



CLIMATE *Friendly* PARKS

Pu'ukohola Heiau National Historic Site Action Plan

TABLE OF CONTENTS

Pu'ukohola Heiau National Historic Site Becomes a Climate Friendly Park	3
The Challenge of Climate Change	3
Greenhouse Gas Emission Inventory at Pu'ukohola Heiau National Historic Site.....	5
STRATEGY 1: Reduce GHG Emissions Resulting from Activities within and by the Park	8
Energy Use Management	8
Transportation Management.....	11
Waste Management.....	12
STRATEGY 2: Increase Climate Change Education and Outreach	17
Park Staff	17
Visitor Outreach	18
Local Community Outreach	19
STRATEGY 3: Evaluate Progress and Identify Areas for Improvement	20
Conclusion	20
Appendix A: List of Work Group Participants	20

PU'UKOHOLA HEIAU NATIONAL HISTORIC SITE BECOMES A CLIMATE FRIENDLY PARK

As a participant in the Climate Friendly Park program, Pu'ukohola Heiau National Historic Site belongs to a network of parks nationwide that are putting climate friendly behavior at the forefront of sustainability planning. By conducting an emission inventory, setting an emission reduction goal, developing this Action Plan, and committing to educate park staff, visitors, and community members about climate change, Pu'ukohola Heiau National Historic Site provides a model for climate friendly behavior within the park service.

This Action Plan identifies steps that Pu'ukohola Heiau National Historic Site can undertake to reduce GHG emissions mitigate its impact on climate change. The plan presents the park's emission reduction goals, and associated reduction actions to achieve the park's goals. Strategies and action plan items were developed by working groups at the Pacific Islands Climate Friendly Parks Workshop.¹ While the plan provides a framework needed to meet the park's emission reduction, it is not intended to provide detailed instructions on how to implement each of the proposed measures. The park's Environmental Management System will describe priorities and details to implement these actions and will also assign responsibility.

Pu'ukohola Heiau National Historic Site intends to:

- Reduce its greenhouse gases and environmental impact.

To meet this goal, the park will implement strategies proposed in this plan that relate to the park's current and future emission inventories. Specifically, the plan recommends three strategies:

Strategy 1: Identify and implement mitigation actions that the park can independently take to reduce GHG emissions resulting from activities within and by the park.

Strategy 2: Increase climate change education and outreach efforts.

Strategy 3: Monitor progress with respect to reducing emissions and identify areas for improvement.

THE CHALLENGE OF CLIMATE CHANGE

Climate change presents significant risks and challenges to the National Park Service and specifically to Pu'ukohola Heiau National Historic Site. Scientists cannot predict with certainty the general severity of climate change nor its impacts. Average global temperatures on the Earth's surface have increased about 1.1°F since the late 19th century, and the 10 warmest years of the 20th century all occurred in the last 15 years. The single leading cause of this warming is the buildup of GHGs in the atmosphere—primarily carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O)—which trap heat that otherwise would be released into space.

The continued addition of CO₂ and other GHGs to the atmosphere will raise the Earth's average temperature more rapidly in the next century; a global average warming of 4-7°F by the year 2100 is considered likely.² Rising global temperatures will further raise sea levels and affect all aspects of the water cycle, including snow cover, mountain glaciers, spring runoff, water

¹ Original notes from these workshops, including detailed action items not presented in the final plan have been archived by [INSERT PARK NAME HERE] and are available upon request.

² IPCC 2007. Climate Change 2007: The Physical Science Basis. Intergovernmental Panel on Climate Change, Geneva Switzerland. Available online at < <http://ipcc-wg1.ucar.edu/wg1/wg1-report.html> >

temperature and aquatic life. Climate change is also expected to affect human health, crop production, animal and plant habitat, and many other features of our natural and managed environments.

At Pu'ukohola Heiau National Historic Site increasing temperatures and changing precipitation patterns may alter park ecosystems, changing vegetation communities, habitats available for species, and the experience of park visitors. Pu'ukohola Heiau National Historic Site faces imminent threats from sea-level rise.

GREENHOUSE GAS EMISSION INVENTORY AT PU'UKOHOLA HEIAU NATIONAL HISTORIC SITE

Naturally occurring GHGs include CO₂, CH₄, N₂O, and water vapor. Human activities (e.g., fuel combustion and waste generation) lead to increased concentrations of these gases (except water vapor) in the atmosphere.

Greenhouse Gas Emissions

GHG emissions result from the combustion of fossil fuels for transportation and energy (e.g., electricity generation), the decomposition of waste and other organic matter, and the volatilization or release of gases from various other sources (e.g., fertilizers).

In fiscal year 2008, GHG emissions within Pu'ukohola Heiau National Historic Site (PUHE) totaled 144 metric tons of carbon dioxide equivalent (MTCO₂E). For perspective, a typical single family home in the U.S. produces approximately 12 MTCO₂ per year.³ Thus, the combined emissions from park operations within the park are roughly equivalent to the emissions from the electricity use of 12 households each year.

Pu'ukohola Heiau National Historic Site purchased 118,813 kWh of electricity from Hawaii Electric Company (HELCO) in fiscal year 2008. The largest emission sector for Pu'ukohola Heiau National Historic Site is purchased electricity, totaling 102 MTCO₂E (see Figure 1 and Table 1).

³ U.S. EPA, Greenhouse Gases Equivalencies Calculators – Calculations and References, Retrieved , Website: <http://www.epa.gov/RDEE/energy-resources/calculator.html>

FIGURE 1

Pu'ukohola Heiau National Historic Site Total Greenhouse Gas Emissions by Sector

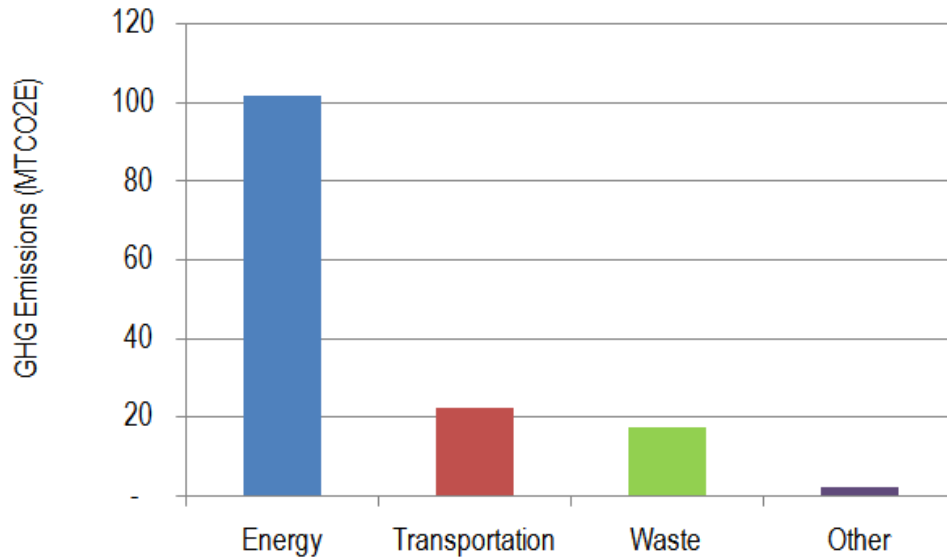


TABLE 1

Pu'ukohola Heiau National Historic Site Total Greenhouse Gas Emissions by Sector and Source

	MTCO2E
Energy	102
Purchased Electricity	102
Transportation	22
Mobile Combustion	22
Waste	17
Landfilled Waste	17
Other	2
Fertilizer Application	2
Total	144

Note - Totals may not sum due to rounding

Not applicable data sources represented by "-"

Pu'ukohola Heiau National Historic Site Responds to Climate Change

The following actions were developed during the Pacific Islands Climate Friendly Parks Workshop on May 11th and 12th, 2010, in order to meet the park's climate change mitigation goals.

STRATEGY 1: REDUCE GHG EMISSIONS RESULTING FROM ACTIVITIES WITHIN AND BY THE PARK

Pu'ukohola Heiau National Historic Site has developed a set of actions that the park is committed to taking in order to reduce emissions from activities within and by the park. These strategies have been prioritized based on a qualitative assessment of a set of criteria including: emission reduction potential, cost-effectiveness, feasibility, co-benefits, regional impact, and ability to rapidly implement. Actions that Pu'ukohola Heiau National Historic Site will take have been presented below in order from highest to lowest priority within each sub-category.

Energy Use Management

Emission Reduction Goal: Reduce park operations' energy use emissions

Improving energy efficiency and implementing alternative energy sources reduces park-based fuel use, lowers GHG emissions, decreases electricity consumption, and offers monetary benefits for the park. Emissions inventory results indicate that 71 percent of the park's GHG emissions from Park Operations are from energy consumption. Consequently, Pu'ukohola Heiau National Historic Site identified actions it will take to reduce energy-related emissions. Presented below are the actions that are currently under way and which comprise the park's progress to date, as well as those actions the park will pursue.

Progress to Date

Engage concessioners and partners to aid in energy use reduction.

- Pu'ukohola Heiau National Historic Site currently has several new 7.2 KW grid-tied solar systems installed since 8/2009, but neither has been operational due to contracting agreement with HELCO not being finalized as of 12/2010.
- Pu'ukohola Heiau National Historic Site has ensured that all facilities are tightly sealed through a cyclic pest exclusion project, also transitioned to energy efficient electronics.
- Pu'ukohola Heiau National Historic Site has planted trees to provide shade cooling to buildings and is using energy efficient lighting.

Energy Use Management – Planned Actions

1 Promote energy efficiency and energy conservation in the park through behavioral change

- Encourage energy conservation in all park activities.
 - Installed energy efficient lights in all park buildings.
 - Take advantage of natural lighting.
 - Add conservation to close-down checkout process.
 - PMIS project initiated for new solar parking garage at maintenance facility.
- Develop a mandatory energy-saving training program.

- Instruct staff how to turn off equipment when it is not in use and enable energy-saving settings for computers and monitors.
- Conduct periodic energy conservation staff meetings.
- Adjust thermostat.
 - Establish a Best Management Practice to raise thermostat levels when buildings are occupied.
- Reduce building occupancy time.
 - Return maintenance schedule back to four ten hour shifts.
- Ensure all computers' power management settings follow current ENERGY STAR recommendations.
 - Set computers to enter system standby or hibernation mode after 30 minutes of inactivity and monitors to enter sleep mode after 15 minutes of inactivity (visit: www.energystar.gov/powermanagement).
- Establish an Operations and Maintenance (O&M) schedule that evaluates energy loss throughout all facilities.
 - Currently PUHE has executed and will continue to execute a cyclic pest exclusion PMIS that ensures all facilities are tightly sealed minimizing cooling loss.

2 Upgrade lighting options

- Installed energy efficient light fixtures.
 - Upgrade to T-8 fluorescents and halogen security lights into visitor center and maintenance facility.
- Use natural lighting.
 - PUHE installed skylights and windows in both the visitor center and the maintenance facility, designed to increase natural lighting.
- Installed energy efficient outdoor lighting.
 - Halogen security lights and low wattage bulbs have been designed into visitor center and maintenance facility.

3 Switch to more efficient electronics and devices

- Establish and implement a green procurement policy that sets minimum energy performance standards for all electronic equipment.
 - Ensure that all new electronic/office equipment is ENERGY STAR qualified at www.energystar.gov, and rather than purchasing individual copy, fax, print, and scanning equipment, consider a multi-function device.
- Default all computers to print double-sided.
- Install Smart Strip power strips.

- Purchase only energy efficient electronics.
 - Refer to the Federal Energy Management Program guidelines for purchasing energy efficient appliances in accordance with federal procurement procedures.
- Install energy meters to measure energy use and monitor big consumers.
- Install energy efficient water heaters.

4 Improve building structures and envelopes

- Weatherize park buildings by adding R-values to improve insulation effectiveness.
- Develop and implement an HVAC inspection schedule for coils, filters, dampers, and fans and maintenance schedule that ensures timely replacement and cleaning (recommended monthly).
- Replace old windows with new windows.
 - Look for spectrally selective glass, double-glazed, low-e systems, gas filled windows, and electrochromic windows that provide better insulation and solar selectivity.

5 Utilize alternative energy sources

- Purchase electricity from a renewable energy provider.
 - Research renewable electricity options through the local utility to reduce electricity-related GHG emissions.
- Purchase more solar systems to reduce electricity-related GHG emissions.

6 Measure energy use throughout the park

- Incorporate energy efficiency criteria into new contracts for park and concessioner construction.
- Conduct an energy audit for all park buildings. Partner with local utilities to conduct the audit.
 - As part of energy audit, have recommendations made for appropriate lighting solutions for each space.
- Install building-level utility meters in existing buildings and in new major construction and renovation projects to track and continuously optimize performance.
 - Transfer all metered building data directly in web-based system and drop data directly in ENERGY STAR Portfolio Manager and Visible Energy.
- Review and implement the DOI Sustainable Buildings Implementation Plan.

Transportation Management

Emission Reduction Goal: Reduce park operations' transportation emissions

Reducing vehicle miles traveled, improving vehicle efficiency, and using alternative fuels can significantly reduce Pu'ukohola Heiau National Historic Site's emissions. Presented below are the actions that are currently under way and which comprise the park's progress to date, as well as those actions that the park will pursue.

Progress to Date

- Require visitors to use a shuttle bus service during the high season.
 - Visitors to Pu'ukohola Heiau National Historic Site must ride a shuttle bus into the monument during the high visitation season from mid-June to early September. This has dramatically reduced VMT, and since 2008, the shuttle buses have run on biodiesel.

Transportation Management – Planned Actions

1 Transportation-related behavioral changes

- Prohibit visitor vehicle idling.
 - Post signs and information with park idling rules.
- Encourage staff carpooling.
 - Develop carpooling information and support services for staff.
- Reduce staff idling.
 - Prohibit staff vehicle idling unless required for vehicle maintenance.
 - Create dashboard idling guidelines and post in vehicles.
- Reduce meeting travel.
 - Use webinars/conference calls to avoid excessive travel, both within and outside of the park. Purchase necessary equipment for teleconferencing and videoconferencing.

2 Reduce NPS vehicle and equipment fuel consumption

- Exceed federal fleet performance requirements set by Energy Policy Act (EPAAct), Executive Order 13423, and the Energy Independence and Security Act (EISA).
 - Look at purchasing more efficient trucks.
- Analyze fleet fuel-consumption patterns for efficiency improvements.

- Review FAST to track fuel use and analyze fleet needs with efficiency improvements.
- Promote efficient driving.
 - Conduct driver training that emphasizes fuel efficiency and trip planning. Also, use utility vehicles when possible.
- Alter visitor center landscaping to reduce mowing.

3 Replace NPS vehicles and equipment

- Right size the vehicle fleet by the number and type.
 - Eliminate unnecessary vehicles from the fleet and ensure that all fleet vehicles are efficient.
 - Consider not replacing NPS-owned truck when vehicle is no longer serviceable or required for operations, or replace it with a more efficient model/vehicle.
- Develop a vehicle replacement plan.
 - As older vehicles come up for replacement, lease alternative fuel vehicles.
- Incorporate alternative fuel guidelines into fleet specifications.
 - Working with GSA to catalogue available alternative fuel vehicles.
 - Lease electric vehicles and purchase electric utility vehicles.

4 Improve vehicle maintenance practices

- Maintain the vehicle maintenance schedule to ensure vehicle efficiency.
 - Continue to use bio-based lubricants/greases and continue to recycle used oil through vendor.

5 Use natural materials in all transportation products

- Continue to use reclaimed materials for new roads and paving.
- Continue to use natural vegetation rather than lawns to reduce mowing.

Waste Management

Emission Reduction Goal: Reduce park operations' waste emissions

The connection between waste and GHG emissions may not be obvious. However, waste management—in the form of source and solid waste reduction—can dramatically reduce GHG emissions. Landfills are the largest human-generated source of CH₄ emissions in the United States. Reducing the amount of waste sent to landfills reduces CH₄ emissions caused by decomposition as well as the GHGs emitted from the transportation of waste. The less the park and its visitors consume in terms of products and packaging, the less energy is used and fewer GHGs are emitted.

Pu'ukohola Heiau National Historic Site's park operation activities emitted 17 MTCO₂E from waste management in fiscal year 2008. Diverting or reducing the park's waste stream through increased recycling efforts and waste management will reduce the amount of waste sent to landfills, thus resulting in a reduction of emissions. Presented below are the actions that are currently under way and which comprise the park's progress to date as well as those actions that the park will pursue.

Progress to Date

- Started a comprehensive waste reduction and recycling outreach program.
 - Recycling bins are in place for visitors and education is provided to visitors by interpreters.

Waste Management – Planned Actions

1 Decrease waste through behavior change

- Ensure construction contractors are aware of current waste reduction initiatives and are using construction products manufactured from recovered materials. Require contractors to reuse or recycle materials used during building renovations and new site construction/remodeling projects.
- Train staff on green procurement practices and waste reduction responsibilities, engage staff to reduce and manage waste at work.
 - Encourage park staff to take the Office of the Federal Environmental Executive's online green purchasing training or any green purchasing training available on DOI learn.
 - Institute paperless office practices. Print less and establish standards for double-sided printing and copying, office supply reuse, electronic correspondence procedures, electronic file storage, elimination of colored paper, etc.
 - Take into account the amount of packaging when making purchases.
 - Require an annual training on waste reduction and green procurement.
 - Make reusable and recyclable materials available for staff to use (e.g., plates, cups, silverware, etc.).
 - Continually inform maintenance crews about recycling and composting policies at the park; conduct periodic trainings.

2 Establish new plans and policies that promote waste reduction

- Continue to implement the comprehensive waste reduction and recycling outreach program.
 - Recycling bins are in place for visitors and education is provided to visitors by interpreters.
 - Continue to develop talking points and interpretive messages to induce recycling with visitors.
- Incorporate Waste reduction into green office practices.
 - Reduce purchases where possible and avoid duplicate purchases.

- Purchase Comprehensive Procurement Guidelines office supplies with maximum recycled content.
- Purchase durable, reusable supplies, reuse office supplies when possible.
- Develop and create a materials and equipment exchange or replacement program.
 - Establish an exchange process within the park so different departments can source surplus materials internally.
 - Establish an equipment exchange program with neighboring parks on island.
- Choose hand dryers over paper towels.
 - Install energy-efficient hand dryers throughout park facilities.
- Continue to measure, track, and report waste stream data (include landfill waste and recycled waste) to monitor reductions and success in diverting waste from the landfill.
 - Record waste management data in an EMS or a spreadsheet tracking system.
 - Update Integrated Solid Waste Alternative Plan (ISWAP) in the future.
- Reduce waste generated at meetings and employee functions.
 - Establish guidelines for waste minimization: use durable, reusable utensils and mugs, buy in bulk, use items with reduced packaging, and provide recycling receptacles.

3 Implement recycling and composting practices

- Continue to recycle as much waste as possible.
 - Be aware of new markets and opportunities for recycling. Currently the big island of Hawai'i can only recycle #1, #2, and #5 plastics.
- Assign at least one full-time person to act as a park recycling leader/manager.
 - Primary responsibility of the park recycling leader/manager will be to assess and continually improve park's recycling activities.
 - Consider one person to serve as recycling coordinator for all three west Hawai'i national parks (KAHO, PUHO, and PUHE).
- Install easy-to-use recycling containers throughout park and co-locate trash and recycling containers.
 - Purchase containers with recycled content. Place trash and recycling containers next to each other.
 - Evaluate signage; use graphics.
- Develop construction waste management and practice environmentally responsible deconstruction.
 - Continue to ensure that all construction projects have a waste management plan including reducing, reusing, and salvaging building materials.
 - Old building materials will be reduced, reused, and salvaged, in that order.

- Inefficient materials or components will not be salvaged; ensure that the reuse of vintage items represents an environmental gain.
- Recycle old asphalt pavement when possible.
- Continue to compost green yard waste.

4 Reduce waste through green procurement

- Evaluate and inventory current purchases and reduce redundant products.
- Train staff on green procurement practices.
 - Encourage procurement staff to take OFEE's online green purchasing training.
- Continually increase the recycled content of purchased materials.
 - Focus on office supplies, gift shop concessioners, building supplies, furniture and maintenance equipment: hoses, mulch, edging, timbers, posts, and compost with recycled content.
 - Use 100% post-consumer (PC) content, processed chlorine-free (PCF) copy paper. Consider alternative fibers (i.e., non-wood) and water-based or vegetable-based ink. Target paper reduction.
- Develop a schedule for replacing existing materials.
 - Consider replacing equipment with recycled equipment or new equipment that will enhance reuse and recycling, (e.g., copiers that can make two-sided copies).
 - Consider environmental impacts across each product's entire life cycle.
- Develop a Green Procurement Plan.
 - Adhere to Federal, NPS, and PWR Guidance for Procurement.
 - Follow all purchasing guidelines where and when possible or practical.
- Inventory commonly used products and review for green substitutions. Substitute all cleaning supplies with non-toxic products.
 - Consider a tri-park (PUHE, KAHO, PUHO) approach to implement these actions.
 - Substitute products containing hazardous/toxic chemicals with non-toxic products.
 - Look for Green Seal Certified products and other green attributes when procuring cleaning and maintenance equipment.
- Implement petroleum product substitution program.
- Use no-VOC insulation, carpets, paints, and adhesives.
 - Use low VOC only for interiors.
- Increase the use of bio-based products.
 - Evaluate the bio-based products in use and look for opportunities to incorporate new products.
- Use carpet with high recycled content for any building projects.

- Consider bamboo for use such as bamboo office dividers, floor mats and consider reducing carpet use.
- Promote the use of recycled content products and materials procurement within the NPS.
- Adapt a list of pre-purchase questions for the park.
 - Develop a frequently asked questions sheet for items to be purchased.
- Encourage contractors to practice green procurement practices.
 - Ensure that contractors are aware of the waste reduction goals at Pu'ukohola Heiau National Historic Site. Encourage contractors to incorporate Best Management Practices from Pu'ukohola Heiau National Historic Site to job sites.
- Manage waste associated with Computers and FAX/Printers.
 - Purchase remanufactured toner cartridges.
 - Purchase LCD monitors, which use less toxic substances, instead of CRT monitors.
 - Reduce the printer-to-employee ratio by maximizing shared network printers.

5 Reduce and reuse wastewater

- Installed low-flow faucets and waterless urinals at headquarter and the visitor center.
 - Consider installing low flow toilets for visitor center.
- Replaced toilets with low-flow models.
- Conserving water used in ground maintenance.
 - Removed non-native species and planted native vegetation to reduce water consumption.
 - Continue to use grass clippings as mulch.
 - Analyze water usage to determine if further changes can be made to reduce the amount of water used.

STRATEGY 2: INCREASE CLIMATE CHANGE EDUCATION AND OUTREACH

Climate change is a complex and easily misunderstood issue. Pu'ukohola Heiau National Historic Site can play an integral role in communicating about climate change to a vast audience. A better understanding of the challenges and benefits of reducing GHG emissions can motivate staff, visitors, and community members to incorporate climate friendly actions into their own lives. Pu'ukohola Heiau National Historic Site recognizes that the greatest potential impact the park can have on mitigating climate change is through public education. Thus, the park sees public education as an end goal of any climate initiative. From increasing the efficiency of public transportation to developing a green purchasing program, the actions Pu'ukohola Heiau National Historic Site takes to address climate change serve as opportunities for increasing the public's awareness of climate change. Presented the actions that are currently under way and which comprise the park's progress to date, and those actions that the park will pursue.

Progress to Date

- Connect with community and park partners on Climate Friendly Park efforts.
- Pu'ukohola Heiau National Historic Site is building relationships with park concessioners, Friends Groups, local environmental groups, representatives from the local tourism/community business board, representatives from the state environment/energy departments, teachers, representatives from the regional transportation authority, and local university partners.

Park Staff

Developing a climate change education program for park staff is vital to increasing awareness about climate change among park visitors and fostering a sense of collective responsibility among staff to help reduce park emissions. By incorporating climate change education into staff development programs, Pu'ukohola Heiau National Historic Site will enable its staff to demonstrate their commitment through leading by example, and providing visitors with the tools and resources they need to reduce GHG emissions in the park and in their own communities. Potential actions include:

- Create a park Climate Change Policy Memo specific to Pu'ukohola Heiau National Historic Site.
- Hold internal Climate Friendly Park discussions and workshops.
 - Devise new strategies to continually reduce greenhouse gas (GHG) emissions.
 - Distribute resources and tools to staff, and acknowledge success of current strategies, including giving awards to climate leaders.
- Keep staff members that are part of the Green Team/Environmental Management Team informed about climate-related issues.
 - Use materials, publications, and tools available from the U.S. Environmental Protection Agency (EPA) and other agencies and organizations to mentor fellow staff about climate change.
- Incorporate climate change issues into the employee handbook.
 - Include climate materials in employee orientation packets.
- Include the science and impacts of climate change into park education tools.
 - Incorporate sessions on climate change into seasonal staff training.

- Tailor seasonal staff handbook to include Climate Friendly Park information.
- Include Climate Friendly Park language in kiosks and other educational materials.
- Incorporate sessions on climate change into new staff training.
- Develop a brown bag series for park staff including concessioners, partners, and occasionally visitors to educate about current climate change science, the park's efforts, and what they can do.
- Create visual reminders for park employees with climate change information and tips on how employees can help reduce emissions.
- Create personal incentives for staff to reduce GHG emissions in park and at home.
- Develop and leverage relationships with other agencies and entities to create opportunities for workshops on climate friendly activities.
- Disseminate information about climate friendly actions the park is taking at conferences, meetings, and regional workshops.

Visitor Outreach

Understanding climate change and its consequences is essential to initiating individual behavioral change. Pu'ukohola Heiau National Historic Site realizes that it has a unique opportunity to educate the public in a setting free from many of the distractions of daily life. By using existing materials, developing park-specific materials, highlighting what the park is currently doing about climate change, and encouraging visitors to reduce emissions, Pu'ukohola Heiau National Historic Site can play an important role in educating the public about climate change.

Pu'ukohola Heiau National Historic Site staff recognize the many different audiences that visit the park, including recreational and non-recreational park visitors, "virtual visitors" who visit the park online, school-aged visitors, local and out of town visitors, local tribes, and external audiences. Reaching these various audiences with climate change information and engaging them in the park's efforts requires appropriately focused messaging. The park has developed a number of strategies to reach these various audiences effectively. These strategies include:

- Educate visitors about climate change.
 - Link climate change and National Parks' preservation with actions like using mass transit and alternative forms of transportation.
- Create and distribute previously produced information on climate change and its effects on National Parks in general and on Pu'ukohola Heiau National Historic Site in particular.
- Integrate climate change themes into interpretive programs.
 - Integrate the Climate Friendly Park program with school programs using educational kits, wayside exhibits, posters, etc. Look for opportunities to educate with resources like the Climate Change Wildlife and Wildlands Toolkit. For more information, visit: <http://www.globalchange.gov/resources/educators/toolkit>
- Create signs promoting the park's efforts to curb emissions.
 - Develop consistent messaging for recycling, idling, and emission reduction posters.

- Host distance learning events on climate change.
- Incorporate climate change information into existing park brochures.
 - Create/utilize bilingual brochures that talk about the success of the CFP program in terms of resource and economic savings where appropriate. Include information and illustrations on Do Your Part!
- Incorporate climate friendly information into interpreter programs and talks.
- Educate visitors about their recycling options at the park and at home.
 - Create visitor ads about the park's recycling activities.
- Communicate with local communities, park visitors, and local media about actions they can take to reduce GHG emissions.
 - Encourage internal and external stakeholders to reduce their carbon footprints using tools like Do Your Part!
- Develop and distribute Do Your Part! Materials.
- Develop a Do Your Part! Kiosk in the visitor's center.
- Create demonstration projects and exhibits to convey park sustainability message to visitors.

Local Community Outreach

The gateway communities, agencies, vendors, and volunteers surrounding Pu'ukohola Heiau National Historic Site can play a significant role in supporting the park's climate change mitigation goals. As such, when appropriate, park staff will assist local communities with incorporating climate change messages into community events and find partners to promote climate change education at those events, and engage with surrounding agencies to coordinate effective outreach and education efforts. Potential actions include:

- Work with the surrounding community to address climate change.
- Consider the local economy in procurement and other areas.
- Include community members in climate change discussions.
- Host climate change education workshops.
 - Focus presentations on climate change priorities and talk about success stories.
- Educate local community about what your park is doing to manage waste.
- Plan a community event for Earth Day.
- Set up a "Do Your Part!" table at local events.

STRATEGY 3: EVALUATE PROGRESS AND IDENTIFY AREAS FOR IMPROVEMENT

By taking the actions established in Strategies 1 and 2 above, Pu'ukohola Heiau National Historic Site plans to reduce its emissions to the specified goals. Achieving these goals will require an ongoing commitment by the park, which may include subsequent emission inventories, additional mitigation actions, and reevaluation of goals. As part of this strategy, Pu'ukohola Heiau National Historic Site will:

- Monitor progress with respect to reducing emissions. This will include subsequent emission inventories to evaluate progress toward goals stated in this action plan.
- Develop additional emission mitigation actions beyond those listed in this plan.
- Periodically review and update this plan.
- The park will track climate-friendly actions through the environmental management system.

CONCLUSION

Pu'ukohola Heiau National Historic Site has a unique opportunity to serve as a model for over 100,000 recreational visitors annually.⁴ This report summarizes the operational actions the park commits to undertake to address climate change. Specifically, the park realizes its ability to educate the public and serve as a valuable model for citizens. By seriously addressing GHG emissions within the park and sharing its successes with visitors, Pu'ukohola Heiau National Historic Site will help mitigate climate change far beyond the park's boundaries.

The National Park Service faces an uncertain future due to the possible effects of climate change. However, by seriously addressing climate change impacts and reducing emissions, Pu'ukohola Heiau National Historic Site will reduce its contribution to the problem while setting an example for its visitors. The strategies presented in this Action Plan present an aggressive first step towards moving Pu'ukohola Heiau National Historic Site to the forefront of Climate Friendly Parks.

⁴ Pu'ukohola Heiau National Historic Site Park Statistics. Available online at: <http://www.nature.nps.gov/stats/viewReport.cfm>

APPENDIX A: LIST OF WORK GROUP PARTICIPANTS

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