



CLIMATE *Friendly* PARKS

# Whitman Mission National Historic Site Action Plan

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## WHITMAN MISSION NATIONAL HISTORIC SITE BECOMES A CLIMATE FRIENDLY PARK

As a participant in the Climate Friendly Parks program, Whitman Mission 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, Whitman Mission National Historic Site is serving as a model for climate friendly behavior within the National Park Service.

Whitman Mission National Historic Site has committed to reducing greenhouse gas (GHG) emissions by 17.5% below 2007 levels by 2016. This Action Plan identifies steps that Whitman Mission National Historic Site can undertake to reduce GHG emissions and 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 North Coast & Cascade and Upper Columbia Basin Climate Friendly Parks Workshop.<sup>1</sup> 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.

Whitman Mission National Historic Site aims to:

**Reduce GHG emissions from the Park to 17.5 % below 2006 levels by the year 2016 by implementing emission mitigation actions identified by the Park.**

To meet these goals, 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. At Whitman Mission 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.

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 19<sup>th</sup> century, and the 10 warmest years of the 20<sup>th</sup> 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 (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) — which trap heat that otherwise would be released into space.

<sup>1</sup> Original notes from these workshops, including detailed action items not presented in the final plan have been archived by Whitman Mission National Historic Site and are available upon request.



The continued addition of CO<sub>2</sub> 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.<sup>2</sup> Rising global temperatures will further raise sea levels and affect all aspects of the water cycle, including snow cover, mountain glaciers, spring runoff, water temperature, and aquatic life. Climate change is also expected to affect human health, crop production, animal and plant habitats, and many other features of our natural and managed environments.

## GREENHOUSE GAS EMISSION INVENTORY AT WHITMAN MISSION NATIONAL HISTORIC SITE

Naturally occurring GHGs include CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, 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., boilers, electricity generation), the decomposition of waste and other organic matter, and the volatilization or release of gases from various other sources (e.g., fertilizers and refrigerants).

In 2007, GHG emissions within Whitman Missions National Historic Site totaled 88 metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>E). This includes emissions from park and concessioner operations and visitor activities, including vehicle use within the Park. For perspective, a typical single family home in the U.S. produces approximately 12 MTCO<sub>2</sub> per year.<sup>3</sup> Thus, the combined emissions from park and concessioner operations and visitor activities within the Park are roughly equivalent to the emissions from the electricity use of 7 households each year.

The largest emission sector for Whitman Mission National Historic Site is Energy, totaling 59 MTCO<sub>2</sub>E, followed by Transportation 22 MTCO<sub>2</sub>E and Waste 7 MTCO<sub>2</sub>E (Fig 1 and Table 1). Energy consumption includes stationary combustion on site, along with emissions from electricity purchased from the local utility. Of the total emissions from transportation, 11 MTCO<sub>2</sub>E resulted from park operations, and 11 MTCO<sub>2</sub>E resulted from visitor vehicle use. Whitman Mission National Historical Site is a small, remotely located park, and has little paved area, and as a result emissions are much lower than in many other National Parks.

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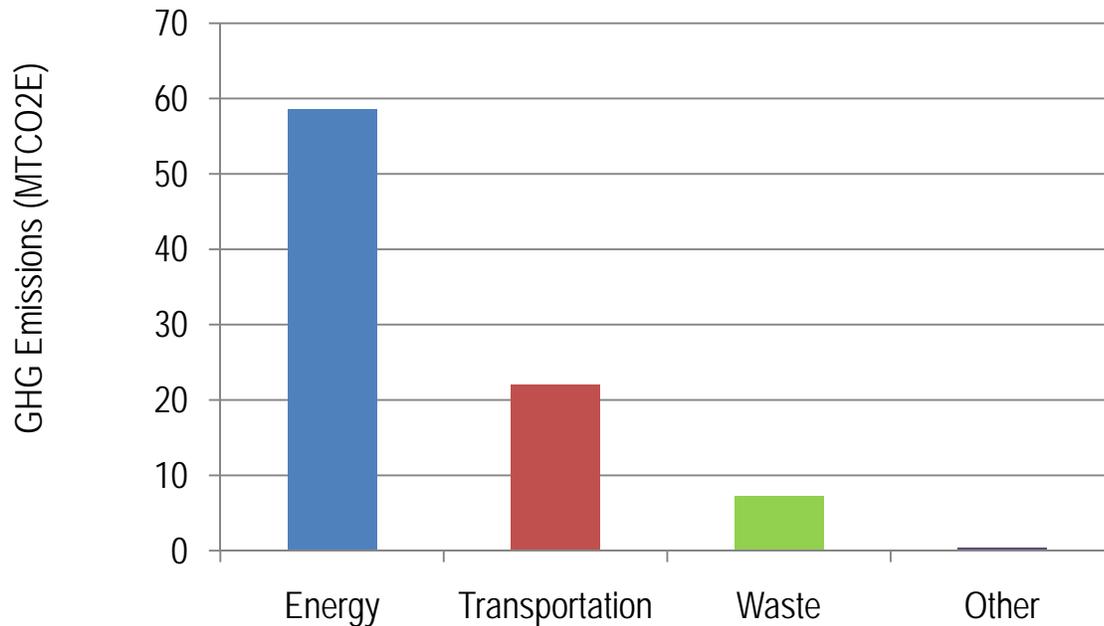
<sup>2</sup> IPCC 2007. Climate Change 2007: The Physical Science Basis. Intergovernmental Panel on Climate Change, Geneva Switzerland. Available online at < <http://ipcc-wg1.ucar.edu/wg1/wg1-report.html> >

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



## FIGURE 1

*Whitman Mission National Historic Site's 2007 Total Greenhouse Gas Emissions by Sector*



## TABLE 1

*Whitman Mission National Historic Site's 2007 Total Greenhouse Gas Emissions by Sector and Source*

### Total Park GHG Inventory Results (MTCO2E)

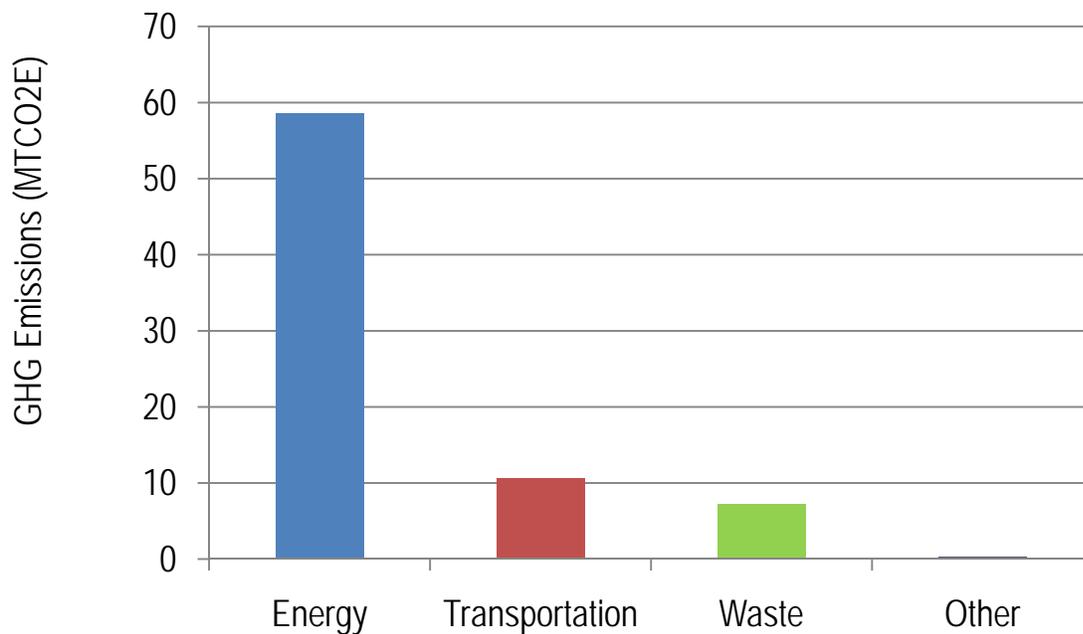
	MTCO2E
<b>Energy</b>	<b>59</b>
Stationary Combustion	18
Purchased Electricity	40
<b>Transportation</b>	<b>22</b>
Mobile Combustion	22
<b>Waste</b>	<b>7</b>
Landfilled Waste	7
Wastewater	-
<b>Other</b>	<b>0</b>
Refrigeration and Air Conditioning	0
<b>Total</b>	<b>88</b>

Note - Totals may not sum due to rounding

Not applicable data sources represented by "-"

## FIGURE 2

*Whitman Mission National Historic Site's 2007 Park Operations Emissions by Sector*



## TABLE 2

*Whitman Mission National Historic Site's 2007 Park Operations Emissions by Sector*

### Park Operations GHG Inventory Results (MTCO2E)

	MTCO2E
<b>Energy</b>	<b>59</b>
Stationary Combustion	18
Purchased Electricity	40
<b>Transportation</b>	<b>11</b>
Mobile Combustion	11
<b>Waste</b>	<b>7</b>
Landfilled Waste	7
Wastewater	-
<b>Other</b>	<b>0</b>
Refrigeration and Air Conditioning	0
<b>Total</b>	<b>77</b>

Note - Totals may not sum due to rounding

Not applicable data sources represented by "-"

# Whitman Mission National Historic Site Responds to Climate Change

*The following actions were developed during the North Coast & Cascade and Upper Columbia Basin Climate Friendly Parks Workshop on February 9<sup>th</sup> and 10<sup>th</sup> 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

Whitman Mission 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 Whitman Mission 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 to 20 percent below 2007 levels by 2016.*

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 59 percent of the Park's GHG emissions from Park Operations are from energy consumption. Consequently, Whitman 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

##### Behavioral Changes

- Installed Lockable cover on thermostats and set to 68 winter, 75 summer with programmable thermostat at boiler/cooler.

##### Lighting

- Installed fluorescent T-8 lamps and electronic ballast components in all fixtures used for more than 3 hours a day.
- Replaced incandescent light bulbs with Compact Fluorescent Light bulbs (CFLs) where appropriate.
- Installed off-grid photovoltaic and light system in the Visitor Center parking lot and at Maintenance Shop.

##### Heating, Ventilation, and Air Conditioner (HVAC)

- Installed programmable air handlers to increase reheat system efficiency.
- Established service agreement for HVAC and routine maintenance through FMSS.

##### Energy Efficiency Electronics and Devices

- In 2001 replaced existing boiler with best available energy-efficient model.
- Installed tank less hot water heater at shop and a solar assisted hot water system at the Visitor Center.

##### Alternative Energy

- Installed 11.4 kW photovoltaic system at the Maintenance Shop and a 3.6 kW system at the Visitor Center, both are grid tied.



- Currently, using a B50 (50% petroleum based diesel and 50% bio based diesel) in heating and all fuel applications. We are currently field-testing the use of B99 (1% petroleum based diesel and 99% bio based diesel) in heating and all fuel applications.
- Roof designs include extended eaves and mature trees provide shade for buildings.
- Solar panels cover most of the Maintenance Shop roof and one third of the Visitor Center roof.

#### Other Energy Management Actions

- Installed building level utility “smart” meters that transmit data on existing buildings and new major construction and renovation projects to track and continuously optimize performance.
- Partnered with the Department of Energy, Bonneville Power, and Sustainable Living Center in Walla Walla.

## Energy Use Management – Planned Actions

### 1 Promote energy efficiency and energy conservation in the Park through behavioral change

- Conserve first.
  - Encourage energy conservation in all activities by shutting off lights, using natural lighting, turning off electronics or setting to hibernate, etc.
- Develop a mandatory energy-saving training program.
  - Include an energy-saving training orientation for new staff including seasonal.
- Adjust janitorial schedules.
  - Review janitorial cleaning schedules for opportunities to conserve electrical lighting.

### 2 Upgrade lighting options

- Consider building siting.
  - Ensure that building siting for new construction is oriented to maximize energy efficiency.

### 3 Switch to more efficient electronics and devices

- Default all computers to print double-sided.
  - Explore setting the default setting on all computers and copiers to double-sided printing.
- Install Smart Strip power strips.
  - Replace all old power strips with “smart power strips”.

## 4 Improve building structures and envelopes

- Weatherize park buildings by adding R-values to improve insulation effectiveness.
  - Install special contoured foam backing to Maintenance Shop and Residence to increase R values (Shop R23, House R13).
- Replace/Upgrade old windows with new windows.
  - Install new windows at the Visitor Center that are energy efficient (e.g., spectrally selective glass, double-glazed, low-energy systems).
  - Install shade film on shop windows.

## 5 Utilize alternative energy sources

- Install Photovoltaic Panels on Park Buildings, Parking Lots, Open Areas, Etc.
  - Install 12.6 kW (grid tied) photovoltaic system atop future composting structure to further reduce energy consumption provided by electrical grid.

## 6 Heating, Ventilation, and Air Conditioning (HVAC)

- Develop an HVAC maintenance schedule.
  - Continue to inspect and service HVAC equipment bi-annually.
- Recalibrate thermostats.
  - Restrict thermostat access at Maintenance Shop and Visitor Center in order to avoid potential fluctuations in thermostat levels.

## 7 Measure energy use throughout the Park

- Incorporate energy efficiency criteria into new contracts for park and concessioner construction.
  - Continue to incorporate energy-efficiency criteria into new contracts for park construction.
- Conduct an energy audit for all park buildings. Partner with local utilities to conduct the audit.
  - Conduct energy audits for the Maintenance Shop and the Visitor Center.

## Transportation Management

*Emission Reduction Goal: Reduce park operations transportation emissions to 10 percent below 2007 levels by 2016.*

Reducing vehicle miles traveled, improving vehicle efficiency, and using alternative fuels can significantly reduce Whitman Mission National Historic Site's emissions. As the inventory results indicate, GHG emissions from transportation comprise 11 percent of park operations emissions and 22 percent of the Park's overall emissions (including visitors, and concessioners). Accordingly, in addition to the Park operations emissions reduction goal, Whitman Mission National Historic Site set a goal to reduce overall transportation emissions by 10 percent below 2007 levels by 2016. 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

#### Vehicle and Equipment Fuel Consumption

- Analyzed fleet fuel consumptions patterns for efficiency improvements.
- Utilize B50 biodiesel for park equipment (tractors, cart, and mower). Pilot-test B99 for future use.
- Park Compendium requires tour busses to turn off engines when stopped.

#### Vehicle and Equipment Replacement

- Gasoline leased car will burn E85 and the GSA truck uses low sulfur diesel.
- Park management reviewed vehicle needs and replaced a full size SUV (4 wheel drive) with a sedan that burns alternative fuel (E85).

#### Vehicle Maintenance

- Park based equipment is serviced by park staff for preventative maintenance based on the manufactory's recommended schedule.
- Park equipment uses re-refined and/or bio-based oil.
- Renewable lubricants/bio based (100%) are used by the Park and recycle all used oil on an annual bases.

## Transportation Management – Planned Actions

### 1 Transportation-related Behavioral Changes

- Encourage staff carpooling.
  - Include information about staff carpooling for commuting to work in employee orientation.



- Reduce staff idling.
  - Implement existing Standard Operating Procedure (SOP) memo that requires all vehicles to be turned off if they will be left idling for more than two minutes. Install window decals depicting a no-idle policy is in place.
- Reduce meeting travel.
  - Use TelNet and phone conferencing to avoid excessive travel, both within and outside the Park.

## 2 Reduce visitor vehicle fuel consumption

- Partner with surrounding state and local communities on alternative transportation opportunities for visitors.
  - Cooperate with Walla Walla County for pedestrian and bicycle trails to the Park. Oregon California Trail Association has built a parking lot on county land to provide access to the Park from a walking/bicycle trail.
- Provide alternative modes of visitor travel and encourage carpooling.
  - Increase the use of alternative fuel buses (using bio based fuels) to areas of heavy use and traffic, i.e. popular destinations in the Park.
  - Explore stepped entrance fees based on vehicle capacity and occupancy.
- Incentivize visitor use of high efficiency and alternative fuel vehicles and hybrids.
  - Explore free/reduced admission for alternative fuels vehicles, bicycles, and foot traffic.
- Improve tracking of visitor transit data.
  - Verify types and numbers of vehicles through manual and automated counting (traffic counter) and observation.

## 3 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).
  - Evaluate fleet transportation practices in order to exceed the requirements set up by the Federal Energy Management Program (FEMP).
- Operate all fleet vehicles using re-refined oil.
  - Obtain permission from General Services Administration (GSA) to use re-refined and/or bio-based oil in all GSA vehicles.

## 4 Transportation infrastructure

- Improve parking lot designs to include local vegetation.
  - Plant native vegetation along entrance road leading to the Parking lot.

## Waste Management

*Emission Reduction Goal: Reduce park operations waste emissions to 20 percent below 2007 levels by 2016 through waste diversion and reduction.*

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 CH<sub>4</sub> emissions in the United States. Reducing the amount of waste sent to landfills reduces CH<sub>4</sub> 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.

Whitman Mission National Historic Site's park operation activities emitted 7 MTCO<sub>2</sub>E from waste management in 2007. Diverting or reducing the Park's waste stream through increased recycling efforts and waste management will reduce the amount of waste sent to landfills and resulting 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

#### Waste Prevention

- Installed recycling containers at the Park picnic shelter and in the Parking lot.
- Office supplies are shared and recycled from office to office. Equipment such as computers is often donated to schools and excess maintenance and interpretive supplies and equipment have gone to other parks and organizations.
- No Styrofoam products are used in the Park other than Styrofoam peanuts received in shipping which are then recycled in outgoing shipments.
- Refillable products such as pens and mechanical pencils are used. Bulk cleaning supplies are purchased in 1 to 2 gallon containers and transferred to smaller bottles for daily use.

#### Waste Diversion (Recycling and Composting)

- Assigned a person to act as a recycling coordinator.
- Utilizes approved organizations to receive old computers and monitors as donations. Items not recycled to use are disposed of at recycling centers that breakdown the components for appropriate recycling.
- Used fluorescents are sent to the appropriate recycling center.

#### Green Procurement

- Painted Visitor Center interior and exterior with low Volatile Organic Compound (VOC) paint.

#### Reduce Wastewater

- A waterless urinal was installed and toilets and flush meters were replaced with low flow models (reduced from 5 gallons to 1.6 gallons per flush which resulted in a 68% reduction in water use).
- Replaced faucets and shower heads at Visitor Center and Maintenance Shop with low flow outlets resulting in a 50% reduction in water use.

- Installed electronic/programmable valve control units on all park irrigation systems and utilize drought resistant plants in formal planting beds. Native vegetation has been incorporated in both developed and natural areas. Irrigation is done through a programmable timer that is set to reduce evaporation (irrigate at night or early morning).
- Visitor Center rainwater is used on planting beds. Vehicle/equipment wash station has been discontinued to alleviate contamination.

#### Other Waste Management Actions

- Purchased an aluminum can crusher to reduce recyclable material volume.

## Waste Management – Planned Actions

### 1 Decrease waste through behavior change

- Train staff on green procurement practices.
  - Encourage employees to take the Office of the Federal Environmental Executive's online green purchasing training.
- Train staff on waste reduction initiatives.
  - Continue to provide staff with information on best practices in waste source reduction, waste prevention, recycling and composting.

### 2 Establish new plans and policies that promote waste reduction.

- Develop a schedule for replacing existing materials.
  - Post consumer products are considered for all projects. All equipment is reviewed for environmentally friendly application.
  - Continue to optimize the use of post consumer products in park projects.
- Incorporate waste reduction into green office practices.
  - Optimize the use of green products in the office operation.
- Minimize waste associated with paper towels.
  - Replace paper towel dispensers in restrooms with high efficiency blow-dryers.
- Promote the use of recycled contents products and materials procurement within the NPS.
  - Optimize the use of post consumer products in both the offices and maintenance operations and practice.
- Pack-In and pack-out.
  - Educate visiting public and special groups about recycling and pack it in pack it out through park news paper and interpretive materials.
  - Reduce the number of trash containers within the Park where appropriate.

### 3 Implement recycling and composting practices

- Continually increase the amount of waste material at the Park that can be recycled.
  - Optimize recycling for all items throughout park operations.
- Start a comprehensive recycling outreach campaign aimed at park visitors.
  - Place interpretive signs that address waste/recycling at public recycling containers and facilities. Include Waste/Recycling information in the Park news paper and on the Park website.
- Compost yard waste.
  - Continue to utilize composting to divert grass and woody materials from the landfill. This practice was incorporated into park operations in 2005. In the first year the Park composted 48,000 lbs. of grass; 40,500 lbs. of leaves; and 3,700 lbs. of wood chips.

### 4 Reduce waste through green procurement

- Continually increase the recycled content of purchased materials.
  - Explore using a higher percentage of post consumer recycled paper.
- Buy FSC certified wood.
  - Purchase only FSC certified wood for park projects.

### 5 Other

- Track and report landfill data to monitor reductions and success in diverting waste from the landfill.
  - Continue to record and track landfill data as required in Intergraded Solid Waste Alternatives Plan (ISWAP) and Environmental Management System (EMS).
- Manage solid waste and recycling by developing an ISWAP.
  - Implement and maintain the Park's ISWAP that was developed in 2006.
- Implement and Enforce a Construction Waste Management Plan and Job Site Recycling Policy.
  - Implement and enforce a construction waste management and job site recycling policy for all new contracts.

## STRATEGY 2: INCREASE CLIMATE CHANGE EDUCATION AND OUTREACH

Climate change is a complex and easily misunderstood issue. Whitman Mission 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. Whitman Mission 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 Whitman Mission 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

#### Climate Friendly Parks Team

- Developed an interpretive display for Photovoltaic system at Visitor Center, small labels on post consumer products, and public display of environmental awards.

#### Climate Change Education

- Small signs are used as interpretive materials on park recycling containers to educate visitor about recycling options.
- Many of the Park's climate friendly features including Photovoltaic systems, hot water, and waterless urinals have signs to inform visitors about what the Park is doing.

#### Other Education and Outreach Actions

- Off grid parking lot lights, roof top Photovoltaic systems and solar hot water systems, and a wall of environmental awards all serve as visual reminders of what the Park is doing to reduce emissions.

## Park Staff

### Incorporate climate change into park staff training, events, and performance plans

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, Whitman Mission 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:

- Hold internal Climate Friendly Park discussions and workshops.
  - Incorporate climate friendly practices into "all employees" meetings.
- Incorporate climate change issues into the employee handbook.
  - Incorporate climate change issues and sustainability concepts into the employee handbook.
- Include the science and impacts of climate change into park education tools.



- Include the science and impacts of climate change in seasonal handbook/orientation, park newspaper, press releases and park website.
- Incorporate sessions on climate change into new staff training.
  - Continue to include climate change information in seasonal staff trainings to help keep new staff informed on the Park's position on climate change.
- Advise staff on monthly webinars hosted by the climate change steering committee.
  - Interpretive chief will distribute notice of webinar (climate change in the Parks) to park staff.
- Create visual reminders for park employees with climate change information and tips on how employees can help reduce emissions.
- Train custodial staff in most efficient use of cleaning and waste reduction practices.
  - Brief custodial staff on climate friendly products to be used.

## Visitor Outreach

Understanding climate change and its consequences is essential to initiating individual behavioral change. Whitman Mission 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, Whitman Mission National Historic Site can play an important role in educating the public about climate change.

Whitman Mission 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:

- Create signs promoting the Park's efforts to curb emissions.
  - Develop signage to promote the Park's climate friendly efforts.
- Include climate change messaging in Junior Ranger Program.
  - Revise the Junior Ranger Program to include climate change messaging.
- Incorporate climate friendly information into interpreter programs and talks.
  - Develop specific interpretive programs for public use dealing with climate friendly practices.
- Communicate with local communities, park visitors, and local media about actions they can take to reduce GHG emissions.
  - Develop and place a recycling interpretive exhibit.
- Develop a Do Your Part! program for online visitors.

- Integrate the Do Your Part program into the Park outreach materials and interpretive programs including the Park website.

## Local Community Outreach

The gateway communities, agencies, vendors, and volunteers surrounding Whitman Mission 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:

- Develop and leverage relationship with other agencies and entities to create opportunities for workshop on climate friendly activities.
  - Provide field trip opportunities for local groups and organizations to showcase climate friendly development and products.
- Disseminate information about climate friendly actions the Park is taking at conferences and regional workshops.
  - Park staff will serve as subject matter experts for climate friendly practices at local conferences and workshops.
- Host climate change education workshops.
  - Focus presentations on climate change priorities and talk about success stories.
- Set up a Do Your Part! table at local events.
  - Develop a Do Your Part! Display for both onsite and offsite park use (e.g. Farmer's Market and Regional Fairs).

## STRATEGY 3: EVALUATE PROGRESS AND IDENTIFY AREAS FOR IMPROVEMENT

By taking the actions established in strategies 1 and 2 above, Whitman Mission 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, Whitman Mission 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

Whitman Mission National Historic Site has a unique opportunity to serve as a model for over 50,000 recreational visitors annually.<sup>4</sup> 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, Whitman Mission National Historic Site will help mitigate climate change far beyond the Park's boundaries.

This Action Plan also serves as an important enhancement mechanism for the Park's Environmental Management System (EMS). Realistic environmental commitments created by Whitman Mission National Historic Site staff and approved by the park's superintendent will significantly reduce the park's GHG emissions in the coming years. The mitigation actions included in this plan have been developed in order to be directly transferable to the park's EMS. Whitman Mission National Historic Site Action Plan thus provides an effective way to meet EMS goals.

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, Whitman Mission 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 Whitman Mission National Historic Site to the forefront of Climate Friendly Parks.

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<sup>4</sup> Whitman Mission National Historic Site: Park Statistics. Available online at: <http://www.nature.nps.gov/stats/viewReport.cfm>

## APPENDIX A: LIST OF WORK GROUP PARTICIPANTS

Terry Darby – Superintendent, Whitman Mission NHS  
Bruce Hancock – Chief of Maintenance, Whitman Mission NHS

