

# **Green Parks Plan**

Advancing Our Mission Through Sustainable Operations



Spring 2016



# By the Numbers



411 Number of national parks



55 million Square feet of constructed space (such as visitor centers and historic structures)



18,000 Number of miles of trails



### 5 million

Acres of maintained landscapes (such as campgrounds, urban parks and battlefields)



### 307 million

Annual visits to national parks and opportunities to demonstrate sustainable operations



### 17,000

U.S. households that, on average, consume as much electricity annually as the entire National Park Service



### 135

Climate Friendly Parks

Cover photos:

(Left) A park ranger leads visitors on an educational tour through Cliff Palace in Mesa Verde National Park. Credit: William Silver / Shutterstock.com (Center) The Zion Shuttle is a propane powered courtesy bus for tourists visiting Zion National Park. Credit: Victor Maschek / Shutterstock.com (Right) A trail in Cuyahoga Valley National Park. Credit: Zack Frank / Shutterstock.com



## **Director's Message**

### Sustainability at the Turn of the NPS Century

As the National Park Service celebrates our first century and looks forward to our second, sustainability and environmental stewardship remain a key focus. Over the last 100 years, we have prioritized the preservation of this country's natural and cultural landscapes for the enjoyment of future generations. We have been a leader in sustainability, achieving great progress while embracing change. And we have learned over time valuable lessons on how to sustainably manage the facilities and resources that make them special.

As we look forward to the next century of sustainability, we continue to assess our internal operations and external engagement, with the goal of moving towards parks that are net zero energy, water, and waste. This revised *Green Parks Plan* reaffirms the NPS vision to integrate sustainable practices into every aspect of Service operations and outlines updated objectives to achieve that long-term vision.

At this turn-of-the-century moment, we must also increasingly focus our attention on engaging our partners and visitors to help us reduce our environmental footprint both inside and outside park boundaries. We are committed to working to integrate sustainability principles, actions, and initiatives into existing partnerships and developing and fostering new partnerships to promote sustainability efforts. Over the next 100 years, we will also strive to engage and collaborate more fully with the millions of visitors who value and support the national parks, encouraging them to do their part in the parks and at home.

This is an exciting time in the history of the National Park Service. We have a unique opportunity to assess our past, and improve our future. As we embark on the second century of managing our national parks, we celebrate our past and look forward to our future, with the goal of sustaining our Parks for many centuries to come.

Jonathan B. Jarvis National Park Service Director

#### Vision

The NPS will preserve park resources unimpaired for the enjoyment of current and future generations by reducing our environmental impact through sustainable operations, design, decisions, and management at every level of the organization.

## Introduction

Since our inception in 1916, the National Park Service (NPS) has been a world leader in protecting natural and cultural resources. The NPS has preserved many of the country's greatest treasures and in the process has become a model for resource management. Through the implementation of the *Green Parks Plan (GPP)*, the Service strives to extend that leadership to the sustainable management of our facilities and operations in order to fully carry out the mission of environmental stewardship.

The NPS manages the largest number of constructed assets of any civilian agency in the federal government. It operates and maintains more than 26,000 buildings spread across over 400 national parks that account for more than 55 million square feet of constructed space (such as visitor centers and historic structures), nearly 5 million acres of maintained landscapes (such as campgrounds, urban parks, and battlefields), 18,000 miles of trails, and more than 3,000 utility systems. The NPS is designing new facilities and renovating existing buildings to operate in a much more sustainable manner and at the same time working to reduce the overall environmental impacts of our operations.

#### Background and Scope

In April 2012, the NPS released the original *GPP*, establishing ambitious goals to improve servicewide performance in sustainability and reduce greenhouse gas (GHG) emissions. Today, the *GPP* continues to define a collective vision and a long-term strategic plan for sustainable management of NPS operations. The *GPP* complements other important NPS strategy documents, including the Call to Action, Climate Change Response Strategy, Climate Action Plan, and Healthy Parks Healthy People Strategic Action Plan.

In 2016, as the NPS celebrates our 100th birthday, we are updating the *GPP* to account for recent progress and to refresh our vision of the future to align with new requirements, such as Executive Order 13693. Since the *GPP's* inception, the NPS has made good progress to achieve the *GPP* goals. Across the Service—at park, regional, and national levels—the NPS has implemented exciting new sustainability projects and initiatives to reduce energy and water consumption, to limit waste generation, and to more sustainably manage our facilities. Each year, we have reported progress in an annual *Performance Brief*.



A park ranger speaks to a group of children at the south rim of Grand Canyon National Park. Credit: LMspencer / Shutterstock.com

#### 2016 Updates to the Green Parks Plan

As part of the 2016 *GPP* updates, the NPS is increasing focus on two areas: partnerships and sustainable landscapes. The new *GPP* also integrates human health and wellbeing as integral to many of the sustainability goals set forth in the Plan. Over time, the NPS will periodically revisit the *GPP* to ensure that it reflects the latest NPS sustainability vision.

#### Partnerships

A critical component of the *GPP* has always been informing and engaging park staff, visitors, and partners about climate change and sustainability to broaden opportunities to foster change. In this updated *GPP*, the plan increasingly focuses on collaboration. This year's new goal to *Strengthen Sustainability Partnerships* highlights the renewed NPS focus on extending sustainability efforts beyond park boundaries, collaborating with donors, concessioners, and other park supporters to improve sustainability inside and outside the parks.

The new goal complements the existing and ongoing goal to *Foster Sustainability Beyond Our Boundaries*, which emphasizes the need to engage and educate visitors and youth to support sustainability efforts inside and outside parks.

#### Sustainable Landscapes

The *GPP* has always focused on promoting sustainability in facilities and operations—to complement the work in other parts of the Service on natural resources. The NPS recognizes that cultural and maintained landscapes play a significant role in operational energy use, water use, and waste generation, as well as the promotion of human health and wellbeing. As a result, this year's new goal to *Green Our Grounds* explicitly includes sustainable landscape management in the *GPP*.

#### **Incentivizing Change**

The success of the *GPP* depends on committed staff and the ability of the NPS to advance a culture that promotes sustainability and encourages innovation at all levels. The NPS asks all offices, programs, and parks to recommit to the goals and objectives where they can most meaningfully contribute, and to track progress to measure success.

Employees must be empowered to drive improvement and change in all of their activities. The NPS must continue to promote sustainability as a guiding value of the Service, integrate it into decision making, support ideas from Green Teams and individuals, foster leadership, improve communication and collaboration, and expand training on sustainability principles. The NPS must build employee engagement, expand recognition programs for achievements, and view all operations and decisions through a lens of sustainability.

### 2016 Green Parks Plan Goals

The GPP is based on ten strategic goals that focus on the impact of facilities on the environment and human welfare. Each goal is supported by performance objectives.



**Continuously Improve Environmental Performance** The NPS will meet and exceed the requirements of all applicable environmental laws and adopt sustainable best practices in all facility operations.

Green Parks Plan Goals



#### Be Climate Friendly and Climate Ready The NPS will reduce GHG emissions and adapt facilities at risk from climate change.



Be Energy Smart The NPS will improve facility energy performance and increase reliance on renewable energy.



**Be Water Wise** The NPS will improve facility water use efficiency.

transportation methods.



Green Our Rides The NPS will transform our fleet and adopt greener



Buy Green and Reduce, Reuse, and Recycle The NPS will purchase environmentally friendly products and increase waste diversion and recycling.



#### Preserve Outdoor Experiences, **Promote Healthy Engagement**

The NPS will promote healthy outdoor experiences and minimize the impact of facility operations on the environment.



Strengthen Sustainability Partnerships



The NPS will incorporate sustainability initiatives into new and existing partnerships.



Foster Sustainability Beyond Our Boundaries

The NPS will engage visitors about sustainability and invite their participation.



Green Our Grounds

The NPS will enhance the sustainability of our landscapes.

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Indicates new goal.
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National Park Service

This new LEED building is Mesa Verde National Park's primary facility for orienting visitors to opportunities within the park and surrounding area. Credit: NPS



### Continuously Improve Environmental Performance

The NPS will meet and exceed the requirements of all applicable environmental laws and adopt sustainable best practices in all facility operations.

The foundation of a proactive and forward-thinking sustainability program is adherence to all applicable environmental mandates, including laws, Executive Orders, regulations, and Department and NPS policy. Environmental Management Systems (EMS) provide the NPS with the structure, processes, and other tools needed to ensure that environmental mandates are understood and met, and performance is tracked. The NPS strives to align our initiatives with *Executive Order 13693: Planning for Federal Sustainability in the Next Decade* and related mandates. Using deliberate and planned activities, we will meet requirements and successfully integrate sustainability into our practices. The NPS also encourages innovation and the sharing of best practices both internally and externally to incorporate sustainability.

- 1. The NPS will continue and expand the use of environmental management systems (EMS) to implement the *GPP* and integrate sustainability across planning initiatives.<sup>a</sup>
- 2. The NPS will emphasize environmental compliance through environmental audits and resolution of any findings.<sup>b</sup>
- 3. The NPS will comply with the *Guiding Principles for High Performance and Sustainable Buildings* through the development and implementation of the NPS Sustainable Buildings Implementation Plan.<sup>c</sup>

<sup>&</sup>lt;sup>a</sup> Executive Order 13693, Section 7(i) requires agencies continue implementation of formal EMS where those systems have proven effective, and deploy new EMSs where appropriate.

<sup>&</sup>lt;sup>b</sup> NPS Environmental Audit Program Operating Guide.

<sup>&</sup>lt;sup>c</sup> Executive Order 13693, Section 3(h)(ii) requires that 15 percent of agency buildings over 5,000 gross square feet (gsf) comply with the *Guiding Principles for High Performance and Sustainable Buildings*, which is the basis of all recommendations made in the NPS Sustainable Buildings Implementation Plan.



Wildfires like the 2013 Alder Fire in Yellowstone National Park could become more frequent with increased temperatures from global climate change. Credit: NPS



### **Be Climate Friendly and Climate Ready** The NPS will reduce GHG emissions and adapt facilities at risk from climate change.

From the loss of glacial ice and critical habitat to increased threats from drought, wildland fire, and sea level rise, climate change is one of the foremost challenges facing the NPS. Effects of climate change can be seen from the loss of coral reefs in Virgin Islands National Park to the shrinking of glaciers in Kenai Fjords National Park. This strategic goal emphasizes the critical importance of the NPS response to climate change through reducing our GHG footprint and understanding and adapting to the impacts of climate change on our facilities. The primary drivers of NPS GHG emissions are facility energy consumption and fleet operations; objectives that support reducing our impact in those areas can be found under the *Be Energy Smart* and *Green Our Rides* goals.

- 1. The NPS will reduce Scope 1 and 2 GHG emissions associated with NPS operations by 36 percent by 2025 from the 2008 baseline.<sup>d</sup> Scope 1 and 2 emissions are associated with on-site fossil fuel combustion, fugitive emissions, vehicle fuel use, and grid electricity consumption.
- 2. The NPS will reduce Scope 3 GHG emissions associated with NPS operations by 23 percent by 2025 from the 2008 baseline.<sup>e</sup> Scope 3 emissions are indirect in nature, and sources include commuter travel, business travel, and off-site waste disposal.
- 3. The NPS will develop and implement guidance on adapting the location, structure, or function of park facilities to better cope with climate change, including severe weather impacts.

<sup>&</sup>lt;sup>d</sup> Executive Order 13693, Section 2 requires agencies to establish Scope 1 and 2 GHG reduction targets; Department of Interior GHG reduction target.

<sup>&</sup>lt;sup>e</sup> Executive Order 13693, Section 2 requires agencies to establish Scope 3 GHG reduction targets; Department of Interior GHG reduction target.



Solar panels at Grand Canyon National Park's Visitor Center expose 4.5 million visitors each year to this clean energy option. Credit: NPS



### **Be Energy Smart**

The NPS will improve facility energy performance and increase reliance on renewable energy.

The use of electricity and on-site energy to heat, cool, and light buildings remains one of the largest sources of NPS GHG emissions, accounting for over 40 percent of our annual GHG footprint. The impacts of fossil fuel production and use in parks include the haze that frequently blankets Big Bend National Park in summer months, and the acid rain that has damaged sensitive plants and streams in Great Smoky Mountains National Park and Shenandoah National Park. To contribute to a national effort to improve energy efficiency and reduce energy use, the NPS is working to better understand and improve our own energy performance by tracking energy use, identifying opportunities to conserve energy, and implementing renewable and alternative energy sources as appropriate.

- 1. The NPS will reduce servicewide building energy use per square foot (energy intensity) by 25 percent by 2025 from the 2015 baseline.<sup>f</sup>
- 2. The NPS will prioritize and implement energy conservation measures based on energy assessments conducted at the most energy consuming facilities every four years.<sup>g</sup>
- 3. The NPS will improve energy use tracking through improved metering, energy reporting, and benchmarking to inform energy decisions, beginning with the buildings that consume the most energy.<sup>h</sup>
- 4. The NPS will maximize energy efficiency and reduce fossil fuel consumption of new assets, renovations, and maintenance operations and strive toward net-zero energy for new buildings to the extent practical and economically feasible.<sup>i</sup>
- 5. The NPS will prioritize the use of renewable energy sources and fuel-efficient and alternative fuels equipment to meet operational and facilities management objectives for buildings and landscapes.

Executive Order 13693; Section 3(a)(i) requires agencies to reduce building energy intensity (Btu/gsf) by 2.5 percent annually through the end of fiscal year 2025, relative to a fiscal year 2015 baseline.

<sup>&</sup>lt;sup>g</sup> Energy Independence and Security Act of 2007 requires the NPS to conduct energy and water evaluations in 25 percent of designated covered facilities annually, with every facility evaluated once every 4 years. The top energy-consuming parks are those that account for 75 percent of total NPS annual energy consumption.
<sup>h</sup> Energy Independence and Security Act of 2007; Executive Order 13693, Section 3(a)(i) requires agencies to ensure that monthly performance data is entered into the EPA ENERGY STAR Portfolio Manager for covered buildings.

Executive Order 13693, Section 3(a)(h) requires agencies to improve building efficiency, performance, and management; Section 3(h)(i) requires new construction be designed to achieve net-zero energy by 2030 starting in 2020; Energy Independence and Security Act of 2007, Energy Policy Act of 2005.

Executive Order 13693, Section 3(b)(v) requires that clean energy, accounted for by renewable electric energy and alternative energy, comprise at least 25 percent of the total amount of building electric energy and thermal energy by fiscal year 2025 and each year thereafter; Energy Policy Act of 2005.



Re-circulated water pumped from the Tidal Basin now fills the newly replaced reflecting pool between the Lincoln Memorial and World War II Memorial, eliminating the need to regularly purchase potable water to replace evaporated or leaked water. Credit: NPS/Jeffrey Olson



### Be Water Wise

### The NPS will improve facility water use efficiency.

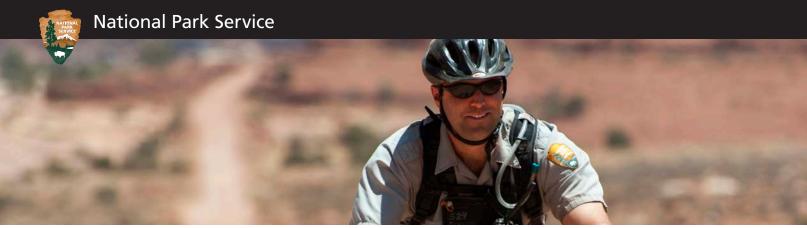
The national and global supply of clean, fresh water is affected by drought, changing precipitation patterns, and other climatic changes, as well as human-caused pollution. The detrimental effects of water scarcity and quality have become increasingly evident at a number of parks, including Lake Mead National Recreation Area, where a precipitous drop in lake levels has significantly affected park marina facilities. To contribute to the responsible use of freshwater, encourage groundwater recharge, and protect water quality, the NPS will continue to implement efforts to conserve and reduce water use and continually assess our practices to improve water use efficiency.

- 1. The NPS will reduce potable water use intensity by 36 percent by 2025 from the 2007 baseline.<sup>k</sup>
- 2. The NPS will prioritize and implement water conservation measures based on water use assessments conducted at appropriate facilities every four years.<sup>1</sup>
- 3. The NPS will improve water usage tracking through improved metering and reporting to inform servicewide water management.<sup>m</sup>

<sup>&</sup>lt;sup>k</sup> Executive Order 13693, Section 3(f)(i) requires agencies to reduce agency potable water consumption intensity (gallons/gsf) by 36 percent by fiscal year 2025 through reductions of 2 percent annually through fiscal year 2025 relative to a baseline of fiscal year 2007.

<sup>&</sup>lt;sup>1</sup> Energy Independence and Security Act of 2007 requires the NPS to conduct energy and water evaluations in 25 percent of designated covered facilities annually, with every facility evaluated once every 4 years. The top energy-consuming parks are those that account for 75 percent of total NPS annual energy consumption.

with every facility evaluated once every 4 years. The top energy-consuming parks are those that account for 75 percent of total NPS annual energy consumption. <sup>m</sup> Executive Order 13693, Section 3(f)(ii) requires agencies to install water meters and collect and use building and facility water data to improve water conservation and management.



A park ranger at Canyonlands National Park completes the White Rim patrol on bicycle, avoiding emissions generated from driving a vehicle. Credit: NPS/Neal Herbert



### **Green Our Rides**

# The NPS will transform our fleet and adopt greener transportation methods.

Transportation accounts for over 30 percent of annual GHG emissions from NPS operations. The NPS has prioritized reducing both direct emissions associated with our fleet and indirect emissions from the travel of park employees, through the implementation of strategies to reduce vehicle miles traveled, incorporate alternative fuel vehicles into the fleet, and install alternative vehicle refueling infrastructure. The NPS will continue to transform our fleet into a new generation of fuel efficient, low GHG-emitting vehicles. Evaluating current practices and working to increase efficiency through new and existing partnerships are key ways that the Service is working to adopt sustainable transportation and fleet operations.

- 1. The NPS will evaluate and transform the size, types of vehicles, and technologies used in our fleet to increase efficiency and reduce GHG emissions to the extent practical and economically feasible.<sup>n</sup>
- 2. The NPS will reduce the fleet-wide average GHG emissions per mile traveled by vehicles in the NPS fleet by 30 percent by 2025 from the 2014 baseline.<sup>o</sup>
- 3. The NPS will implement strategies to reduce indirect transportation GHG emissions such as encouraging alternative commuting practices, including employee telework as appropriate, and reducing emissions from official travel.<sup>p</sup>
- 4. The NPS will prioritize active transportation (human-powered transportation like walking and biking) in planning and design of new transportation-related opportunities, facilities, and infrastructure.

<sup>&</sup>lt;sup>n</sup> Executive Order 13693, Section 3, Subsection (g)(i) requires agencies to determine their optimum fleet inventory; Section 3(g)(v) includes targets for acquisition of zero emission vehicles or plug-in hybrid vehicles.

 <sup>&</sup>lt;sup>o</sup> Executive Order 13693, Section 3, Subsection (g)(ii) requires agencies to take actions that reduce fleet-wide per-mile greenhouse gas emissions from agency fleet vehicles; target is a 30 percent reduction relative to a 2014 baseline by fiscal year 2025.

<sup>&</sup>lt;sup>p</sup> Executive Order 13693, Section 7, Subsection (f) calls on agencies to consider the development of policies to promote sustainable commuting and work-related travel practices for Federal employees that foster workplace vehicle charging, encourage telecommuting and teleconferencing, and reward carpooling and the use of public transportation, where consistent with agency authority and Federal appropriations law.



A boy learns how to maintain compost at a demonstration garden in Fort Dupont Park. Credit: NPS



### **Buy Green and Reduce, Reuse, and Recycle** The NPS will purchase environmentally friendly products and increase waste diversion and recycling.

The sustainable management of materials used in NPS operations—from the use of locally sourced and environmentally friendly materials in construction to the diversion of solid waste from landfills—has a significant benefit on the environment. Production and disposal of materials result in broad environmental impacts associated with obtaining raw materials, manufacturing, and emissions from landfills. The NPS will strive to reduce our impact on the waste stream across the life cycle of products by adhering to green purchasing principles and pursuing opportunities to reduce waste generation and disposal in our national parks.

- 1. The NPS will purchase environmentally preferable products and services, including bio-based products where feasible, in order to improve the servicewide environmental purchasing program.<sup>q</sup>
- 2. The NPS will reduce electronic waste (such as computers and printers) through environmentally friendly procurement, sound disposal practices and recycling, and other programs.<sup>r</sup>
- 3. The NPS will continue to quantify, report, and reduce the use, presence, and generation of hazardous waste, fertilizers, pesticides, herbicides, fungicides, and other toxins in park facilities and landscapes.<sup>s</sup>
- 4. The NPS will strive to reduce solid waste generation in parks and annually divert at least 50 percent of solid waste from landfills through recycling, composting, and other practices.<sup>t</sup>
- 5. The NPS will include applicable sustainability requirements in all new construction and service contracts where technically and economically feasible and appropriate.

<sup>&</sup>lt;sup>9</sup> Executive Order 13693, Section 3(i) requires agencies to promote sustainable acquisition and procurement by ensuring that the recommended environmental performance and sustainability factors are included to the maximum extent practicable for all applicable procurements in the planning, award, and execution phases of the acquisition.

r Executive Order 13693, Section 3(l) requires agencies to promote electronics stewardship.

Executive Order 13693, Section 3(j)(iv) requires agencies to reduce or minimize the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed of, particularly where such reduction will assist the agency in pursuing agency GHG emission reduction targets.

<sup>&</sup>lt;sup>t</sup> Executive Order 13696, Section 2j)(ii) requires agencies to annually divert at least 50 percent of non-hazardous solid waste, including food and compostable material, as well as construction and demolition waste, and pursue opportunities for net-zero waste or additional diversion opportunities.



The stars shine bright in the dark night sky over Wind Canyon in Theodore Roosevelt National Park. Credit: NPS/Jeff Zylland



### Preserve Outdoor Experiences, Promote Healthy Engagement

The NPS will promote healthy outdoor experiences and minimize the impact of facility operations on the environment.

Healthy outdoor experiences depend on healthy ecosystems. Well-managed park operations and facilities can ensure that ecosystems are healthy and support human health and wellbeing. Conversely, when park facilities are not well-managed, they can have an adverse effect on outdoor experiences and the environment. For example, exterior lighting can reduce visitors' dark night sky quality and disrupt natural light and dark cycles that are essential for wildlife to flourish. Vehicle traffic can also degrade the acoustic environment and disrupt the ability of visitors and wildlife to perceive important acoustic information. The NPS will reduce the impact of Service operations on the environment and seek to preserve night skies, natural sounds, water quality, ecosystems, and viewsheds to improve the visitor experience and protect natural and cultural resources.

- 1. The NPS will use sustainable outdoor lighting principles to reduce light from park facilities, preserving dark night skies.
- 2. The NPS will minimize noise and protect the acoustic environment of parks.
- 3. The NPS will preserve opportunities for healthy outdoor experiences to promote people's physical, mental, and spiritual health and social wellbeing.



This propane pickup truck in Great Smoky Mountains National Park is just one outcome from the Clean Cities National Parks Initiative, a partnership between the U.S. Department of Energy and NPS. Credit: Photo courtesy of Kristy Keel-Blackmon, East Tennessee Clean Fuels Coalition



### **Strengthen Sustainability Partnerships** The NPS will incorporate sustainability initiatives into new and existing partnerships.

Strong partnerships can be an effective tool to enhance sustainable practices both internally at the NPS and across our broad set of partners. We have created this new goal to increasingly integrate our sustainability focus into existing partnerships, as well as to create new partnerships to achieve our sustainability goals. This will broaden the scope and impact of our initiatives and encourage other entities to prioritize sustainability.

- 1. The NPS will work to integrate sustainability principles, actions, and initiatives into existing partnerships.
- 2. The NPS will develop and foster new partnerships to promote sustainability efforts.



Students study climate change at North Cascades National Park as part of the Climate Challenge program. Credit: NPS



### **Foster Sustainability Beyond Our Boundaries** The NPS will engage visitors about sustainability and invite their participation.

With over 400 national parks and more than 300 million annual visitors, there is an unprecedented opportunity to demonstrate how the NPS is changing our practices to lessen our impact on the environment. The Service will inform visitors, partners, and surrounding communities about the impacts of climate change on parks; describe what we are doing to reduce our own emissions; and engage youth in sustainability initiatives to encourage individuals to implement sustainable actions in their own homes, workplaces, and communities. Because visitor vehicles are a large source of GHG and criteria air pollutant emissions in parks, the NPS will help park visitors understand the impacts of their travel choices and guide visitors to use alternative transportation methods while moving within the park.

- 1. The NPS will inform park visitors about actions being taken across the Service to protect the environment and promote human health and well-being.
- 2. The NPS will educate park visitors about actions they can take to reduce environmental impacts and adopt healthy behaviors as part of their everyday life.
- 3. The NPS will identify ways that visitors can reduce the impact of air pollutants and GHG emissions from personal vehicles in parks.
- 4. The NPS will explain the threats to national parks posed by climate change and how the NPS is adapting our management and operations.
- 5. The NPS will increase efforts to engage youth on issues related to sustainability and parks, and provide youth volunteer and employment opportunities.



The NPS has reactivated historical nursery operations, like this one, established in the 1930s in Kalaupapa Historical Park to propagate native plants. Credit: NPS Cultural Landscapes



### Green Our Grounds

### The NPS will enhance the sustainability of our landscapes.

The NPS has created this new goal to incorporate sustainability into the planning, design, and maintenance of our landscapes. This involves adhering to relevant guidelines to make landscapes greener and offering training for park staff to allow them to include sustainability in any landscape planning projects. Green infrastructure and stormwater management are also vital tools to enhance the sustainability of landscapes, and the NPS aims to use these tools in various practices and operations.

- 1. The NPS will develop and implement guidelines for sustainable landscape management to promote human health and environmental health and will establish metrics and methodologies to quantify associated baseline data and accomplishments.
- 2. The NPS will, in collaboration with partner land steward agencies and organizations, develop and deliver a series of landscape sustainability trainings for park staff.
- 3. The NPS will use appropriate and resilient species in landscape planning and development that support energy and water efficiency, pollinator populations, biodiversity, healthy soils, and environmental/ecological objectives.
- 4. The NPS will increase stormwater use, reduce stormwater runoff from existing facilities, and employ stormwater best management practices in the design and construction of new facilities and major renovations.<sup>u</sup>

<sup>&</sup>lt;sup>u</sup> Executive Order 13693, Section 3(f) requires agencies to improve agency water use efficiency and management, including stormwater management.

#### Learn More

For more information on the *GPP* goals and objectives, go to the following links:

For National Park Service employees and partners: GreenParksPlanInside.nps.gov

For the general public: www.nps.gov/greenparksplan

## Conclusion

# Looking Forward to the Next Century of Sustainability

Over the next century, the NPS is committed to advancing the sustainability of park facilities, operations, and landscapes and engaging partners and visitors to promote sustainability inside and outside parks. The Service will apply the lessons learned from a century of stewardship to achieve and surpass the ten goals outlined in this updated *GPP*.

To achieve and surpass these goals, we must challenge ourselves to view all of our activities and programs through a lens of sustainability and take advantage of green opportunities whenever possible. NPS staff must all work together to develop locally-driven implementation plans that reflect a collective commitment to sustainability.

To broaden our impact, the NPS must actively and strategically engage a wide variety of partners—visitors, concessioners, donors, gateway communities, government partners, educational institutions, cooperating associations, and more—to spread the sustainability message and take sustainable action. By engaging the full network of NPS visitors, supporters, and partners, the Service can make a real difference in addressing climate change.

NPS staff members are all empowered to be agents of change in this effort, with each office and individual making a valuable contribution. Together, NPS employees can make our parks and programs models of conservation and preservation by incorporating sustainability opportunities at the individual level and throughout the programs and operations that we manage and work with every day.



National Park Service U.S. Department of the Interior