



VALLEY FORGE NATIONAL HISTORICAL PARK

CLIMATE FRIENDLY PARKS ACTION PLAN SUMMARY

2014

INTRODUCTION

As a participant in the National Park Service (NPS) Climate Friendly Parks (CFP) program, Valley Forge National Historical Park (NHP) belongs to a network of national parks that are putting climate friendly behavior at the forefront of park operations and resource management. As a CFP park, Valley Forge NHP completed a greenhouse gas (GHG) emission inventory, participated in a climate change and sustainability workshop, established climate change mitigation and GHG emission reduction strategies, and integrated reduction strategies and goals into a park-specific Environmental Management System (EMS).



The EMS takes a systematic approach to identifying, addressing, and tracking environmental compliance requirements in the park. It also provides a framework for identifying environmental priorities as well as deficiencies. By including CFP-related actions in the park's EMS, Valley Forge NHP is taking an integrated approach to climate change response and responsible management of park resources.

ENVIRONMENTAL POLICY & SUSTAINABILITY COMMITMENT STATEMENT

The mission of Valley Forge NHP is to educate the American people about one of the most defining events in our nation's history by preserving the natural and cultural resources that commemorate the encampment of the Continental Army at Valley Forge in 1777-78. Stewarding the park's primary resources includes a commitment to meeting the highest possible standards for protecting environmental quality, maximizing resource protection, and minimizing waste generation. This commitment includes education of staff, partners, and visitors about the benefits of environmentally preferable practices, programs, products and behaviors. Our goal is to become a model for environmental stewardship of our cultural and natural resources in an urban setting.

ACCOMPLISHMENTS

Park staff have already taken a number of steps to reduce the park's environmental impact and climate-friendly actions have been incorporated into most aspects of park operations. Examples of accomplishments completed in 2014 are listed in Table 1 below. A complete list of all climate-friendly actions, sustainability initiatives, and progress toward goals is tracked in the park's EMS which is updated regularly by the park Green Team.

Sustainability Concern	Completed Actions
GHG Emissions	Conducted greenhouse gas emissions inventory to identify emissions generated during normal park operations (e.g., transportation, energy use).
Energy & Water	Encourage staff to be more aware of wasted energy and developed a user guide to set energy saving settings for computers
	Established standard temperatures and thermostat settings for all buildings and increased heating and cooling system efficiency
Transportation and Vehicles	Developed a no-idling policy for staff and visitors in the park.
	Coded park vehicle keys based on fuel-efficiency and appropriate use
Education / Communication	Hosted a Climate Friendly Park workshop for Valley Forge NHP staff and partners to discuss climate change issues and sustainability actions.
	Developed a "10 Best Practices" energy saving flyer for park staff
	Created and maintain an internal Green Team website to provide a single location for information about climate friendly initiatives

Table 1: Climate-friendly actions Valley Forge NHP has completed in 2014

BASELINE GREENHOUSE GAS EMISSIONS PROFILE

Valley Forge calculated its greenhouse gas (GHG) emissions for 2012 using the Climate Leadership in Parks (CLIP) tool. The total GHG emissions for Valley Forge NHP in 2012 was 3,149 Metric Tons Carbon Dioxide Equivalent (MTCO₂E) which is equivalent to the amount generated by 278 American households annually. Of those 3,149 MTCO₂E, 38% (1,194 MTCO₂E) are generated during park operations (e.g., purchased electricity, waste, etc) and 62% (1,949 MTCO₂E) are generated by visitors and commuters as they travel through the park. Though park visitors and commuters represent the largest source of GHG emissions, much of these emissions are associated with commuters driving through the park and are beyond park control.

Therefore, the park will focus on specific strategies to reduce emissions from park operations while promoting reductions from visitors through education and outreach. The largest single source of GHG emissions from park operations is purchased electricity (see figure 1). The 2012 GHG emissions inventory was used to identify major sources of emissions, set reduction goals, and provides a baseline to measure success.

GOALS & ACTIONS

Valley Forge NHP has set a goal to reduce GHG emissions from park operations by 15% by 2017 as compared to 2012 levels. To accomplish this, the park plans to focus on reducing emissions in three operational areas; energy consumption (stationary combustion and purchased electricity), mobile combustion, and waste. These three areas offer the largest possible savings in efficiency and GHG reductions in operations. Actions to increase efficiencies in these areas were developed during a parkwide workshop and incorporated into the park's Environmental Management System (EMS). The EMS will be used to develop annual priority climate-friendly actions as well as measure progress toward our goal. The list of priority climate-friendly actions the park is working in 2015 is included in table 2. This list is regularly updated as

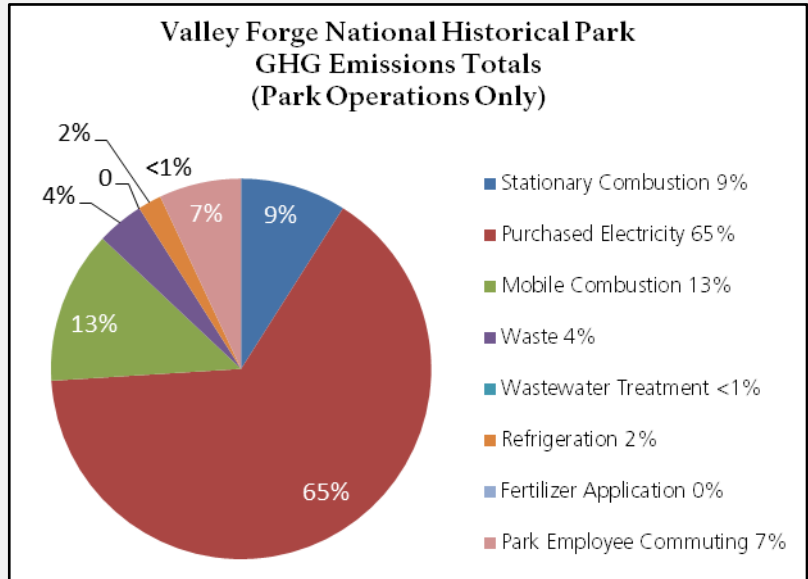


Figure 1: Major sources of greenhouse gas emissions generated in 2012 from park operations only (excluding emissions from visitors and commuter traffic)

goals are reached and projects are completed and the most current list of priority actions is maintained in the park EMS.

Reduce Energy Consumption	Reduce Waste and Improve Recycling	Reduce Emissions from Transportation and Vehicles	Educate visitors and staff about climate change and sustainability practices
<ul style="list-style-type: none"> • Complete a lighting evaluation at the administration building and determine best configuration for efficiency • Track building energy usage and identify opportunities for increased efficiency • Install programmable thermostats in all park buildings • Investigate alternative energy options for one park building 	<ul style="list-style-type: none"> • Improve signage on trash and recycling containers for visitors and staff • Install return stations for gently used park brochures • Improve battery and ink cartridge recycling • Develop mobile friendly brochures and media 	<ul style="list-style-type: none"> • Convert two lawn mowers from gas to propane and install propane filling station in the park • Complete a fleet utilization study to determine optimum fleet size for the park and eliminate unnecessary vehicles • Promote green driving techniques for staff 	<ul style="list-style-type: none"> • Add climate friendly parks information to park website for users to learn more about sustainability initiatives at the park. • Post relevant climate change facts and impacts on the park social media. • Develop employee education opportunities including initiating zero waste picnics and sharing information at all employee meetings

Table 2: Priority climate-friendly actions Valley Forge is working to complete during 2015

ROLES, RESPONSIBILITIES, & RESOURCES

The “Green Team” (an interdisciplinary group of park employees and partners that regularly monitors and updates park environmental goals) will work with park staff to identify sustainability and climate change challenges, track progress toward achieving goals, communicate achievements and new programs to park staff and the public, and work with other staff to continually improve operations. Through their leadership, the park ensures that climate-friendly initiatives move forward and goals are accomplished.

All park staff are responsible for complying with all applicable Federal, State, and local environmental laws, regulations, Executive Orders, and Department of the Interior environmental policies; working toward integrating and implementing environmentally sensitive best management practices including pollution prevention and waste reduction into all park operations; working to reduce the park’s carbon footprint; and educating new staff, partners, and visitors about climate change concepts relevant to the park. The park work to comply with these regulations is coordinated and managed by the Environmental, Safety, and Health Manager with the support of senior staff and the park Green Team.

EDUCATION & COMMUNICATION

By improving communication within the park, we are developing an environment that provides guidance and clarity while instilling ownership and support in accomplishing environmental management goals and initiatives. Within the park, information and guidance associated with climate-friendly actions and other environmental management initiatives is



communicated through quarterly all-employee meetings, written policies and procedures distributed through internal park

networks, regular email notifications, and a variety of training programs. The park Green Team also encourages staff to submit ideas and concerns through direct participation in monthly Green Team meetings or by discussing ideas with their division representative.

Communicating advancements in Valley Forge's environmental program to visitors and partners is also a component of the park's EMS, and includes use of social media and the park website along with more traditional media to explain park sustainability initiatives. Additionally, educational programs and events will use new technology like QR codes and mobile-friendly flyers to reduce waste and to promote our efforts beyond park staff.

CONCLUSION

The elements of our EMS form the foundation of the environmental protection, climate change response, and sustainability work that we will accomplish at Valley Forge NHP. We hope that visitors will check back in with us and see how we progress as our program continues to evolve.

CONTACTS

Climate Friendly Parks Program
Email: CFP@nps.gov
Website: www.nps.gov/climatefriendlyparks

Valley Forge National Historical Park
Website: www.nps.gov/vafo

By identifying a greenhouse gas reduction goal, climate change response/sustainability actions, and outreach initiatives related to sustainability and climate change and sustainability topics, Valley Forge National Historical Park is an official member of the Climate Friendly Parks Program. For more information about the program, please visit the CFP website or contact the CFP team (information above).

SHAWN NORTON

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Date: 2014.12.16 13:14:10 -0500

CFP National Representative Date

Julie M. Vance for Holly Salazer
12.11.2014
CFP Regional Representative Date

Kate H. H. Dec 4, 2014
Park Superintendent Date