoming insurmountable challenges in the past, that information becomes a part of a challenge for us to tackle, together.

Some parks have also had success in selecting a story by starting with an effect of climate change the park faces and then finding the Lens that gives context to that impact. For example, Boston National Parks began by focusing on urban heat islands made hotter and larger by climate change; they found that the Path and Mobilization Lenses offered useful perspective for visitors to their website.⁶⁶

How do I interact with climate change deniers and doubters?

There are fewer deniers than you may think—most Americans, in fact the majority, are very concerned about climate change. In addition, most visitors to science learning centers like nature museums, parks, and aquariums report high levels of concern over climate change and low levels of denial.⁶⁷ Don't let the fear of climate denial hold you back from talking about it! Remember how important our role is. If you do encounter deniers and doubters, here are a few tips:

- **Don't repeat their argument back to them.** Hearing you restate what they said, even to invalidate it, only furthers their conviction that they are right.
- **Work to establish a safe and productive conversation with your whole audience, not just one person.** Breathe deeply and evenly. Speak with a level volume and have an open and relaxed posture. Don't argue. Educate and inform!
- **Use definitive statements to transition away from their argument.** Don't try to debunk the specific narrative a visitor is using. It's helpful here to return to a value statement. For example: It's important to remember that the science

of climate change is settled, we all have responsibility to protect the planet for future generations, and we know how to do it.

- **Recognize when exchanges become unproductive.** Generally, we welcome the chance to converse about diverse perspectives and opinions with our visitors. But there are times when such exchanges become unproductive or hostile. Learn to recognize such situations and be prepared to disengage gracefully for the benefit of all. Sometimes, the goal of your interaction is less about convincing a hostile climate skeptic, and more about modeling certainty for other visitors who are listening. In these instances, consider responding to the skeptic with a definitive statement such as the answer described above.
- **Remember you cannot give someone information when they're not ready to receive it.** You can build trust with visitors by modeling knowledgeable, friendly, professional customer service if challenged. This will help soften a hostile visitor and make it more likely they will receive new information next time, with the next ranger.

QUESTIONS AND ANSWERS

How do I link History & Hope to NPS education programs?

Although this toolkit was not developed specifically for curriculum-based programs, educators may combine the History & Hope framework with best practices to create programs that inspire empowerment and collaborative climate actions for youth. This synergy makes for powerful learning and interaction.

The NPS has a crucial role to play in giving students a new way to think about climate change. Rainey McKenna, Visitor Experience and Resource Stewardship Program Manager at Marsh-Billings-Rockefeller National Historical Park and Saint-Gaudens National Historical Park agrees:

One of the pieces of feedback we get, especially in education, is kids don't want to talk about climate change anymore. I think looking at a different way to approach it, like this toolkit, is important because kids are burned out on talking about climate change. We need to find new ways to bring them into the story.⁶⁸

Anxiety about climate change among young people is high.⁶⁹ Researchers are finding that young people who cope with these feelings “do best by cultivating a sense of agency

and hope despite their climate concerns.”⁷⁰ To best serve youth, we should provide opportunities that empower participants to envision and advance solutions.

If you feel unsure of what actions to share with youth, encourage them to share their personal perspectives on climate with members of their own community. Young people’s perspectives on the climate crisis are especially valuable since they will bear its heaviest burdens. One study found thoughts shared by children helped their parents overcome climate denial and instead support solutions.⁷¹ Empowering young people with experiential learning and a strong connection to their surroundings can encourage them to engage with their communities on climate issues. The Parks for Every Classroom program is a great place to start thinking about linking together education and History & Hope.⁷²

Talking about “controversial” history can increase discomfort quickly for some visitors. Why not just focus on the inspirational parts? Why is it important to check my story for biases?

The NPS is committed to sharing All Americans’ Stories,⁶ including histories that hurt as well as those that heal us and make us

proud. A fair accounting of our past often forces us to confront unintentional consequences, purposeful wrongdoings, blatant injustices, and heinous crimes. Rather than ignoring the dark chapters, they deserve exploration. We can learn from understanding the complexity of our histories more fully and discovering how affected individuals and communities persevere and overcome. Thus, exploration of our problematic past can give us hope to move forward.

Including hard histories is necessary for conveying an honest, inclusive, and accurate account of the past. The History & Hope Worksheet helps you ensure that your story is accurate and gives you a chance to address your own biases. For example, when talking about the leader of a movement, do you talk about the movement as a whole and the many people who worked alongside any leaders? Do you address their prejudices? When describing a civil rights or human rights victory, do you mention who was excluded? When you say “everyone” or “Americans,” do you mean White people? Men? People with money? When you talk about the creation of the NPS, do you address displacement of Indigenous Peoples? Are you referring to Indigenous Peoples in past tense?

Why talk about climate justice?

Both places and people have been considered expendable for progress and profit. Industries like logging, mining, large-scale farming, and mass development have generally treated habitats as consumable, while systems like slavery treated people's humanity as dispensable. Park interpreters who directly confront racism, sexism, violent oppression, and other painful histories offer narratives that address times when people have exerted power over other people and natural resources. This use of power is also a part of every climate change story. We can use interpretation to underscore connections between historic injustices, exploitation of the environment, and today's climate crisis. When climate solutions acknowledge and address this, those solutions are embodying principles of climate justice.

Past decisions that have negatively impacted communities are important to study because their effects are still being felt today. The outcomes of those decisions will intensify in a changing climate. That means communities already dealing with poverty

and systematic discrimination now face increased harm from climate change. Many government policies are considering these intersections. The Department of Defense is integrating climate considerations across its operations: "Rising global temperatures, changing precipitation patterns, climbing sea levels and more extreme weather events will intensify the challenges of global instability, hunger, poverty, and conflict."⁷³

Parks can be a space to help people expand their understanding of how climate change will impact society and their lives. A Yale University poll of Americans in 2020 revealed that the vast majority (82%) understood it as an environmental issue. However, comprehension dropped when understanding the intersection between climate change and economics (64%), health (60%), poverty (32%), national security (31%), and social justice (29%).⁷⁴ While climate change is indisputably an environmental issue, we need to strengthen discussion of its impact as a human rights and climate justice issue.

Understanding the principles of climate justice helps explain why climate change disproportionately impacts the most vulnerable people. It also empowers individuals to integrate this knowledge into how they choose to take action. It's important to recognize that systems that have caused harm to both people and the planet continue to operate today.⁷⁵ When selecting an action, it's crucial to ensure that it does not perpetuate or amplify these harmful systems. Instead, the action should aim to include everyone as an integral part of the solution to address climate change.

QUESTIONS AND ANSWERS

The stories we talk about in my park tend to reflect dominant power structures. How can I expand these to make my stories more inclusive and accurate?

History & Hope relies on the past to inform the future. However, most histories record and emphasize dominant power structures that disregarded and disempowered many people's experiences and voices. That doesn't mean these voices weren't there! It just may take research and creativity to bring them in to your interpretation. The 1-2-3 example about Muir Woods on [page 44](#) both acknowledges the role of powerful people and incorporates perspectives on whose voices were excluded.

Centering your stories around White, affluent, powerful men may perpetuate a perspective that only White, affluent, powerful men have important roles to play in addressing the climate crisis, when we know that everyone has valuable experiences and parts to play. If you find your park stories reflect these dynamics, you have a few options:

1. Dig into research at your park. While time consuming, this method can unveil new rich and relevant stories that can be used in your climate change interpretation and beyond.
2. Consider the wider context people operated in. Who inspired the people at your site? What were the larger movements at the time—and what were these focusing on? The NPS does this frequently when we credit John Muir for being the “father of preservation” even when he wasn't involved with a particular site. History doesn't happen in a vacuum. How can we broaden our stories by looking at them from a mile-high view?
3. Discuss why only certain people were empowered, and highlight the myriad of ideas, solutions, or talent that was ignored or forsaken. This can be a powerful way to discuss how much knowledge and talent could be lost today if voices continue to be silenced. As Dr.

Ayana Elizabeth Johnson says, “How can people of color effectively lead their communities on climate solutions when faced with pervasive and life-shortening racism?”⁷⁶

4. When exploring the Lesson Learned step, use the Yes And approach when talking about these figures. Yes—these figures influenced history and there are times when emphasizing their role is important. And—we can learn from the ways in which they perpetuated dominant culture and power structures and course-correct for the future.

QUESTIONS AND ANSWERS

Interpreting climate change isn't a stated purpose in my park's enabling legislation. Can I still talk about it?

The NPS is committed to relevant interpretation for visitors. That means the stories we interpret at a site don't have to stay stagnant over time, and can change with new information. People made decisions about significance based on the histories they knew and perspectives they held. We have grown and changed. Our perspectives have too, as should the way we interpret our parks.

The 2011 report *Imperiled Promise: The State of History in the National Park Service* stated: "Enabling legislation need not—and should not—be used to close interpretive opportunities, but rather should become an opportunity to open them." Outdated conceptions of the past can prevent interpreters "from highlighting continuities between past and present, relationships with larger contexts."⁵⁰

I'm concerned about using terms that may be accurate but could be polarizing, like "climate justice" and "systematic oppression." Do I need to use them?

The goal of this toolkit is to bring as many people as we can into the climate conversation while centering principles of equity and justice. Terms and words such as "climate justice," "systematic oppression," "White supremacy," and "patriarchy" remain central concerns for the world we live in. Using these terms can help visitors see the National Park Service as accurate and trustworthy. However, for some people, using these words sometimes does the opposite. As with any interpretive situation, think about who you are trying to reach.

History & Hope can be a way to show, not tell, what these words mean. Rather than using the term "climate justice," can you tell a story that illustrates an example of climate injustice? Invite visitors to consider what it would look like to right that wrong. So long as you don't lose the tenor of what these words stand for, trust your knowledge and understanding of your audience and tailor your message accordingly.

What is the role of the NPS in elevating racially diverse and youth voices?

Young people and people of color are often active leaders in the fight against climate change and for climate justice. This is important because they know they will bear the burden of decisions that have been and continue to be made. Their voices can be amplified through your narratives, which can authenticate stories of climate justice and strengthen the interpretive experience.

We encourage you to work with park leadership and appropriate pathways to engage with community members, tribal Elders, kupuna, researchers, and other knowledge holders that have a stake in the message you are sharing. When this expertise comes from Indigenous Peoples or descendent communities, it's imperative to follow protocols and work through both the park's and the Indigenous community's leadership. You can learn more about this on [page 33 and 34](#). Remember that "relationships move at the speed of trust."⁷⁷ This work takes time; don't expect results overnight.

QUESTIONS AND ANSWERS

If I'm prioritizing collective actions, what role do individual actions play?

It's important to understand that individual actions alone cannot meet the scale of the problem. Everything we do individually can add up to important cumulative benefits for the planet. Yet if we simply stop there, we will fall far short of what needs to be done. In History & Hope, any actions we describe need to be framed around collective efforts.

Again, this doesn't mean you should discourage individual actions. Actions by individuals reinforce concern, challenge the notion that it's someone else's problem to solve, and can serve as a powerful role model for others. For instance, installing solar panels on residential rooftops has a contagious effect. A factor contributing to whether people will install solar panels is if their neighbors are doing it too.⁷⁸ Making concern about climate change normal and visible can create a climate-friendly, zero-emission bandwagon that inspires others to follow suit. If a visitor asks you if they should still take individual actions, don't discourage them! But we also want to encourage people to put their time and

resources where they will have the most impact and make sure that individual actions don't overshadow the larger shifts that need to happen.

It's important that you prioritize collective actions that address systemic issues and promote equitable solutions. This is especially true because some people are in a better position to make individual sacrifices than others—we shouldn't be asking the same of everyone. We know that the current system doesn't always make the low-carbon action easy. If the bus takes an hour versus a 20-minute car ride, it's hard to ask people to choose the harder option. The themes of this toolkit emphasize the collective nature of what we need to create change. When we work with our communities, together the impact is all the larger.

Science tells us that a certain degree of climate change is already locked in. However, scientists also tell us there are reasons for hope. We know how to make progress toward decarbonization and are already seeing results. How much the climate changes depends on what we do now to move towards a more sustainable and just future.

How do partner organizations fit with History & Hope interpretations?

Interpreters can introduce visitors to existing climate actions by collaborating with local organizations and featuring their work. Partner projects can offer visitors insights and models for how people have already joined together to rise to the occasion and take action.

Working with partner organizations may be particularly important to illustrate climate justice. The life experiences and perspectives that climate justice activists hold is often very different from those of NPS interpreters.

Include partner organizations in interpretive program planning and delivery. This will free you from representing communities you can't comfortably speak for, while sharing authentic voices with visitors, either in person or through your use of direct quotes or footage.

Partner organizations and individuals should be compensated for their time whenever possible.

The NPS is careful about appearing to give preference to one organization over another. For more on how to represent partner relationships without violating ethics rules, read on!

QUESTIONS AND ANSWERS

Am I allowed to highlight one organization as an example of a climate action?

The federal government is careful not to appear to endorse a single organization.⁷⁹ However, NPS employees can answer inquiries about how a person could get involved with a comprehensive list of ways to do that, verbally or in writing.⁸⁰ If you decide to highlight the actions of an organization that showcases a just, systemic, and collective approach to climate action, also provide the public with a list of others that do so. For example, the Environmental Protection Agency has a list of organizations to which they've given environmental justice grants for projects that address local environmental and public health issues.⁸¹ Providing visitors with such a list ensures that you are not favoring one organization. If you want to highlight an existing partnership between the park and a local organization, you can do so. However, you still should provide an organization list to visitors.

Can we examine the NPS's role in exacerbating climate change, including carbon emissions from tourism travel?

We cannot shy away from our own history as an agency in relation to climate change.

The creation and development of the National Park System parallels many of the structures that contributed to the climate crisis. In this toolkit, the Path Lens explores the ways in which progress has had the unintended consequence of climate change. Some NPS examples include road building, resource degradation, and perpetuating an ethos that separates human and non-human life through the creation of "wilderness" (for more, see page 26). The NPS is also committed to acknowledging and interpreting our mistakes and how we've corrected them. We've stopped feeding wildlife, killing predatory species, stocking invasive fish in our lakes, and more. These decisions now serve as illustrations in our stories of what it means to correct past harms and guide

future management in the face of climate change.

To adopt a "climate first" approach that avoids outcomes worse than those that are already baked in, we need to account for GHG emissions from NPS operations, including from mass tourism. We can talk with visitors about the general role of public transit in alleviating carbon emissions from tourism. We can also talk with visitors about specific ways they can access the park without a car—particularly relevant for urban parks. We can also discuss alternative ways for the NPS to move forward, such as using more remote interpretation and education, as well as helping visitors understand the huge contribution of airplane and auto travel to their personal carbon emissions.

The NPS's Green Parks Plan establishes a vision for net-zero parks through a series of objectives that acknowledge our own emissions and seeks to address them.⁸²

QUESTIONS AND ANSWERS

What about actions that may not directly lead to emitting fewer GHGs but still boost feelings of stewardship and action, like a beach clean-up?

When we ask people to put their time, attention, and energy towards climate action, we want to honor that effort by encouraging actions that address the root of the problem. For example, asking someone to recycle plastic doesn't get to the root of the problem, since the plastics we carefully sort are made from fossil fuels. If we leave visitors with the impression that relying solely on recycling plastic is an effective way to address climate change, we further entrench our reliance on fossil fuels. Rather than focus on a solution with a difficult explanatory chain to reach the heart of the issue, try to encourage a solution that has a clear path to addressing climate change—transitioning away from fossil fuels as quickly as possible. For more on which climate actions are effective, see [Step 3: Action](#).

Environmentally friendly actions that broadly encourage sustainability are still worthwhile! They can reinforce concern, be a tangible way of expressing stewardship, and are especially good for involving and teaching children. But with regards to climate change, we must be ready to explain the proper hierarchy of actions. The most

effective efforts help protect our parks and planet by reducing our reliance on fossil fuels and moving us towards a carbon-free future.

As Caitlin Campbell, an interpreter who worked at Glacier Bay National Park and Preserve said,

I've met people weeping watching the glaciers in Glacier Bay. These people felt despair and guilt and the last thing you'd want to tell them is that it's because they weren't driving a Prius all these years. You want to empower them to take collective action to change the big systems that produced their disposable plastic coffee cup and made transportation so inefficient.⁸³

Actions like recycling or picking up trash are important for the world we live in now, but we need to encourage visitors to not stop there. If they do, we won't move to the world we need for a resilient, low-carbon future.

The NPS is a science-based organization. Are you suggesting we don't use science?

Research confirms what most of us have experienced—facts alone don't change minds.⁸⁴ Indeed, one study found that people with more science education and literacy are further polarized on issues like

climate change; they have the skills to cherry-pick facts to fit their narratives.⁸⁵ For people to change their mind, they can't feel that their identity is being attacked. Author David McRaney writes, "when we're engaged with a story, we don't prepare a rebuttal, because we feel swept up. A story isn't trying to change your mind. It isn't threatening your autonomy or your identity."⁴⁷

History & Hope uses stories to tap into human nature. Whether you're a fan of Greek mythology or Disney movies, you've been swept up in the power of stories as lessons. Everyone knows they don't want to be the Sauron or the Captain Hook of the story. People have always used stories to work through hard situations.

When it comes to talking about climate change, using stories helps you reach your audience in a meaningful way. But science and facts are still a part of the equation. A strategic fact can take a story from feeling mythical into being grounded in reality. As a science-based institution, it's important for us to be able to back up our narratives. However, stories can be the link that allows people to see themselves in the problem and its solutions, and ultimately change their minds.

ACKNOWLEDGMENTS

“History & Hope for Climate Action: An Interpretive Toolkit” was initiated and developed by:

DONNA GRAVES, [Public Historian](#), and ELIZABETH VILLANO, Interpretive Park Ranger with the NPS Climate Change Response Program, with the assistance of Cassie Anderson, former South District Visitor Services Supervisor at the George Washington Memorial Parkway.

Funders

The Climate Change Response Program and the Cultural Resources, Partnerships, and Science Directorate were enthusiastic and early sponsors and partners for this project. The National Parks Conservation Association, the National Park Foundation, and the National Council for Public History all contributed funding.

Consultation and Development

In total, the History & Hope team has consulted with individuals from 40 parks, programs, and sites, as well as additional reviewers from regional and national NPS offices. Their input and suggestions were invaluable.

In 2022, development of this toolkit included consultation with NPS interpreters that

represent a range of resource types, scales, and regions. Project leads held robust conversations with park staff about the toolkit’s relevance and discussed new ideas, interpretive techniques, and more. Consultations helped refine the toolkit to strengthen applicability to sites across the country. Their stories bring the toolkit to life. We thank and acknowledge the many contributing park interpreters from:

Cuyahoga Valley National Park, Fort Point National Historic Site, Hawai’i Volcanoes National Park, Maggie L. Walker National Historic Site, Natchez Trace Parkway, New Bedford Whaling National Historical Park, Pullman National Historical Park, Richmond National Battlefield Park, Whitman Mission National Historic Site, and Zion National Park.

Content experts and practitioners from the following park sites, offices, and educational organizations reviewed content and provided feedback:

Arthur Carhart National Wilderness Training Center, Boston African American National Historic Site, Boston National Historical Park, Channel Islands National Park, Cumberland

Island National Seashore, Denali National Park and Preserve, DeSoto National Memorial, El Morro National Monument, Eugene O’Neill National Historic Site, Fort Vancouver National Historic Site, George Washington Memorial Parkway, George Washington Carver National Monument, Glen Canyon National Recreation Area, Grand Canyon National Park, Glacier National Park, International Coalition of Sites of Conscience, John Muir National Historic Site, Juan Bautista de Anza National Historic Trail, Lewis and Clark National Historic Trail, Lincoln Park Zoo, Lowell National Historical Park, Marsh-Billings-Rockefeller National Historical Park, Mississippi National River and Recreation Area, Muir Woods National Monument, Northeast Regional Office, North Cascades National Park, North Coast and Cascades Inventory and Monitoring Network, Ocean and Coastal Resources Program, Port Chicago Naval Magazine National Memorial, Rosie the Riveter/WWII Home Front National Historical Park, Saint-Gaudens National Historical Park, Santa Monica Mountains National Recreation Area, The Confluence Lab.

ACKNOWLEDGMENTS

Special Thanks

History & Hope has relied from the very beginning on the leadership and support of:

- Barbara Little, Program Manager, Cultural Resources Office of Interpretation and Education
- Larry Perez, Communications Coordinator, Climate Change Response Program

We want to thank our “brain trust,” which included:

- Cassie Anderson, who honed and expanded our thinking immeasurably on the hardest topics.
- Claire Baker, who provided vital training support and editing assistance in the last phase of the project.
- Nichole McHenry, whose experience helped us navigate the NPS and avoid potential pitfalls.

The final toolkit wouldn’t have been possible without several key team members:

- Catherine Mills and David Betz offered stellar design skills that transformed an unwieldy Word document into a beautiful toolkit. Michael Faist and Matt Holly then skillfully produced the final layout and revisions.
- Doug Montalbano and Dave Harmon graciously served as early copyeditors.
- Clay Hanna has been an instrumental and early champion of the toolkit.

We are immensely grateful for the review, input, and suggestions from the NPS Indigenous Employee Collective (CIRCLE) leadership and Office of Native American Affairs (ONAA) staff:

- Alisha Deegan, Maija H. Lukin, Lloyd Masayumptewa, RoGene I. Whiteman, Melia M. Lane-Kamahele, Eric D. Chiasson, David R. Nichols, Melissa S. Castiano, Dorothy FireCloud, and Michael Lyndon.

Across the span of four years, more people reviewed and contributed to this toolkit than we have room to thank, and we remain indebted to them for their time and wisdom. Several we’d like to thank by name are:

- Christiana Admiral, Kristen Allen, Jody Anastasio, Brooke Bauman, Sue Bennett, Amanda Berlinski, Tucker Blythe, Ethan Bullard, Matthew Cahill, Caiti Campbell, Bobbie and Greg Cane, Jeremy Childs, Lindsay Compton, Dom Cardea, Janine Da Silva, Andrea DeKoter, Jules DeNoto, Gregory Dreicer, Diane Eilenstein, Julianna Ellis, Jane Farmer, Sheri Forbes, Teri Gage, Kristin Gallas, Hazel Galloway, Angel Garcia, Mike Gallant, Ben Gibson, Jill Hamilton-Anderson, Emma Johnson, Dan Kerber, Kate Kunkel-Patterson, Jennifer Ladino, Eric Leonard, Andy Marker, Rainey McKenna, James Osborne, Braden Paynter, Jenny Parker, Nathan Pattee, Stephanie Pooler, Brian Powers, Jasmine Reinhardt, Megan Richotte, Camryn Riddell, Ajena Rogers, John Rudy, Barbara Scott, Perri Spreiser, Jamie Smith, Morgan Smith, Sarahlily Stein, Amanda Sweeney, Naomi Torres, and Mandi Toy.

PHOTO CREDITS

Multiple images on a page are credited from left to right, top to bottom.

Cover: Dave Pidgeon/Adobe Stock

Page 3: NPS/Julia Schock

Page 4: Public Domain

Page 5: NPS

Page 7: NPS

Page 9: NPS/Jace Ritchey

Page 10: Dr. Ayana Elizabeth Johnson; UN Environment Programme

Page 11: Library of Congress; NPS

Page 12: NPS, NPS/Scott Sawyer

Page 13: ©Tom Fritsch; NPS

Page 14: NPS

Page 18: Library of Congress; Humboldt Historical Society; NPS/Arianna Punzalan;NPS

Page 20: Library of Congress;NPS

Page 21: NPS/Tory Starling

Page 22: NPS; Public Domain; ©Heather Wallis Murphy; NPS; NPS

Page 24: NPS; NPS

Page 25: NPS/Andrew J. Russell; SRP; NPS/M. Reed; NPS

Page 28: NPS /Daniel Pels; NPS/Scarlett Farley

Page 29: USGS/L. DeSmither; NPS; NPS; NPS

Page 31: NPS MRCE; NPS MRCE

Page 32: USFWS; NPS/Brian Maul; NPS; Ryan Curran White/Parks Conservancy

Page 36: NPS/Kyle Joly

Page 39: NPS

Page 40: Boston Pictorial Archives, Boston Public Library

Page 41: Library of Congress

Page 42: NPS

Page 43: Library of Congress

Page 44: NPS

Page 47: NPS/ Carmen Aurrecochea

Page 48: NPS; NPS/©Marc Muench

Page 55: NPS; NPS

Page 56: NPS

1. Katharine Hayhoe. "The Most Important Thing You Can Do to Fight Climate Change: Talk about It." TED Talks, November 2018. https://www.ted.com/talks/katharine_hayhoe_the_most_important_thing_you_can_do_to_fight_climate_change_talk_about_it?language=en.
2. We thank Dr. Ayana Elizabeth Johnson's office for granting us permission to use this tool through an email communication of April 6, 2023. Information on the Venn Diagram can be found at: Johnson, Ayana Elizabeth. "Climate Action Venn Diagrams". Accessed June 2023. <https://www.ayanaelizabeth.com/climatevenn>.
3. UN Environment Programme. "The Six-Sector Solution to Climate Change." New York: United Nations, December 7, 2020. <https://www.unep.org/interactive/six-sector-solution-climate-change/>.
4. Jonathan Haidt. *The Righteous Mind: Why Good People Are Divided by Politics and Religion*. New York: Vintage Books, 2012.
5. Bhalla, Jag. "It Is in Our Nature to Need Stories." Scientific American Blog Network, May 8, 2013. <https://blogs.scientificamerican.com/guest-blog/it-is-in-our-nature-to-need-stories/>.
6. US National Park Service. "Telling All Americans' Stories." September 27, 2022. <https://www.nps.gov/subjects/tellingallamericansstories/index.htm>.
7. National Park System Interpretive Development Program. *Foundations of Interpretation, Competencies for 21st Century*. Harpers Ferry, WV: US National Park Service, November 2017. (Internal NPS only).
8. Sabherwal, Matthew T. Ballew, Sander Linden, Abel Gustafson, Matthew H. Goldberg, Edward W. Maibach, John E. Kotcher, Janet K. Swim, Seth A. Rosenthal, and Anthony Leiserowitz. "The Greta Thunberg Effect: Familiarity with Greta Thunberg Predicts Intentions to Engage in Climate Activism in the United States." *Journal of Applied Social Psychology* 51, no. 4 (January 25, 2021): 321–333. <https://doi.org/10.1111/jasp.12737>.
9. US National Park Service. "What We Do." Updated October 20, 2023. <https://www.nps.gov/aboutus/index.htm>.
10. Convention on Biological Diversity. "Target 3: 30 Per Cent of Areas Are Effectively Conserved." Kunming-Montreal Global Biodiversity Framework. Accessed August 18, 2023. <https://www.cbd.int/gbf/targets/3/>.
11. Wotipka, Sam. "How Racism Reshaped the Civilian Conservation Corps." Cascade PBS, March 29, 2023. <https://crosscut.com/equity/2023/03/how-racism-reshaped-civilian-conservation-corps>.
12. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. *Media Release: IPBES Values Assessment - Decisions Based on Narrow Set of Market Values of Nature Underpin the Global Biodiversity Crisis*. 2022. https://www.ipbes.net/media_release/Values_Assessment_Published.
13. Rebecca Hersher and Robert Benincasa. "How Federal Disaster Money Favors the Rich." NPR, March 5, 2019. <https://www.npr.org/2019/03/05/688786177/how-federal-disaster-money-favors-the-rich>.
14. Viviane Clement, Kanta Kumari Rigaud, Alex de Sherbinin, Bryan Jones, Susana Adamo, Jacob Schewe, Nian Sadiq, and Elham Shabahat. *Groundswell Part 2: Acting on Internal Climate Migration*. Washington, DC: The World Bank, 2021. Matthew E. Hauer. "Migration Induced by Sea-level Rise Could Reshape the US Population Landscape." *Nature Climate Change* 7 (April 17, 2017): 321–325. <https://doi.org/10.1038/nclimate3271>
15. United Nations Framework Convention on Climate Change. "Conflict and Climate." New York: United Nations, July 12, 2022. <https://unfccc.int/news/conflict-and-climate>.
16. Commission on Wartime Relocation and Internment of Civilians, *Personal Justice Denied: Report of the Commission on Wartime Relocation and Internment of Civilians*. Seattle, Washington: University of Washington Press and Washington D.C.: Civil Liberties Public Education Fund, 1997.
17. National Park Service. Policy Memorandum 22-03: Fulfilling the National Park Service Trust Responsibility to Indian Tribes, Alaska Natives, and Native Hawaiians in the Stewardship of Federal Lands and Waters, Charles Sams (author). Washington DC: September 12, 2022. https://www.nps.gov/subjects/policy/upload/PM_22-03.pdf.
18. Robin Wall Kimmerer. *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*. Minneapolis, Minnesota: Milkweed Editions, 2013.
19. The White House. "White House Releases First-of-a-Kind Indigenous Knowledge Guidance for Federal Agencies." December 1, 2022. <https://www.whitehouse.gov/ceq/news-updates/2022/12/01/white-house-releases-first-of-a-kind-indigenous-knowledge-guidance-for-federal-agencies/>.
20. B. 'Toastie' Oaster. "From Dominance to Stewardship: Chuck Sams' Indigenous Approach to the NPS." *High Country News*, November 1, 2022. <https://www.hcn.org/issues/54-11/indigenous-affairs-national-park-service-from-dominance-to-stewardship-chuck-sams-indigenous-approach-to-the-nps/#:~:text=What%20people%20call%20%E2%80%9Cwild%2C%E2%80%9D%20we%E2%80%99ve%20called%20home%20for>.
21. US National Park Service. "Law and Policy." May 6, 2024. <https://www.nps.gov/subjects/wilderness/law-and-policy.htm>.

22. Richard Schuster, Ryan R. Germain, Joseph R. Bennett, Nicholas J. Reo, and Peter Arcese. "Vertebrate Biodiversity on Indigenous-Managed Lands in Australia, Brazil, and Canada Equals That in Protected Areas." *Environmental Science & Policy* 101 (November 2019): 1–6. <https://doi.org/10.1016/j.envsci.2019.07.002>.
23. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. *Key Messages from the IPBES Global Assessment of particular relevance to Indigenous Peoples and Local Communities*. 2019. https://files.ipbes.net/ipbes-web-prod-public-files/inline-files/ILK_KeyMessages_IPBES_GlobalAssessment_final_ENGLISH_lo-res.pdf.
24. US National Park Service. "Traditional Ecological Knowledge." June 29, 2023. <https://www.nps.gov/subjects/tek/index.htm>.
25. George Santayana. *The Life of Reason*. New York: Charles Scribner's Sons, 1905.
26. City of Boston. "Climate Ready Boston." July 17, 2016. <https://www.boston.gov/environment-and-energy/climate-ready-boston>.
27. Rebecca Solnit. "Hope Is an Embrace of the Unknown." *The Guardian*, 15 July 2016. <https://www.theguardian.com/books/2016/jul/15/rebecca-solnit-hope-in-the-dark-new-essay-embrace-unknown>.
28. Yale Program on Climate Change Communication "What Is Climate Change Communication?" Accessed June 2023. <https://climatecommunication.yale.edu/about/what-is-climate-change-communication/>.
29. National Network of Ocean and Climate Change Interpretation. "NNOCCI Reframe Cards." September 2022. <https://nnocci.org/wp-content/uploads/2022/10/NNOCCI-Reframe-Cards-Full-Set-Sept-2022-1.pdf>.
30. Jean Buzby. "Food Waste and Its Links to Greenhouse Gases and Climate Change." Washington, DC: US Department of Agriculture, January 24, 2022. <https://www.usda.gov/media/blog/2022/01/24/food-waste-and-its-links-greenhouse-gases-and-climate-change#:~:text=EPA%20estimated%20that%20each%20year>.
31. The White House. "Biden-Harris Administration Outlines 'America the Beautiful' Initiative." July 29, 2021. <https://www.whitehouse.gov/ceq/news-updates/2021/05/06/biden-harris-administration-outlines-america-the-beautiful-initiative/>.
32. US Department of Energy. "Department of Energy Announces \$80 Million for Innovative Building Technologies and Practices." September 5, 2020. <https://www.energy.gov/articles/department-energy-announces-80-million-innovative-building-technologies-and-practices>.
33. Shawn Davis, Stefan Karg, Dr. Jessica Thompson, Caroline Beard, and Nichole Tilley. *Climate Change Education Partnership Visitor Survey Summary Report*. Fort Collins, CO: Colorado State University, August 30, 2013.
34. Anthony Leiserowitz, Edward Maibach, Seth Rosenthal, John Kotcher, Emily Goddard, Jennifer Carman, Matthew Ballew, Marija Vernner. *Climate Change in the American Mind*: Fall 2023. New Haven, CT: Yale Program on Climate Change Communication, 2023.
35. Anne-Marie Bonneau. "How to Cope with Environmental Guilt Syndrome (EGS)." *Zero-Waste Chef*, February 14, 2019. <https://zerowastechef.com/2019/02/14/how-to-cope-with-environmental-guilt-syndrome-egs/>.
36. US Department of Energy. "Energy Independence and Security." Accessed August 2023. <https://www.energy.gov/eere/energy-independence-and-security#:~:text=Renewable%20power%20supports%20energy%20security>.
37. UN Environment Programme. "Air Pollution Note—Data You Need to Know." New York: United Nations, August 30, 2022. https://www.unep.org/interactive/air-pollution-note/?gclid=CjwKCAjw52mBhB5EiwA05YKo8BqArnRpEBglBjaXdekYGwzWIA6Tkdc4N9bpbzUJxBhncYGTsQG9O5RoC3TsQAvD_BwE.
38. United Nations Economic Commission for Europe. "Carbon Sinks and Sequestration." Geneva: United Nations Economic Commission for Europe, Accessed August 2023. <https://unece.org/forests/carbon-sinks-and-sequestration>.
39. Bernardo B. N. Strassburg, Alvaro Iribarrem, Hawthorne L. Beyer, Carlos Leandro Cordeiro, Renato Crouzeilles, Catarina C. Jakovac, André Braga Junqueira, et al. "Global Priority Areas for Ecosystem Restoration." *Nature* 586 (October 14, 2020): 1–6. <https://doi.org/10.1038/s41586-020-2784-9>.
40. Pörtner, H.O., Scholes, R.J., Agard, J., Archer, E., Arneth, A., Bai, X., and Barnes, D et al. *IPBES-IPCC co-sponsored workshop report on biodiversity and climate change*. 2021. <https://doi.org/10.5281/zenodo.4659158>.
41. Karen Hallisey. "How Riding a Bike Benefits the Environment." University of California Los Angeles, May 11, 2022. <https://transportation.ucla.edu/blog/how-bike-riding-benefits-environment#:~:text=Choosing%20a%20bike%20over%20a>.
42. Harvard T.H. Chan School of Public Health. "Bicycling." Cambridge, MA: Harvard University, December 1, 2022. <https://www.hsph.harvard.edu/nutrition-source/bicycling/#:~:text=Health%20benefits%20include%20improved%20cardiovascular>.
43. National Aeronautics and Space Administration. "World of Change: Global Temperatures." Earth Observatory. January 29, 2020. <https://earthobservatory.nasa.gov/world-of-change/global-temperatures#:~:text=According%20to%20an%20ongoing%20temperature>.
44. Maddie Crum. "Margaret Atwood: 'I Don't Call It Climate Change. I Call It the Everything Change.'" *HuffPost*, November 12, 2014. https://www.huffpost.com/entry/margaret-atwood-interview_n_6141840.

45. Kris De Meyer, Emily Coren, Mark McCaffrey, and Cheryl Slean. "Transforming the Stories We Tell about Climate Change: From 'Issue' to 'Action.'" *Environmental Research Letters* 16, no. 1 (November 3, 2020). <https://doi.org/10.1088/1748-9326/abcd5a>.
46. Gabrielle Wong-Parodi and Irina Feygina. "Engaging People on Climate Change: The Role of Emotional Responses." *Environmental Communication* 15, no. 5 (2021): 571–93. <https://doi.org/10.1080/17524032.2020.1871051>.
47. Andrew J. Hoffman, *How Culture Shapes the Climate Change Debate*. Stanford, California: Stanford University Press, 2015.
48. Marshall Ganz. "Why Stories Matter." *Sojourners*, March 1, 2009. <https://sojo.net/magazine/march-2009/why-stories-matter>. Emily Falk. "Op-Ed: Why Storytelling Is an Important Tool for Social Change." *Los Angeles Times*, June 27, 2021. <https://www.latimes.com/opinion/story/2021-06-27/stories-brain-science-memory-social-change>.
49. For more on this see: Jason W. Moore and Raj Patel. *A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature, and the Future of the Planet*. Berkeley, California: University of California Press, 2017. Kate Raworth. "Change the Goal: From GDP to the Doughnut" Chapter One of *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*. London: Penguin Random House, 2017.
50. Anne Mitchell Whisnant, Marla R. Miller, Gary B. Nash, and David Thelen. *Imperiled Promise: The State of History in the NPS*. Bloomington, Indiana: Organization of American Historians, 2011.
51. Richard S. Lazarous, *Emotion and Adaptation*. New York: Oxford University Press, 1991.
52. Jennifer R. Marlon, Brittany Bloodhart, Matthew T. Ballew, Justin Rolfe-Redding, Connie Roser-Renouf, Anthony Leiserowitz, and Edward Maibach. "How Hope and Doubt Affect Climate Change Mobilization." *Frontiers in Communication* 4 (2019). <https://doi.org/10.3389/fcomm.2019.00020>.
53. Amy E. Chadwick. "Toward a Theory of Persuasive Hope: Effects of Cognitive Appraisals, Hope Appeals, and Hope in the Context of Climate Change." *Health Communication* 30, no. 6 (2014): 598–611. <https://doi.org/10.1080/10410236.2014.916777>.
54. University of California Center for Climate Justice. "What is Climate Justice?" 2022. <https://centerclimatejustice.universityofcalifornia.edu/>.
55. Janis Bowdler and Benjamin Harris. "Racial Inequality in the United States." US Department of the Treasury, July 21, 2022. <https://home.treasury.gov/news/featured-stories/racial-inequality-in-the-united-states>. Aline Baciu, Yamrot Negussie, Amy Geller, and James N Weinstein. "The State of Health Disparities in the United States." Bethesda, MD: National Institutes of Health, 2018. <https://www.ncbi.nlm.nih.gov/books/NBK425844/>.
56. National Parks Omnibus Management Act of 1998, Public Law 105-391 (1998). <https://www.congress.gov/bill/105th-congress/senate-bill/1693>.
57. National Park Service Centennial Act, Public Law 114-289 (2016). <https://www.congress.gov/bill/114th-congress/house-bill/4680>.
58. South Central Climate Adaptation. "Managing for a Changing Climate." Norman, OK: University of Oklahoma, December 3, 2019. <https://www.youtube.com/playlist?list=PLeQQSAEH5PoblZ-Kfqt9FJDVX775YBqX>.
59. NOAA National Centers for Environmental Information. "State Climate Summaries." Silver Spring, MD: US National Oceanic and Atmospheric Administration, 2022. <https://statesummaries.ncics.org/>.
60. US Global Change Research Program. "The Fifth National Climate Assessment". 2023. <https://nca2023.globalchange.gov/>.
61. US National Park Service. "Park Specific Climate Science." February 2, 2024. <https://www.nps.gov/sub-jects/climatechange/parkclimatescience.htm>.
62. Yale Program on Climate Change Communication. "What We Do." 2023. https://climatecommunication.yale.edu/?gclid=CjwKCAjwvdajBhBEEiwAeMh1U8A-oNuiQKlOINH4fzBjXwwKKBslg8MO4IMkN-2RDnUWFJueuCnSKaWBoCVP4QAvD_BwE.
63. National Network for Ocean and Climate Change Interpretation. "NNOCCI." Accessed July 9, 2023. <https://nnocci.org/>.
64. Frameworks Academy. "Framing for Climate Interpreters." Accessed June 2023. <https://frameworksacademy.org/products/changing-the-conversation-on-ocean-and-climate-change>.
65. Rodney Harrison and Colin Sterling, eds. *Reimagining Museums for Climate Action*. London: University College London Institute of Archaeology, 2021.
66. US National Park Service. "Climate Change—Boston National Historical Park." July 26, 2023. <https://www.nps.gov/bost/learn/climate-change.htm>.
67. Janet K. Swim, Nathaniel Geiger, John Fraser, and Nette Pletcher. "Climate Change Education at Nature-Based Museums." *Curator: The Museum Journal* 60, no. 1 (January 2017): 101–119. <https://doi.org/10.1111/cura.12187>.
68. Rainey McKenna, interview by Elizabeth Villano, April 11, 2023.
69. Caroline Hickman, Elizabeth Marks, Panu Pihkala, Susan Clayton, R Eric Lewandowski, Elouise E Mayall, Britt Wray, Catriona Mellor, and Lise van Susteren. "Climate Anxiety in Children and Young People and Their Beliefs about Government Responses to Climate Change: A Global Survey." *The Lancet Planetary Health* 5, no. 12 (December 2021). [https://doi.org/10.1016/s2542-5196\(21\)00278-3](https://doi.org/10.1016/s2542-5196(21)00278-3).

70. Elizabeth Marks, Caroline Hickman, Panu Pihkala, Susan Clayton, Eric R. Lewandowski, Elouise E. Mayall, Britt Wray, Catriona Mellor, and Lise van Susteren. "Young People's Voices on Climate Anxiety, Government Betrayal and Moral Injury: A Global Phenomenon." *SSRN* (September 7, 2021). <http://dx.doi.org/10.2139/ssrn.3918955>.
71. Danielle F. Lawson, Kathryn T. Stevenson, M. Nils Peterson, Sarah J. Carrier, Renee L. Strnad, and Erin Seekamp. "Children Can Foster Climate Change Concern among Their Parents." *Nature Climate Change* 9, no. 6 (May 6, 2019): 458–462. <https://doi.org/10.1038/s41558-019-0463-3>.
72. Parks for Every Classroom. "Home." US National Park Service and Shelbourne Farms, 2021. <https://www.parkforeveryclassroom.org/>.
73. John Banusiewicz. "Hagel to Address 'Threat Multiplier' of Climate Change." Washington, DC: US Department of Defense, November 13, 2014. <https://www.defense.gov/News/News-Stories/Article/Article/603440/hagel-to-address-threat-multiplier-of-climate-change/>.
74. Anthony Leiserowitz, Edward Maibach, Seth Rosenthal, John Kotcher, Parrish Bergquist, Matthew Ballew, Matthew Goldberg, Abel Gustafson, and Xinran Wang. *Climate Change in the American Mind*: April 2020. New Haven, CT: Yale Program on Climate Change Communication, 2020.
75. S. Nazrul Islam and John Winkel. "Climate Change and Social Inequality." New York: United Nations Department of Economic & Social Affairs, October 2017. https://www.un.org/esa/desa/papers/2017/wp152_2017.pdf.
76. Ayana Elizabeth Johnson. "I'm a Black Climate Expert. Racism Derails Our Efforts to Save the Planet." *Washington Post*, June 3, 2020. <https://www.washingtonpost.com/outlook/2020/06/03/im-black-climate-scientist-racism-derails-our-efforts-save-planet/>.
77. Jennifer Blatz. "Social Change Happens at the Speed of Relationships." *Strive Together*, May 20, 2019. <https://www.strivetgether.org/social-change-happens-at-the-speed-of-relationships/#:~:text=To%20quote%20a%20fellow%20weaver>.
78. Bryan Bollinger and Kenneth Gillingham. "Peer Effects in the Diffusion of Solar Photovoltaic Panels." *Marketing Science* 31, no. 6 (November 2012): 900–912. <https://doi.org/10.1287/mksc.1120.0727>.
79. *Federal Register*. "2635.702 Use of Public Office for Private Gain." August 7, 1992. <https://www.ecfr.gov/current/title-5/chapter-XVI/subchapter-B/part-2635/subpart-G/section-2635.702>.
80. US National Park Service. *Reference Manual 21: Partnerships* [Chapter 3:Partnerships.] August 31, 2020. <https://www.nps.gov/subjects/partnerships/rm-21-chapter-3.htm>.
81. US Environmental Protection Agency. "Environmental Justice Small Grants Program." March 27, 2023. <https://www.epa.gov/environmentaljustice/environmental-justice-small-grants-program>.
82. US National Park Service. Green Parks Plan: Third Edition. *Advancing the National Park Service Mission Through Sustainable Operations*. January 2023. <https://www.nps.gov/subjects/sustainability/upload/NPS-Green-Parks-Plan-Third-Edition.pdf>
83. Caitlin Campbell, email message to Elizabeth Villano, April 13, 2022.
84. Irmed Bouchrika. "Why Facts Don't Change Our Minds and Beliefs Are so Hard to Change." *Research.com*, October 1, 2023. <https://research.com/education/why-facts-dont-change-our-mind>. David McRaney. *How Minds Change: The Surprising Science of Belief, Opinion, and Persuasion*. New York: NY: Portfolio, 2022.
85. Caitlin Drummond and Baruch Fischhoff. "Individuals with Greater Science Literacy and Education Have More Polarized Beliefs on Controversial Science Topics." *Proceedings of the National Academy of Sciences* 114, no. 36 (2017): 9587–92. <https://doi.org/10.1073/pnas.1704882114>.

CITATION

PLEASE CITE THIS PUBLICATION AS:

Donna Graves and Elizabeth Villano with Cassie Anderson. 2024. "History & Hope for Climate Action: An Interpretive Toolkit." National Park Service, Climate Change Response Program, Fort Collins, Colorado.

Views, statements, findings, conclusions, recommendations, and data in this report do not necessarily reflect views and policies of the National Park Service, US Department of the Interior. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the US Government.

This report is available in digital format at: irma.nps.gov/DataStore/Reference/Profile/2305667