



# World War II Valor in the Pacific National Monument Action Plan

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## WORLD WAR II VALOR IN THE PACIFIC NATIONAL MONUMENT BECOMES A CLIMATE FRIENDLY PARK

As a participant in the Climate Friendly Parks program, the National Monument 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, the National Monument provides a model for climate-friendly behavior within the park National Park Service. It also acts in a conservation leadership role for high visitation tourist sites on the island of Oahu.

This Action Plan identifies steps that the National Monument 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 National Monument will continue its efforts at sustainability by presenting to the public documentation on our efforts at a variety of sustainability issues, including decreasing our GHG emissions.

The National Monument intends to:

- Reduce 2008 energy GHG emissions from park operations by 20 percent by 2016.
- Reduce 2008 transportation GHG emissions from park operations by 20 percent by 2016.
- Reduce 2008 waste GHG emissions from park operations by 10 percent by 2016.
- Reduce total 2008 park GHG emissions, including concessioners, by 20 percent by 2016.

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 and specifically to the National Monument. 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  $1.1^{\circ}$ F since the late  $19^{th}$  century, and the 10 warmest years of the  $20^{th}$  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 ( $CO_2$ ), methane ( $CO_4$ ) and nitrous oxide ( $CO_4$ ) —which trap heat that otherwise would be released into space.

<sup>&</sup>lt;sup>1</sup> Original notes from these workshops, including detailed action items not presented in the final plan have been archived World War II Valor in the Pacific National Monument 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. 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.

At the National Monument, increasing temperatures, and changing precipitation patterns may alter park ecosystems, changing vegetation communities, habitats available for species, and the experience of park visitors. These climate-related changes can, over time, impact the critical historic resources that still exist not just in Hawai'i, but all throughout the range of the Pacific War. Significant historic structures, landscapes and archaeological sites are at risk from deterioration and loss due to more frequent violent weather patterns, changes in precipitation, and changes in floral and faunal assemblages.

## GREENHOUSE GAS EMISSION INVENTORY AT THE NATIONAL MONUMENT

Naturally occurring GHGs include  $CO_2$ ,  $CH_4$ ,  $N_2O$ , 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 2008, GHG emissions within the National Monument totaled 373 metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>E). This includes emissions from park and concessioner operations. For perspective, a typical single family home in the U.S. produces approximately  $11 \text{ MTCO}_2$  per year. Thus, the combined emissions from park and concessioner operations within the park are roughly equivalent to the emissions from the electricity use of 33 households each year.

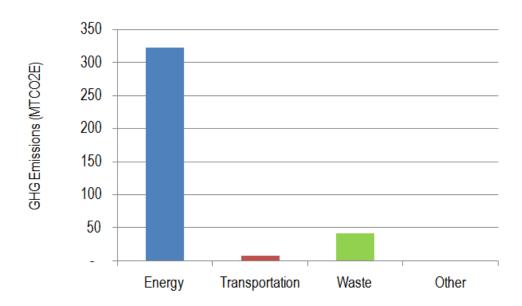
The largest emission sector for the National Monument is Energy, totaling 293 MTCO<sub>2</sub>E (see Fig 1 and Table 1, next page).

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



<sup>&</sup>lt;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/report.html>

FIGURE 1
The National Monument 2008 Total GHG Emissions by Sector



**TABLE 1**The National Monument 2008Total GHG Emissions by Sector and Source

	MTCO2E
Energy	323
Purchased Electricity	323
Transportation	8_
Mobile Combustion	8
Waste	42
Land filled Waste	42
Total	373_

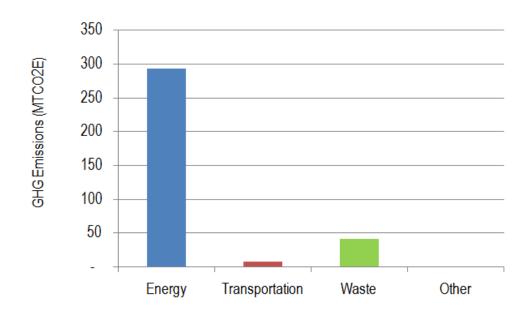
Note - Totals may not sum due to rounding

Not applicable data sources represented by "-"



FIGURE 2

The National Monument 2008 Park Operations GHG Emissions by Sector



**TABLE 2** 

The National Monument 2008 Park Operations GHG Emissions by Sector

	MTCO2E
Energy	293
Purchased Electricity	293
Transportation	8
Mobile Combustion	8
Waste	42
Land filled Waste	42
Total	343

Note - Totals may not sum due to rounding Not applicable data sources represented by "-"



## World War II Valor in the Pacific National Monument 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

The National Monument 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 the National Monument 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 2008 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 85 percent of the park's GHG emissions from Park Operations are from energy consumption. Consequently, the National Monument 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**

- The newest addition to the park is LEED Silver, or could possibly go Gold visitor center.
  - O Note: the emissions inventory was conducted prior to the building of the new visitor center.
- The electric lighting throughout the buildings automatically turns on when people enter the room and automatically
  turns off when room is vacant. Lights also turn off when no activity/motion. In the offices and education center, the
  lights can be shut off or dimmed to very low, energy efficient levels. The restrooms have skylights to brighten the
  indoors without installing lots of electric lights. Not only does this conserve energy, but it provides brighter, more even
  light than electric lights.
- All lighting fixtures and lights are energy efficient (bulbs are "ECO") in our new Visitor Center.
- The air condition spaces in our new Visitor Center are limited. Rooms having a/c units, occupants have been advised
  of thermostat settings and to turn off their units upon leaving for the day. The building is designed to capture the natural
  trade winds to cool walls and floor from direct sun keeping them cool during the day. Smaller buildings sited to take
  advantage of the natural air flow.
- The park has installed a dimmable lighting system which is programmed with photo sensors.
- The park has also installed a lighting control system with GE. The park can go into a program to change times lights go on/off, and schedule lights for activities in the park.
- The galleries, bookstore, classroom, and ticketing booth are open to the outdoors and rely on trade winds for cooling.
   Large roofs are curved and careful arrangement of small-scale buildings to channel the breeze. The park relies on natural ventilation, and the generous use of shade.
- Restrooms and lunch room, having skylights to brighten the indoors without installing electric lights.
- All outdoor lighting is energy efficient and is on photocells. Coming on at sunset and going off at sunrise.



• Energy conservation trainings started a couple of years ago with our EMS program to help reduce energy consumption (which it did) and even with all the energy conservation devices in place at the new visitor center this training continues.

#### **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.
  - Increase energy efficiency in all park buildings by encouraging conservation and efficiency behaviors.
  - Use natural lighting
  - O Add conservation (shutting off lights) to closedown checkout process.
- Continue mandatory energy-saving training program.
  - Staff can make significant contributions to load reduction by turning off equipment and lighting when it is not in use and enabling energy-saving settings for computers and monitors.
  - Incorporate conservation into training sessions.
  - Incorporate an energy performance reward system.

#### 2 Upgrade lighting options

- Upgraded all light fixtures and bulbs in park to energy efficient bulbs.
  - All lighting fixtures and lights are energy efficient in new Visitor Center.
  - Replace incandescent light- bulbs with compact fluorescent light-bulbs (CFLs) where appropriate.
- Installed lighting controls.
  - O Use motion sensors and make sure that a recommissioning schedule is in place to ensure appropriate use.

#### 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.
  - O Ensure that all new electronic/office equipment is ENERGY STAR qualified at <a href="www.energystar.gov">www.energystar.gov</a>, 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.



O Refer to the Federal Energy Management Program guidelines for purchasing energy efficient appliances in accordance with federal procurement procedures.

#### 4 Improve building structures and envelopes

• Develop and implement an HVAC inspection schedule for coils, filters, dampers, and fans and maintenance schedule that ensures timely replacement and cleaning (recommended monthly)

#### 5 Utilize alternative energy sources

- Purchase electricity from a renewable energy provider.
  - O Research renewable electricity options through the local utility to reduce electricity-related GHG emissions.
- Install photovoltaic panels on park buildings, parking lots, open areas, etc.
- The second phase of the new visitor center will include the installation of 265 photovoltaic panels on the theaters. The unit will put out 50 "K" watts. This will also reduce our energy consumption.

#### **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.
  - O 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 to 20 percent below 2008 levels by 2016.

Reducing vehicle miles traveled, improving vehicle efficiency, and using alternative fuels can significantly reduce the National Monument's emissions. As the inventory results indicate, GHG emissions from transportation comprise 2.33 percent of park operations emissions and 2.1 percent of the park's overall emissions (including visitors, and concessioners). Accordingly, in addition to the park operations emissions reduction goal, the National Monument set a goal to reduce overall transportation emissions by 20 percent below 2008 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**

- The National Monument is partnering with the Pearl Harbor Historic Sites to promote a public transportation system to Ford Island (something that will be free soon for visitors to Oklahoma Memorial).
- The park has placed 4 parking spaces dedicated to low emission vehicles in the new parking lot. Visitors are encouraged to use alternate methods of transportation, such as mass transit, to reach the site.
- The National Monument is working closely with transportation business partners to make sure that appropriate timing
  for visitation is implemented, allowing improved services to our visitors and encouraging reduced use of personal
  vehicles. Shuttle boats operated by the US Navy now operate using improved engines and can use biodiesel (soon to
  be available on Ford Island).

#### **Transportation Management - Planned Actions**

#### 1 Transportation-related Behavioral Changes

- Encourage staff carpooling.
  - O Develop carpooling information and support services for staff.
  - O Provide incentives for those who carpool.
- Reduce staff idling.
  - O Prohibit staff vehicle idling unless required for vehicle maintenance.
  - O Create dashboard idling guidelines and post in vehicles.

#### 2 Reduce visitor vehicle fuel consumption

- Post "Low Emitting"/"Fuel Efficient Vehicles Only" signs at visitor center parking lot.
- Prohibit visitor vehicle idling.
  - O Post signs and information with park idling rules.
- Encourage visitors to use public transportation to the park.
  - O The park will be looking into ways to encourage visitors to use public transportation to the park, such as on the parks website, etc.
- Partner with surrounding state and local communities on alternative transportation opportunities for visitors.

#### 3 Reduce NPS vehicle and equipment fuel consumption

- Exceed federal fleet performance requirements set by Energy Policy Act (EPAct), Executive Order 13423, and the Energy Independence and Security Act (EISA).
  - O Look at purchasing more efficient trucks/vehicles.



- Analyze fleet fuel-consumption patterns for efficiency improvements.
  - O Use FAST to track fuel use and analyze fleet needs with efficiency improvements.

#### 4 Replace NPS vehicles and equipment

- Continue to right size the vehicle fleet by the number and type.
  - O Use a Vehicle Allocation Methodology (VAM) to achieve a fleet that is the right size and type.
- Develop a vehicle replacement plan.
  - Evaluate alternative fuel vehicle options: Hybrid electric vehicles (HEVs), electric vehicles, compressed natural gas (CNG), biodiesel.
  - As older vehicles come up for replacement, order alternative fuel vehicles.
  - O Park will be taking this into consideration when developing a vehicle replacement plan.
- Incorporate alternative fuel guidelines into fleet specifications.
  - Work with GSA to catalogue available AFVs and set minimum AFV goals.

#### 5 Implement appropriate vehicle maintenance procedures

- Use bio-based lubricants and greases.
  - Move to bio-based lubricants in the park's equipment.

#### **Waste Management**

Emission Reduction Goal: Reduce park operations waste emissions to 10 percent below 2008 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.

The National Monument's park operation activities emitted 42 MTCO<sub>2</sub>E from waste management in 2009, this was 12.7 percent of the greenhouse gases emitted from park operations. 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**

- All faucets at the National Monument are low flow.
- The new visitor Center has done away with paper towels, reducing the waste and cost of approximately \$30,000 a year. We have newly installed energy efficient hand dryers throughout the park



- The park has just implemented a Green Housekeeping Policy that is committed to becoming better "stewards" of our restrooms and buildings. To use Only Green Approved Products, avoid the use of Prohibited Chemicals, and provide education to operations staff and building occupants. It reads: All custodial staff will continue to be educated on use of sustainable cleaning materials, products, equipment, janitorial paper products (including microfiber tools and wipes). Education shall consist of "show me" training through one-on-one training and/or meetings. We also have a tracking through EMS.
- All toilets are low flow and dual flush at new visitor center.
- The grass at the National Monument is Aloha Seashore Paspalum which requires up to 50% less water, is salt tolerant, can be irrigated with recycle water, and needs low fertilizer, which helps the environment by putting much fewer chemicals into the ecosystem.

#### **Waste Management - Planned Actions**

#### 1 Decrease waste through behavior change

- Engage staff to reduce and manage waste at work.
  - O Encourage park staff to be responsible at work by making it easy to recycle and compost waste; make sure containers fit environment (e.g., animal-proof, rust-proof/salt air -resistant/moisture resistant, and proper size).
  - O Make ceramic plates, bowls, mugs, and silverware available for employee use in lieu of disposable products.
  - Institute paperless office practices. Establish standards for double-sided printing and copying, office supply reuse, electronic correspondence procedures, electronic file storage, elimination of colored paper, etc.
  - O Take into account the amount of packaging when making purchases.
- Train park staff and contractors on waste reduction responsibilities.
  - O Ensure that staff and contractors are aware of their roles and responsibilities to reduce waste. Conduct periodic trainings to inform maintenance crews about recycling and composting policies at the park.
  - 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.).
  - O Integrate metrics on these responsibilities into performance evaluations.

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

- Measure baseline solid waste generation (tons).
  - O Continue to record waste management data in an EMS or a spreadsheet tracking system.

#### 3 Implement recycling and composting practices

- Continue current recycling practices and continue to investigate other recycling opportunities as former wastes materials may be accepted in the future on the Island of O'ahu.
  - Find reuse opportunity or donate unwanted items. Look into cooperative waste disposal or recycling to increase volume and reduce costs/traffic.



- Co-locate waste and recycling bins.
  - The park is in the process of ordering new recycling and waste containers with clear signage to be placed side by side throughout the park. Due to some injuries in lifting bags from top of cans, new containers will have front openings for removal.
  - Investigate containers manufactured from recovered plastics that have co-located waste/recycling and openings in the front.
- Install easy-to-use recycling containers throughout park facilities.
  - O Purchase containers with recycled content. Place trash and recycling containers next to each other.
  - Evaluate signage; use graphics.
- Recycle or donate old computers and electronics.
  - O Donate old equipment to schools, senior centers, etc.
  - Practice cradle-to-grave recycling to ensure toxic components are properly managed. Purchase electronics with less toxic components.

#### 4 Reduce waste through green procurement

- Use post-consumer recycled paper in all park publications.
  - O 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.
- 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.
  - O Focus on office supplies, gift shop concessioners, building supplies, furniture and maintenance equipment: hoses, mulch, edging, timbers, posts, and compost with recycled content.
- Adhere to Federal, NPS, and PWR Guidance for Procurement.
- Use low/no-VOC insulation, carpets, paints, and adhesives.
- Continually research bio-based products for possible integration into work operations.

#### **5** Other

- Purchase equipment to reduce volume of waste and recyclables.
  - Use shredders for plastic and crushers for aluminum.



## STRATEGY 2: INCREASE CLIMATE CHANGE EDUCATION AND OUTREACH

Climate change is a complex and easily misunderstood issue. The National Monument 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. The National Monument 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 the National Monument 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**

- The park has developed a separate interpretive display panel highlighting the new building's green design. This will
  be displayed prominently in the new center and plans are underway for a brochure to accompany it. Many articles
  and stories have been written to date on the innovative design of the Leeds Silver/Gold Visitor Center and the park
  expects many more.
- The National Monument is currently working with the Hawaiian Island Parks to develop a special "Climate friendly" junior ranger booklet. This booklet will link the islands' environmental issues together in one publication. We hope to encourage responsible behavior and award young people with a unique patch identifying them as a "Climate Friendly Junior Ranger."

#### **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, the National Monument 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 the National Monument.
- Hold internal Climate Friendly park discussions and workshops.
  - O Devise new strategies to continually reduce greenhouse gas (GHG) emissions.
  - O 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 climaterelated issues.
  - O 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 sessions on climate change into new staff training.
  - Include climate change information in seasonal staff training helps to keep new staff informed of the park's position on climate change.



O The park will undertake this within the coming year. Also included in the training will be the leadership and Environment Design this park has done to achieve LEED's Silver/Gold.

#### **Visitor Outreach**

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

The National Monument 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 your park in particular.
- Create signs and materials promoting the park's efforts to curb emissions.
  - Include leadership and environment design the park has done to achieve LEED's Silver Visitor Center...
  - O Develop consistent messaging for recycling, idling, and emission reduction posters.
- Educate visitors about their recycling options at the park and at home.
  - Create visitor ads about the park's recycling activities.

#### **Local Community Outreach**

The gateway communities, agencies, vendors, and volunteers surrounding the National Monument 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:

• Educate local community about what your park is doing to manage waste.



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

By taking the actions established in Strategies 1 and 2 above, the National Monument 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 revaluation of goals. As part of this strategy, the National Monument 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

The National Monument has a unique opportunity to serve as a model for over 100,000 recreational visitors annually. 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, the National Monument 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 confronting climate change impacts and reducing emissions, the National Monument 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 toward moving the National Monument to the forefront of Climate Friendly Parks.

<sup>&</sup>lt;sup>4</sup> World War II Valor in the Pacific National Monument Park Statistics. Available online at: http://www.nature.nps.gov/stats/viewReport.cfm



#### **APPENDIX A: LIST OF WORK GROUP PARTICIPANTS**

Paul Deprey, SuperintendentEileen Martinez, Chief of Interpretation

Patty Brown, Chief of Business Services and Administration

Merry Petrossian, Chief of Maintenance

