



# SPRINGFIELD ARMORY NATIONAL HISTORIC SITE

## CLIMATE FRIENDLY PARKS ACTION PLAN

### 2020

#### INTRODUCTION

As a participant in the National Park Service (NPS) Climate Friendly Parks (CFP) program, Springfield Armory National Historic Site (SPAR) belongs to a network of parks nationwide that are putting climate friendly behavior at the forefront of park operations and resource management. As part of this program, SPAR has conducted a greenhouse gas (GHG) emission inventory, participated in a climate change and environmental sustainability educational workshop, set climate change mitigation and GHG emission reduction goals, and will integrate these items into the park-wide Environmental Management System (EMS) and the park's next Strategic Plan.



Photo of Springfield Armory National Historic Site

The EMS takes a systematic approach to identify and address environmental impacts at the park. The EMS provides a framework for tracking environmental protection and sustainability priorities and details the implementation of these actions. By integrating CFP-related actions into the park's EMS, SPAR is taking an integrated approach to climate change response and sustainable management of park resources.

The park's Environmental Management System (EMS) is incorporated into every program area and is the responsibility of every employee due to the park's size and visitation. SPAR, as a historic site with a museum, collections storage, and archives, has strict rules for visitors' use. Thus, SPAR discovered most of the park's impacts are the result of current staff practices and facility operations. It is the park's goal to develop and foster a stewardship culture that includes environmental sustainability ("sustainability") in every action.

#### ENVIRONMENTAL POLICY & SUSTAINABILITY COMMITMENT STATEMENT

SPAR is committed to protecting and preserving its natural, cultural, and archeological resources through environmental stewardship as mandated by the Organic Act and the park's enabling legislation. This commitment includes energy, water, solid waste, chemical use, and GHG emissions reductions (collectively called sustainability) as required by federal Executive Orders and Department of the Interior and NPS policy. SPAR's goal is to reduce its GHG emissions by 16% by 2025.

SPAR staff, volunteers, and contractors will follow our environmental, pollution prevention, energy reduction, and related procedures and programs. Together we will examine and conduct operations and activities in a professionally sound manner, effectively and efficiently complying with the letter, spirit, and intent of applicable environmental regulations, standards, executive orders, and policies related to sustainability.

## ACCOMPLISHMENTS

Before holding the CFP workshop, SPAR had already started to embark on a sustainability journey by embedding sustainability actions into the park’s EMS. As part of these efforts, SPAR has taken some measures which have reduced their environmental impact.

Sustainability Concern	Completed Actions
<b>GHG Emissions</b>	Installed UV shades and storm inserts to protect museum items and reduce energy use
	Purchased mowers that are ready to convert to propane
	Installed light motion sensors in select areas
	Completed an environmental audit in 2018 to ensure environmental compliance and identify areas for improvement
	All refrigerant is logged in refrigerant recycling management book, to ensure compliance with proper refrigerant disposal
<b>Waste</b>	Installed water bottle fillers
	Provide new staff and volunteers with reusable water bottles
	Use reusable cups and mugs in the staff kitchen
	Placed recycling bins for staff use
	Reuse laminated worksheets for youth programs
	Properly dispose of leftover paint and aerosol cans
<b>Environmental Purchasing</b>	Consider sustainability factors in purchasing decisions
	All paper is now 100% recycled paper, including paper towels in restrooms
	Implemented best practices regarding pesticide use management
<b>Water</b>	Installed auto-flush and water-saving toilets and urinals that also have batteries that recharge with each flush
	Implemented stormwater drain project (separated to link with the separated sewer system in future)
	Implemented a water runoff project, which captures 98% of water runoff of the project site
<b>Education / Communication</b>	Held a Climate Friendly Parks workshop
	Educational programming has included environmental topics, including human impacts on and interactions with the watershed

## BASELINE GREENHOUSE GAS EMISSIONS PROFILE

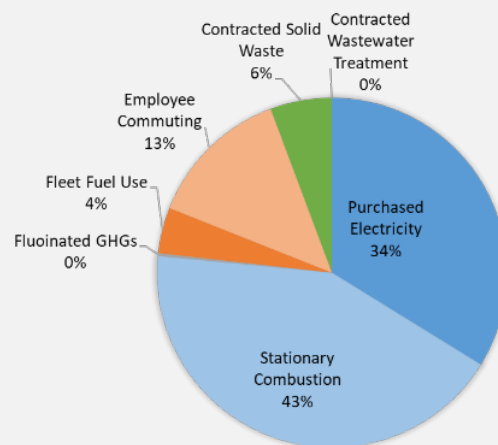
SPAR developed a greenhouse gas inventory using the Climate Leadership in Parks (CLIP) tool. Purchased electricity and stationary combustion represent the most significant sources (as shown in the figure). Having this baseline helps inform the goals and targets we have set and the actions we are taking to meet those.

## GOALS & ACTIONS

As part of the CFP program, SPAR has developed several goals. The park will incorporate stated actions into the overall annual work plan and track them through the EMS to help meet the park goals.

The first year of those actions is listed out below. SPAR will continue to chart our progress against the goals annually and refine our efforts as part of the plan, do, check, act process.

2018 GHG Emissions from Park Operations



	Electricity & Stationary Combustion	Transportation & Mobile Combustion	Education & Behavior Change
<b>Goal</b>	Reduce GHG emissions from energy use by 16% from the baseline year of 2018 by 2025	Reduce GHG emissions from transportation use by 9% by 2025	Educate 10% of visitors about climate change and sustainability practices by 2025.
<b>2020 Action Plan</b>	<ul style="list-style-type: none"> <li>• Complete LED lighting replacement project</li> <li>• Install low flow aerators</li> <li>• Prepare PMIS project for variable frequency drive motors to reduce boiler energy use</li> <li>• Add insulation to the third floor and attic to reduce energy use</li> </ul>	<ul style="list-style-type: none"> <li>• Switch to using biodiesel in backup generators when able</li> <li>• Coordinate fleet turnover with resource-sharing parks</li> <li>• Switch to propane for lawn mowers</li> <li>• Gather information to explore the purchase of electric vehicles</li> <li>• Evaluate field mowing schedule</li> <li>• Plant wildflowers for wildlife per the Cultural Landscape Report</li> </ul>	<ul style="list-style-type: none"> <li>• Begin institutionalization of a stewardship work culture through staff meetings, communications, and leadership emphasis</li> <li>• Build climate change/sustainability web pages and associated stories</li> <li>• Share Climate Change in National Parks brochures with visitors</li> <li>• Encourage climate friendly behavior including turning off lights, using screen savers, and encouraging daily climate friendly practices</li> <li>• Purchase and install recycling containers outside on the grounds and create messaging in collaboration with the college campus.</li> <li>• Reduce paper handouts in museum and visitor services</li> <li>• Develop staff online skills and strategies to encourage a paperless work environment</li> <li>• Replace yearly printed report with online version</li> <li>• Promote the use of digital SPAR Unigrid brochure</li> </ul>

### ROLES, RESPONSIBILITIES, & RESOURCES

The park Superintendent will prioritize and guide the accomplishment of our goals through the park’s management team, who will continuously monitor and update sustainability goals for the park and their respective program areas. The management team will also work together to identify sustainability and climate change challenges, track progress toward achieving goals, and work with all staff to improve operations continually. Through their leadership, the park ensures that sustainability initiatives move forward, and the park accomplishes goals. The Interpretation and Education Program Manager will lead the effort for educating visitors on the NPS and SPAR’s climate change stories. The Facilities and Resources Program Manager will lead initiatives related to waste, water, GHG emissions, electricity, and fuel. Behavior change, providing feedback, and emphasizing climate friendly practices, led by the management team, will be fostered and embraced by all employees and volunteers.

Each member of the staff is responsible for the implementation of the SPAR Climate Friendly Parks Action Plan. Every staff member's daily behavior and practices should reflect a culture of sustainability and historic preservation. Each staff member should be empowered to bring ideas, comments, and areas for improvement forward to improve the park's environmental impact.

### **EDUCATION & COMMUNICATION**

SPAR seeks to set an example as a climate friendly park and workgroup. SPAR will focus on internal communication and emphasizing a culture of environmental stewardship to develop a work environment that provides guidance and clarity while instilling ownership and support in accomplishing goals and initiatives. SPAR will work to build this culture every day. Primarily, SPAR will communicate and promote practices during all-employee meetings, placing sustainability at the forefront with staff safety. These meetings are the foundation for brainstorming, informing, and educating employees of climate friendly behaviors, goals, and staff practices.



The Interpretation and Education team will lead communication efforts to educate the public on national and park EMS messages. This team will develop the park's climate change story, distribute the NPS Climate Change Brochure, and develop the park website to include stories, such as environmental impacts of the Armory, climate change, and the Park's associated goals and actions.

### **CONCLUSION**

Our culture of stewardship forms the foundation of the environmental protection, climate change response, and sustainability work that we will accomplish at SPAR as part of the Climate Friendly Parks initiative. We hope to set an example for our visitors as we make progress and set new goals that meet evolving research and technology in the future.

### **CONTACTS**

Climate Friendly Parks Program  
Email: [CFP@nps.gov](mailto:CFP@nps.gov)  
Website: [www.nps.gov/climatefriendlyparks](http://www.nps.gov/climatefriendlyparks)

Springfield Armory National Historic Site  
Email: [andrew\\_long@nps.gov](mailto:andrew_long@nps.gov)  
Website: <https://www.nps.gov/spar/index.htm>