Sustainability Plans (2014)
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Armed Forces Retirement Home

Introduction

Armed Forces Retirement Home

2014 Strategic Sustainability Performance Plan

June 30, 2014




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Armed Forces Retirement Home
2014 Strategic Sustainability Performance Plan

Sustainability Policy Statement

Tracking and reducing energy, water, waste, greenhouse gas (GHG) emissions and other environmental impacts has become a core component of federal agency operations. Under Executive Order 13514, federal agencies are required to develop, implement, and annually update a Strategic Sustainability Performance Plan (SSPP) that describes how each agency will achieve the environmental, economic, and energy goals mandated in the Executive Order. In preparing this SSPP, the Armed Forces Retirement Home (AFRH) has integrated our commitments to meet sustainability goals and reduce our environmental footprint through core agency programs, including strategic planning, capital investment, and daily operations and management.

AFRH has made significant strides in incorporating sustainability into many aspects of agency operations to achieve reductions in energy, water, and waste, all while maintaining our commitment to person-centered care. Our commitment to sustainability is exemplified through the completion of the new Scott building on the Washington, DC campus in 2013. The facility was engineered "green" from the ground up to reduce its environmental footprint and includes dozens of features to save energy, conserve water, and reduce waste. The Scott building is pursuing certification under the Leadership in Energy and Environmental Design (LEED) program and is already demonstrating better environmental performance than other buildings of comparable size.

AFRH will continue to increase energy efficiency agency-wide, integrate renewable energy technology where possible, reduce consumption and waste, and engage our residents and employees on environmental stewardship. We will continue to track energy and water consumption and other environmental metrics to meet the requirements of Executive Orders 13423 and 13514, and identify additional mitigation opportunities to drive future reductions. AFRH will strive to meet and exceed the goals of Executive Orders 13514 and 13423 and continue to integrate sustainability as a core consideration in our agency's mission and operations.

Respectfully submitted,

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Senior Sustainability Officer

Armed Forces Retirement Home
2014 Strategic Sustainability Performance Plan

Executive Summary

Vision

The Armed Forces Retirement Home (AFRH) is a unique agency with the mission: "To fulfill our nation's commitment to its Veterans by providing a premier retirement community with exceptional residential care and extensive support services." AFRH operates two campuses located in Gulfport, Mississippi and Washington, DC that are model retirement centers with facilities and services designed with our residents in mind. These facilities provide outstanding services and amenities that rival the best examples of those found throughout the United States.

AFRH seeks to accomplish our mission through the core philosophy of "person-centered care," which is defined as the careful manner in which resident needs are considered while developing proactive plans of care and delivering meaningful services.

Over the past several years, the AFRH has made significant strides in incorporating sustainability into many aspects of agency operations to address federal energy and sustainability mandates and achieve targeted reductions in energy consumption, water, and waste, while maintaining our commitment to person-centered care. This Strategic Sustainability Performance Plan (SSPP) highlights the most significant of these advancements over the past year.

Leadership

AFRH's Corporate Facility Manager serves as the agency Senior Sustainability Officer and coordinates and delegates the implementation of the strategies presented in the SSPP and environmental initiatives within the agency. The Corporate Facility Manager is responsible for supervising facilities, operations, and maintenance at both the Washington and Gulfport campuses, including rolling out energy and water efficiency measures, monitoring energy and water consumption data to track progress towards sustainability goals, and working with staff and contractors to take appropriate actions to meet these goals. As part of the agency's overarching environmental initiative, AFRH is incorporating sustainability requirements into core planning documents, such as the agency's Capital Improvement Plan.

Performance Review

This section provides an overview of progress over the past year in meeting the agency's sustainability goals, including key performance metrics, challenges, successes, and strategies.

Goal 1: Greenhouse Gas (GHG) Reduction

AFRH performs an annual inventory of the agency's GHG emissions, and has set GHG reduction targets to achieve by FY 2020 in accordance with Executive Order 13514. AFRH

estimates that we can achieve reasonable reductions in GHG emissions relative to 2011, the year in which the Gulfport campus first became fully operational. Emission reductions below the 2008 baseline would need to offset the entire additional emissions of the Gulfport campus. For combined Scope 1 and 2 emissions, AFRH has set a preliminary reduction target of 8 percent below 2011 emissions, which is a 6 percent increase over 2008 emissions. AFRH has set a target to reduce the agency's Scope 3 emissions by 4 percent from the 2011 baseline (72 percent increase from the 2008 baseline).

In FY 2013, AFRH emissions were 27,109 $MTCO_2e$. Combined Scope 1 and 2 emissions have increased by 19 percent from 2008 to 2013 (4 percent increase from 2011), while Scope 3 emissions have increased by 100 percent since 2008 (5 percent increase from 2011). This increase is due to a combination of two offsetting effects: an increase caused by the addition of the Gulfport facility to AFRH's portfolio, combined with a decrease from the consolidation of operations into more efficient space, demonstrating the agency's progress towards more efficient, sustainable operations. To illustrate this, AFRH's overall emissions intensity has decreased by about 2 percent from 0.0157 $MTCO_2E/gsf$ in 2008 to 0.0154 $MTCO_2E/gsf$ in 2013. Emissions of the Washington, DC campus have decreased between 2008 and 2013, in part due to the renovation of the Scott Building.

AFRH plans to continue to reduce Scope 1&2 GHG emissions by implementing cost-effective, low-risk mitigation strategies, including a few select investment-grade energy efficiency opportunities and renewable energy installations. To reduce Scope 3 emissions, AFRH is using teleconferencing technology to reduce business travel; increasing recycling capabilities through contracting; and tracking employee commuter emissions through a commuting survey.

Goal 2: Sustainable Buildings

AFRH is making progress towards the federal energy intensity reduction target of a 30 percent reduction by FY 2015 as compared the 2003 baseline, as mandated by Executive Order 13423 and the Energy Independence and Security Act of 2007 (EISA). Agencies are expected to reduce energy intensity by 3 percent annually to meet this goal.

In FY 2013, AFRH's energy intensity was 16 percent lower than the baseline year of 2003. AFRH's energy intensity decreased steadily through FY 2011, but has increased in the past two years due to a combination of the demolition and construction of the new Scott Building, as well as increased energy consumption in FY 2013 related to renovations to repair earthquake damage at the Sherman building. The Gulfport facility is a LEED-certified high-performance building and therefore lowered AFRH's energy intensity when it became operational in late 2010. The reduction in energy intensity over time has also been driven by the consolidation of operations on the Washington, DC campus into more efficient buildings. Now that construction is complete, the more efficient Scott Building is anticipated to reduce the overall energy intensity of the DC campus in FY 2014.

AFRH has made a commitment to sustainability in new construction and major renovation. AFRH operates 15 facilities over 5,000 square feet, and two of these facilities must meet the Guiding Principles by FY 2015. The Gulfport facility renovation (completed in early 2010) achieved a LEED Gold certification. The construction of the new Scott building on the DC campus (completed in spring 2013) also adhered to sustainable design principles and is pursuing a LEED Platinum certification. In FY 2014, AFRH completed an official assessment of these two facilities with respect to the Guiding Principles. As a result of these

assessments, it was determined that the Scott Building meets 59 percent of the Guiding Principles, and the Gulfport facility meets 56 percent of the Guiding Principles, with 19 and 25 percent to be met through improvements currently underway, respectively. AFRH will use the results from the completed Guiding Principle assessments to identify priority actions and potential strategies to make progress towards the FY 2015 goal.

AFRH will continue to take actions to reduce energy use intensity by implementing cost-effective strategies identified through campus-wide audits, such as equipment upgrades and operations and maintenance practices; consolidating operations into more energy-efficient facilities; installing meters to track building-level energy consumption; and through infrastructure upgrades as identified in the agency's Capital Improvement Plan, such as planning for building envelope improvements for older facilities.

Goal 3: Fleet Management

Since AFRH is a relatively small federal agency, it does not own, operate, or lease 20 vehicles and is therefore excluded from the federal reduction targets associated with fleet fuel consumption. However, AFRH is requesting hybrid vehicles from GSA when possible to reduce fuel consumption, may reduce the size of their small fleet by 1 vehicle, and currently operates several electric golf carts to transport employees and residents within the campus.

Goal 4: Water Use Efficiency & Management

AFRH has set a reduction target to reduce water use intensity by 2 percent annually, achieving a 26 percent reduction from baseline year 2007 by FY 2020, consistent with reduction requirements mandated by Executive Orders 13514 and 13423. As of FY 2013, AFRH has exceeded the 26 percent reduction target with a total reduction in water consumption of 50 percent below 2007 levels. This reduction has been driven by improvements in AFRH's water infrastructure and the consolidation of operations into more efficient buildings. This past year, AFRH installed new, efficient electric fountains to reduce landscaping water consumption, and installed a cistern at the Scott Building that captures rainwater for use in irrigation and landscaping of the facility's green roof. AFRH does not separately track potable water and industrial, landscaping, and agricultural water use at this time.

AFRH is considering a number of innovative strategies to continue to reduce water consumption, including a comprehensive replacement of the DC campus's water piping infrastructure in FY 2016, currently in the design phase. AFRH also plans to install water meters at all facilities to track building-level water consumption.

Goal 5: Pollution Prevention & Waste Reduction

Agencies are required to divert 50 percent of municipal solid waste and construction and demolition waste from landfills annually by FY 2015. AFRH is in the process of collecting data and establishing a system to track waste diversion rates.

AFRH has a number of initiatives in place to increase diversion of solid waste through recycling programs at the Gulfport, MS campus and augmenting capacity for recycling at the Washington, DC campus. Gulfport's recycling program has been met with great support from staff and residents, and is proving extremely successful. AFRH-Gulfport has signed a memorandum of

agreement to have recyclables picked up and processed by Keesler Air Force Base (AFB), including cardboard, paper, bottles, and cans. The AFB also provides this service to other organizations in the area. Residents have easy access to a recycling container in the trash disposal area. AFRH is investigating a similar situation with an Air Force base or other military installation in or near the District of Columbia to support the Washington, DC campus.

On the Washington, DC campus, the new Scott Building (completed in 2013) was designed to reduce waste from the ground up—approximately 90 percent of its foundation was composed of recycled materials from the demolition of the former Scott building. The new Scott Building was also designed with increased capacity to collect recyclable materials. At the beginning of FY 2014, the DC campus implemented a one-line recycling contract to increase recycling and reduce landfilled waste.

Goal 6: Sustainable Acquisition

AFRH continues to incorporate language on energy efficiency, water efficiency, and waste reduction into the performance work statements (PWS) that establish requirements for on-site contractors, as well as other documents. In the past year, AFRH included requirements for custodial PWS that contractors reduce energy consumption by turning off unnecessary lighting and adjusting HVAC controls. Additionally, custodial operations used green cleaning products in lieu of more toxic alternatives, Contracting Officer Representatives complied with federal procurement requirements as set forth by GSA, and AFRH continued to require LEED accreditation in facility maintenance contracts.

Moving forward, AFRH is evaluating options to further the use of sustainability clauses in new service and procurement contracts, and to improve tracking of sustainable contracts actions. AFRH is in the process of developing standard sustainability language to include in future contracts.

Goal 7: Electronic Stewardship & Data Centers

Executive Order 13514 requires agencies to promote electronics stewardship by: ensuring procurement preference for EPEAT-registered products; implementing policies to enable power management, duplex printing, and other energy-efficient features; employing environmentally sound practices with respect to the disposition of electronic products; procuring Energy Star and FEMP designated electronics; and, implementing best management practices for data center operations.

AFRH has taken steps to ensure that acquired products are energy-efficient and adhere to all federal requirements. Within the past year, AFRH continued to follow the EPEAT and ENERGY STAR guidelines while procuring new appliances and electronic equipment—for example, when purchasing equipment for the new Scott Building. AFRH also continued to evaluate its daily practices to identify new opportunities to improve energy performance. AFRH implemented duplex printing as a default setting where possible on campus, and is investigating options to improve its computer energy management procedures. AFRH does not operate any data centers.

Moving forward, AFRH plans to continue identifying strategic ways to improve its energy operations and coordinate with the GSA to ensure the environmentally sound purchase and disposal of electronic equipment. AFRH still does not operate data centers and therefore, cannot implement any strategies to adhere to related goals.

Goal 8: Renewable Energy

Agencies are required to consume 7.5 percent of their total energy consumption from renewable energy sources beginning in FY 2013. In the past year, AFRH-Washington began evaluating renewable energy contracts for the Scott Building. AFRH does not currently generate renewable energy on-site, but continues to assess on-site renewable energy potential at both the Washington, DC and Gulfport, MS campuses and to evaluate options for incorporating renewable energy technologies, such as solar panels, into AFRH facilities where possible.

AFRH is actively coordinating with U.S. Department of Energy (DOE) and evaluating opportunities for the implementation of an energy savings performance contract (ESPC) at both the Gulfport, MS and Washington, DC campuses. If feasible, ESPCs will be used to implement both renewable energy and energy efficiency projects at the agency.

Goal 9: Climate Change Resilience

Executive Orders 13514 and 13653 require each agency to evaluate agency climate change risks and vulnerabilities to identify and manage the effects of climate change on the agency's operations and mission in both the short and long term. AFRH's Gulfport, MS campus was decimated by Hurricane Katrina in 2005. The new facility was designed for resilience against extreme weather events, including hurricanes, utility system failure, and extreme wind and flooding. The structure is extremely robust and was designed to withstand Category 5 hurricane-force winds. The first floor of the facility is elevated 35 feet above current sea level to prevent damage from a hurricane storm surge. The facility also has multiple levels of back-up capacity to maintain a supply of fresh water and energy generation, to ensure the health and safety of the resident community during extreme weather events. The DC campus also has emergency procedures in place in case of an extreme weather event.

Moving forward, AFRH plans to continue to implement emergency procedures, identify potential vulnerabilities, and ensure the health and safety of its resident and staff population that could be potentially impacted by climate change. Evaluation of improvements to increase the resilience of the Gulfport facility is ongoing.

Progress on Administration Priorities

AFRH actively supports the priorities of the Administration in the area of sustainability, including the use of energy performance-based contracts, fleet management, climate change adaptation, and sustainable purchasing. AFRH is actively coordinating with the U.S. DOE to evaluate opportunities for the future implementation of ESPCs at both the Gulfport, MS and Washington, DC campuses.

AFRH is a relatively small federal agency that does not own, operate, or lease more than 20

vehicles, and is therefore excluded from the federal reduction targets associated with fleets. Nonetheless, AFRH supports Administration goals to reduce vehicle petroleum consumption and operates several electric golf carts to transport AFRH staff and residents on campus, and plans to lease low-GHG emitting vehicles from GSA as they become available. AFRH also supports sustainable purchasing through contract clauses for custodial and service staff.

As part of this SSPP, AFRH has submitted its first climate change adaptation plan in accordance with CEQ guidance, which identifies actions to be pursued in the coming year. AFRH has emergency preparedness procedures in place for each campus in the instance of extreme weather events such as hurricanes, tornadoes, and extreme heat or utility system failure. In addition, AFRH has taken precautions to ensure reliable back-up energy sources are available in the case of an extreme event. For example, buildings have back-up chillers, boilers, and energy generators; propane tanks to replace interrupted natural gas supply; and electricity sourced from several grids. Moving forward, AFRH will continue to assess its vulnerabilities and policies as necessary.

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Table 1: Agency Size & Scope

Agency Size & Scope	FY 2012	FY 2013
Total Number of Employees as Reported in the President's Budget	336	336
Total Acres of Land Managed	321	321
Total Number of Buildings Owned	111	112
Total Number of Buildings Leased (GSA and Non-GSA Lease)	0	0
Total Building Gross Square Feet (GSF)	2,028,951	2,202,865
Operates in Number of Locations Throughout U.S.	2	2
Operates in Number of Locations Outside of U.S.	0	0
Total Number of Fleet Vehicles Owned	0	0
Total Number of Fleet Vehicles Leased	9	11
Total Number of Exempted-Fleet Vehicles (Tactical, Law Enforcement, Emergency, Etc.)	2	2
Total Amount Contracts Awarded as Reported in FPDS ($Millions)	16.8	27.8

Armed Forces Retirement Home

Evaluating Previous Strategies

Goal 1: Greenhouse Gas (GHG) Reduction – Scope 1 & 2

(A) Strategy	(B) Did you implement this strategy? (Yes/No)	(C) Was the strategy successful for you? (Yes/No)	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
Use the FEMP GHG emission report to identify/target high emission categories and implement specific actions to resolve high emission areas identified	Yes	Yes	AFRH will continue to conduct a review of its annual GHG emission inventory.
Reduce grid-supplied electricity consumption by improving/upgrading motors, boilers, HVAC, chillers, compressors, lighting, etc.	Yes	Yes	AFRH will continue to evaluate opportunities to reduce electricity consumption through cost-effective equipment upgrades.
Employ operations and management best practices for energy consuming and emission generating equipment	Yes	Yes	AFRH will continue to implement operations and maintenance best practices to reduce energy consumption.
Install building utility meters and benchmark performance to track energy and continuously optimize performance	Yes	Yes	AFRH will install building utility meters through the ESPC process.

Goal 1: Greenhouse Gas (GHG) Reduction – Scope 3

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
Reduce employee business ground travel	Yes	Yes	AFRH will continue to use teleconferencing technology to reduce employee business travel.
Reduce employee business air travel	Yes	Yes	AFRH will continue to use teleconferencing technology

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
			to reduce employee business travel.
Develop and deploy employee commuter reduction plan	Yes	Yes	AFRH will continue to implement flex time and telecommuting opportunities for eligible staff.
Use employee commuting survey to identify opportunities and strategies for reducing commuter emissions	Yes	Yes	AFRH will continue to deploy an employee commuter survey as part of the annual GHG inventory process.
Provide bicycle commuting infrastructure	Yes	Yes	AFRH will continue to provide bicycle commuting infrastructure, such as bike racks and bike lanes, where technically and economically feasible.

Goal 2: Sustainable Buildings

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
Incorporate green building specifications into all new construction and major renovation projects	Yes	Yes	While AFRH adheres to GSA guidelines for new construction and major renovation projects, no new construction is anticipated in the next 12 months, as was the case in the past year. AFRH will incorporate specifications as plans for new buildings arise.
Include in every construction contract all applicable sustainable acquisition requirements for	Yes	Yes	AFRH does not anticipate new construction in the next 12 months, as was the case in the past year, but will

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
recycled, biobased, energy efficient, and environmentally preferable products			incorporate specifications as plans for new buildings arise.
Develop and deploy energy and sustainability training for all facility and energy managers	Yes	Yes	AFRH will continue to identify opportunities to train facility and energy managers on sustainability, including LEED accreditation requirements.
Ensure current buildings adhere to Guiding Principles	Yes	Yes	AFRH completed assessments on two LEED buildings (Scott and Gulfport) to determine whether they fully comply with the Guiding Principles, and will continue to advance compliance as technically and economically feasible in the coming year.
Promote innovation and efficiency in building management	Yes	Yes	AFRH will continue to identify opportunities to attend energy management training events, such as technology and energy fairs, to promote innovation and efficiency in building management.

Goal 3: Fleet Management

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
Optimize/Right-size the composition of the fleet (e.g., reduce vehicle size, eliminate underutilized vehicles, acquire and locate	No	No	Recognizing AFRH's relatively small fleet of vehicles, AFRH will remove one vehicle from its fleet, if feasible.

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
vehicles to match local fuel infrastructure)			
Reduce miles traveled (e.g., share vehicles, improve routing with telematics, eliminate trips, improve scheduling, use shuttles, etc.)	Yes	Yes	AFRH will continue to use solar-powered electric golf carts to transport AFRH staff within the DC campus.
Acquire only highly fuel-efficient, low greenhouse gas-emitting vehicles and alternative fuel vehicles (AFVs)	Yes	Yes	AFRH will continue to use solar-powered electric golf carts for on-campus transportation, and request vehicles high-efficiency vehicles from the GSA lease program.

Goal 4: Water Use Efficiency & Management

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
Purchase and install water efficient technologies (e.g., Waterwise, low-flow water fixtures and aeration devices).	Yes	Yes	AFRH will continue to purchase and install water-efficient technologies as technically and economically feasible.
Develop and deploy operational controls for leak detection including a distribution system audit, leak detection, and repair programs.	Yes	Yes	AFRH will award design contracts for a comprehensive water infrastructure replacement project by the end of the year.
Design, install, and maintain landscape to reduce water use.	Yes	Yes	AFRH will continue to practice measures to reduce water use for landscaping activities, including use of a cistern to irrigate the green roof and adjustments to the

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
			retaining pond to reduce potable water use.
Design and deploy water closed-loop, capture, recharge, and/or reclamation systems.	Yes	Yes	AFRH will continue to identify opportunities to reduce water use as technically feasible, including the use of non-potable water and electric fountains to reduce potable water consumption in landscaping. AFRH will continue to capture rain water for irrigation and landscaping.
Install meters to measure and monitor industrial, landscaping and, agricultural water use.	No	No	AFRH will evaluate opportunities to monitor industrial, landscaping, and agricultural water use.

Goal 5: Pollution Prevention & Waste Reduction

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
Eliminate, reduce, or recover refrigerants and other fugitive emissions	Yes	Yes	AFRH does not anticipate any chiller purchases in the next 12 months, but as additional units are purchased or serviced AFRH will implement these strategies
Reduce waste generation through elimination, source reduction, and recycling	Yes	Yes	AFRH will continue to implement the one-line recycling program at the DC campus, and track waste diversion rates.
Implement integrated pest management and improved landscape management	Yes	Yes	AFRH will continue to use natural and non-toxic landscape management

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
practices to reduce and eliminate the use of toxic and hazardous chemicals/materials			practices, including the use of naturally repellant landscaping.
Establish a tracking and reporting system for construction and demolition debris elimination	Yes	Yes	AFRH does not anticipate new construction in the next 12 months, as was the case in the past year, but will support implement of GSA-approved data tracking systems as plans for new buildings arise.

Goal 6: Sustainable Acquisition

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
Update and deploy agency procurement policies and programs to ensure that federally-mandated designated sustainable products are included in all relevant procurements and services	Yes	Yes	AFRH Contracting Officer Representatives will continue to procure products that comply with federal requirements. AFRH will develop standard language to include in procurement products regarding sustainable product requirements.
Include biobased and other FAR sustainability clauses in all applicable construction and other relevant service contracts	Yes	Yes	AFRH will continue to include sustainability components in custodial service contracts, and will develop standard sustainability language to include in relevant service contracts.
Review and update agency specifications to include and encourage biobased and other designated green	Yes	Yes	AFRH will develop standard sustainability language to include in relevant service contracts.

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
products to enable meeting sustainable acquisition goals			
Report on sustainability compliance in contractor performance reviews	No	No	AFRH will analyze the feasibility of standard sustainability language to include in performance work summaries.

Goal 7: Electronic Stewardship & Data Centers

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
Ensure that power management, duplex printing, and other energy efficiency or environmentally preferable options and features are enabled on all eligible electronics and monitor compliance	Yes	Yes	AFRH will continue to evaluate current practices and identify new opportunities to improve energy performance of office equipment, including improving computer energy management and implementing duplex printing, where applicable.
Update and deploy policies to use environmentally sound practices for disposition of all agency excess or surplus electronic products, including use of certified eSteward and/or R2 electronic recyclers, and monitor compliance	Yes	Yes	AFRH will continue to coordinate with GSA to ensure the environmentally sound disposition of electronic equipment.
Ensure acquisition of 95% EPEAT registered and 100% of ENERGY STAR qualified and FEMP designated electronic office products	Yes	Yes	AFRH will continue to acquire electronic equipment that meets federal sustainability requirements, including purchasing through GSA Advantage

Goal 8: Renewable Energy

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
Install onsite renewable energy on federal sites	Yes	Yes	AFRH will continue to evaluate opportunities for installing on-site renewable energy through ESPCs.
Utilize performance contracting methodologies for implementing ECMs and increasing renewable energy	Yes	Yes	AFRH will continue to evaluate ECMs and opportunities to increase renewable energy through ESPCs.

Goal 9: Climate Change Resilience

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
Update agency emergency response procedures and protocols to account for projected climate change, including extreme weather events	Yes	Yes	AFRH will continue to follow existing emergency procedures that address vulnerabilities related to climate change.
Ensure workforce protocols and policies reflect projected human health and safety impacts of climate change	Yes	Yes	AFRH will continue to implement workforce policies.
Ensure agency principals demonstrate commitment to adaptation efforts through internal communications and policies	Yes	Yes	AFRH will continue our ongoing commitment to adaptation efforts in agency policies and communications.
Identify vulnerable communities that are served by agency mission and are potentially impacted by climate change and identify measures to address those	Yes	Yes	AFRH will continue to evaluate the resilience of the Gulfport facility and make adjustments as needed. AFRH will continue to ensure the health and safety of vulnerable communities

(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
vulnerabilities where possible			potentially impacted by climate change.
Design and construct new or modify/manage existing agency facilities and/or infrastructure to account for the potential impacts of projected climate change	Yes	Yes	AFRH does not anticipate new construction in the next 12 months, as was the case in the past year, but will continue evaluating the Gulfport facility for improvements and consider resilience for both campuses as plans for new buildings arise.

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Goal 1: Greenhouse Gas (GHG) Reduction

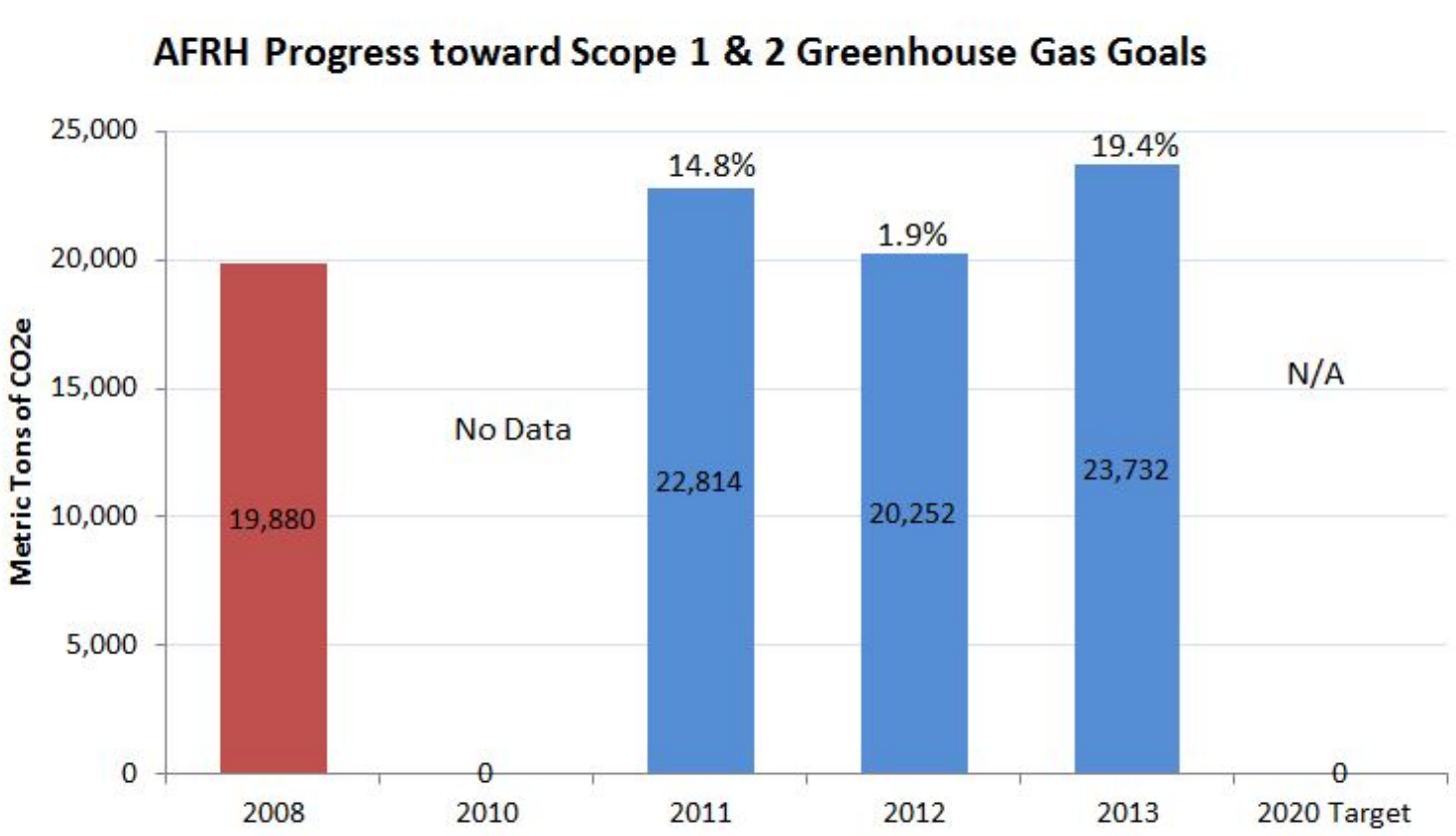
AFRH Progress toward Scope 1 & 2 Greenhouse Gas Goals
Metric Tons of CO2e
25,000
20,000
15,000
10,000
5,000
0
19,880
No Data
0
14.8%
22,814
1.9%
20,252
19.4%
23,732
N/A
0
2008
2010
2011
2012
2013
2020 Target

Table 1-1: Goal 1 Strategies - Scope 1 & 2 GHG Reductions

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy Narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months
Use the FEMP GHG emission report to identify/target high emission categories and implement specific actions to resolve high emission areas identified	Yes	AFRH conducts an annual GHG inventory and internally reviews the results to identify trends, drivers, and focus areas for the coming year.	Conduct review of annual GHG inventory to identify priorities and develop strategies for the coming year.
Ensure that all major renovations and new building designs are 30% more efficient than applicable code	NA	AFRH does not anticipate new construction in the next 12 months, but will incorporate green building specifications as plans for new buildings arise.	
Implement in EISA 432 covered facilities all lifecycle cost effective ECMs identified	No	AFRH implements cost-effective ECMs identified through facility audits as technically and economically feasible.	
Reduce on-site fossil-fuel consumption by installing more efficient boilers, generators, furnaces, etc. and/or use renewable fuels	Yes	AFRH completed a transition from a central steam plant to a system of high-efficiency distributed boilers on the DC campus in FY 2013. AFRH will evaluate additional opportunities to reduce on-site fossil fuel consumption as appropriate.	Evaluate additional opportunities to reduce on-site fossil fuel consumption as appropriate.
Reduce grid-supplied electricity consumption by improving/upgrading motors, boilers, HVAC, chillers, compressors, lighting, etc.	Yes	AFRH is pursuing an ESPC to implement efficiency measures to reduce electricity consumption, which includes purchasing LED light bulbs. ECMs are also included as part of the agency's Capital Improvement Plan.	Continue to pursue an ESPC to implement ECMs on both campuses.

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy Narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months
Employ operations and management best practices for energy consuming and emission generating equipment	Yes	Project managers for facility maintenance must become LEED accredited	Continue to observe LEED requirement in the next 12 months.
Install building utility meters and benchmark performance to track energy and continuously optimize performance	Yes	Water, gas, and electric submeters will be installed in all major campus buildings as part of the ESPC process. An electricity meter was installed in FY 2013 as part of the Scott Building renovation.	Install meters as part of the ESPC preliminary assessment.

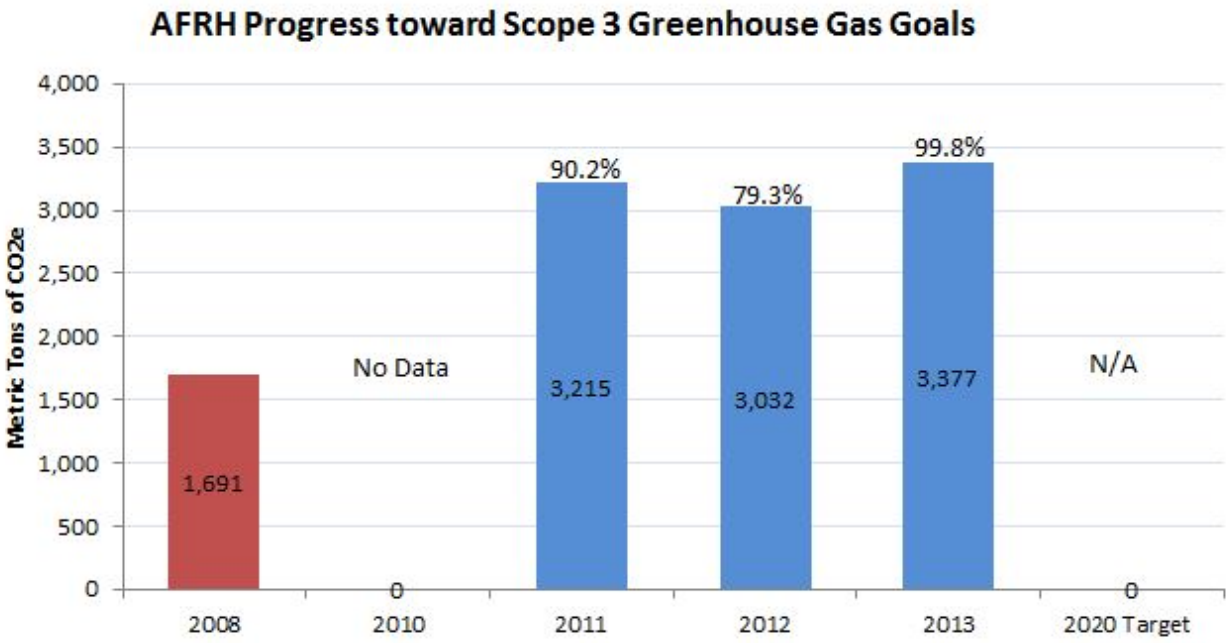
AFRH Progress toward Scope 3 Greenhouse Gas Goals
Metric Tons of CO2e
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
1,691
No Data
0
90.2%
3,215
79.3%
3,032
99.8%
3,377
N/A
0
2008
2010
2011
2012
2013
2020 Target

Table 1-2: Goal 1 Strategies - Scope 3 GHG Reductions

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy Narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
Reduce employee business ground travel	Yes	AFRH has implemented web tools to allow for teleconferencing and reduce required travel between campuses.	Continue to use web conferencing technology to reduce business travel.
Reduce employee business air travel	Yes	AFRH has implemented web tools to allow for teleconferencing and reduce required travel between campuses.	Continue to use web conferencing technology to reduce business travel.
Develop and deploy employee commuter reduction plan	Yes	AFRH has implemented a flex time option and encouraged telecommuting for eligible employees to reduce employee commuter emissions.	Continue to pilot flex time system and telecommuting opportunities for eligible employees.
Use employee commuting survey to identify opportunities and strategies for reducing commuter emissions	Yes	AFRH developed and deployed an employee commuting survey for the FY 2013 inventory.	Conduct annual employee commuter survey to identify trends and opportunities to reduce emissions.
Increase number of employees eligible for telework and/or the total number of days teleworked	NA	Due to the nature of AFRH's operations (e.g., healthcare, facilities management), telework is not an option for the large majority of employees.	
Develop and implement bicycle commuter program	NA	Due to the locations of both AFRH campuses, very few employees can bike to work.	
Provide bicycle commuting infrastructure	Yes	Bike racks are available at the Scott Building, and will be evaluated for new construction. AFRH is evaluating the feasibility of constructing bike lanes on campus.	Provide bike lanes if deemed appropriate and feasible.

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Goal 2: Sustainable Buildings

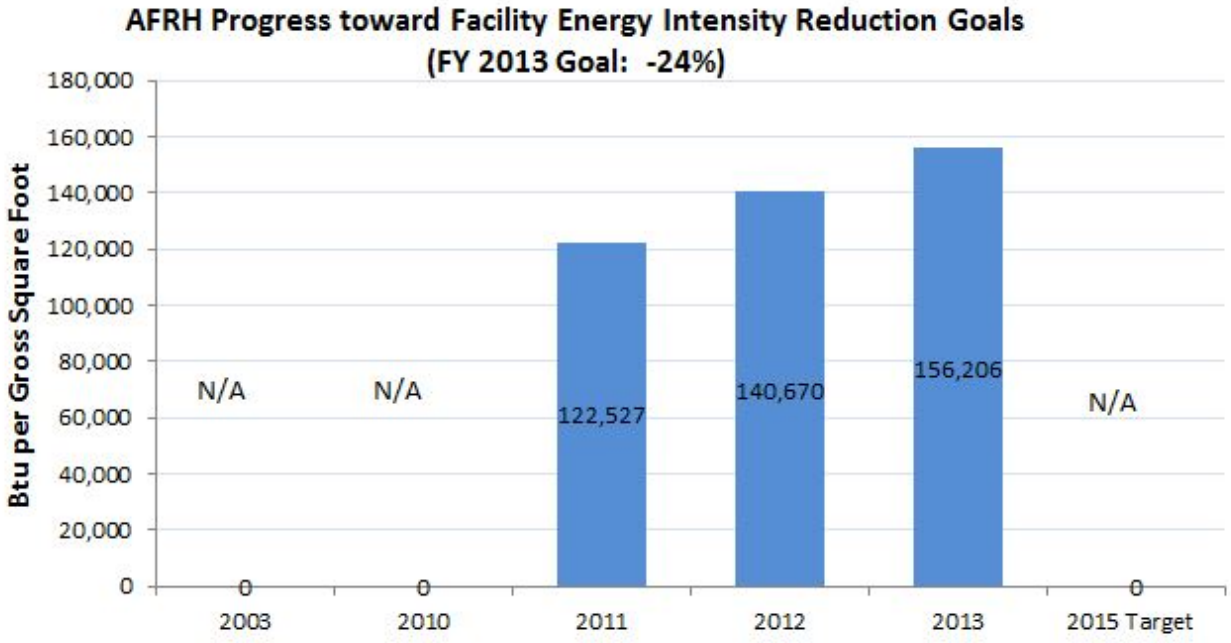
AFRH Progress toward Facility Energy Intensity Reduction Goals
(FY 2013 Goal: -24%)
Btu per Gross Square Foot
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
N/A
N/A
122,527
140,670
156,206
N/A
0
0
0
2003
2010
2011
2012
2013
2015 Target

Table 2: Goal 2 Strategies &€“ Sustainable Buildings

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
Incorporate green building specifications into all new construction and major renovation projects	Yes	AFRH will incorporate green building specifications into all new construction contracts as they arise.	AFRH does not anticipate new construction in the next 12 months, but will incorporate specifications in plans for all new buildings, as they arise.
Redesign or lease interior space to reduce energy use by daylighting, space optimization, sensors/control system installation, etc.	No	AFRH does not anticipate any major renovations for its buildings in the next year, including the redesign or lease of interior space. The historic preservation requirements on many of AFRH's facilities limit the flexibility and redesign options available to AFRH.	
Deploy CEQs Implementing Instructions " Sustainable Locations for Federal Facilities	NA	AFRH does not anticipate new construction in the next 12 months.	
Include in every construction contract all applicable sustainable acquisition requirements for recycled, biobased, energy efficient, and environmentally preferable products	Yes	AFRH will follow GSA guidelines and incorporate contract language on environmentally preferable products into new construction contract, as applicable.	AFRH does not anticipate new construction in the next 12 months, but will incorporate this language in new construction contracts, as they arise.
Develop and deploy energy and sustainability training for all facility and energy managers	Yes	AFRH requires facility maintenance project managers to become LEED accredited.	AFRH facility maintenance project managers will pursue LEED accreditation, as appropriate.
Ensure current buildings adhere to Guiding Principles	Yes	AFRH conducted a Guiding Principles Assessment of two facilities in FY 2014. AFRH will plan to use the results of the Guiding	Identify feasible options for improving compliance of the Gulfport facility and Scott Building with the Guiding Principles.

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
		Principle Assessments to identify feasible options for improving Guiding Principles compliance for the Scott Building and Gulfport facility.	
Promote innovation and efficiency in building management	Yes	AFRH will continue to identify opportunities for its Contracting Officer Representatives to attend technology fairs in order to learn more about efficient technologies and identify opportunities to improve building energy performance.	Each facility COR will participate in at least one EnergyTechnology Fair or training event.

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Goal 3: Fleet Management

Table 3: Goal 3 Strategies &€“ Fleet Management

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
Optimize/Right-size the composition of the fleet (e.g., reduce vehicle size, eliminate underutilized vehicles, acquire and locate vehicles to match local fuel infrastructure)	Yes	AFRH currently operates 11 fleet vehicles, each of which are right-sized for their purposes (e.g., transporting residents). Since the fleet is already relatively small, it is not feasible to eliminate any additional vehicles beyond the box truck, or downsize existing vehicle types.	Remove box truck by FY 2015, if feasible.
Reduce miles traveled (e.g., share vehicles, improve routing with telematics, eliminate trips, improve scheduling, use shuttles, etc.)	Yes	AFRH uses solar-powered electric and conventional golf carts on each campus to replace the shuttle to eliminate unnecessary miles traveled. Additionally, the shuttle service now operates on an “as-needed” basis.	Continue to use golf carts to transport AFRH staff on campus.
Acquire only highly fuel-efficient, low greenhouse gas-emitting vehicles and alternative fuel vehicles (AFVs)	Yes	AFRH operates several solar-powered electric golf carts for on-campus transportation. AFRH is also requesting hybrid lease vehicles to replace existing vehicles at both campuses through GSA’s leasing program at both campuses.	Continue to use solar-powered electric golf carts and request high-efficiency vehicles from GSA.
Increase utilization of alternative fuel in dual-fuel vehicles	NA	AFRH does not operate dual-fuel vehicles.	
Use a Fleet Management Information System to track fuel consumption throughout the year for	No	The small size of the AFRH fleet does not justify the use of a Fleet Management Information System for	

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
agency-owned, GSA-leased, and commercially-leased vehicles		efficiency purposes. AFRH may consider the use of a system for tracking drivers in future.	
Increase GSA leased vehicles and decrease agency-owned fleet vehicles, when cost effective	NA	All vehicles are currently GSA-leased.	

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Goal 4: Water Use Efficiency&Management

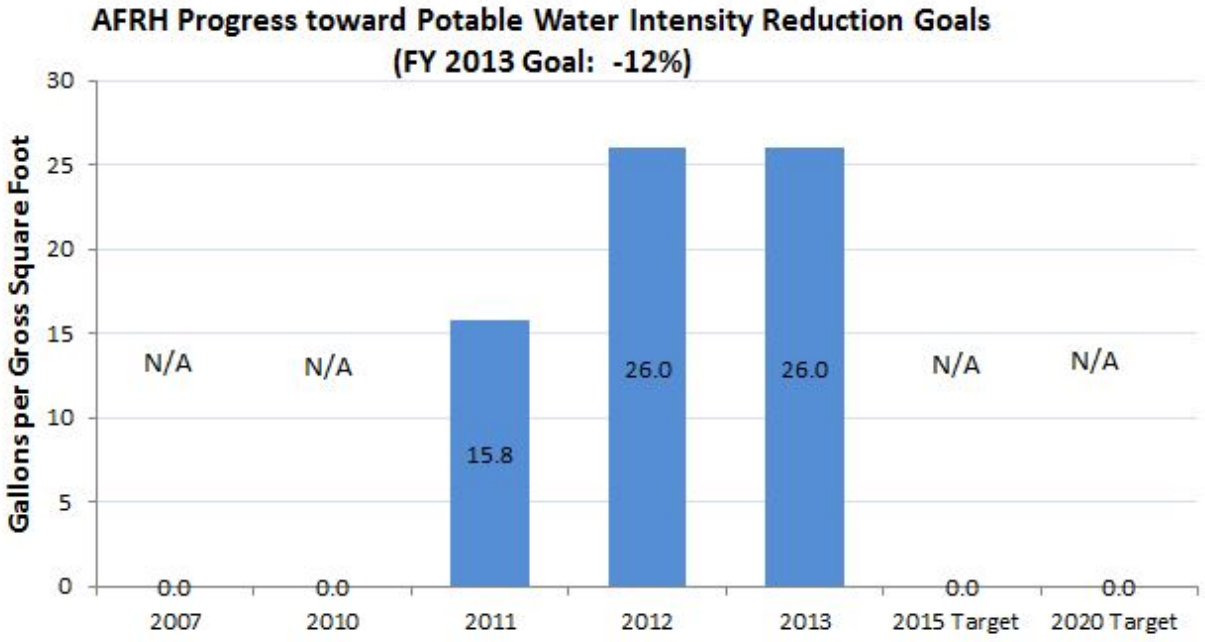
AFRH Progress toward Potable Water Intensity Reduction Goals
(FY 2013 Goal: -12%)
Gallons per Gross Square Foot
30
25
20
15
10
5
0
N/A
N/A
15.8
26.0
26.0
N/A
N/A
0.0
0.0
0.0
0.0
2007
2010
2011
2012
2013
2015 Target
2020 Target

Table 4: Goal 4 Strategies & Water Use Efficiency & Management

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
Purchase and install water efficient technologies (e.g., WaterSense, low-flow water fixtures and aeration devices).	Yes	AFRH has purchased electric recycling fountains to replace potable water use in the on-site retaining pond, and is working to implement these effectively. AFRH is also considering options for procuring efficient fixtures and showerheads as part of the ESPC process.	Operate electric fountains when feasible. Procure efficient fixtures as appropriate.
Prepare and implement a water asset management plan to maintain desired level of service at lowest life cycle cost (for best practices from the EPA, go to http://go.usa.gov/KvbF)	No	This is not a top 5 strategy at this time.	
Minimize outdoor water use and use alternative water sources as much as possible	Yes	AFRH has installed a cistern at the Scott facility that captures rainwater for irrigation and landscaping.	Reduce potable water consumption used for landscaping.
Design and deploy water closed-loop, capture, recharge, and/or reclamation systems	Yes	AFRH is considering construction of an additional retaining pond that is well- or stormwater-fed. This project is currently being evaluated for feasibility and effectiveness at stormwater management. In addition, AFRH has installed a cistern that captures rainwater at the Scott Building that is used for irrigation.	Evaluate feasibility and effectiveness of additional retaining pond.
Install advanced meters to measure and monitor (1) potable and (2) industrial,	No	As part of the comprehensive water infrastructure replacement,	

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
landscaping and agricultural water use		meters may be installed to monitor industrial, landscaping and water use. This project is currently in the design phase.	
Develop and implement programs to educate employees about methods to minimize water use	No	This is not a top 5 strategy at this time.	
Assess the interconnections and dependencies of energy and water on agency operations, particularly climate changes effects on water which may impact energy use	No	This is not a top 5 strategy at this time.	
Design, install, and maintain landscape to reduce water use.	Yes	AFRH has implemented landscape practices to reduce water use, including choice of appropriate plants and the use of a cistern to capture rainwater for irrigation. AFRH is also considering options to capture stormwater through an additional retaining pond as part of the water infrastructure replacement project.	Continue to use landscaping best practices to reduce water use.
Develop and deploy operational controls for leak detection including a distribution system audit, leak detection, and repair programs.	Yes	AFRH is currently in the design phase of a project to comprehensively replace water infrastructure on the DC campus. This project may include installation of a well or piping to direct stormwater to a pond used for landscaping, if feasible.	Evaluate feasibility of well installation. Install stormwater pipes, if feasible.

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Goal 5: Pollution Prevention&Waste Reduction

Table 5: Goal 5 Strategies &“ Pollution Prevention & Waste Reduction

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
Eliminate, reduce, or recover refrigerants and other fugitive emissions	Yes	AFRH will purchase improved chillers when necessary to minimize refrigerant leakage. AFRH will also recover and recycle contaminated chiller refrigerant, as needed.	AFRH does not anticipate any chiller purchases in the next 12 months. As additional units are purchased or serviced, AFRH will implement these strategies.
Reduce waste generation through elimination, source reduction, and recycling	Yes	AFRH has implemented a one-line recycling program at the DC facility to reduce landfilled waste. AFRH-Gulfport has an MOU in place with Keesler Air Force Base to collect recyclable materials.	Continue to implement one-line recycling program at DC campus. Track recycling rates at DC and Gulfport campuses.
Implement integrated pest management and improved landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals/materials	Yes	AFRH has implemented improved landscape management practices, including the selection of landscaping plants with natural pest repellant properties, to reduce the use of toxic materials.	Continue to use improved landscape management practices.
Establish a tracking and reporting system for construction and demolition debris elimination	Yes	AFRH will track the quantity of recycled construction and demolition (C&D) materials for large C&D projects, as they arise.	AFRH does not anticipate new construction in the next 12 months, but will use GSA’s data tracking system as plans for new buildings arise.
Develop/revise Agency Chemicals Inventory Plans and identify and deploy chemical elimination, substitution, and/or management opportunities	NA	AFRH does not purchase or use chemicals at a scale requiring Chemical Inventory Plans.	

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
Take inventory of current HFC use and purchases	Yes	AFRH collects data on HFC use and purchases as part of the annual GHG inventory.	Continue to collect HFC use and purchases.
Require high-level waiver or contract approval for any agency use of HFCs	No	This is not a top 5 strategy at this time.	
Ensure HFC management training and recycling equipment are available	No	This is not a top 5 strategy at this time.	

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Goal 6: Sustainable Acquisition

Table 6: Goal 6 Strategies &€“ Sustainable Acquisition

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 month
Update and deploy agency procurement policies and programs to ensure that federally-mandated designated sustainable products are included in all relevant procurements and services	Yes	AFRH continues to procure and use designated sustainable products, as mandated. For example, Contracting Officer Representatives purchase products from the GSA Advantage list. AFRH will develop standard language for procurement contracts relating to environmentally preferable products.	Develop environmental clause in procurement contracts.
Deploy corrective actions to address identified barriers to increasing sustainable procurements with special emphasis on biobased purchasing	NA	No significant barriers to procuring biobased products have been identified.	
Include biobased and other FAR sustainability clauses in all applicable construction and other relevant service contracts	Yes	AFRH has incorporated language on sustainable products in custodial contracts and selected vendors based on their commitment to use green cleaning (e.g., biobased) products. In addition, AFRH continues to require LEED accreditation in facility maintenance contracts.	Implement strategies, including use of environmental clauses in procurement and service contracts, on an ongoing basis.
Review and update agency specifications to include and encourage biobased and other designated green products to enable meeting sustainable acquisition goals	Yes	Existing agency specifications contain a clause to require compliance with current environmental laws, codes and regulations. AFRH will develop	Develop standard sustainability language to be incorporated into agency specifications.

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 month
		additional sustainability clause to include in agency specifications, as necessary.	
Use Federal Strategic Sourcing Initiatives, such as Blanket Purchase Agreements (BPAs) for office products and imaging equipment, which include sustainable acquisition requirements	NA	AFRH uses GSA Advantage and GSA schedules to purchase office products.	
Report on sustainability compliance in contractor performance reviews	Yes	AFRH is considering adding standard language for sustainability clauses in performance requirement summaries.	Consider incorporating standard environmental clause in performance work summaries in future contracts and all subsequent contract actions, if feasible.

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Goal 7: Electronic Stewardship&Data Centers

Table 7: Goal 7 Strategies &€“ Electronic Stewardship & Data Centers

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
Identify agency Core and Non-Core Data	NA	AFRH does not operate or own a data center.	
Consolidate 40% of agency non-core data centers	NA	AFRH does not operate or own a data center.	
Optimize agency Core Data Centers across total cost of ownership metrics	NA	AFRH does not operate or own a data center.	
Ensure that power management, duplex printing, and other energy efficiency or environmentally preferable options and features are enabled on all eligible electronics and monitor compliance	Yes	AFRH has implemented duplex printing as a default setting, where feasible. AFRH will continue to evaluate current practices and identify new opportunities to improve the energy performance of office equipment in the coming year, including improving computer energy management, where applicable.	Continue to implement duplex printing on applicable printers and identify improvements to computer energy management settings.
Update and deploy policies to use environmentally sound practices for disposition of all agency excess or surplus electronic products, including use of certified eSteward and/or R2 electronic recyclers, and monitor compliance	Yes	AFRH will continue to coordinate with GSA to ensure the environmentally sound disposition of electronic equipment.	Continue to coordinate with GSA to dispose of electronic equipment through GSAXcess.
Ensure acquisition of 95% EPEAT registered and 100% of ENERGY STAR qualified and FEMP	Yes	AFRH purchases electronic equipment through GSA Advantage and complies with relevant purchasing specifications. Efficient	Continue to purchase electronic equipment through GSA Advantage and comply with relevant purchasing specifications.

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
designated electronic office products		electronic equipment was purchased for the LEED-certified Scott Building in 2013.	

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Goal 8: Renewable Energy

Table 8: Goal 8 Strategies &€“ Renewable Energy

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
Purchase renewable energy directly or through Renewable Energy Credits (RECs)	Yes	AFRH-Washington is working with a local utility company to purchase RECs for the Scott Building.	Investigate the feasibility of RECs for both campuses.
Install onsite renewable energy on federal sites	Yes	As part of the ESPC process, AFRH is investigating multiple options for generating renewable energy on-site, as feasible, including (a) solar rooftop, (b) solar parking structure, and (c) parapet- mounted wind turbines.	Investigate the feasibility of renewable technologies at both campuses through an ESPC.
Lease land for renewable energy infrastructure	NA	It is not feasible for AFRH to lease land for renewable energy infrastructure, given the size and location of the agency.	
Develop biomass capacity for energy generation	No	This is not a top 5 strategy at this time.	
Utilize performance contracting methodologies for implementing ECMs and increasing renewable energy	Yes	AFRH continues to collaborate with DOE to pursue ESPC options for increasing energy efficiency and generating renewable energy.	Continue to pursue ESPC opportunities at both campuses.
Work with other agencies to create volume discount incentives for increased renewable energy purchases	No	This is not a top 5 strategy at this time.	

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Goal 9: Climate Change Resilience

Table 9: Goal 9 Strategies & Climate Change Resilience

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
Ensure climate change adaptation is integrated into both agency-wide and regional planning efforts, in coordination with other Federal agencies as well as state and local partners, Tribal governments, and private stakeholders	NA	AFRH does not anticipate any new construction in the next 12 months.	
Update agency emergency response procedures and protocols to account for projected climate change, including extreme weather events	Yes	The Gulfport and Washington, DC facilities have clear emergency response procedures in the event of extreme weather events.	Continue to implement emergency procedures.
Ensure workforce protocols and policies reflect projected human health and safety impacts of climate change	Yes	Workforce policies are in place to protect employee health and safety in the event of extreme weather events.	Continue to implement workforce policies.
Update agency external programs and policies (including grants, loans, technical assistance, etc.) to incentivize planning for, and addressing the impacts of, climate change	NA	AFRH does not have applicable grants at this time.	
Ensure agency principals demonstrate commitment to adaptation efforts through internal communications and policies	Yes	AFRH has demonstrated a continuing commitment to prepare for potential increased hurricane activity and other severe weather events at its vulnerable facilities.	Ongoing commitment to adaptation efforts in agency policies and communications

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
Identify vulnerable communities that are served by agency mission and are potentially impacted by climate change and identify measures to address those vulnerabilities where possible	Yes	AFRH ensures that resident communities vulnerable to climate change impacts are equipped to withstand hurricanes and other severe weather events. Both campuses are equipped with backup generators to maintain power in the case of extreme weather events, such as heat waves and hurricanes.	Continue to ensure the health and safety of vulnerable com munities potentially impacted by climate change.
Ensure that agency climate adaptation and resilience policies and programs reflect best available current climate change science, updated as necessary	No	This is not a top 5 strategy at this time.	
Design and construct new or modify/manage existing agency facilities and/or infrastructure to account for the potential impacts of projected climate change	Yes	The Gulfport, MS facility was decimated by Hurricane Katrina. The new structure was designed to withstand a category 5 hurricane. Specific features include an elevated first floor to withstand a storm surge, structure resilient to category 5 hurricane-force winds, independent water and sewer systems, and backup power generation capacity. Evaluation of improvements to increase the resilience of the Gulfport facility are ongoing.	Evaluate potential improvements or modifications to building resilience on an ongoing basis.
Incorporate climate preparedness and resilience into planning and	No	This is not a top 5 strategy at this time.	

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
implementation guidelines for agency-implemented projects			

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Goal 10: Energy Performance Contracts

Table 10: Goal 10 Strategies - Energy Performance Contracting

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top Five? Yes/No/NA	(C) Strategy Narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months
Evaluate 25% of agencys most energy intensive buildings for use with energy performance contracts	Yes	AFRH will begin to evaluate its most energy intensive buildings as part of a preliminary assessment within the energy performance contract currently being pursued.	Evaluate most energy-intensive buildings for use with energy performance contracts.
Prioritize top ten projects which will provide greatest energy savings potential	Yes	As part of the ESPC currently being pursued, AFRH will begin to identify projects with potential energy savings through the ESCO's preliminary assessment.	Identify projects that will provide the greatest energy savings potential for the agency as part of ESPC preliminary assessment.
Cut cycle time of performance contracting process by at least 25%	NA	AFRH has no pre-existing ESPC contracts to determine a baseline process cycle time. AFRH will consider this strategy in the future.	
Assign agency lead to participate in strategic sourcing initiatives	No	This is not a top 5 strategy at this time.	
Devote 2% of new commitments to small buildings (<20k sq. ft.)	Yes	AFRH has identified opportunities to implement energy savings in small and historic buildings, including the installation of central A/C systems in DC quarters and insulating historic buildings. These options will be considered as part of the ESPC process.	Include ECMs for small buildings, as appropriate and cost-effective.

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top Five? Yes/No/NA	(C) Strategy Narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months
Identify and commit to include 3-5 onsite renewable energy projects in energy performance contracts	Yes	As part of the ESPC process, AFRH will identify feasible opportunities to install on-site renewable energy projects and implement, if feasible.	Include on-site renewable energy projects in energy performance contracts.
Ensure relevant legal and procurement staff are trained by FEMP ESPC/ UESC course curriculum	Yes	AFRH staff have participated in FEMP ESPC trainings. AFRH will identify any additional relevant legal and procurement staff and opportunities to attend FEMP ESPC/UESC training.	Continue to attend relevant FEMP ESPC trainings, as applicable.
Provide measurement and verification data for all awarded projects	No	AFRH will address measurement and verification data once the ESPC has been implemented.	
Enter all reported energy savings data for operational projects into MAX COLLECT (max.gov)	No	AFRH will report energy savings data once the ESPC has been implemented.	

Armed Forces Retirement Home
Climate Change Adaptation Plan

June 30, 2014

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Executive Summary

The U.S. Armed Forces Retirement Home (AFRH) understands that potential changes in climate could affect our ability to fulfill the agency's mission, operate our facilities, and meet policy and program objectives. As part of our responsibilities under Section 8(i) of Executive Order (EO) 13514, *Federal Leadership in Environmental, Energy, and Economic Performance,* and EO 13653, *Preparing the United States for the Impacts of Climate Change*, AFRH is prepared to assess and manage the risks associated with a changing climate, so that we can continue to fulfill our nation's commitment to its Veterans by providing a premier retirement community with exceptional residential care and extensive support services.

AFRH aims to operationalize adaptation by incorporating management of climate risks into the agency's strategic approach to risk management, rather than creating new, separate processes. By implementing the actions described in this Climate Change Adaptation Plan, AFRH will enhance its capacity to deal with severe weather in the current and future climate.

This *Climate Change Adaptation Plan* (the Plan) summarizes AFRH's approach, accomplishments, plans, actions and coordination activities to evaluate the agency's climate change risks and vulnerabilities to manage both the short and long term effects of climate change on the agency's mission and operations. In FY14 and FY15, AFRH will focus on increasing our understanding of existing vulnerabilities of the agency's mission, operation, policies, and programs. AFRH plans to undertake a systematic vulnerability assessment, by:

- Identifying key climate change impacts that affect AFRH facilities and residents;
- Assessing the sensitivity of AFRH operations and assets to these impacts; and
- Reviewing existing policies and procedures that might promote or reduce resilience.

AFRH has developed an agency-wide climate change Adaptation Policy Statement, signed by the Senior Sustainability Officer, which commits us to adaptation planning to address challenges posed by climate change. The Adaptation Policy Statement can be found in Appendix A of this document.

This Plan is a living document and will be updated annually, as requested by the White House Council on Environmental Quality (CEQ). AFRH will post a copy of this Plan on the employee Intranet and make it available to the public as directed by the CEQ and the Office of Management and Budget (OMB).

1. Introduction

The U.S. Armed Forces Retirement Home (AFRH) is a unique agency with the mission: “To fulfill our nation's commitment to its Veterans by providing a premier retirement community with exceptional residential care and extensive support services.” AFRH operates two campuses located in Gulfport, Mississippi and Washington, DC that are model retirement centers with facilities and services designed with our residents in mind. These facilities provide outstanding services and amenities that rival the best examples of those found throughout the United States. AFRH seeks to accomplish our mission through the core philosophy of “person-centered care,” which is defined as the careful manner in which resident needs are considered while developing proactive plans of care and delivering meaningful services.

AFRH understands that potential changes in climate could affect our ability to fulfill the agency’s mission, operate our facilities, and meet policy and program objectives. Climate risk management and resilience is particularly important in this time of heightened environmental awareness and fiscal restraint. As part of our responsibilities under Section 8(i) of Executive Order (EO) 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, and EO 13653, *Preparing the United States for the Impacts of Climate Change*, AFRH is prepared to assess and manage the risks associated with a changing climate, so that we can continue to fulfill our nation's commitment to its Veterans by providing a premier retirement community with exceptional residential care and extensive support services. This *Climate Change Adaptation Plan* is organized into the following sections:

- **Section 2, Potential Climate Change Impacts and Risks for AFRH** – presents a discussion on the types of impacts and risks that AFRH is subject to under a changing climate;
- **Section 3, Completed Actions** – provides the actions AFRH has already taken to adapt to climate change;
- **Section 4, FY14-15 Climate Change Risk Management Actions** – presents the climate change risk management actions that AFRH plans to take; and
- **Section 5, Working with Others on Climate Change Preparedness and Resilience**—discusses coordination opportunities with other agencies.

Our *Climate Change Adaptation Policy Statement* is provided in Appendix A.

2. Potential Climate Change Impacts and Risks for AFRH

This section describes how a changing climate could potentially affect AFRH, focusing on the following three areas where impacts could impair the agency's ability to fulfill its mission: impacts related to health and wellness of older adults; impacts on the built environment and infrastructure; and impacts on cultural and historic assets. The risks described below are necessarily general in nature, as a vulnerability assessment that is specific to AFRH's mission and assets has not yet been conducted.

Health and Wellness

AFRH serves Veteran airmen, Marines, sailors and soldiers in their retirement. Scientific assessments of climate change impacts consistently identify older adults as a particularly vulnerable group, for whom climate change will increase the risk of climate-related illness (Luber et. al., 2014; Gamble et. al., 2013, Smith et. al., 2014). The heightened vulnerability of older adults is associated with a wide range of physiological and socioeconomic factors, including sensitivity to heat, a generally higher prevalence of certain diseases, and pre-existing medical conditions that can increase susceptibility to adverse cardiac and respiratory impacts, as well as to more severe consequences from disease transmitted by infection.

Climate change may result in a range of impacts on human health and well-being of older adults, mainly as a consequence of physiological factors that increase the sensitivity of older adults to climate-related health impacts. For example,

- The decline in respiratory function that normally progresses with age can heighten sensitivity to air pollution and airborne allergens (Filiberto et al. 2010). This is compounded by climate change in that an increase in summer temperatures and heat waves could lead to a rise in adverse health impacts resulting from respiratory conditions aggravated by formation of ground-level ozone. Acute exposure can irritate the eyes and nose and may, in some cases, cause respiratory problems, particularly for people with pre-existing illnesses such as asthma.
- Individuals with diabetes, which is more prevalent in the older population, face increased risks of morbidity and mortality associated with heat-related events (Boyle et al. 2010).
- Cardiovascular impairment, which is also more prevalent in the older population, can increase susceptibility to adverse health impacts associated with hotter summers, heat waves, and air pollution episodes (Allen and Segal-Gidan 2007).
- Heat exposure can increase risks for patients taking psychotropic drug treatment for mental disorders, due to the body's impaired ability to regulate temperature.

Vulnerability to heat-related illness depends on several different factors, from the body's degree of adaptation to the local environment to socioeconomic status. Factors such as age and the burden of other serious illnesses such as heart disease and diabetes that might exacerbate heat-related problems are important. Economically disadvantaged and socially isolated people are also more vulnerable to heat-related impacts on health.

In addition, as the climate changes, the prevalence and distribution of infectious disease vectors (like mosquitoes and ticks) could shift as habitat ranges are increased. The prevalence and impact of foodborne and waterborne diseases can also be affected by climate-related events. Heat waves can contribute to enhanced bacterial growth, for example, and flood runoff can lead to short-term contamination of water supplies (CCSP 2008). Climate change's impact on the emergence or spread of infectious disease could have a disproportionate effect on older adults, due to the generally higher prevalence of medical conditions and reduced mobility in this group.

Finally, climate change projections indicate a likely increase in hurricane intensity, precipitation amounts, and other extreme weather events like floods and severe storms (CCSP 2008). These extreme weather events can disproportionately affect older people, with potential consequences ranging from physical injury, disruptions in the availability of (and access to) water, food supplies, electricity, communications networks, and health care services. Severe flooding can lead to disruption of healthcare services, reduced access to buildings, and accidents.

The Built Environment and Infrastructure

The built structures in which we live and work were designed to shelter us from the climate that existed when they were built, and are not necessarily sufficiently robust to cope with current extremes of weather and future climates. The built environment is vulnerable to the impacts of climate change in several ways. In the short term, extreme weather events such as floods, storms, and heat waves may have more effect than long-term changes (like gradual sea level rise and higher average temperatures). As the climate changes, those with responsibility for operating and maintaining built structures may need to consider appropriate measures to adapt. Urban residents depend on infrastructure, including roads and bridges, energy generation and distribution systems, and water and sewage networks, much of which is aging and approaching the end of its design lifetime (Cutter et al. 2014). Rising sea levels and storm surges, floods, storms, and heat waves can exacerbate the pressure on aging infrastructure, further stressing critical services and networks. In addition to the direct impacts of climate change for the built environment, the overall level of risk for the people using it may be magnified by interdependencies with other sectors (Melilo and Richmond, 2014). For example, potential interruptions to energy supply as a result of storms, or increasing pressure on water supplies through heightened demand, might make it more difficult to adapt to climate change impacts on the built environment.

Increased temperatures are likely to result in higher energy demand for, and cost of, cooling during summer months (Melilo and Richmond, 2014). Any disruption in the availability of electricity may increase the risk of buildings becoming too hot and uncomfortable. The Urban Heat Island (UHI) effect, which occurs when the temperature at the center of a large town or city remains several degrees higher than in surrounding rural areas, can further increase demand for cooling. The UHI effect is most pronounced during the night, and overnight temperature is a key factor in determining levels of heat stress in people. As temperatures rise, and as hot summers become more severe and more frequent, the UHI effect, a potential risk factor in particular for the Washington campus, could increase the risk of heat stress among residents. In some cases, overheating in buildings can lead to significant health risks in addition to discomfort (Gamble et al. 2013). Very hot, dry summers can also affect green spaces and natural landscapes, reducing the benefit that these spaces provide as a respite from heat. Warmer winters, on the other hand, will decrease energy demands, reducing energy costs. Further savings are likely by combining lower consumer demand with energy efficiency measures. Changes in the availability and quantity of water (or increased competition for existing sources of water), particularly reductions in the summer, could lead to more frequent restrictions and requirements for water saving or demand-management measures in the longer term. More frequent and intense rainfall events and storms throughout the year may increase the risk of flooding for both residential and non-residential properties, with consequences for resident access and structural integrity. Extreme weather events can result in widespread impacts (including both short-term disruption and long-term damage) on the built environment, such as flooding of residential and commercial buildings, disruption of transportation infrastructure, and potential downtime for communications and electricity networks (Cutter et al. 2014).

Cultural and Historic Buildings, Sites and Landscapes

AFRH's Washington campus has a number of historically important buildings and cultural assets, including President Lincoln's Cottage, the clock tower, and Stanley Chapel. These historic buildings and sites may be particularly vulnerable to a changing climate as a result of increased sensitivity to variations in climate, and a lower capacity to adapt the building fabric and structure.

Many historic built assets and natural spaces have already experienced significant climatic events in the past, and some are likely resilient to future climate change. However, some cultural and historic assets are potentially vulnerable to the direct impacts of a changing climate. Because they are unique and sometimes fragile, historic buildings and assets can be irreversibly damaged by weather-related events. As unique and non-renewable resources, damage to these buildings and properties can have significant implications for the cultural, social, and economic benefits they provide. The significance and integrity of important historic assets (both built and natural) can also be jeopardized by poorly designed adaptation measures.

More frequent and intense precipitation that contributes to increased flood risk can cause structural damage to and restrict access to historic buildings. If flood risks are significant, historic properties can become more difficult or more expensive to insure. The changing frequency and intensity of rainfall can also increase erosion risk at historical sites. Cycles of wetting and drying (e.g., for more prolonged periods) can increase risk of ground subsidence and accelerate decay or damage to stonework – a feature of many historic buildings. Rising sea levels and increase in storm surge height and frequency can endanger historic or culturally significant buildings and landscapes.

Changes in the distribution of pests (e.g. insects or rodents), invasive species, or plant and insect diseases can affect the integrity of historic and designed landscapes. Higher temperatures and changing patterns of precipitation will increase the length of the growing season, with implications for maintenance of plantings, for example on golf courses.
Some adaptive measures implemented in response to climate change may themselves have an impact on the built historic environment. For example, the integrity and character of some historic structures and landscapes could be damaged by the requirement to provide more effective rainwater disposal/storage systems or flood protection measures. In addition, poorly designed or inappropriate energy-saving measures could seriously detract from the historic character and fabric of buildings and landscapes, whereas well-designed measures can make considerable savings with little or no damage.

3. Completed Actions

To fulfill AFRH's mission of providing a premier retirement community with exceptional residential care and extensive support services, it is essential that systems be in place to ensure resilience in the face of weather and climate hazards. In particular, we must ensure that health care and other critical resident services continue uninterrupted during extreme weather events (e.g., heat waves, hurricanes, flooding events, storm surge) and that precautions are put in place to protect residents and assets from climate-related stresses.

As such, AFRH already has a number of systems in place on both campuses to ensure service continuity and resident protection during emergencies. For example, the new Gulfport facility has back-up energy and water systems such that the campus can be completely self-sufficient for seven days. The new Scott building has similar systems that provide system redundancy.

Moreover, due to nature of their operations, AFRH is required to have certain back-up systems in place to ensure continuity of services.

This section highlights key accomplishments over the last couple of years to increase the resilience of both campuses.

FY11-12 Accomplishments

In FY11-12, AFRH accomplishments centered on increasing the resilience of the Gulfport campus. The Gulfport Facility experienced first-hand the impacts of extreme weather in 2005, when it was decimated by Hurricane Katrina. To reduce the vulnerabilities highlighted by Hurricane Katrina, the new facility, which reopened in 2010, was designed with resilience in mind—the new facility was designed to withstand a Category 5 hurricane and be self-sufficient for 7 days. Specific features of the new Gulfport facility include an elevated first floor (35 feet above current sea level) to withstand storm surges, a structure resilient to category 5 hurricane-force winds, independent water and sewer systems, and backup power generation capacity.

FY13 Accomplishments

In FY13, AFRH accomplishments centered on increasing the resilience of the Washington campus. The design of the new Scott building, completed in Spring 2013, increased the campus' resilience in multiple ways. For example:

- The building's energy-efficient features reduce peak load energy requirements, reducing the strain on energy systems during heat wave events.
- The building's water-efficient features reduce the strain during drought periods.
- The building's bio-retention pond, designed as a flower garden, controls water runoff on the Scott's grounds, helping during heavy rain events.

The building includes back-up energy generators that can provide power in the event of a blackout, such as from an extreme storm or heat wave.

4. FY14-15 Climate Change Risk Management Actions

AFRH's planned adaptation actions are flexible and designed to respond to the emergent nature of this risk management effort. In FY14 and FY15, AFRH will focus on action items that continue to build better understanding and management of the risks and potential opportunities brought on by climate change.

While vulnerabilities to climate hazards are already addressed in the design of many AFRH facilities, as well as in AFRH policies and procedures, ARFH has not yet comprehensively assessed climate change vulnerabilities. Climate change is expected to exacerbate current climate-related vulnerabilities and may introduce new vulnerabilities.

To assess the effectiveness of AFRH's existing operations, policies, and procedures, as well as the resilience of its physical assets, AFRH plans to undertake a systematic vulnerability assessment in FY14 and FY15 to assess potential climate-related stressors on both campuses. For each campus, AFRH will:

- **Identify key climate change impacts that the facilities and residents are exposed to**—impacts likely to be identified will include sea level rise, storm surge, hurricanes, and extreme heat events for the Gulfport campus; extreme heat events, extreme precipitation events, and extreme wind events for the Washington campus.

- **Assess the sensitivity of AFRH operations and assets to these impacts**—this assessment will be primarily based on a review of anecdotal impacts from past extreme events (weather- and non-weather-related), as well as a review of facility characteristics and systems (e.g., system redundancies).
- **Review existing policies and procedures that might promote or reduce resilience**—this review will include all emergency response procedures—including early warning systems, staff and resident communication, and protocols for resident care during extreme weather events (e.g., heat, storms) —as well as an assessment of their implementation and effectiveness during past extreme events.

This systematic vulnerability assessment will allow AFRH to gain a thorough understanding of existing vulnerabilities and the resilience of current systems. Based on this assessment, AFRH will assess the need for adaptation action. If the existing systems are found to be sufficient to address projected climate change impacts, no further action may be needed. If unaddressed vulnerabilities are identified, AFRH will identify and prioritize actions to reduce those vulnerabilities.

5. Working with Others on Climate Change Preparedness and Resilience

The impacts of climate change are likely to be varied and far-reaching, and in some instances a coordinated response will be more effective than agencies trying to adapt in isolation. To continue to fulfill its mission, operate its facilities, and meet policy and program objectives, AFRH will consider the benefits of coordinating with other U.S. agencies to plan for climate change impacts. AFRH will also look for opportunities for interagency collaboration to support preparedness and resilience. As an example of potential future collaboration, AFRH will explore opportunities to work with the interagency Council on Climate Preparedness and Resilience, supporting development of the Toolkit for Climate Resilience and Climate Data Initiative outlined in the President's Climate Action Plan. AFRH will also consider contributing to, and learning from, the following groups:

Agency Adaptation Planning Work Group, which focuses on developing a Climate Change Adaptation Community of Practice and assisting agencies in the climate adaptation planning process. This working group develops approaches and methodologies for adaptation methods, and shares lessons learned.

Interagency Forum on Climate Change Impacts and Adaptation, an informal forum on climate change impacts and adaptations co-hosted by NASA, DOI, and the U.S. Global Change Research Program (USGCRP). This forum, which is attended by numerous agencies, provides a venue for presentations and discussions on common issues across agencies that relate to the impacts of climate change on agency resources and operations, and adaptations of agency activities, facilities or lands to respond to these impacts.

AFRH can also seek to collaborate by sharing both climate- and non-climate related information. For example, AFRH may use information and climate data from other federal agencies to assess climate impacts. The USGCRP's Global Climate Information System (GCIS) is an example of an initiative that seeks to provide a wide range of audiences (including other agencies) with access to global change data. As a stakeholder, AFRH would have the opportunity to highlight agency needs with regard to climate data.

Finally, AFRH can collaborate with local government and industry to increase the resilience of

agency supply chains and assets, to ensure continuity of services to Veterans and potentially reduce the long-term costs of climate impacts.

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Appendix A. AFRH Climate Change Adaptation Policy Statement

Armed Forces Retirement Home
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Climate Change Adaptation Policy Statement

Anticipating the potential impacts of climate change on people and places–and building resilience to manage the risks—depends on careful and strategic integration of adaptation considerations into AFRH plans, programs and investments. AFRH will consider the risks of climate variability and climate change across its portfolio, and will work to build climate resiliency within the agency.

This integrated approach will allow AFRH to advance its core mission and objectives while ensuring the long-term sustainability of AFRH programs and operations. AFRH will ensure its mission and operations are sustainable in the face of an uncertain and changing climate by:

- Reviewing current environmental policies and guidelines and making recommendations as to whether required environmental assessments should be altered to explicitly address climate change.
- Evaluating current climate sensitivities and assessing potential future risks
- Designing and implementing a plan for adapting to priority risks
- Developing a monitoring and evaluation plan to ensure that the agency learns from previous initiatives, and to inform future programming

AFRH will invest its current appropriated resources for adaptation programming in three intermediate results:

- Improved understanding of risks facing AFRH mission and operation;
- Identify programs and actions that reduce the long term vulnerability to climate change of our Veterans and the campuses that we manage; and
- Participate in interagency efforts on adaptation and utilize federal adaptation resources to inform AFRH actions

Respectfully submitted,

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